Commentor No. 238: Edward Dassatti, New York State Department of Environmental Conservation

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Alexander B. Grannis
Commissioner

SEP - 3 2009

Ms. Catherine Bohan
EIS Document Manager
West Valley Demonstration Project
U.S. Department of Energy
P.O. Box 2368
Germantown, MD 20874

Dear Ms. Bohan:

Re: Revised Draft Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western New York Nuclear Service Center, dated December 5, 2008

This letter responds to the U.S. Department of Energy's (DOE) and the New York State Energy Research and Development Authority's (NYSERDA) request for comments on the referenced Draft Environmental Impact Statement (DEIS). The enclosed comments are the work product of the New York State Department of Environmental Conservation's (Department) West Valley assigned and non-West Valley assigned staff. A considerable amount of Department staff time was devoted to the evaluation of this DEIS because we recognize the importance and critical nature of proper disposition of both the West Valley Demonstration Project (WVDP) and the Western New York Nuclear Service Center (WNYNSC).

In addition to our review responsibilities as a Cooperating Agency under the National Environmental Policy Act (NEPA), and as an Involved Agency under the State Environmental Quality Review Act (SEQR), part of the basis for Department staff's evaluation was to ascertain the DEIS's utility as a support document for the Department's permitting and corrective action activities that are associated with the disposition of the WVDP and the WNYNSC. The Department's permitting activities need to be supported by a DEIS that has been prepared in accordance with the provisions of 6 NYCRR Part 617, SEQR.

As a result of the Department's evaluation of the 2008 DEIS, we are compelled to address a few issues which are characterized as all encompassing matters that we consider most significant. These issues follow:

1. The DEIS should explain that one ideal of the Phased Decisionmaking Alternative is to work expeditiously to a final decommissioning decision, with every effort to minimize work stoppages or loss of workforce and/or funding. *238-1*

2. The discussion of the ongoing assessments in Phase 1 needs to be more fully developed. At a minimum, the general anticipated focus on topics such as reducing uncertainty in erosion modeling; additional characterization of contamination levels and areas; performing regular reviews of current advancements in decommissioning procedures and processes; reviewing disposal options for currently orphaned wastes; and refining transportation dose estimates if new shipment containers, regulations, or techniques become available should be explained. The fact that this is an iterative process taking place concurrent to the Phase 1 decommissioning work needs to be clarified. Examples include, but are not limited to, the *238-2*

238-1 The Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

This EIS was prepared to evaluate the environmental impacts of the alternatives for decommissioning and/or long-term stewardship of WNYNSC, a legally required step to support a decision on a course of action. The U.S. Congress and the President are responsible for establishing funding levels for various Federal Government programs, while the New York State Legislature and the Governor are responsible for establishing funding levels for state government programs. Implementation of the decision made in DOE's Record of Decision and NYSERDA's Findings Statement is contingent on the level of funding allocated.

238-2 Chapter 2, Section 2.4.3, of this EIS describes decommissioning activities under the Phased Decisionmaking Alternative and provides a discussion of the data collection, studies, and monitoring to be performed during implementation of Phase 1 and the purpose of each of these activities. The overall intent of these Phase 1 activities is to further characterize the site and to research technology developments and engineering to aid consensus decisionmaking for Phase 2. Section 2.4.3.3 explains how the additional data and studies would be used in making a decision regarding potential future activities. Details of these studies and projects would be defined if the Phased Decisionmaking Alternative is selected. The intent of this EIS is to provide a description of the environmental impacts of each of the alternatives to inform the agency decisionmakers.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Ms. Catherine Bohan 2.

need to revise groundwater and erosion models to reflect actual conditions (e.g., installation of groundwater flow barriers, treatment walls, etc.) versus the use of general assumptions made during development of the DEIS; strategies for monitoring and mitigating erosion; reviewing advances in exhumation technologies (both on and offsite). *238-2 cont'd*

3. The DEIS should provide a clearer explanation of the public participation process that will be used in determining the ongoing assessment and decision making for Phase 2. DOE and NYSERDA should explore the possibility of enhanced public participation above and beyond what regulations require during Phase 1 in order to more fully inform the public and allow their opinion to be heard. *238-3*

4. It should be stated in unequivocal language that any waste that may have to be stored on-site due to a current lack of disposal pathway will be removed from the site once disposal options become available. *238-4*

5. Given the decision by the DOE to no longer consider Yucca Mountain as the likely federal High-Level Waste Repository, the implications for possible long-term on-site storage of the vitrified High-Level Waste glass logs should be clearly spelled out. A similar explanation of the implications for the lack of disposal options for the Greater Than Class C and Non-Defense Transuranic (TRU) waste should be clearly detailed. *238-5*

The Department expects this EIS process will result in a final approach to site remediation that is in the best interests of the public and environment of the State of New York. We anticipate that the enclosed comments will assist DOE and NYSERDA in developing an informative and comprehensive final environmental impact statement that will satisfy the requirements of both NEPA and SEQR.

If you have any questions regarding these comments please contact Jessie Lynch, of our Bureau of Hazardous Waste and Radiation Management, at (518) 402-8579.

Sincerely,

Edwin Dassatti, P.E.
Director
Division of Solid and Hazardous Materials

Enclosures
Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments
Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

cc: B. Bower, USDOE
P. Bembia, NYSERDA
G. Baker, NYSDOH
J. Reidy, USEPA Region 2
A. Park, USEPA Region 2
P. Giardina, USEPA Region 2
K. McConnell, NRC

238-3 Chapter 2, Sections 2.1 and 2.4.3.4, of this EIS have been revised to describe the involvement of the public during implementation of Phase 1 of the Phased Decisionmaking Alternative and through the Phase 2 decisionmaking process. Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until final decisions are made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate Phase 2 decisions for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

238-4 Both DOE and NYSERDA intend to ship stored waste off site as soon as disposal options and funding are available. Chapter 2, Section 2.2, of this EIS states, "DOE would dispose of low-level radioactive waste and defense-related transuranic waste generated from decontamination and decommissioning activities off site and would store the vitrified high-level radioactive waste and non-defense transuranic waste on site until a disposition decision is made and implemented."

238-5 The status of the Yucca Mountain project is acknowledged in Chapter 1, Section 1.6.4, this EIS, and the plan to store the vitrified high-level radioactive waste at WNYNSC is consistent with DOE's August 1999 Record of Decision for the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200-F). The implications of the potential for orphan waste are discussed in Chapter 4, Section 4.1 in this EIS.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1
NYSDEC West Valley Assigned Staff Comments on the Revised Draft *Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western New York Nuclear Service Center*

NOTE: For any Chapters/Appendices not specifically included below, the Department has no comments.

Chapter/Appendix: General comments

	Page Number	*Comment*	
1	General	Since the DEIS was issued in December 2008 there have been many changes that effect numerous portions of the DEIS. These changes range from political (e.g., change in administration), to economic (e.g., recession, American Recovery and Reinvestment Act) to technical (e.g., recent erosion events, new erosion studies, changes in waste disposition pathways). It is expected that the DEIS will be updated in all applicable sections to reflect these changes and that a discussion of these changes will be included.	*238-6*
2	General	Recent events which no longer make Yucca Mountain a disposal pathway for High-Level Waste should be addressed within the DEIS. The DEIS should be updated to include any changes this may cause including but not limited to cost of each alternative, dose to public, and changes in ongoing monitoring. ● At a minimum, a statement recognizing the fact that the canisters would have to remain on the site for an indefinite period of time should be placed in the DEIS.	*238-7*
3	General	Recent Core Team interactions have discussed a myriad of changes that are being made to the DEIS. To the extent possible, DOE and NYSERDA should make every effort to address all aspects of the DEIS that have changed (e.g., erosion events, modeling, Yucca Mountain) since the start of the Public Comment Period in December 2008.	*238-8*
4	General	Apparently as a result of numerous authors for various portions of the document, several different variations of descriptive phrases for the different "areas" of the site are used interchangeably, which can lead to confusion to the reader. ● Descriptions of the various parts of the site, WNYNSC, Retained Premises, SDA, Project Premises, etc should be provided in Chapter 1 and then used consistently throughout the document.	*238-9*
5	General	Update references within the text to the "Permeable Reactive Barrier" or "PRB" as DOE has determined that this will not be installed.	*238-10*
6	General	Within "A Summary and Guide for Stakeholders", the first paragraph under "Abstract" on the Cover Sheet lists the site as 66.4-hectare (164-acre) and bullet one of the "Brief History of the Site" text box on Page 1 lists the site as 81-hectare (200-acre). Additionally, DOE has recently transferred control of certain property back to NYSERDA for the purpose of establishing a buffer zone around the SDA. The change in size of the WVDP and Retained Premises should be addressed. ● Please update the document to reflect the change in acreage and reconcile the hectare (acreage) differences which are found throughout the document.	*238-11*

238-6 This Final EIS has been revised in response to comments received during the comment period and as a result of additional and updated environmental baseline information. This EIS was also updated to reflect events that occurred, notifications that were made regarding other NEPA documents, and changes in applicable regulatory requirements or guidance since the Revised Draft EIS was issued for public comment in December 2008. Chapter 1, Section 1.8, of this EIS summarizes the more important changes made to this Final EIS.

238-7 Chapter 1, Section 1.6.4, of this EIS explains the status of the Yucca Mountain Repository and the Administration's plans to evaluate alternatives for disposal of high-level radioactive waste and spent nuclear fuel. Interim storage of vitrified high-level radioactive waste at WNYNSC is consistent with DOE policy on the management of high-level radioactive waste, as stated in the DOE Record of Decision for high-level radioactive waste for the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200-F). The August 1999 Record of Decision (64 FR 46661) stated that canisters of immobilized high-level radioactive waste would be stored at the site of generation until transfer to a geologic repository. Until such time as a disposition decision is made and implemented, the high-level radioactive waste generated by WVDP activities will continued to be stored at WNYNSC in accordance with the referenced Record of Decision. This EIS has been revised to remove references to Yucca Mountain as the possible location for disposal of WVDP high-level radioactive waste and includes, where appropriate, the statement that the high-level waste canisters will be stored on site until a disposition decision is made and implemented.

238-8 These changes have been incorporated into the relevant sections of this EIS. In addition, a new Chapter 1, Section 1.8, has been added to identify major changes made to this EIS between issuance of the Revised Draft EIS and Final EIS.

238-9 This EIS has been reviewed and revised for consistency in referring to WNYNSC and the different areas. In addition, a text box has been added to Chapter 1 of this EIS to define the terms.

238-10 This EIS has been revised to remove references to the "Permeable Reactive Barrier."

238-11 The two acreages cited by the commentor are not inconsistent because they do not refer to the same property. Both the Abstract on the Cover Sheet and the "Brief History of the Site" text box on Page 1 of the *Summary and Guide for Stakeholders*

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Chapter/Appendix: A Summary and Guide for Stakeholders

Comment Number	*Page Number*	*Comment*	
7	A Summary and Guide for Stakeholders, Page 1; Chapter 2 and Appendix C	The seventh bullet of the "Brief History of the Site" text box state that DOE was directed to "Dispose of low-level radioactive waste and transuranic waste that is produced in the process of solidifying high-level radioactive waste." How is this accomplished if the DOE even remotely considers the Sitewide Close-In-Place Alternative? For example, the zeolite within the columns of the Supernatant Treatment System is low-level radioactive waste produced during the process of solidifying the HLW. To close the columns in place appears to be a direct violation of the West Valley Demonstration Project Act. ● Please clearly define how the Sitewide Close-In-Place Alternative is compliant with the directive inherent in the Act	*238-12*
8	A Summary and Guide for Stakeholders, Page 1; Chapter 2 and Appendix C	The eighth bullet of the "Brief History of the Site" text box state that DOE was directed to "Decontaminate…the facilities...and the materials and hardware used in conjunction with the project." Again, how is this accomplished if the DOE even remotely considers the Sitewide Close-In-Place Alternative? For example, the four HLW tanks as well as the zeolite and the columns of the Supernatant Treatment System are all materials and hardware used in conjunction with the project. To close the tanks and columns in place appears to be a direct violation of the West Valley Demonstration Project Act. ● Please clearly define how the Sitewide Close-In-Place Alternative is compliant with the directive inherent in the Act	*238-12*
9	Page 2	Under the second full paragraph, this DEIS is also being used to meet the DOE's obligations for a DEIS as required by the New York State Department of Environmental Conservation (NYSDEC) for DOE's Part 373/RCRA Permit Application.	*238-13*
10	Page 6	Under the fourth paragraph in "What Decisions Will Be Made?", DOE fails to specifically mention that they will consider all applicable State and Federal laws and regulations along with mission, policy, cost, and public input. To relegate these to "other relevant factors" would be dismissive of the importance of State and Federal laws and regulations.	*238-14*
11	Page 9, fourth bullet	The NYSDEC's intention behind the use of the tank drying system at the Waste Tank Farm was to dry the residuals already in the tank, not to add wastes from other areas and dry those in place. According to the text of the DEIS, this was DOE's only "intent" as well. ● However, DOE may need to include where these intentions have changed and its desire to add liquids to the tanks for in-place drying. NYSDEC has not reached all its conclusions on what may be transferred into the Waste Tank Farm.	*238-15*
12	Page 13, Shaded Text Box	Again, there is a failure to include all applicable State and Federal laws and regulations along with mission, responsibility, environment, economic, and technical considerations. To relegate these to "other factors" would be dismissive of the importance of State and Federal laws and regulations.	*238-16*
13	Table 4	The information under "Phased Decision making Alternative (Phase 1 Only)" appears to be inaccurate and/or misleading. Since there are several removal actions taking place under Phase 1 (i.e., the lagoons, the MPPB, the source of the NPGP) the cost-effectiveness for a Phase 2 removal or in-place closure decision should be evaluated on its own merits at that time and a Supplement to this EIS should be issued for any Phase 2 decisions.	*238-17*

(*the Summary*) are consistent in indicating that WNYNSC is 1,352 hectares (3,340 acres). The 66.4 hectares (164 acres) specified in the Abstract refers to the Project Premises while the 81 hectares (200 acres) indicated in the text box includes both the Project Premises and the State-Licensed Disposal Area. However, the bullet in the text box has been revised to reduce the potential for confusion. Because the land transfer is not complete, this EIS has not been revised to reflect this change.

238-12 As stated in Chapter 1, Section 1.3, of this EIS, the West Valley Demonstration Project Act requires DOE to decontaminate and decommission the waste storage tanks and facilities used in the solidification of high-level radioactive waste, as well as any material and hardware used in connection with WVDP, in accordance with such requirements as NRC may prescribe. NRC has issued the Decommissioning Criteria for WVDP (the NRC Policy Statement of February 2002) based on the License Termination Rule for the NRC-regulated part of WNYNSC (10 CFR Part 20, Subpart E). It is DOE's position that it can be demonstrated that the EIS decommissioning alternatives, including the Sitewide Close-In-Place Alternative, comply with the NRC decommissioning criteria.

238-13 This discussion can be found in Chapter 1, Section 1.3, of this EIS, which states: "NYSDEC is also an involved agency under SEQR with respect to permitting actions at the SDA and with respect to any approvals NYSDEC would issue for WVDP or WNYNSC under Part 373/RCRA regulations."

238-14 The text has been revised to specifically mention regulatory requirements as a factor in agency decisionmaking.

238-15 The text in Section 2 of the Summary of this EIS, as well as in Chapter 2, Section 2.3.1, has been revised to clarify that the tank and vault drying system for the Waste Tank Farm is intended to dry the contents of all of the waste storage tanks, not just 8D-1 and 8D-2.

238-16 Regulatory requirements will be added to the list of factors to be considered.

238-17 The cost-benefit analysis presented in Chapter 4, Section 4.2, of this EIS and the information from that analysis that is included in the Summary is for the entire alternative. If one were to perform the analysis for only Phase 1, it is expected that the cost per avoided person-rem would be comparable to or higher than that for the Sitewide Removal Alternative.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Chapter/Appendix: Chapter 1

Comment Number	*Page Number*	*Comment*	
14	Page 1-1, Shaded Box	This box fails to mention SEQRA. The DEIS itself states that the EIS was scoped by NYSERDA and DOE in simultaneous notices on March 13, 2003. Since the notices were published in the Environmental Notice Bulletin and the Federal Register, it appears that the EIS was scoped under and is subject to both NEPA and SEQRA for different aspects.	*238-18*
15	Page 1-1, Section 1.1	Chapter 1 states that the Project Premises is 164 acres while it is listed as 200acres in the "Brief History of the Site" text box on Page 1 of the "Guide to Stakeholders". ● Please review and clarify the acreage of the Project Premises.	*238-19*
16	Page 1-3, RCRA Background	The last line of the second paragraph states that Corrective Measures Studies (CMSs) were required for six WVDP SWMUs and that NYSERDA was preparing a CMS for the SDA. The SDA SWMUs (referred to as the SDA) are not a part of the WVDP. ● Please reconcile the information regarding the five WVDP and one NYSERDA CMSs required pursuant to the Consent Order.	*238-20*
17	Page 1-3, RCRA Background	Updates should be made to the fifth paragraph. The NYSDEC did send a letter to Mr. Robert Warther, USDOE dated February 3, 2005. The letter stated that the application was deemed incomplete and that an EIS, as well as other items, was required. At the time, the NYSDEC intended to commence its technical review. However, the NYSDEC's review of the 2005 and 2008 PDEISs, its participation in the Core Team and the on-going work at the site has taken precedence. ● A revised Part 373/RCRA permit application needs to be submitted to update the facility information and changes. DOE should update the text to reflect the events following submittal of the application in December 2004 as well as the July 2010 submittal date for the revised Part 373/RCRA application.	*238-21*
18	Page 1-8, Section 1.3	Within the last sentence of first paragraph under "***New York State Department of Environmental Conservation***", DOE needs to address that the NYSDEC has responsibility with respect to any permits issued under Part 373/RCRA as well.	*238-22*
19	Page 1-8, Section 1.3	Within the second paragraph under "***New York State Department of Environmental Conservation***", DOE needs to address that the WVDP is also regulated by NYSDEC for hazardous and mixed low-level radioactive waste pursuant to the Part 370 series.	*238-23*
20	Page 1-8, Section 1.3	Within "***New York State Department of Environmental Conservation***", DOE should include information regarding the 3008(h) Consent Order, as was included in paragraph two of "***U.S. Environmental Protection Agency***".	*238-24*
21	Page 1-9, Section 1.3	Within "***Regulatory Compliance Processes***", there are two concerns in the fourth paragraph. One, NYSDEC has already required a supporting EIS for the WVDP Part 373/RCRA permit application in February 2005 and is using this EIS to fulfill that requirement. Secondly, nothing analyzed in the DEIS is outside "the scope of the Part 373/RCRA permit application" since NYSERDA owns the entire site and it is the NYSDEC's determination as to what regulatory vehicles and how many are used to ensure compliance with the Part 373/RCRA regulations by both the WVDP and WNYNSC sites.	*238-25*
22	Page 1-10	Suggest that footnote be revised to read: "SEQR specifies that the assessment of environmental impacts should include the growth inducing aspects of a proposed action." Saying that SEQR specifies that the assessment should be focused on growth inducement is not correct.	*238-26*
23	Page 1-10, Section 1.3 and Section 1.5	In the first full paragraph of Section 1.3 on this page and in the second paragraph of Section 1.5, DOE should be advised that EPA may at any time exercise their right to perform a RCRA review of the DEIS, with or without NYSDEC. Additionally, NYSDEC may, at any time, request their assistance with either the DEIS or any other reviews/needs for either of the sites.	*238-27*

238-18 The referenced text box provides an overview of some of the information included in Chapter 1. The text box does not include details about any of the identified topics. NEPA is included only to indicate that one of the topics covered in Chapter 1 is "the relationship of this document to other NEPA documentation." SEQR is mentioned throughout Chapter 1 as appropriate, including in Section 1.3, "Purpose and Need for Agency Action."

238-19 This EIS has been revised to consistently report the size of the Project Premises and WNYNSC. A text box has been added to Chapter 1 to explain these terms, including acreage.

238-20 The text in Chapter 1, Section 1.1, of this EIS has been revised to reflect the correct number of WVDP and NYSERDA Solid Waste Management Units (SWMUs).

238-21 This discussion has been revised to include the requested information.

238-22 The text has been revised to include NYSDEC's responsibilities for permitting and approvals under Part 373/RCRA.

238-23 The text in Chapter 1, Section 1.3, states the information requested in this comment.

238-24 This paragraph has been inserted as requested.

238-25 Changes have been made to this paragraph to clarify NYSDEC's need for and ability to use this EIS to support its RCRA decision with respect to WNYNSC.

238-26 The text has been revised as suggested.

238-27 DOE and NYSERDA note this comment.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Chapter/Appendix: Chapter 2

Comment Number	*Page Number*	*Comment*	
24	General	While the document has made tremendous changes to include the necessary hazardous waste Part 373/RCRA information and regulations, there are still areas that are lacking. These include but are not limited to: failure to include whether or not there is hazardous waste/constituents contamination in all of the facilities/units listed under each of the WMA descriptions; failure to include in the descriptions when a unit is subject to RCRA closure or CA regulation (e.g., where CMSs are required, NDA "decommissioning" is also subject to CA requirements); failure to include in their descriptions that each of the alternatives (e.g., Close-in-place, Phased Decisionmaking) are also subject to Part 373/RCRA when actions are taken.	*238-28*
25	Page 2-1, Section 2.1, Bullet 3	This bullet is misleading as it portrays Phase 1 as lasting only 8 years. It should be stated that Phase 1 will continue until Phase 2 is implemented which can take up to 30 years.	*238-29*
26	Page 2-1	The alternatives section does a good job of describing the reasonable alternatives included in the document and provides a sufficient level of detail to permit a comparative assessment by the reader of the alternatives under consideration.	
27	Page 2-2	Waste Classifications Used in the DEIS: A comprehensive description of "Defense Waste" and "Non-Defense Waste", "Defense Determination", and the implications for site waste disposal options should be included in the text box on page 2-2, and a brief description included in the Glossary, for clarification.	*238-30*
28	Page 2-5, Section 2.3.1	The bullet at the bottom of the page only makes reference to Solid Waste Management Units (SWMUs) not to Interim Status Units. Also the reference to "RCRA Closure" could be misconstrued. The NYSDEC understands that you are referring to all unit closures and corrective actions when using this term but within the RCRA-regulated community "RCRA Closure" is specific to the requirement to implement approved closure plans for any Interim Status or permitted operating units.	*238-31*
29	Page 2-5, Section 2.3	Description of WMA 11 does not include scrap metal landfill	*238-32*
30	Page 2-7, Figure 2-3	Figure shows WMA 12 as reservoirs but does not reference "the balance of the site" including roads and parking lots. • Figure should be modified to reflect extent of WMA12.	*238-33*
31	Page 2-8, Figure 2-4	This figure needs to be updated. The Interim Waste Storage Facility foundation in WMA-7 has been removed, it is almost impossible to see Lagoon 1 in WMA 2 (unless you know where to look), and the DOE has recently determined that no Permeable Reactive Barrier will be placed in WMA-4.	*238-34*
32	Page 2-9, Figure 2-5	These figures show the extent of North Plateau Groundwater Plume but no date is given for reference.	*238-35*
33	Page 2-10, Table 2-1 and Page 2-16, Section 2.3.2.1, Paragraph two	The information for WMA-1 lists that the Contact Size-Reduction Facility (including the Master Slave Manipulator Repair Shop) as being demolished to grade with the foundations/slab/pads remaining with the RCRA status being "RCRA Interim Status Unit, subject to RCRA Closure". While the status is correct, NYSDEC understood that this IS unit was not going to be clean closed until the MPPB was removed. • Please provide clarification of DOE's intent for this unit. Should this listing actually be in Table 2-2? Any changes included herein should also be included in Chapter 4 and Appendix C, as may be necessary.	*238-36*
34	Page 2-10, Table 2-1	The information for WMA-5 lists the Waste Packaging Area with the RCRA status being "Clean-closed under RCRA Interim Status". • Is this unit part of Lag Storage Addition #4? Please clarify this in the table.	*238-37*

238-28 Text has been added to Chapter 2, Section 2.3.2, of this EIS stating, "Any radiological or hazardous chemical contamination that is known or assumed to be present is noted in each description of a WMA." Tables 2–1 and 2–2 and their associated table notes provide an assumption for each Waste Management Area (WMA) if radiological or hazardous contamination is present, as well as notes if a facility is subject to RCRA closure or Corrective Action regulation. Chapter 3 and Appendix C of this EIS further describe radiological and hazardous contamination, whether measured or assumed. A footnote has been added to Sections 2.4.1.1, 2.4.2.1, and 2.4.3.1 stating, "Decommissioning actions would be performed in accordance with applicable Part 373/RCRA requirements."

To the extent that RCRA applies to a given facility or area, RCRA requirements would be satisfied during decommissioning of that facility or area.

238-29 The Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected. The text describing the Phased Decisionmaking Alternative in Chapter 2, Section 2.1, was modified to clarify aspects of the alternative.

238-30 Footnote 1 in Chapter 2, Section 2.3.1, of this EIS describes the meaning of defense waste and its impact on disposal options. The text box in Section 2.4 states that, for the purposes of transportation analysis, it is assumed all transuranic waste would be shipped to the Waste Isolation Pilot Plant, regardless of whether or not it is defense waste.

238-31 The text in Chapter 2, Section 2.3.1, of this EIS has been revised to state: "...which includes a number of SWMUs identified during the RCRA facility assessments and RCRA Interim Status Units that continue to be managed toward RCRA closure. The anticipated status at the EIS starting point with respect to addressing these units according to RCRA requirements..."

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Comment Number	*Page Number*	*Comment*	
35	Page 2-10, Table 2-1	The information provided in Footnote "a" is incorrect. The Old Sewage Treatment Plant was not an Interim Status unit and was not "RCRA clean-closed". It is a SWMU that based on the RFI was determined to have "no further action". ● Please correct this inaccuracy.	*238-38*
36	Page 2-11, Section 2.3.1, Bullet 3	The liquids from Tank 8D-2 would be process to remove Cesium-137, most of the other radionuclides would remain in the liquids. Even after evaporation these radionuclides would continue to pose hazard to the environment.	*238-39*
37	Page 2-11, Section 2.3.1	The third bullet on this page refers to treated Tank 8D-4 liquids being evaporated in Tank 8D-2. NYSDEC understands that recent DOE changes to Liquid Waste Management have these liquids being solidified and sent off-site for disposal. Additionally, DOE has discussed transferring other liquids into Tank 8D-2 for evaporation. While Tank 8D-2 does have tank treatment status under the Part A application, it does not currently have status as an evaporator. While the NYSDEC anticipates that evaporation will be used to dry tank heels, the addition of treated liquids to the tank for evaporation is still under discussion and review by NYSDEC and the Core Team. These discussions need to be completed prior to this action.	*238-40*
38	Page 2-12, Section 2.3.1	The first bullet on this page refers to the "Permeable Reactive Barrier" that the DOE has recently determined will not be implemented. ● Please update the text to include this change and add any information consistent with any future plans the DOE may have for this area.	*238-41*
39	Page 2-12, Table 2-2	The NYSDEC has the following comments on this table • WMA-1, Plant Office Building – With what chemical(s) was the subsurface soil contaminated? • WMA-2 – Please include information on any hazardous chemical contamination. • WMA-3, Tanks 8D-1 – 8D-4 – Please clarify the EIS starting point. The tanks currently have residual heels and DOE has expressed a desire to add liquid to the tanks for evaporation. How would this be considered "emptied" if additionally wastes are added? Especially since the evaporative process would not be complete by 2011. See also Page 2-20, Section 2.3.2.3, Paragraph two. • WMA-3, Supernatant Treatment System – Please include information regarding the hazardous chemical contamination. • WMA-4, CDDL – Please include information regarding the hazardous chemical contamination. • WMA-5 – Please include information regarding the hazardous chemical contamination. • WMA-6 – The Equalization Basin and Tank and the Sewage Treatment Plant are subject to corrective action in addition to the CWA. • WMA-8, Mixed Waste Storage Facility – Under the Mixed Waste Conditional Exemption regulation (6 NYCRR Part 374-1.9), this unit is no longer subject to Interim Status closure. Even so, NYSERDA has expressed their desire to close this unit under the RCRA Interim Status requirements. Pending further determination, the unit should be listed as a SWMU. • North Plateau Groundwater Plume – While the NYSDEC has not required action on the NPGP, it should not be construed that the NYSDEC believes that the unit is not subject to regulation. We are currently in the process of reviewing the results of the NPGP RCRA Characterization.	*238-42*
40	Page 2-12, Table 2-2	Rail Spur is listed in Table 2-2 operable and contaminated in WMA6 but Inactive and not contaminated in WMA 12. ● This discrepancy should be addressed.	*238-43*
41	Page 2-22 Section 2.3.2.5	The last line of the third paragraph states that the Remote-Handled Waste Facility is "permitted as a mixed low-level radioactive waste treatment and storage containment building". This unit is not permitted but has Interim Status. ● Please revise the text accordingly.	*238-44*

238-32 While the Scrap Material Landfill is in WMA 11, the name of WMA 11 is Bulk Storage Warehouse and Hydrofracture Test Well Area.

238-33 WMA 12 is everything not labeled WMA 11 or shaded as the Project Premises in this figure. Throughout all figures depicting WMAs in this EIS, the areas that are not of interest are shaded. In addition, the number of roads and parking lots and the scale of the figure make labeling roads and parking lots impractical.

238-34 Figure 2–4 has been revised to remove the Permeable Reactive Barrier and the Interim Waste Storage Facility foundation and to make Lagoon 1 more noticeable.

238-35 Chapter 2, Figure 2–4 and Chapter 3, Figure 3–24, of this Final EIS have been revised to add a reference to the *Facility Description and Methodology Report* (WSMS 2009). In addition, the text associated with Figure 3–24 of this Final EIS has been modified to state that the figure reflects data as recent as 2007. Appendix C, Section C.2.13, also has been revised to state that the plume boundary on the figure represents the boundary of the 10-picocuries-per-liter gross beta concentration in groundwater as of 2007.

238-36 As used in the second paragraph of Appendix C, Section C.2.1, "removed to grade" is taken to mean the same thing as "removed to floor slab." The Contact-Size Reduction Facility will have been removed to its floor slab at the starting point of this EIS. This action does not require the prior issuance of the DOE Record of Decision for this EIS.

238-37 The Waste Packaging Area and Container Sorting and Packaging Facility as Part of Lag Storage Addition 4 were removed from Table 2–1. These facilities are located inside Lag Storage Addition 4.

238-38 Footnote "a" to Chapter 2, Table 2–1, of this EIS has been revised as follows: "The Interim Waste Storage Facility and pad located in WMA 7 has been RCRA clean-closed and the Old Sewage Treatment Plant in WMA 6 has been removed, these are not listed in the table because there is no remaining foundation to be removed."

238-39 The text in Chapter 2, Section 2.3.2.3, of this EIS acknowledges that the tanks will contain radiological and hazardous constituents. Appendix C, Section C.2.3.1, provides the radionuclide and chemical contamination inventory estimates, which are taken into consideration when developing the impacts summarized in Chapter 4.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Comment Number	*Page Number*	*Comment*	
42	Page 2-24, Section 2.3.2.7	The third paragraph should contain information regarding the NDA cap and slurry wall that were placed at the NDA as an Interim Measure under the 3008(h) Consent Order.	*238-45*
43	Page 2-27, Section 2.3.2.11	**Waste Management Area 11:** The decision by NYSERDA to exhume the Scrap Material Landfill should be incorporated.	*238-46*
44	Page 2-29, Section 2.4	The "Decommissioning Activities" subsections for each alternative should include that for any regulated unit (be it an operating unit or a SWMU) all decommissioning actions are subject to State and Federal RCRA regulations. The NYSDEC RCRA staff understands the usage of "decommissioning" to encompass any act of closure or corrective action as this DEIS is also being used in support of the WVDP's Part 373/RCRA Permit Application. If this is not the case the entire DEIS will need to be revised to distinguish between these two actions. Keep in mind that NYSDEC can at any time request EPA assistance with any RCRA aspect of the site, thereby possibly requiring a NEPA EIS for RCRA actions.	*238-47*
45	Figures 2-6, 2-7, 2-8 and 2-9	All of these fail to include "Annual Environmental Monitoring" as an activity of the alternative for its duration or in perpetuity as may be required. This may or may not be in addition to "Long-Term Monitoring and Maintenance"	*238-48*
46	Page 2-37, Section 2.4.2.1	Under the first bullet, DOE fails to include that the NDA specifically due to its SWMU status, and in actuality the site as a whole, are subject to the current 3008(h) Consent Order and future Part 373/RCRA permitting and regulation by the NYSDEC. Again, the NYSDEC RCRA staff understands the usage of "decommissioning" to encompass any act of closure or corrective action as this DEIS is being used in support of the WVDP's Part 373/RCRA Permit Application. If this is not the case the entire DEIS will need to be revised to distinguish between these two actions. Keep in mind that NYSDEC can at any time request EPA assistance with any RCRA aspect of the site, thereby possibly requiring a NEPA EIS for RCRA actions. Similar situations occur within Sections 2.4.1.1, 2.4.3.1 and 2.4.4.1. • Please review each of these sections carefully and revise the text of said sections accordingly.	*238-49*
47	Page 2-44	The narrative for **WMA-7** and **WMA -8** refer to a "30-year ongoing assessment period", while there is mention of ongoing studies and analysis of data gathered during decommissioning activities there is no list of specific studies or assessments that would be conducted during this time period or how this information would be used.	*238-50*
48	Page 2-45, Section 2.4.3.1	The first bullet under "**Evaluations to Determine the Phase 2 Approach**" should include residual hazardous contamination as well as the radioactivity.	*238-51*
49	Page 2-45, Section 2.4.3.1	Within the second paragraph under "**Evaluations to Determine the Phase 2 Approach**", the intention of this alternative is to have evaluations at intervals no greater than 5 years long not at "approximately 5-year intervals". Additionally, NYSDEC reiterates its intent to include annual assessments for new technologies within the Part 373 permits for the sites.	*238-52*
50	Page 2-47, Figure 2-8	This figure should include a line for "NDA Geomembrane Replacement". Additionally the Annual Environmental Monitoring should start at Year Zero.	*238-53*
51	Page 2-51, Section 2.6.1.1	Any release of land should include NYSDEC since this action would be subject to our approval and release from the Part A applications or the Part 373 Permits.	*238-54*
52	Page 2-57, Section 2.6.1.5	Under Footnote 3 it is an understatement to say that the estimates are conservative. It is inconceivable that DOE would ship only one railcar with waste per train. The use of this assumption gives the appearance of being disingenuous and an attempt to skew the transportation impacts presented in Table 2-3 to make sitewide removal appear impossible due to the dangers associated with transportation. For the majority of the wastes on-site, this scenario is unreasonable. NYSDEC would anticipate that most waste (e.g., contaminated soils) would have several railcars per train. • Please provide a clear explanation of DOE's intention for waste shipments.	*238-55*

238-40 The text in Chapter 2, Section 2.3.1, of this EIS has been modified to state that treated Tank 8D-4 liquids would be solidified and shipped off site for disposal. DOE acknowledges that this action is under review by NYSDEC and the Core Team.

238-41 The text throughout this EIS has been revised to remove mention of the permeable reactive barrier.

238-42 Descriptions of any hazardous chemical contamination found at WNYNSC are located in Chapter 3, Section 3.3.2, of this EIS. The cited references in Chapter 3 contain more specific information regarding measured concentrations of contaminants. Chapter 2, Table 2–2, has been revised to clarify that the EIS starting point for WMA 3 is that the tanks are isolated with remaining contamination in a dry form. A decision has yet to be made about whether or not any other liquids would be transferred to WMA 3 for treatment. Regarding the equalization basin and tank in WMA 6, identifying them as SWMUs indicates they are subject to corrective action; therefore, footnote a of Table 2–2 has been revised to state that, "SWMUs implies that a unit is subject to corrective action." The language in Appendix C, Section C.3.1.8.1, of this EIS has been modified to reflect the language suggested by NYSDEC's comment. As such, the first sentence in this section is being changed to "Tanks T-1, T-2, T-3, and associated equipment in the Mixed Waste Storage Facility would be size reduced and disposed of at an approved offsite landfill." The language in the rest of the section remains unchanged. A footnote has been added to Table 2–2 in Chapter 2 of this EIS to reflect that the unit will be closed under the RCRA Interim Status requirements. Regarding the North Plateau Groundwater Plume, nowhere in the EIS does DOE imply that it is not subject to regulation.

238-43 The text in Chapter 2, Table 2–2, has been corrected to show that the railroad spur is operable at the starting point of this EIS.

238-44 This language has been corrected in this Final EIS.

238-45 Chapter 2, Section 2.3.2.7, and Appendix C, Section C.2.7, of this EIS have been revised to include information regarding the upgradient barrier wall and geomembrane cover associated with the NDA.

238-46 Chapter 2, Section 2.3.2.11, of this EIS correctly describes the Scrap Material Landfill in regards to the starting point of this EIS. The removal of the landfill is evaluated as part of the Sitewide Removal Alternative; therefore, if a decision

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Comment Number	*Page Number*	*Comment*	
53	Page 2-60, Table 2-5	Column Three entitled "Phased Decisionmaking Alternative (Phase 1 Only)" is supposed to contain the discounted cost per avoided person-rem for Phase 1 of the alternative. The Sitewide Alternatives already give the bounding cost numbers, that information does not need to be reiterated. In order to truly compare cost, the discounted cost information for the bounding alternatives to Phase 1, this information should be calculated and presented herein.	*238-56*
54	Page 2-60, Section 2.6.4	Based on the NYSDEC comment above regarding the disingenuousness of the transportation impacts in section 2.6.1.5, the first bullet should be re-evaluated. Additionally, if the Latent Cancer Fatality (LCF) is less than one person for each alternative it appears that each alternative should have a maximum LCF of one person (rounding to the nearest whole number), making them essentially the same. • Please provide a clear explanation of why the numbers are not rounded to reflect a "whole" person.	*238-57*
55	Page 2-60, Section 2.6.4	The text of the third bullet regarding the total impacts of Phase 2, Sitewide Close-In-Place, is confusing. Since certain facilities and contamination would be removed under Phase 1, wouldn't the total impacts of Phase 2 Close-In-Place be less than, but bounded by, the Sitewide Close-in-Place Alternative?	*238-58*
56	Page 2-61, Section 2.7, Bullet 3	The narrative states that "Phase 1 of the Phased Decision Making Alternative allows for up to 30 years for collection and analysis of data and information…"; however the DEIS does not include any discussion on what specific studies will be performed nor does it address when or how the decision to proceed with Phase 2 will be made.	*238-59*

Chapter/Appendix: Chapter 3

Comment Number	*Page Number*	*Comment*	
57	General	There are several areas within this chapter where the documentation referred to is anywhere from three years to 20, or even 30, years old. Most of the cited reference information appears to be five to ten years old. • Please use the most current documentation for review of and input to all impacts.	*238-60*
58	Page 3-7, Section 3.1.2	The second paragraph discusses the NDA being a "maintained, grassed area" then mentions installation of the NDA cap in 2008. This could be misconstrued that the cap is under a grassy area. This information should be updated.	*238-61*
59	Page 3-8, Section 3.2.1	It is uncertain why the references for National Grid and Niagara Mohawk, in the first sentence, are reversed. If DOE was going to provide the most current information, it would have made more sense to state that National Grid was formerly Niagara Mohawk.	*238-62*
60	Page 3-31, Cesium Prong, Paragraph 2	Narrative states that an offsite study has been conducted but it is unclear whether the study was outside the WVDP or the WNYSC. A better description of the location of the study should be provided	*238-63*
61	Page 3-51, Section 3.6.1.1, Paragraph 1	The last sentence states that sampling was scheduled for 2007. Was this sampling completed and if so why wasn't the data included?	*238-64*
62	Page 3-53, Table 3-10	Table presents surface water exceeding of background but not DOE DCGs for sample points downstream of Franks Creek. The narrative however describes several other surface water sampling points which exceed both which are not displayed in a tabular format. It would be easier to interpret data if it is all displayed in a similar format.	*238-65*
63	Page 3-92, Section 3.11.3	Please provide an explanation of the statement "available information is insufficient for a meaningful estimate of impacts" in paragraph two.	*238-66*

to remove the landfill is made as part of NYSERDA's Findings Statement, the projected impacts would be available to support that decision.

238-47 To the extent that RCRA applies to a given facility or area, RCRA requirements would be satisfied during decommissioning of that facility or area.

238-48 Text associated with Chapter 2, Figures 2–6, 2–7, and 2–8, of this EIS, has been revised to acknowledge that annual environmental monitoring would take place for the duration of the alternative.

238-49 The RCRA status of facilities that are to be removed by the starting point of this EIS is given in Chapter 2, Table 2–1, of this EIS. The RCRA status of the facilities standing at the starting point of this EIS is given in Table 2–2. NDA structures in WMA 7 are identified as SWMUs for which Corrective Measures Studies (CMSs) are being prepared. Table note "a" for Table 2–2 states that, "SWMU implies that a unit is subject to corrective action." To further clarify that RCRA requirements will be met during decommissioning actions, a footnote has been added to the discussion of decommissioning actions in Sections 2.4.1.1, 2.4.2.1, and 2.4.3.1 to indicate that decommissioning actions will be performed in accordance with applicable Part 373/ RCRA requirements. This footnote has not been added to Section 2.4.4.1 because there would be no decommissioning actions under the No Action Alternative.

238-50 Please see the response to Comment no. 238–2 for a discussion of the ongoing studies that would take place if the Phased Decisionmaking Alternative were selected.

238-51 This text has been revised and the comment no longer applies.

238-52 The text has been revised to reflect the revised description of the Preferred Alternative and would involve more frequent reviews than stated in the Revised Draft EIS.

238-53 For the Phased Decisionmaking Alternative, it is assumed that the NDA geomembrane will not be replaced during Phase 1. The SDA membrane is older, and it is assumed that it would be replaced during Phase 1. Text associated with Chapter 2, Figure 2–8, of this EIS has been revised to acknowledge that annual environmental monitoring would be conducted for the duration of the alternative.

238-54 A sentence has been added to Chapter 2, Section 2.6.1.1, of this EIS to indicate that release of land under all alternatives would be subject to meeting all regulatory requirements, including those promulgated by NRC, EPA, and NYSDEC.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Comment Number	*Page Number*	*Comment*	
64	Page 3-93, Section 3.11.3	The second full paragraph fails to mention that these hazardous chemicals are products not wastes. This is confusing for any individual who is not familiar with these regulations versus the Part 373/RCRA regulations.	*238-67*
65	Page 3-96, Sections 3.11.5.1 and 3.11.5.2	Please specify which of these releases contained hazardous waste and/or constituents and what chemicals were involved.	*238-68*
66	Page 3-101, Section 3.11.5.3	Please provide information as to which specific lines are referred to in "**Underground Lines that Carried High-Activity Liquid,**" who the lines where installed by and when they were installed.	
67	Page 3-102, Section 3.11.5.3	In "**Other Underground Lines**" the results of groundwater monitoring or subsurface soil samples should not be used to assume the integrity of underground lines. These are not all inclusive and may miss contamination. Lines should be integrity tested on a regular basis if they are not double walled, have some type of leak detection and/or are not in a pipe trench with or without leak detection and/or chemical resistant coatings.	*238-69*
68	Page 3-105, Section 3.13.1	Please provide detailed information in regards to the statement in the last paragraph on this page that "Hazardous and mixed low-level radioactive wastes are…disposed on site."	*238-70*
69	Page 3-105, Section 3.13.1	The first full paragraph of this page refers to the scheduled decontamination, demolition and removal of the CPC-WSA by 2010. According to discussions regarding the closure of Interim Status units at the site, the CPC-WSA was not scheduled to be closed for five to seven more years. ● Please provide a current status for the closure of the unit.	*238-71*
70	Page 109, Table 3-20	While it is understood that waste would be generated during the Interim End State which would end in 2011 it is unclear what wastes would be generated after this time period that would not be covered by the EIS.	*238-72*

Chapter/Appendix: Chapter 4

Comment Number	*Page Number*	*Comment*	
71	Page 4-4, Table 4-1	For the Sitewide Close-In-Place Alternative, please provide the amount of time necessary for the decay of the Cesium Prong and nonsource area of the NPGP. Additionally provide an estimate herein of when the 1,118 hectares of land would be available for release for unrestricted use.	*238-73*
72	Page 4-5, Section 4.1.1.2	The "**Visual Resources**" paragraph states that the North and South Plateau caps would be rock covered. This could inhibit replacement/repair of said caps. Has consideration been given to the RCRA regulations for repair/replacement of geomembrane layers in caps at certain intervals and have these costs been included in the long-term monitoring and maintenance costs for true cost benefit comparison?	*238-74*
73	Page 4-11, Table 4-3	For more accurate cost comparisons of utility use, DOE should include the total use of each utility per year of decommissioning as well as the total use. On an annual basis the utility uses for the three action alternatives are similar with Sitewide Close-in-Place having the highest utility use during its action phase. Total utility use for each utility after decommissioning should also be included. The total for each utility after decommissioning appears to be highest for the Sitewide Close-In-Place Alternative.	*238-75*
74	Page 4-15, Section 4.1.2.2	Does this DEIS include the utility usage that would be necessary for replacement of the North and South Plateau caps? If not, DOE should update the EIS to include this information prior to final issuance.	*238-76*
75	Page 4-88, Section 4.1.11.2	In addition to the mixed low-level radioactive waste referred to on Page 4-95, hazardous wastes would also need to be treated to meet any associated RCRA land disposal restriction treatment standards prior to disposal.	*238-77*

238-55 The transportation analysis for each alternative uses a per-railcar, one-waste-railcar-per-train basis. This approach is widely used for NEPA documents and makes use of available accident statistics (which are given on a per-railcar basis). No published literature is available that provides appropriate statistics to determine nonradiological accident risk on a per-train basis. The rail accident rate is proportional to the number of rail cars; this means that, if the number of waste railcars per train is increased, thereby increasing the risk associated with that train, the number of rail shipments decreases by the same number. When conducting decommissioning activities, DOE may ship one waste railcar per train or more than one railcar per train, depending on operational considerations at the time the waste is scheduled to be shipped. It should be noted, however, that no more than about 10 railcars could leave the site at any one time due to the length of rail spurs on site.

Given that rail impacts are presented on a one-waste-railcar-per-train basis for all of the alternatives, the relative difference in impacts among alternatives can be considered. For rail transport, the nonradiological impacts for the Sitewide Removal Alternative are about 10 times greater than those for the Phased Decisionmaking Alternative and about 100 times greater than those for the Sitewide Close-In-Place Alternative. This is primarily because much more waste would be transported under the Sitewide Removal Alternative than under the other alternatives. Because the 10 fatalities for truck-only transport or 15 fatalities for rail-only transport estimated for the Sitewide Removal Alternative using this approach may be an overestimate, Appendix J, Section J.11, of this EIS has been expanded to better explain the uncertainty associated with these calculations. In addition, the following sentence has been added to Section J.6.2: "In the years of moving radioactive and hazardous materials, DOE has not had a single fatality related to the hazardous or radioactive material cargo."

238-56 Table 4–54 in Chapter 4 of the Revised Draft EIS presents the discounted cost per avoided person-rem for the three decommissioning alternatives and the No Action Alternative. In the case of the Phased Decisionmaking Alternative, costs cover both Phase 1 and Phase 2 and are bounded by the costs of the Sitewide Removal Alternative (if the Phase 2 decision is to remove the remaining waste and facilities) and the costs of the Close-In-Place Alternative (if the Phase 2 decision is in-place closure of the remaining waste and facilities). In this Final EIS, the phrase "Phase 1 only" has been removed from the title of the Phased Decisionmaking column of this table, which appears as Table 4–54, "Cost/Benefit Comparative Assessment."

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Comment Number	*Page Number*	*Comment*	
76	Page 4-90 to 91, Table 4-45 and Page 4-94, Table 4-47	Please provide an explanation for why the summary numbers for **Packaged Waste from Site Monitoring and Maintenance or Long-Term Stewardship** do not match the comparison numbers in table 4-47.	*238-78*
77	Page 4-92 to 93, Table 4-46	Please provide the placement for footnote "b".	*238-79*
78	Page 4-99, Section 4.1.12	It is inconceivable that DOE would ever ship only one railcar with waste per train. The use of this assumption appears disingenuous and as an attempt to skew the transportation impacts presented herein to make sitewide removal appear impossible due to the dangers associated with transportation.	*238-80*
79	Page 4-114, Table 4-53	Column Three entitled "Phased Decisionmaking Alternative (Phase 1 Only)" is supposed to contain the discounted cost per avoided person-rem for Phase 1 of the alternative. The Sitewide Alternatives already give the bounding cost numbers, that information does not need to be reiterated. In order to truly compare cost, the information for the bounding alternative to Phase 1, this information should be calculated and presented herein.	*238-56 cont'd*
80	Page 4-115, Table 4-54	Please revisit the placement of footnotes "a" and "b" as they do not appear to be accurate. Additionally, please provide the time period for the effective annual costs for monitoring and maintenance (M&M) or long-term stewardship. As Tables 4-55 and 4-56 (footnotes b and e and footnote b, respectively) refer to 1000-year periods for dose and M&M, it would seem that 1000 years of M&M or long-term stewardship costs should be included. At the least, DOE should include the costs until "loss of institutional controls" at 100 years.	*238-81*
81	Page 4-143, Section 4.6.3.1	If the Phase 2 decision is to perform "sitewide removal" after up to 30 years, would that alternative then be considered the longest active phase of the alternatives? Also, please provide detailed justification for how restoring the land to its original state as opposed to placing a cap, and possibly rocks, provides a greater impact to the wetlands.	*238-82*
82	Page 4-143, Section 4.6.3.2	DOE fails to mention that monitoring and maintenance would need to be performed in perpetuity following the "short term…of significant onsite decommissioning activities". Again, NYSDEC stresses that close in place is not a viable option without a variance from the State and Federal RCRA regulations.	*238-83*
83	Page 4-144, Section 4.6.3.3	The second section of this paragraph is misleading and possibly inaccurate. Will it take the full eight years to construct the building and move the logs? How is that possible if the MPPB is to be removed within those eight years? Also the intent of the two phases is to allow for the studies to be performed almost from the beginning, not eight years later. DOE should already be trying to determine the types of studies necessary and their implementation so that this can happen as quickly as possible after the issuance of the Record of Decision.	*238-84*

Chapter/Appendix: Chapter 5

Comment Number	*Page Number*	*Comment*	
84	Page 5-9, Section 5.2	The last sentence under "***Administrative Order On Consent (RCRA 3008[h])***" should be revised to state that CMSs were required.	*238-85*
85	Page 5-15, Section 5.5	Within the description of "***Resource Conservation…..Parts 370 to 374, 376)***" it should be mentioned that NYS has all the rights and authorities of the Federal regulations for which they are authorized and that NYS' regulations may be more stringent than the federal regulations. Nowhere in this text does it mention that NYS has been given the lead for all RCRA related activities at the site. At a minimum, this section should include the same level of detail as its counterpart under Section 5.2 was provided.	*238-86*
86	Page 5-20, Table 5-1	Be advised that the NYSDEC is working on a replacement document for TAGM 4046. All corrective action work will have to meet the soil cleanup levels in this new document. This information should be revised accordingly.	*238-87*

238-57 See the response to Comment no. 238–55 for an explanation of the approach used to calculate nonradiological accident impacts. Chapter 2, Section 2.6.4, of this EIS has been revised to provide more detail to support the conclusions about the alternatives. In this case, far more waste is transported off site under this alternative than any of the other alternatives. Regarding the comment about latent cancer fatalities (LCFs), an LCF of 0.1 represents a risk of developing a latent cancer fatality, and a policy of rounding to the nearest whole number would reduce the ability to communicate differences in risks among alternatives. For example, LCFs of 0.1 and 0.00001 both could be rounded to 1, but to do so would be misleading. An LCF of 0.1 indicates a risk of 1 cancer fatality in a population of 10, while an LCF of 0.00001 indicates a risk of 1 cancer fatality in a population of 100,000. Therefore, the two calculated risks are not equivalent; the second risk is in fact ten thousand times lower than the first.

238-58 The text in Chapter 2, Section 2.6.4, of this EIS was revised to state that impacts would be similar to those for the Sitewide Close-In-Place Alternative.

238-59 Please see the response to Comment no. 238-2 for a discussion of the ongoing studies that would take place if the Phased Decisionmaking Alternative were selected.

238-60 DOE used the most current and relevant reference documentation available. In some instances, especially for the description of the geology and seismology, older reports provided the most comprehensive description possible. Geologic characterization activities have occurred over many years, and the information that was obtained over time typically builds on, but does not replace, what was previously developed. If more recent information was available that replaced information from older documentation, the more recent information was cited.

238-61 Chapter 3, Section 3.1.2, of this EIS has been revised to state that both the NDA and SDA have a geomembrane cover and are sloped to provide drainage. The text stating that the NDA is a maintained, grassed area has been removed.

238-62 The text in Chapter 3, Section 3.2.1, of this Final EIS has been modified.

238-63 The cited paragraph was revised in this Final EIS to state that the study conducted between 1993 and 1995 was performed in an area that is both on and off the WNYNSC site.

238-64 Sampling data collected and analyzed in 2008 were not available for the Revised Draft EIS. The *2008 Annual Site Environmental Report* was issued after the

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Chapter/Appendix: Chapter 8

	Page Number	*Comment*	
87	General	DOE may want to consider prefacing this chapter to state that the definitions used herein are not consistent with the definitions within the Part 373/RCRA regulations due to need to show impacts and NOT compliance.	*238-88*
88	General	For any definition that references the federal RCRA regulations, DOE should include the reference to the State regulations that parallels said reference.	*238-89*
89	Page 8-3	The definition of "characteristic waste" should include a reference to the state regulations (6 NYCRR 371.3) that parallels the reference to the federal regulations.	*238-90*
90	Page 8-4	The definitions relating to disposal, disposal area and disposal facility are extremely generic and do not appear to relate to hazardous waste management under either the state or federal RCRA program. Again, DOE could alleviate public and regulator's concerns by prefacing the chapter as mentioned in the general comment above.	*238-91*
91	Page 8-5	In the definition of an EIS the citations to Environmental Conservation Law are not correct. They should read "Section 3-0301(1)(b), 3-0301(2)(m) and …	*238-92*
92	Page 8-6	"Hazardous constituent" is more than what is referred to under OSHA. It is recommended that the word "waste" be added and that the definition for "hazardous waste constituent" found under 6 NYCRR 370.2(b)(87) be incorporated.	*238-93*
93	Page 8-6	Be advised that unlike the definition of "Hazardous waste" in the federal regulations, New York State regulates certain PCBs as hazardous wastes.	*238-94*
94	Page 8-8	As regards DOE's definition of "interim status facility (under RCRA)". • First, neither "hazardous waste management facility" nor "treatment, storage or disposal facility" are defined elsewhere. • Second, there needs to be references to NYS regulations. • Third, the Part A notification allows a facility to continue operation in accordance with Interim Status standards under **BOTH** the RCRA and the NYS regulations, it is NOT considered a permit. • Lastly, the facility must either close a facility under interim status or show that they filed protectively; they cannot just "withdraw" their interim status.	*238-95*
95	Page 8-9	The definition of "mixed low-level radioactive waste" should include reference to NYS regulations as well. Unlike the federal regulations, New York State regulates certain PCBs as hazardous wastes.	*238-96*
96	Page 8-10	The definition of "polychlorinated biphenyls" should note that certain PCBs are hazardous waste in NYS and should reference the definition of hazardous waste in 6NYCRR 371.3.	*238-97*
97	Page 8-13	The definition of "solid waste" should include reference to NYS regulations as well.	*238-98*
98	Page 8-14	The definitions relating to "storage" and "storage facility" are extremely generic as relates to hazardous waste management under either the state or federal program. Again, DOE could alleviate public and regulator concerns by prefacing the chapter as mentioned in the general comment above. At a minimum, the word "mixed" should be used in place of "radioactive". "Storage" is specifically defined and does not distinguish between greater than and less than 90 days in NYS regulations. This distinction determines whether or not a facility needs a permit or interim status.	*238-99*
99	Page 8-14	Suggest that the definition of State Environmental Quality Review Act be revised to read: "A law promulgated … that requires that all state and local agencies determine whether the actions they directly undertake, fund or approve may have a significant impact on the environment and, if it is determined that the action may have a significant adverse impact, prepare or require the preparation an environmental impact statement.	*238-100*

Revised Draft EIS was completed. Chapter 3, Section 3.6.1.1, of this Final EIS has been updated to reflect the 2008 data contained in the *2008 Annual Site Environmental Report*.

238-65 The reason that Table 3–10 is highlighted in Chapter 3, Section 3.6.1.1, of this EIS is that it addresses the main drainage point of the Project Premises. While all of the information in the section is relevant, the radionuclide concentrations measured at the main drainage point are the most pertinent when compared with the background radiation ranges and DOE Derived Concentration Guides.

238-66 The text of Chapter 3, Section 3.11.3, of this EIS was modified to state: "… available individual monitoring information is insufficient for a meaningful estimate of individual worker impacts."

As the text after this phrase indicates, the safety strategy adopted by DOE and the Occupational Safety and Health Administration (OSHA) to protect workers from the impacts of hazardous chemicals is to keep the workplace as free as possible from recognized hazards that either cause or are likely to cause illness or physical harm. Impacts to workers are therefore expected to be low. Workers are not routinely monitored for exposure to chemicals unless a problem is known to exist. Unlike radiological hazards, simple technologies are not generally available for routine monitoring of workers for exposure to most hazardous chemicals. Therefore, impacts to specific individuals cannot be calculated or otherwise substantiated, but are expected to be low because routine exposures would meet DOE and OSHA standards and guidelines.

238-67 The fourth paragraph of Chapter 3, Section 3.11.3, of this EIS was modified to refer to temporary storage of certain hazardous process chemicals.

238-68 The text was modified to refer back to Chapter 3, Section 3.11.5.1, of this EIS, which refers to a spill from Line 7P-170-2-C and failure of Line 7P-160. Information regarding who installed the lines and when they were installed is not required to conduct the impact analysis.

Many or most of the leaks had both radioactive and hazardous constituents, but the principal environmental threat is the radioactive component. Since most of the spills involved liquids, they were often nitric acid-based, but could have other chemical parameters. There are more details on each of the specific spills in the reports referenced for each spill. Details of each spill, including the radioactive and chemical constituents, were used in developing the impact assessments.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Chapter/Appendix: Appendix C

Comment Number	*Page Number*	*Comment*	
100	General	While the document has made tremendous changes to include the necessary hazardous waste Part 373/RCRA information and regulations, there are still areas that are lacking. These include but are not limited to: failure to include whether or not there is hazardous waste/constituents contamination in all of the facilities/units listed under each of the WMA descriptions; failure to include in the descriptions when a unit is subject to RCRA closure or CA regulation (e.g., where CMSs are required, NDA "decommissioning" is also subject to CA requirements); failure to include in their descriptions that each of the alternatives (e.g., Close-in-place, Phased Decisionmaking) are also subject to Part 373/RCRA when actions are taken; failure to provide chemical concentrations (in ppm or mg/kg) as opposed a total inventory (in kg).	*238-101*
101	Page C-1, Section C.2.1	The second paragraph mentions that the Contact-Size Reduction Facility (CSRF) will have been removed to grade at the starting point of the EIS. Is this accurate? The NYSDEC understood that the CSRF was part of the Main Plant Process Building (MPPB) and its Comprehensive Closure Plan. It was understood that as such the CSRF could not be removed until such time as a Record of Decision (ROD) was issued for the DEIS. ● Please clarify this misunderstanding and assure that the DEIS contains accurate information.	*238-102*
102	Page C-14, Section C.2.3	The fourth sentence of the introductory paragraph states that Tanks 8D-1 and 8D-2 will be dry at the "starting point" of the EIS. The "starting point" is expected to be accomplished by 2011. ● Please explain how this is possible? The NYSDEC's understanding of this system is that once installed it would take a several years (approximately 3 or 4) to dry the residuals that already reside in the tanks. This does not seem possible since 1) the system will not be installed until early 2010 and 2) DOE has stated within the Liquid Waste Management Plan that they would like to transfer additional liquids from the Main Plant Process Building into these tanks. Please address this situation within the references of this appendix as well as the other chapters or appendices that reference the Tank Drying System.	*238-103*
103	Page C-49, Section C.3.1.1.1	**Relocation of the High-Level Radioactive Waste Canisters**: If there is a defined lifespan to the commercial dry cask storage systems under consideration, the DEIS should acknowledge this and describe how the casks would be replaced, tested for approval for continued use, etc. At present there are no obvious plans in place to address this need, which has arisen since release of the DEIS due to the withdrawal of Yucca Mountain from consideration for permanent disposal of HLRW.	*238-104*
104	Page C-55, Section C.3.1.1.8 and Page C-57, Section C.3.1.1.9	The fifth and sixth paragraphs under "**Removal of Contaminate Soil and Groundwater**" and the second paragraph under Section C.3.1.1.9 make reference to reuse of the soils if they are less than the DCGLs for unrestricted release. DOE would also have to demonstrate to NYSDEC that these soils do not contain hazardous waste/constituent contamination prior to reuse.	*238-105*
105	Page C-57, Section C.3.1.1.9	The first paragraph states "Confirmatory sampling for constituents of concern would be performed, and remedial actions would be based on the results." This sentence fails to take into account whether these confirmatory samples are for Solid Waste Management Units or for Interim Status Operating Units. The requirements for soil cleanup objectives (i.e., chemical concentrations remaining) vary depending on the unit's status. DOE has failed to make this distinction clear for both the regulator and the public or to give it due justice.	*238-106*
106	Page C-79, Section C.3.1.8.1	Under the Mixed Waste Conditional Exemption regulation (6 NYCRR Part 374-1.9), the Mixed Waste Storage Facility is no longer subject to Interim Status closure. Even so, NYSERDA has expressed their desire to close this unit under the RCRA Interim Status requirements. Pending further determination, the unit should be listed as a SWMU.	*238-107*
107	Page C-89, Table C-28 and Section C.3.1.13.2	While the NYSDEC has not required action on the NPGP, it should not be construed that the NYSDEC believes that the unit is not subject to regulation. We are currently in the process of reviewing the results of the NPGP RCRA Characterization.	*238-108*

238-69 Operational practices such as integrity-testing or use of leak detection equipment for other underground tanks (i.e., tanks not associated with management of high-level radioactive waste) may or may not have been performed; however, if these practices were conducted, the resulting data were not available for this analysis. Given the lack of operational data, the integrity of these underground tanks must be inferred based on the factors listed in Chapter 3, Section 3.11.5.3, of this EIS.

238-70 Please note that the statement is, "Hazardous and mixed low-level radioactive wastes are packaged, treated (neutralized), and disposed of on site; packaged and treated on site and disposed of off site; or packaged on site and treated and disposed of off site." Hazardous and mixed low-level radioactive wastes treated and disposed of on site include various aqueous liquid wastes that can be treated by the Low-Level Radioactive Waste Facility and discharged through the associated permitted outfall. These waste streams are described in the WNYNSC Site Treatment Plan.

238-71 The Chemical Process Cell Waste Storage Area (CPC-WSA) was addressed in the *Environmental Assessment for the Decontamination, Demolition, and Removal of Certain Facilities at the West Valley Demonstration Project*, DOE/EA-1552. Page 7 of this Environmental Assessment (EA) states that the 36 facilities listed in the EA (including the CPC-WSA) would be demolished and removed over a 4-year period ending on December 31, 2010. For the purposes of the analysis, the CPC-WSA would be closed at the starting point of this EIS.

238-72 Table 3–20 shows the estimated waste volumes that would not be covered by this EIS. Wastes generated during Interim End State activities are covered by the *Environmental Assessment for the Decontamination, Demolition, and Removal of Certain Facilities at the West Valley Demonstration Project*, DOE/EA-1552; and the *West Valley Demonstration Project Waste Management Environmental Impact Statement*, DOE/EIS-0337. A portion of these waste volumes may be generated after 2011 if Interim End State activities slip beyond 2011. Wastes generated after the completion of the Interim End State activities are covered by the impacts analyses for the alternatives in this EIS.

238-73 Chapter 4, Table 4–1, in this EIS was corrected to eliminate reference to decay of the nonsource area of the North Plateau Groundwater Plume, which would be retained under the Sitewide Close-In-Place Alternative and would not be included with the projected 1,118 hectares of released land. No estimate is made in the Final EIS for decay of radioactive contamination in either the North Plateau Groundwater Plume or the Cesium Prong. Assuming the Sitewide Close-In-Place

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Comment Number	*Page Number*	*Comment*	
108	Page C-91, Section C.3.2	While DOE does mention that certain buildings will be removed to grade to eliminate maintenance cost, they fail to mention that monitoring and maintenance would need to be performed in perpetuity under a Part 373/RCRA Post-Closure Permit. Again, NYSDEC stresses that close in place is not a viable option without a variance from the State and Federal RCRA regulations.	*238-109*
109	Page C-130, Section C.4.1	**Interim Storage Facility**: An updated description of the DOE plan to use currently available commercially dry cask storage technology to store the vitrified logs on-site should be included. The fact that these systems are designed to withstand high forces from seismic activity and will be designed to withstand anticipated atmospheric or erosional impacts should be included.	*238-110*

Chapter/Appendix: Appendix E

Comment Number	*Page Number*	*Comment*	
110	Page E-77, Section E.4.2.1	**Historical Conditions and Phased Decisionmaking Alternative –** The discussion of how the NDA facility is modeled, with the interim measures installed in 2008, is unclear and limited. Modeling for the ongoing assessment period, should it occur, must take into account the existing cap and slurry wall; how this is taken into account, especially with the offered recharge estimates, is not clear. Further data collection and updating of the model should continue.	*238-111*

Chapter/Appendix: Appendix F

Comment Number	*Page Number*	*Comment*	
111	General	In light of the very recent occurrences of erosional events, both large and small scale, in the vicinity of and at the site (Route 219 erosion/slumping on Cattaraugus Creek, Erdman Brook knickpoint and Frank's Creek knickpoint advancement, respectively, Buttermilk Creek slide reactivation), how is the modeling of erosion at the site to be updated/expanded upon, during the ongoing assessment period? It would appear the real-time events of interest and consequence must be included, and a process in place, to allow for any performance assessment to be accurate, to allow for a decision to be made that is representative. Focus for continued erosion monitoring should not be simply data necessary for model truthing and calibration, but how real-time events are affecting the facilities in question, and whether decision-making must include a long-term model (for anything other than decommisioning performance assessment).	*238-112*
112	Page F-6, Section F.2	**Summary of Site Erosion Measurements** "Observation of other geomorphic processes, including meandering and knickpoint advance, provides perspective but no additional quantitative information for erosion rate estimates." • Please clarify this statement, especially in light of recent (2009) erosional events and observations (e.g. Erdman Brook knickpoint advancement, Buttermilk Creek slide reactivation).	*238-113*
113	Page F-8, Figure F–5 and Page F-9, Table F-1	**North and South Plateau Gully Locations –** These figures/tables need to be updated to show recent changes in the knickpoint location along Erdman Brook, relative to the V-to-U-shaped valley transition.	*238-114*
114	Page F-53, F.3.2.5	**Calibration: Discussion and Interpretation – "**It is also likely that gully extension in this environment is limited by vegetation growth, which can effectively impose a large erosion threshold on the landscape in hollows and ephemeral channels." This statement needs further explanation/exploration, in light of rapid advancement of knickpoints in the vicinity of the SDA along Erdman Brook. These "small perturbations" are of importance for understanding actual impacts to the site in the near-term.	*238-115*

Alternative is selected for implementation, the projected timing for decay of radioactive contamination in the affected lands of the Cesium Prong to a point where these lands would be eligible for release would depend on the decision made on the allowable contamination levels for release (e.g., DCGLs). This decision would be made through development of an approved *Phase 1 Decommissioning Plan*. Because levels of contamination in the Cesium Prong vary spatially and with depth, the timing for contamination decay and land release in particular portions of the Cesium Prong could also vary. Additional site investigation could be needed to more precisely define contamination levels and variations.

238-74 The conceptual design for the engineered caps for the Sitewide Close-In-Place Alternative is considered to be representative of conservative designs that were developed consistent with NRC guidance, which addresses a performance period of 1,000 years. NRC guidance was followed for this EIS because the radionuclide inventory (including long-lived radionuclides) was considered to represent the major risk. (Note that the results of the long-term performance assessment in Chapter 4, Section 4.1.10, of this EIS show that risks from possible release and transport of radionuclides from the WMAs are much larger than those from possible release and transport of hazardous materials.) The projected costs and other impacts associated with long-term stewardship under the Sitewide Close-In-Place Alternative include an annual cap maintenance program that assumes annual replacement of 3 percent of the rocks covering the caps (or 100 percent replacement in 30 years). This assumption is believed to be both representative of the types of maintenance activities that may be required over the long term and reasonable, considering the conceptual nature of the cap design. In the event that the Sitewide Close-In-Place Alternative is selected for implementation, DOE would refine the design of the engineered caps as needed to fully accommodate all requirements as they are determined to be applicable.

238-75 The average utility use during decommissioning was added to the Chapter 4, Table 4–3, of this EIS. In this table, utility use after decommissioning is presented for each alternative as an annual value. The text for Chapter 4, Section 4.1.2, includes information for each alternative about the time frames for post-decommissioning long-term stewardship or monitoring and maintenance.

238-76 As stated in the response to Comment no. 238-74, the projected utility use and other impacts associated with long-term stewardship under the Sitewide Close-In-Place Alternative account for an annual cap maintenance program that assumes annual replacement of 3 percent of the rocks covering the caps (or 100 percent replacement

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 1 - NYSDEC West Valley Assigned Staff DEIS Comments

Chapter/Appendix: Appendix J

Comment Number	*Page Number*	*Comment*	
115	General	This appendix fails to provide any information regarding the risks of transporting non-radiological waste (i.e., hazardous waste) or a justification for their exclusion.	*238-116*
116	Page J-10, Section J.4.2	It is inconceivable that DOE would ever ship only one railcar with waste per train. The use of this assumption appears disingenuous and as an attempt to skew the transportation impacts presented herein to make sitewide removal appear impossible due to the dangers associated with transportation. While it is recognized that the DEIS does state that the risk per train would increase proportionally based on the number of cars/train, the narrative and subsequent tables are misleading as they give the appearance of only one car/train being transported. It is understood that there will be instances where a single car will be transported per train due to radiological considerations and shipping regulations, but it is expected that the majority of the waste, particularly the contaminated soils, may be transported in trains containing dozens of railcars. ● Please provide a clear explanation of DOE's intention for waste shipments.	*238-55 cont'd*

Chapter/Appendix: Appendix L

Comment Number	*Page Number*	*Comment*	
117	Page L-1, First Bullet	In 1978 the State Industrial Hazardous Waste Management Act established the NYS hazardous waste management program by providing regulatory authority to control the transfer, storage and disposal of hazardous waste.	*238-117*
118	Page L-2, Section L.1	Under paragraph two, in-place closure (management) is not typically allowed for container and/or tank storage and/or treatment units. It is usually reserved for land disposal units.	*238-118*

Chapter/Appendix: Appendix M

Comment Number	*Page Number*	*Comment*	
119	Page M-3, Section M.2.1	**Floodplains** – In light of recent storm events (August 2009), perhaps reaching the 100-year flood level, and subsequent observed storm damage in the vicinity of the site (i.e. Fox Valley Road washout), this section should be updated.	*238-119*
120	Page M-3, Section M.2.1. Paragraph 4	"The flood inundation area for the 100-year storm (see **Figure M–4**) show that no existing facilities are in the 100-year floodplain." Figure M-4 does not include the water reservoirs and dams, which were impacted by August 2009 storms. This discussion and Figure should be updated to include the southern facilities.	*238-120*

in 30 years). This assumption is believed to be both representative of the types of maintenance activities that may be required over the long term and reasonable, considering the conceptual nature of the cap design.

238-77 The third paragraph of Chapter 4, Section 4.1.11.2, of this EIS states that hazardous waste would be shipped off site to permitted commercial recycling, treatment, and disposal facilities. A sentence was added to indicate that treatment would be performed before disposal to meet RCRA land disposal restriction standards.

238-78 The waste volumes listed in Chapter 4, Tables 4–45 and 4–47 (now Tables 4–46 and 4–48) are consistent at the bottom line. As stated in both tables, the indicated totals may not add due to rounding.

238-79 The footnote citation was corrected for Chapter 4, Table 4–46 (now Table 4–47), of this EIS.

238-80 As stated in the response to Comment no. 238-55, the transportation analysis for each alternative uses a per-railcar, one-waste-railcar-per-train basis. This approach is widely used in NEPA documents and makes use of available accident statistics (which are given on a per-railcar basis). No published literature is available that provides appropriate statistics to determine nonradiological accident risk on a per-train basis. The rail accident rate is proportional to the number of rail cars; this means that, if the number of waste railcars per train is increased, thereby increasing the risk associated with that train, the number of rail shipments decreases by the same number. Thus, the overall risk of transporting the waste for the alternative would not change.

Given that rail impacts are presented on a one-waste-railcar-per-train basis for all the alternatives, the relative difference in impacts among alternatives can be considered. For rail transport, the nonradiological impacts for the Sitewide Removal Alternative are about 10 times greater than those for the Phased Decisionmaking Alternative and about 100 times greater than those for the Sitewide Close-In-Place Alternative. This is primarily because much more waste would be transported under the Sitewide Removal Alternative than under the other alternatives. Because the 10 fatalities for truck-only transport or 15 fatalities for rail-only transport estimated for the Sitewide Removal Alternative using this approach may be an overestimate, Appendix J, Section J.11, of this EIS has been expanded to better explain the uncertainty associated with these calculations. In addition, the following sentence has been added to Section J.6.2: "In the years of

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2

NYSDEC Non West Valley Assigned Staff Comments on the Revised Draft Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western New York Nuclear Service Center

NOTE: For any Chapters/Appendices not specifically included below, the Department has no comments.

Book: *General Comments*

- 6NYCRR Part 750, State Pollutant Discharge Elimination System Permits, Subpart 2.11 outlines Closure Requirements for Disposal System. These requirements shall be complied with for closure of any disposal system — ***238-121***

Book: *A Summary and Guide for Stakeholders*

- Inside of Front Cover: "Cathern" Bohan should be Catherine. — ***238-122***
- Cover Sheet, *Location*: West Valley is a mailing zip code and an unincorporated hamlet; the location is the Town of Ashford.
- Page 9, bullet #2: Should some type of handling facility be left in place so that emergencies can be dealt with quickly and effectively? Didn't understand this. — ***238-123***
- Page 9, bullet #5: Why is one called a wall and the other a barrier? Are there functional differences that are described later? — ***238-124***
- Page 9, bullet #5: Is there the potential for these wall/barriers to be removed in the future as technology advances? Can there be a catastrophic failure that would require action in real time and present the need for handling facilities that have already been removed?
- Page 9, bullet #6: What is the percentage? Why is there a differentiation between non-defense and defense waste? Are there different regulations determining how they are to be handled? Are they the same substances? Are they processed the same way to the same end result? — ***238-125***
- Page 12, General Comment: Has there been a review of the failure to come to agreement on cleanup responsibility of the plume and the resultant expansion of the plume? There should be a discussion about what steps will be taken to avert such a circumstance in the future. — ***238-126***
- Page 13, bullet #1: What is orphan waste, its composition and the reason that it is called that? — ***238-127***

moving radioactive and hazardous materials, DOE has not had a single fatality related to the hazardous or radioactive material cargo."

238-81 Chapter 4, Table 4–54 and its footnotes, were revised in this Final EIS to reflect a range in possible costs for Greater-Than-Class C waste disposal and a range in possible real discount rates. Monitoring and maintenance or long-term term stewardship costs for the present value analysis for this table were analyzed over a period of 100 years.

238-82 The first sentence of Chapter 4, Section 4.6.3.1, of this EIS has been edited. The projected impacts to wetlands as part of implementation of the Sitewide Removal Alternative are discussed in Section 4.1.6.1, and the text in Section 4.6.3.1 has been revised to refer the reader to that section.

238-83 Chapter 4, Section 4.6.3.2, of this EIS has been revised to note the implementation of a long-term stewardship program under this alternative.

238-84 The text in Chapter 4, Section 4.6.3.3, of this EIS has been edited for consistency with the description of the Phased Decisionmaking Alternative in Chapter 2, Section 2.4.3.

238-85 This text in Chapter 5, Section 5.2, of this EIS states that, "The Consent Order also requires Conservative Measures Studies to be performed, if necessary, to evaluate selection of remedial alternatives for some of the SWMUs at WNYNSC."

238-86 EPA, not NYSDEC, has the lead with respect to RCRA 3008(h) activities. The text in Chapter 5, Section 5.5, of this EIS has not been changed.

238-87 No change to this EIS is necessary. The agencies would comply with the standards that are applicable at the time that the actions are undertaken.

238-88 DOE and NYSERDA note the commentor's statement regarding Chapter 8 of this EIS. Chapter 8 is provided as an aid to help the reader understand the terms as they are used in this EIS.

238-89 DOE and NYSERDA note the commentor's statement regarding Chapter 8 of this EIS. Chapter 8 is provided as an aid to help the reader understand the terms as they are used in this EIS. References to New York State Regulations have been added where appropriate.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 13, bullet #2: There should be a discussion somewhere in the document as to the result of failure to accept responsibility for the plume and its expansion due to that failure to come to agreement. ***238-128***
- Page 14, Table 1, Row: NRC-licensed Disposal Area (NDA), Column: Sitewide Close-In-Place – If this is done, how hard would it be to remove if a decision is made later to remove it? ***238-129***
- Page 14, Table 1, Footnote [a]: Is the restrictive time frame given in the document? ***238-130***
- Page 18, Socioeconomics, paragraph 1: It depends on the number of man hours needed and the pay grades of those workers needed, not necessarily the duration of the work. ***238-131***
- Page 18, Socioeconomics, paragraph 2: What happens if it is determined that the present day acceptable levels of contamination are discovered to be too high? ***238-132***
- Page 18, Socioeconomics, paragraph 2: Is it reasonable to say that there would be no need for anyone? Is it possible that there might still be a need to do some minimal monitoring no matter what? ***238-133***
- Page 18, Socioeconomics, paragraph 3: How far into the future does this hold? At some point there is going to be a change. Is the reviewer missing the point that the EIS is only looking a certain distance into the future? ***238-134***
- Page 20, Waste Management, paragraph 2: Where does orphan, defense and non-defense waste fit into the list? Should there be a matrix showing relationships? ***238-135***
- Page 20, Waste Management, paragraph 5: Is this the smallest volume of the alternatives? If so, just say it. ***238-136***
- Page 20, General Disposal Options orange graphic, last paragraph: Should it say with regulations existing at the time of disposal or most restrictive? ***238-137***
- Page 27, Long-term Impacts, last word: ("later") – Later than what? Aren't there impacts beyond peak annual dose? When is the predicted peak annual dose? ***238-138***
- Page 28, The Sitewide Close-In-Place Alternative: With the failure of institutional controls, are there problems with small doses to very large populations through contamination of Erie County public water supplies which get water from Lake Erie? ***238-139***
- Page 30, bullet #1: Orphan waste? ***238-140***
- Page 30, bullet #2: But might ultimately have the most risk of contaminating and affecting the most land/water and people. ***238-141***
- Page 31, bullet #1, end of line 3: What does "source terms" mean? ***238-142***

Page **2** of **31**

238-90 DOE and NYSERDA note the commentor's statement. The definition of "characteristic waste" has been revised to include reference to 6 New York Code of Rules and Regulations (NYCRR) section 371.3.

238-91 DOE and NYSERDA note the commentor's statement regarding Chapter 8 of this EIS. Chapter 8 is provided as an aid to help the reader understand the terms as they are used in this EIS.

238-92 DOE and NYSERDA note the commentor's statement regarding the references to the Environmental Conservation Law 3-0301 subsections. The Final EIS has been revised to reflect the change from uppercase notation to lowercase notation.

238-93 DOE and NYSERDA note the commentor's statement regarding Chapter 8 of this EIS. The definition for "hazardous constituent" references 40 CFR Part 261, Appendix VII and VIII, not OSHA. The definition has been revised to include reference to New York State hazardous waste management regulations.

238-94 DOE and NYSERDA note the commentor's statement. The "hazardous constituent" definition has been revised to add that "hazardous waste constituent" means a constituent under state regulation 6 NYCRR that caused the New York State commissioner to list the hazardous waste in section 371.4 of this Title, or a constituent listed in section 371.3(e). This EIS uses the term "hazardous constituent" to encompass both the EPA and New York State definitions.

238-95 DOE and NYSERDA note the commentor's statement regarding the wording associated with the "permit" of the interim status and "withdrawal" of the interim status. The interim status facility definition (under RCRA) has been revised to state, "…These facilities have been issued an interim status and are temporarily allowed to operate…"; in addition, the end of definition has been revised to state, "…until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled," to be more consistent with 40 CFR 265.1 and 6 NYCRR 370.

238-96 DOE and NYSERDA note the commentor's statement. The definition for "mixed low-level waste" has been revised to include the New York State regulations.

238-97 DOE and NYSERDA note the commentor's statement. The definition for PCBs (polychlorinated biphenyls) has been revised to add the statement: "Certain polychlorinated biphenyls are designated as hazardous waste according to 6 NYCRR 371.3."

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 31, bullet #1, starting on line 9: What is trying to be said here? — *238-142 cont'd*
- Page 33, Human health: Our understanding and research in the future may alter how specific levels of exposure are viewed. Is this uncertainty considered? Is not considering decay rates enough? Typically, scientific study has indicated that acceptable levels yesterday are too high today. — *238-143*
- Page 34, Long-term human health: Should changes to risks due to increased knowledge of the effects of exposures or the discovered increased risk from "combinations of contaminants" be included? — *238-144*
- Page 34, photo: Include the purpose of the pipes in the photo description. — *238-145*
- Page 40, Appendix E: What does "near-field flow" mean? — *238-146*
- Page 40, Appendix H: Change "assessment results" to "assessment model results". — *238-147*
- Page 47, cesium: Is it still the most electropositive element known? If so, say it. — *238-148*
- Page 47, collective dose: So if you were exposed to things from different sources, the information wouldn't specify the sum total of all exposures and the total dose wouldn't be described anywhere? — *238-149*
- **Page 47: Should there be a description for defense waste (and/or non-defense waste)? Are both types of waste at West Valley? Are they treated differently in procedure, processing or degree of processing based upon their origin, although they are the same contaminant? — *238-150*
- Page 48, hydrofracture: In western New York hydrofracturing is associated with development of oil and natural gas wells. — *238-151*
- Page 48: Should there be a description for non-defense waste (and/or defense waste)? (See comment** above.) — *238-150 cont'd*
- Page 48, permeability: Add "or gasses" after "The rate at which liquids . . ." Also, should this include contaminants that do not dissolve in water? — *238-152*

Book: *Chapter 1: Introduction and Purpose and Need for Agency Action*

- Page 1-1 to 1-2, last line on pg. 1-1: "The SDA received waste from offsite locations…" Was it the same type of waste? Commercial? Primary waste or waste generated by cleanup operations or both? — *238-153*

238-98 DOE and NYSERDA note the commentor's statement. A reference to 6 NYCRR 360 has been added to the definition of "solid waste."

238-99 DOE and NYSERDA note the commentor's statement. Chapter 8 is provided as an aid to help the reader understand the terms as they are used in this EIS.

238-100 DOE and NYSERDA note the commentor's statement. The definition for the "State Environmental Quality Review Act" in Chapter 8 has been revised to state, "A law promulgated by the State of New York, and prescribed by 6 New York Code of Rules and Regulations (NYCRR) Part 617 that requires that all state and local agencies determine whether the actions they directly undertake, fund or approve may have a significant impact on the environment and, if it is determined that the action may have a significant adverse impact, prepare or require the preparation an environmental impact statement," as indicated in 6 NYCRR 671.1(c).

238-101 Text has been added to Chapter 2, Section 2.3.2, of this EIS stating that, "Any radiological or hazardous chemical contamination that is known or assumed to be present is noted in each description of a WMA." Tables 2–1 and 2–2 and associated table notes provide an assumption for each WMA if radiological or hazardous contamination is present, as well as notes if a facility is subject to RCRA closure or Corrective Action regulation. In addition, a footnote has been added to Sections 2.4.1.1, 2.4.2.1, and 2.4.3.1 stating, "Decommissioning actions would be performed in accordance with applicable Part 373/RCRA requirements." A total inventory of chemical contaminants in kilograms is required for the impact analysis. Chemical concentrations are not used in the impact analysis and, therefore, are not included. Chapter 3 and Appendix C of this EIS further describe radiological and hazardous contamination, whether measured or assumed.

238-102 As used in the second paragraph of Appendix C, Section C.2.1, of this EIS, "removed to grade" is taken to mean the same thing as "removed to floor slab." The Contact-Size Reduction Facility will have been removed to its floor slab by the starting point of this EIS. This action does not require the prior issuance of the DOE Record of Decision and NYSERDA Findings Statement for this EIS.

238-103 Chapter 2, Section 2.3.1, of this EIS was revised to state that further drying of the tanks is not expected to be completed until approximately 2015, by which time the Interim End State for the tanks will have been achieved. Following completion of vitrification operations, the underground storage tanks were emptied to the maximum extent practical. As a result of tank flushing operations, most of the remaining contamination is solid or fixed. DOE is installing a tank and vault drying

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 1-10, footnote 1, 1st sentence: "SEQR specifies that the assessment of environmental impacts focuses on the growth-inducing aspects of a Proposed Action." SEQR does not focus on growth-inducing aspects of a proposal. ***238-154***
- Page 1-15, Section 1.6.11, last sentence: *What does "Quality Services" mean?* ***238-155***
- Page 1-16, Section 1.7.2, 4th sentence: "A formal public hearing was conducted in three meetings on August 6, 1996, in West Valley, New York, to receive oral comments." West Valley is an un-incorporated hamlet which is shown on some maps. The project is in the town of Ashford. ***238-122 cont'd***
- Page 1-18, 5th bullet: Relationship between DOE and NYSERDA. Why can't disagreements and responsibility be a topic for discussion, especially if disagreement causes delay and results in such things as the migration of the plume because there was a disagreement about responsibility? ***238-156***

Book: *Chapter 2*

- Page 2-1, Section 2.1 Introduction stated that "The Phased Decisionmaking Alternative (The Preferred Alternative), under which there would be an initial (Phase 1) 8-year period of removal actions for all facilities except.....and Construction and Demolition Debris Landfill." It should be pointed out that stormwater discharges from construction activity should follow requirements outlined in the most recent version of the "General Permit for Stormwater Discharges from Construction Activity." Current version of this General Permit No. is GP-0-08-001. This is also applied to Page 2-46, Section 2.4.3.2 New Construction and any other section related to this issue. ***238-157***

  Under this Section, it is further stated that "During a period of up to 30 years, DOE and NYSERDA would conduct a variety of activities intended to expand the information available to support later additional decommissioning decision making (Phase 2) for those facilities and areas not address in Phase 1." It is not clear whether within 30 years, the decommissioning for those facilities and area not addressed Phase 1 would be completed or not. If not, what is the proposed schedule for completion of decommissioning. Page 2-47, Figure 2-8 extends to a period of 70 years, but no activities shown beyond 30 years. ***238-158***
- Page 2-2, Section 2.1: HLW or HLRW - What about ½ lives of these substances? What is the relationship to transuranic wastes?

  1st paragraph: "Such term" - Shouldn't it be "such terms include"

  LLRW - Are the criteria for classification given somewhere in terms of ½ life, concentration or some other qualifier?

  Greater than class C - Is it possible to give concentration limits in this document? ***238-159***

system to solidify the moisture remaining in the tanks. The tank and vault drying operations are being conducted as part of achieving the interim end state, which is the authorized starting point for the analysis in this EIS.

DOE has not made a final decision on whether to transfer liquids from the Main Plant Process Building to WMA 3, but will communicate with NYSDEC as plans are developed. None of the options being considered by DOE would result in increases in the inventory of those radionuclides that dominate the long-term performance assessment results in this EIS.

238-104 Wording has been added to Appendix C, Section C.4.1, of this EIS to state that the design life of the dry cask storage system is 50 years. Any required replacement of the dry casks would be addressed as the need develops. Procedures that adhere to all applicable regulations would be developed before any replacement activities were initiated.

238-105 None of the excavated soil would be used as backfill. The wording in the cited paragraphs in Appendix C, Sections C.3.1.1.8 and C.3.1.1.9, of this EIS has been changed to eliminate mention of using this soil as backfill.

238-106 Appendix C, Section C.3.1.1.9, of this EIS has been revised to add a sentence at the end of the subject paragraph indicating that these actions would also address RCRA requirements, as applicable.

238-107 The language in Appendix C, Section C.3.1.8.1, of this EIS has been modified to reflect the language suggested by NYSDEC's comment. The first sentence in this section has been changed to, "Tanks T-1, T-2, T-3, and associated equipment in the Mixed Waste Storage Facility would be size-reduced and disposed of at an approved offsite landfill." The language in the rest of the section remains unchanged. A footnote has been added to Table 2–2 in Chapter 2 of this EIS to reflect that the unit will be closed under the RCRA Interim Status requirements.

238-108 DOE acknowledges this comment and is awaiting NYSDEC's review of the results of the North Plateau Groundwater Plume RCRA Characterization.

238-109 The descriptions of the alternatives presented in Chapter 2, Section 2.4, of this EIS, have been revised to state that monitoring would be performed during decommissioning and, for those alternatives where waste remains on site, would continue after decommissioning.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

C & D debris - Can it have greater than background levels of radioactivity? — ***238-159 cont'd***

- Page 2-3, Section 2.2, 1st paragraph: Does not tell where the "Waste Classifications" text box can be found. What page is it on? — ***238-160***

  2nd paragraph: Is the same type of radioactive material handled the same way even if part is from the Defense Department and the other part is non-defense material? Or are the two different types "chemically" mutually exclusive? — ***238-161***

- Page 2-3, Section 2.3: Direction & Distance from Buffalo - Straight line distance between the two is about 24.5 miles at their nearest points. Direction is south southwest.

  Cattaraugus Creek mouth is 23.3 miles southwest of Buffalo at its nearest point. — ***238-162***

- Page 2-5, Section 2.3, bullet: WMA 11 - add Scrap Material Landfill to bullet. — ***238-163***

- Page 2-7: Hydrofracture test well area part of WMA 11. Same for scrap material landfill and bulk storage warehouse. See title of fig 2-3. Add WMA 11 to labeling on figure for Hydro frac and warehouse as did for the landfill. — ***238-164***

- Page 2-11, 2nd bullet, 1st sentence: "An upgradient slurry/barrier wall will be installed and a geomembrane cover will be placed over the NDA as part of the NDA *groundwater* infiltration mitigation measures." The term "mitigation" is again used in a way that is not very descriptive. Much more meaning would be imparted if prevent or reduce were used. — ***238-165***

- 3rd bullet: "cesium-137 inventory" The inventory contaminates the absorbent media. How much liquid will be left as a percentage? Why won't the media absorb all the liquid? — ***238-166***

- Page 2-12, 1st bullet: What is the difference between a treatment wall and a reactive barrier? — ***238-167***

- Page 2-21, Section 2.3.2.3, 2nd paragraph: "Most of the residual contamination in this building is in the two HEPA filters, which could contain as much as 7.5 curies of cesium-137 and much smaller activities of other radionuclides." Activities?

  If defense waste was part of the reason for contamination of equipment does that mean the equipment is handled as defense waste? — ***238-168***

- Page 2-21, 7th paragraph: Is the Con-Ed Building, itself contaminated, or is the equipment contaminated or both? — ***238-169***

- Page 2-26, Section 2.3.2.9: Drum cell - contaminated or not? Why would anything be assumed? — ***238-170***

238-110 Additional text has been added to Appendix C, Section C.4.1, of this EIS to state that the design would be patterned after facilities that comply with 10 CFR 72, "Licensing requirements for the independent storage of spent nuclear fuel, high-level radioactive waste, and reactor-related greater than Class C waste." The text has been also revised to state that the facility would be designed to withstand natural and manmade events such as seismic activity or atmospheric phenomena.

238-111 Appendix E, Section E.4.2 (South Plateau), of this EIS has been revised to present the discussion of historical conditions in a separate subsection. Modeling does take into account the cap and slurry wall. The revised text clarifies this point. A decision about future modeling will be made by DOE and NYSERDA.

238-112 The erosion modeling does include consideration of storm events of the type that occurred in August 2009. Further refinement of the erosion model would require the collection of site-specific storm and erosion data over multiple years to capture the integrated effects of multiple specific storms of varying severity. A decision about future erosion studies will be made by DOE and NYSERDA.

238-113 The sentence is intended to point out that additional quantitative information does not exist in a form that would support the long-term erosion modeling required for this EIS.

238-114 The figure was intended to show the general, not the exact, location of erosion features. Further refinement of the erosion model would require collection of site-specific storm and erosion data over multiple years.

238-115 In the revision of Appendix F for the Final EIS, the sentence identified by the commentor was deleted. The revised text in Section F.3.1.2 acknowledges that small perturbations of initial conditions can lead to differences in simulated drainage pathways.

238-116 The purpose of Appendix J is to determine the radiological impacts from transporting radioactive wastes and the nonradiological impacts (traffic fatalities) of transporting all materials and wastes, including the transportation of hazardous waste. Impacts from the hazardous waste cargo that could occur in an accident if the cargo were released are not analyzed in Appendix J. Hazardous waste would not be shipped in sufficient quantities to warrant specific analysis of this scenario.

238-117 The text in Appendix L of this EIS has been revised to include this information.

238-118 The text in Appendix L of this EIS has been revised to include this information.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 2-27, Section 2.3.2.11: If the environmental assessment done previously is not included in this document then it should be stated where it can be found/obtained. *238-171*

  2nd paragraph: "This waste material was radiologically surveyed, decontaminated as necessary, and released for unrestricted use before it was buried in the trench." Released for unrestricted use? Please explain. Is there a reason that recycling of scrap metals such as aluminum cannot occur? *238-172*

- Page 2-27, Section 2.3.2.12, 1st paragraph: "…contaminated sediments resulting from regulated releases." So these releases were scheduled and planned? There needs to be a better explanation. *238-173*

  2nd paragraph: The North Reservoir has a pump house to regulate the water level? *238-174*

- Page 2-28, Section 2.3.2.13: North Plateau Groundwater Plume - The inability of the two agencies to reach agreement is the reason for the size of the plume. This should be stated explicitly. Somewhere in the document there should be a discussion of future contamination possibilities due to the inability of agencies to agree on something in the future. *238-175*

- Page 2-29, Section 2.3.2.14: "The cesium prong is the result of uncontrolled releases..."; What does that mean? Was it equipment failure, human error or what? *238-176*

- Page 2-29 Section 2.4, 1st bullet: "environmental media"? Not in the glossary. How do you decontaminate soils? *238-177*

  "This alternative would generate waste for which there is currently no offsite disposal location…." Generating waste implies more waste than before. Is the document trying to say, "*Under the sitewide removal option some waste could not be shipped since there is no place to ship it."?* *238-178*

  Last sentence: "bounding alternative" ?? Please rephrase. *238-179*

- Page 2-30, Text Box: Is there defense waste at West Valley? *238-180*

  General question; what is low level radioactive waste comprised of? And for other types? Or is there no good answer? *238-181*

  Text Boxes should be labeled in a format like figures. *238-182*

- Page 2-32, Section 2.4.1.1: "environmental media"; different words please. *238-183*

- Page 2-33, Section 2.4.1.1, 1st bullet: What is the waste that will be generated during the work? Equipment, soil, water, chemicals? *238-184*

238-119 Comment noted. Estimates of the 100-year floodplain are based on many years of meteorological data, including data on large storm events like that of August 2009. The estimate of the 100-year floodplain was not changed in response to this single event.

238-120 Comment noted. This EIS focuses on the floodplain as it might affect the central part of the site where the radioactive and hazardous materials are located. The floodplain analysis does not include the area of the reservoirs.

238-121 This regulation, 6 NYCRR Part 740, is included in Chapter 5 of this EIS, which is a discussion of applicable regulations.

238-122 West Valley is used correctly as the location of WNYNSC.

238-123 Appendix C, Section C.2.1, of this EIS provides more detail regarding the status of the facilities in WMA 1 at the starting point of this EIS. Except for the high-level radioactive waste canisters, no radioactive waste would be left in the Main Plant Process Building, or Vitrification Facility that would require special handling facilities. The bullet on page 9 of the Summary states that, for the high-level radioactive waste canisters, areas and systems that support their storage would remain in place. This would include any necessary emergency response systems that would be needed to manage the canisters. No change has been made to the Summary.

238-124 The permeable reactive barrier will not be installed and the description has been removed from this Final EIS. The permeable treatment wall is described in Appendix C, Section C.2.13.2, of this EIS. It is possible to remove the wall, and it would be removed under the Sitewide Removal Alternative. If a new technology that would be more effective at treating and managing the North Plateau Groundwater Plume becomes available, DOE would then consider whether the permeable treatment wall would need to be removed to allow use of the new technology. The permeable treatment wall cannot catastrophically fail because it is located in the ground. If the wall did crack, allowing untreated groundwater to flow through, DOE would conduct appropriate measures to ensure the plume continued being effectively managed and treated. No current facilities are required for management of the permeable treatment wall. No change has been made to the Summary.

238-125 The Glossary in the Summary has been revised to define the term "defense waste." The definition for transuranic waste found in the Summary text box describing

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 2-33, Section 2.4.1.1, 4th bullet: What will be done to "remediate" surface soil and sediment. Will the radioactivity be "removed" from the soil or will the contaminated soil/sediment be separated and removed for disposal at a different location? ***238-185***
- Page 2-33, Section 2.4.1.1, WMA 1, 1st paragraph: What part of the building is contaminated? Knowing that might then explain how it is decontaminated. ***238-186***

  2nd paragraph: What does "completely removed" mean? Everything taken from the site? ***238-187***

  3rd paragraph, last sentence: What about contaminated subsoil? If subsoil is contaminated does that mean they are leaving it? Why isn't "environmental media" which seems to mean anything that is not man-made used? ***238-188***

  WMA 2: 1st paragraph, Lagoons completely removed from the site? The contaminated materials can be removed and the excavations filled. ***238-189***

  WMA 4: What about contaminated subsoil? ***238-190***

  WMA 5: No mention of soil or subsoil. Why not say "all contaminated environmental media"? ***238-191***
- Page 2-35, Section 2.4.1.2, New Construction: Includes "A Leachate Treatment Facility to process contaminated leachate from the NDA and SDA." The SPDES modification application for the proposed discharge from the proposed leachate treatment facility should be submitted to the Region 9 - DEP office for processing. After this permit modification issued, the design engineering report and plans and specifications for the leachate treatment facility should be submitted to Bureau of Water Permits and Region 9 office for review and approval prior to construction. Also see Page 2-64, Section 2.8.2.2 and Appendix C, Page C-138 Leachate treatment facility. The applicant should be familiar with 6NYCRR Part 750, SPDES Permit and Technical and Guidance Series (TOGS) 1.2.1. Industrial Permit Writing in dealing with point source discharges to the water of the state. ***238-192***
- Page 2-38, Section 2.4.2.1, WMA 1: Large boulders may serve as an intrusion barrier, but won't do much for stopping erosion. The boulders may also help to concentrate surface water runoff to specific points (between the boulders) and actually increase the erosion potential. ***238-193***
- Page 2-39 Section 2.4.2.1, WMA 3, last sentence: Large boulders may serve as an intrusion barrier, but won't do much for stopping erosion. See comment above.
- Page 2-39, Section 2.4.2.1, WMA 12: There will have to be a downstream end of the excavating and riprapping. It is this nick point where erosion will start almost immediately. Do the plans identify maintenance of artificial stream channels as a cost? ***238-194***

waste types has been revised to state that transuranic waste may be considered defense or non-defense waste. Transuranic non-defense and defense wastes exhibit the same radiological characteristics, but are different in origin, as explained in Chapter 2, Section 2.3.1, of this EIS. Currently there is no disposition option available for transuranic non-defense waste; however, transuranic defense waste can be disposed of at the Waste Isolation Pilot Plant in New Mexico. A DOE defense determination would be required to determine whether the waste should be classified as defense or non-defense waste.

238-126 DOE and NYSERDA have engaged in settlement discussions, limited to issues of cost allocation, related to the December 18, 2006, legal action filed by NYSERDA.

238-127 The Glossary in the Summary has been revised to define the term "orphan waste" as "waste that cannot currently be disposed of in an established or planned permanent disposal facility because the path forward for treatment and disposal has not yet been defined. Non-defense transuranic waste, Greater-Than-Class C waste, and commercial Class B and Class C wastes are current examples of WNYNSC orphan waste."

238-128 DOE and NYSERDA have engaged in settlement discussions, limited to issues of cost allocation, related to the December 18, 2006, legal action filed by NYSERDA.

238-129 The impact of removing a multi-layered cap from the NDA was not analyzed in this EIS. However, this EIS does analyze removal of the existing geomembrane cover, leachate transfer line, and contents of the NDA as part of the Sitewide Removal Alternative. Refer to Chapter 4 for a discussion of the impacts related to this alternative. No change has been made to the Summary.

238-130 The timeframe for completing Phase 1 of the Phased Decisionmaking Alternative is defined in Chapter 2, Section 2.4. The Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 2-40, Section 2.4.2.2, Last bullet: How do you construct an erosion control structure around a creek? Poor wording; needs to be explained better. ***238-195***
- Page 2-43, Section 2.4.3.1, last bullet: Removal is determined by depth rather than radioactivity? Once you have opened a hole why not remove the contamination in the bottom of it? What happens if the material below 2 feet is really "hot"? ***238-196***
- Page 2-45, Last Paragraph - States, "The final decision on the Phase 2 decommissioning and long-term management approach would be made within 30 years of the date of issue of the Phase 1 ROD. As new information becomes available during Phase 1, DOE would conduct appropriate NEPA review." From this statement, it seems there is no ending date set for the completion of Phase 2 decommissioning. What would be the reasonable schedule for completion of decommissioning? ***238-197***
- Page 2-46, Section 2.4.3.3, Last paragraph: Is there space to store this "unanticipated" waste? ***238-198***
- Page 2-51, Section 2.6.1, Last sentence: "This approach was performed in such a way that did not bias the comparison of alternatives." Suggested change: <u>This approach was performed in order to attempt to remove bias from the comparison of alternatives.</u> ***238-199***
- Page 2-59, Section 2.6.2, last paragraph: What would be the exposure to everyone drinking public water taken from Lake Erie? If nothing else at least there should be a statement that dilution would be such that there would be nothing measurable above background levels. This may have been addressed later in the document. ***238-200***
- Page 2-62, Section 2.8.1.4, 1st paragraph: "Atlantic Compact" should be explained. ***238-201***

Book: *Chapter 3*

- Page 3-6, Section 3.1.1, 2nd full paragraph: What is an "acreage lot"? Do they mean a small parcel separated from a large parcel to construct a single family residence? ***238-202***
- Page 3-12, Section 3.3.1.1, First paragraph: Elevations are discussed without reference to a datum which is a standard notation. Ex. International Great Lakes Datum (IGLD) 1985 ***238-203***
- Figure 3-7: The figure shows orientation of the cross section as west to east. The orientation should be the same as Figure 3-6. The cross section is shown as extending beyond Buttermilk Creek on Figure 3-8 while the cross section itself stops at the creek. This discrepancy should be resolved. ***238-204***
- Figure 3-9: It would be better if the horizontal scales of the cross sections were the same, making it easier to compare. ***238-205***

and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected. A change has been made to the Summary to reflect this new Phase 1 timeframe.

238-131 The elevated employment levels projected for the Sitewide Removal Alternative would be similar to those for the other two decommissioning alternatives, but would last for a far longer period of time (i.e., 60 years as opposed to 7 to 8 years). Thus, the product of the average employment level with the number of employment years would be largest under the Sitewide Removal Alternative. This paragraph was edited in the Summary for this Final EIS.

238-132 The primary purpose of this EIS is to provide sufficient information and analysis to enable decisionmakers to choose an appropriate alternative for decommissioning. Should the Sitewide Removal Alternative be chosen for implementation, specific decommissioning requirements such as allowable contamination levels would be determined for that alternative by the appropriate regulatory agencies.

238-133 Under the Sitewide Removal Alternative, WNYNSC would be decontaminated to the point that the site could be unconditionally released. If the property could be unconditionally released, then it is a reasonable assumption for this EIS to assume there would be no need for post-decommissioning monitoring and maintenance activities.

238-134 Based on the estimates of site employment under the alternatives, as well as currently available information about employment in Erie and Cattaraugus Counties, there would be no projected impact on the economies of the local and regional areas surrounding WNYNSC. The peak employment level under any of the alternatives is 350 persons, which is only about 0.07 percent of the current employment level in the region of interest.

238-135 The list in the indicated paragraph refers to the different types of waste that are projected to be generated under the Sitewide Removal Alternative. The term "orphan waste" does not refer to a different type of waste, but to the lack of a disposal path for some wastes. The terms "defense" and "non-defense" are used in the context of transuranic waste. These terms don't signify different types of transuranic wastes, but instead pertain to whether transuranic waste may be legally determined to be eligible for disposal in the Waste Isolation Pilot Plant. Such a determination has not yet been made for the transuranic wastes projected to be generated under some of the alternatives considered in this EIS. As a result, and because disposal capacity may be available in the future for wastes that currently

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 3-21, Section 3.3.1.1: Kent Recessional Sequence - "The basal lacustrine sediments were deposited in glacial lakes that formed as glaciers ~~that~~ blocked the northward drainage of streams." — ***238-206***

  Sand and gravel was later deposited ~~from deltas formed~~ where streams entered the glacial lakes *forming deltas* and along the floodplains of streams that formed during ice-free episodes — ***238-207***

- Page 3-28, Section 3.3.1.3: There are three types of mineral resources; sand and gravel come from the glaciers, oil mostly from the upper Devonian and gas mostly from the lower Silurian period. — ***238-208***

  Mineral district has no meaning in New York State. It is a western term. If the document is trying to identify the location of the resource, it would be more appropriate to use county names. — ***238-209***

- Page 3-29, Section 3.3.1: Soil contamination – Give an explanation of an operational incident. Is it limited to human errors? — ***238-210***

  2nd paragraph: The primary constituents ~~areas~~ of radiologically contaminated soil are cesium-137 ~~contamination~~ associated with the Cesium Prong area; soils affected by the North Plateau strontium-90 groundwater plume; and radiologically contaminated soil associated with Lagoons 1 through 5 and the Solvent Dike (WMA 2). This needs work. The primary areas (which are locations) can't be a chemical. — ***238-211***

- Page 3-30, 1st paragraph: "The low level chemical detections are consistent with ~~anthropogenic~~ human activity and the industrial nature of the site." — ***238-212***

- Page 3-30, last paragraph: "Metals concentrations in RCRA facility investigation soil samples from these facility areas slightly exceed background or Technical and Administrative Guidance Memorandum 4046 criteria." Slightly? By what amount? — ***238-213***

- Page 3-31: Cesium Prong - "Uncontrolled airborne releases from the Main Plant Process Building ventilation system filters in 1968 released contaminated material through a 60-meter (200-foot) high plant stack" How many releases were there? Why did the releases happen? Mechanical failure? Human failure? — ***238-214***

- Page 3-36, 2nd paragraph: the slump blocks are shown in figure 3-16 not 3-15 (two places in paragraph) — ***238-215***

- Page 3-48, Figure 3-18 The delineation of a state wetland is typically valid for three years. Part of the process of issuing any NYS Wetland Permits would be verification of the wetland boundary. The document refers to the wetland as a Class IV. DEC never officially determined the classification of the wetland. — ***238-216***

lack it, DOE believes that inclusion of the suggested matrix could be confusing to many readers.

238-136 The Sitewide Close-In-Place Alternative is projected to generate the smallest quantity of waste among the three decommissioning alternatives. The word "lowest" rather than "third largest" was used for this Final EIS.

238-137 All wastes would be disposed of in accordance with current waste acceptance criteria and appropriate permits or licenses. Disposal site waste acceptance criteria and permit or license requirements would be consistent with and derived from the statutory requirements and regulations applicable to the disposal site at the time of disposal.

238-138 The reference is to later than 10,000 years in the future. There would be some impacts beyond peak annual dose. The times that peak annual doses may occur in the future were assessed and are presented as part of the analysis discussed in detail in Chapter 4, Section 4.1.10, of this EIS.

238-139 The potential long-term impacts to Lake Erie and Niagara River water users were addressed in Chapter 4, Section 4.1.10, of this EIS, assuming scenarios where institutional controls are assumed to continue and where institutional controls are assumed to be lost after 100 years. An unmitigated erosion scenario was also considered. These impacts are summarized in the revised Table 3 in the Summary for this Final EIS.

238-140 "Orphan waste" is defined in the Summary Glossary.

238-141 The Sitewide Removal Alternative transfers significant amounts of waste and contamination from WNYNSC to other disposal sites in other states. The long-term impacts associated with these disposal facilities are not assessed in this EIS. As a result, and because the locations for disposal of all waste are not known at this time, it would be premature to state that the Sitewide Close-In-Place Alternative, where a significant amount of waste and contamination is retained at WNYNSC, ultimately would have the most risk of contaminating and affecting the most land/water and people.

238-142 "Source term" is defined in the Glossary in the Summary. The second indicated sentence was edited for the Summary for this Final EIS.

238-143 Future research may change the current understanding of the risks associated with radiation exposure and of radiation protection requirements and practices.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 3-49, Section 3.6.1, 2nd paragraph, 2nd to last sentence, "~~Other than~~ *In addition to* the two water supply reservoirs and wastewater treatment lagoons in WMA 2, several small ponds are located across the WNYNSC including former borrow pits (Northern Borrow Pits) located in the northeast corner of the Project Premises (WVNS 2004a, WVNS and URS 2005)." *238-217*

- Page 3-54, 2nd full paragraph: What are the implications for the general public at the first point accessible given the radiation levels? *238-218*

  Page 3-54, 3rd full paragraph: No mention is made of testing for radioactivity? *238-219*

- Page 3-54, Section 3.6.1.2, 1st paragraph: Several of the discharged radionuclides, particularly cobalt-60, strontium-90, cesium-134, and cesium-137, have an affinity to become chemically ~~sorbed~~ attached to silt and accumulate in the streambeds. *238-220*

  The writer should acknowledge that over time all of the contaminated sediments will leave the site and end up in Cattaraugus Creek and Lake Erie. There have been discussions regarding the removal of the Springville Dam which would then allow a more continuous movement of sediment down the creek. At issue is the sediment behind the dam. *238-221*

  What does the contamination level of the sediment behind the dam mean? Does the sediment have to be removed to a disposal location or does current regulation allow it to stay in place? Is DOE responsible for removing the sediment? *238-222*

- Page 3-58, 2nd paragraph: How often is the groundwater pumped to maintain the elevation? If the French drain discharge was plugged what is happening to groundwater elevation and flow? *238-223*

- Page 3-60, 1st paragraph: Please explain the different types of "biointrusions". *238-224*

- Page 3-60, 2nd paragraph: "Models for the South Plateau developed by Prudic (Prudic 1986) and by Bergeron (Bergeron and Bugliosi 1988) support only moderate lateral movement through the weathered till until flow become directed downward into the unweathered Lavery till." "flow becomes" or "flows become" *238-225*

- Page 3-60, 2nd paragraph: "Using these models as a starting point, Kool and Wu (Kool and Wu 1991) examined how ~~changes in the hydraulic conductivity, vertical~~ anisotropy ~~and horizontal anisotropy~~ in the hydraulic conductivity can impact flow through the weathered Lavery till." Anisotropy, different values along different axes; in this case the vertical and horizontal axes. A hard word to use. Suggested change, "Using these models as a starting point, Kool and Wu (Kool and Wu 1991) examined how anisotropic characteristics in hydraulic conductivity impacted flow through the weathered Lavery till." Are they also trying to say that hydraulic conductivity was not constant on any particular axis? The use of the word anisotropism tends to indicate there is one value on a specific axis. If this is not the case the word should be removed and others used. *238-226*

However, there is no scientific basis to presume that any such changes would result in either increased or reduced risks. Therefore, it is speculative to include the issue in the discussion of incomplete or unavailable information.

238-144 As discussed in the response to Comment no. 238-147, DOE believes that there is no scientific basis to presume that future research may result in either increased or reduced risks associated with radiation exposure. Regarding combination of contaminants, note that the analysis of long-term impacts in Chapter 4, Section 4.1.10, of this EIS indicates that projected long-term risks are dominated by the radioactive rather than the chemical composition of the waste and contamination at WNYNSC. Therefore, it is unlikely that the risks that might be associated with a combination of contaminants would alter the conclusions of the current analysis. For this reason, and because of the speculative nature of the issue, it was not included in the list of major elements of incomplete or unavailable information.

238-145 The "pipes" in the photo are steel bollards that protect a monitoring station and culvert from debris that may be washed down the Creek. No change has been made to the photo caption.

238-146 "Near-field flow" refers to the flow of groundwater in the vicinity of the source of contamination being considered.

238-147 The phrase "performance assessment results" is common terminology for long-term analyses of waste management sites and has been retained.

238-148 The definition of cesium is believed sufficient as written. The intent is to provide the average reader with an understanding of the subject without describing it in great detail. Please note that this is a Summary and, as such, contains summary-level information, including the definitions in the Glossary. This EIS contains more detail for all subjects included in the Summary, including the Glossary.

238-149 As indicated in the Glossary in the Summary, a collective dose is the sum of individual doses received in a given period of time by a specified population from exposure to a specified source of radiation. The analysis in this EIS addresses collective doses to workers and populations resulting from implementing each of the alternatives considered (e.g., see Chapter 4, Sections 4.1.9, 4.1.10, and 4.1.12). This EIS also addresses cumulative radiation doses—doses that persons could receive in the region from other significant radiation sources than background radiation (see Section 4.5.13). These additional possible radiation sources are believed to be minimal.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 3-61, Bedrock Unit: "Wells completing in this zone yield 40 to 60 liters per minute (10.6 to 15.9 gallons per minute) and corresponds to the regional bedrock aquifer." What does "completing" mean? Do they mean wells drawing water from the weathered bedrock? *238-227*
- Page 3-63, North Plateau Groundwater Contamination, Figure 3-22: There should be a date on the figure. *238-228*

  Have they gone back and checked to see if the figure was accurate based upon later investigations? *238-229*
- Page 3-64, figure 3-23: the separate panels should have the elevations reversed. It would be easier to read. *238-230*
- Page 3-65: What justification was there for reducing the frequency of monitoring? *238-231*
- Page 3-66, 1st sentence: "In November 1995, a groundwater recovery system was installed to mitigate the movement of strontium-90 contamination in groundwater in the western lobe of the plume and reduce groundwater seepage northeast of the Main Plant Process Building." *238-232*

  As previously noted, the reader believes the use of the word mitigate in this context should be changed to more explicit. Reduce the expansion or stop the expansion is the way to describe if that is what is being done.
- Page 3-68, last paragraph: "A trench system was previously constructed along the northeast and northwest sides of the NDA to collect groundwater that *was* potentially contaminated with a mixture of n-dodecane and tributyl phosphate." *238-233*
- Page 3-69, 1st paragraph: "Gross beta and tritium concentrations in samples from location WNNDATR, a sump at the lowest point of the interceptor trench, and from downgradient well 909 screened in the Lavery till continued to be elevated with respect to background monitoring locations on the South Plateau." Is the well "screened" to the entire till unit or does it only provide access to a small portion of the till unit? *238-234*
- Page 3-70, Section 3.7.1, 2nd paragraph: The difference in elevation between Lake Erie and WNYNSC is not 1,310 feet. Lake Erie's Mean High Water Level is 573.4 IGLD 1985 datum. WNYNSC is at 1,400 feet (the document does not use a datum reference which is a flaw) according to the document. Even allowing for the use of different datums the elevation difference stated is wrong by approximately 483 feet. The correct difference is 827 feet +/-. *238-235*
- Page 3-74, 2nd paragraph: "The following emissions sources are monitored on a continuous basis for radionuclides: the Main Plant Process Building ventilation stack; the former vitrification heating; ventilation and air conditioning system; the 01-14 building *238-236*

238-150 A definition of "defense waste" was added to the Glossary in the Summary. In addition, the Waste Types text box in the Summary and the Waste Classifications text box in Chapter 2 of this EIS were edited to note that transuranic waste may be considered defense or non-defense waste depending on the origins of the waste. An explanation of defense vs. non-defense waste is provided in footnote 1 of Chapter 2, Section 2.3.1.

238-151 DOE and NYSERDA note the comment. The use of the word "hydrofracture" appears only as a proper name and is not intended to connote specific activities relevant to this EIS. Therefore, the definition has been deleted from the Glossary.

238-152 The term "or gasses" was added to the definition of "permeability" in the Glossary in the Summary and in Chapter 8 of this Final EIS. The question of nondissolving contaminants does not appear to be directly germane to the definition and was not included.

238-153 As described in Appendix C, Section C.2.8, of this EIS, from 1963 to 1975, offsite wastes were received for burial in the SDA from special purpose reactors, commercial power reactors, nuclear fuel cycle facilities, institutions, isotope production, and industries.

238-154 The text has been changed from "focus on" to "to include," consistent with the commentor's suggested language in Comment no. 238-26.

238-155 The term "Quality Services" has been deleted from the sentence because it was not necessary for understanding the discussion.

238-156 DOE began the Core Team process in November 2006 with the agencies involved in preparation of this EIS to work toward resolution of technical issues that were impeding progress of the document. NYSERDA agreed to join this process in March 2007. Since that time, DOE and NYSERDA have worked cooperatively to advance the NEPA process for WNYNSC. In parallel, DOE and NYSERDA have engaged in settlement discussions, limited to issues of cost allocation, related to the December 18, 2006, legal action filed by NYSERDA.

238-157 Chapter 5, Section 5.5, of this EIS states that construction activities impacting 0.4 hectare (1 acre) or more require an State Pollutant Discharge Elimination System construction permit. No further clarification in this EIS is required.

238-158 The specific activities for Phase 2 decommissioning actions are not known; therefore a schedule for Phase 2 cannot be developed and shown in Chapter 2,

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

ventilation stack; the supernatant treatment system ventilation stack; and the Remote-Handled Waste Facility (WVNS and URS 2007)." "the former vitrification heating;" What is that supposed to mean? Should the semi-colon at the end be taken out? — *238-236 cont'd*

- Page 3-76, Section 3.8.2, 3rd full paragraph: "The state also regulates work within a 30.5-meter (100-foot) ~~buffer zone~~ adjacent area around designated freshwater wetlands." — *238-237*
- Page 3-91, Maximum Dose: What criteria were used for the max dose to an offsite individual? Is the person presumed to be at their location 24 hours per day or did going to work get included in the calculation? If so what about a "stay at home"? Is there a potential for bio-accumulation? If so was it taken into account? — *238-238*
- Page 3-91, Waterborne Releases: Where would the person be who received the max dose? Was bio-accumulation taken into account? Why are these water releases allowed? Is there a way to treat the water and reduce the rates? Seems like a lot of radiation to release over another 30 years. And what about all that has been released already. — *238-239*
- Page 3-92: "**Figures 3–30** and **3–31** show the calculated annual dose to the hypothetical maximally exposed individual and the collective dose to the population respectively over the last 10 years. The overall radioactivity represented by these data confirms the continued inconsequential addition to the natural background radiation dose that the individuals and population around the WNYNSC receive from site activities."

  "inconsequential" is a very subjective word. Find other words that say at the present time we don't think there is any impact. — *238-240*
- Page 3-94, 4th paragraph: "This is the only underground petroleum storage tank currently in use at the site." Are there any tanks not currently in use? — *238-241*
- Page 3-95, Section 3.11.4, 2nd paragraph: Average doses are just numbers. When you start averaging in zeros it quickly starts to hide the high doses. What were the highest doses? Report the top 10% of doses. Is there a graph somewhere showing the doses, a histogram or something?

  What does "contractor's daily limit of 100 millirem" mean? Is that for one person or everyone that works for a contractor? — *238-242*
- Page 3-96, Section 3.11.5.1: Over what period of time is it believed that the release of radioactive nitric acid spill occurred? — *238-243*
- Page 3-103, Section 3.12, Environmental Justice: Why is Canada discussed in this section? Is there a federal requirement? Or NY State requirement? — *238-244*
- Page 3-110, Remote Handled Waste Facility: It is to be dismantled in 2011. So in two to three years there will no longer be a need for it? — *238-245*

Page **12** of **31**

Figure 2–8, of this EIS. Note that the description of the Phased Decisionmaking Alternative has been revised. The facilities not addressed in the Phase 1 description would not be decommissioned until a Phase 2 decision is made; a Phase 2 decision would be made as soon as practicable during Phase 1.

238-159 The half-lives of the particular mixtures of high-level radioactive waste is not known. The heat load and radiation level outside the high-level radioactive waste canisters are known and would be accounted for in the design of the Interim Storage Facility (as presented in Appendix C, Section C.4.1, of this EIS). The difference between high-level waste and transuranic waste is defined in the Chapter 2 text box titled, "Waste Classifications Used in this EIS."

The text has been revised to state, "This waste includes…"

In general, low-level radioactive waste is classified by what it is not. As stated in the definition, the different classes of low-level radioactive waste are defined in 10 CFR 61.55. The classification of this waste is based on curie concentrations of certain radionuclides and other factors.

The criteria for determining whether or not a waste is Greater-Than-Class C are found in 10 CFR 61.55. In general, there are no upper-level concentration limits for Greater-Than-Class C waste.

Construction and demolition debris are assumed to have no greater than background levels of radioactivity.

238-160 The text was modified to refer to the text box in Chapter 2, Section 2.2, of this EIS.

238-161 In general, the same type of radioactive material is managed the same way prior to disposal, regardless of origin. The different waste types are defined in Chapter 2, Section 2.1, of this EIS and again in the Glossary. Transuranic waste is waste (regardless of who generated it or how it was generated) that is not classified as high-level radioactive waste and contains more than 100 nanocuries per gram of alpha-emitting transuranic isotopes with half lives greater than 20 years. Transuranic waste that is generated by defense-related activities can be disposed of at the Waste Isolation Pilot Plant, as discussed in the footnote in Section 2.3.1, but transuranic waste generated from non-defense-related activities currently has no disposal option.

238-162 The distance and direction are approximate and are measured from downtown Buffalo, New York.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 3-111, Section 3.13.2: "The emphasis on good business practices, source reduction, and recycling minimizes the generation of low-level radioactive waste, mixed low-level radioactive waste, hazardous waste, industrial wastes, and sanitary wastes, such as paper, wood, and scrap metal."

  Sanitary waste is not paper, wood or scrap metal. Sanitary waste would be more accurately described as municipal solid waste or putrescible waste.

238-246

Book: *Chapter 4*

- 4-1, "Impacts of less significance": Geology and soils should be listed in the section of great significance.

238-247

- Page 4-4, Table 4-1, Land Disturbance: Even if the Close-in-Place alternative were chosen, the Cesium prong and the groundwater plume should not be allowed to expand, or leave the site through surface runoff, erosion and/or groundwater movement.

238-248

- Page 4-15, 4.1.2.2, 5th paragraph: "Almost all of the waste shipments and construction material deliveries for this alternative would occur over the first 7 years of the implementation period when most decommissioning would take place, and reflect the need for large quantities of soil, sand, gravel, and other materials for NDA and SDA stabilization." The context of the part of the sentence that "other materials" is used in, would lead one to think that other materials is a natural product. Other materials could mean a lot of things. It could be anything from heavy boulders to straw, to silt fencing, to tire chips to slag from a steel plant. Please clarify.

238-249

- Page 4-19, 4.1.3.1: "The greatest requirements are for soil, concrete, clay, ~~and~~ sand and gravel."

238-250

- Page 4-22, 3rd paragraph: "The impacts of fuel, oil, or lubricant spills could be ~~mitigated~~ minimized by keeping the equipment in good repair and conducting maintenance operations in areas designed for such operations."

238-251

- Page 4-23, 2nd paragraph: This paragraph says "Area excavations would be backfilled with clean soils and graded to restore the area to a natural appearance that approximates natural conditions for the site. Over the long term, implementation of the Sitewide Close-In-Place Alternative would have a positive impact on groundwater quality." It is however in 4.1.4.1 Sitewide Removal Alternative

238-252

- Page 4-23, 4.1.4.2, 3rd paragraph: **"Surface Water Flow and Quality** - The impacts of fuel, oil, or lubricant spills would be ~~mitigated~~ minimized by keeping the equipment in good repair and conducting maintenance operations in areas designed for such operations."

238-253

238-163 While the Scrap Material Landfill is located in WMA 11, the name of WMA 11 is Bulk Storage Warehouse and Hydrofracture Test Well Area.

238-164 The labeling was not added to the Hydrofracture Test Well Area or Bulk Storage Warehouse to try to differentiate them from the Scrap Material Landfill because they are not in the scope of this EIS.

238-165 The measures are not restricted to groundwater. The cap is related to surface water. In this case, the term "mitigation" is part of a name for certain actions.

238-166 The third bullet was revised. The phrase indicating that liquids would be sent to Tank 8D-2 and evaporated was deleted and replaced with a description that the treated liquid would be solidified and shipped off site for disposal. To clarify the process, the liquid from Tank 8D-4 is to be run through a medium that is designed to adsorb the cesium from the liquid. The amount of cesium in the liquid after treatment is determined by the equilibrium cesium distribution between the zeolite adsorbent and the contacting liquid. Although most of the cesium would be removed, the treated liquid would still be contaminated and therefore would be solidified and sent off site for disposal.

238-167 The reactive barrier will not be installed and has been removed from the text throughout this EIS.

238-168 The term "activity" describes the decay rate of a radionuclide and is measured in curies.

Yes, equipment contaminated by defense waste would be handled as defense waste.

238-169 The sentence says the majority of the radiological inventory is in the piping and equipment; therefore, some inventory is on the building itself.

238-170 As stated in the text, from reviewing the operational history of the Drum Cell, there is no reason to think that it is contaminated. Therefore, waste generated from its decommissioning would not be expected to be contaminated.

Final characterization of the Drum Cell for waste disposal has yet to be conducted. If there is some minor surface contamination, it might be removed prior to disposal so that the demolition debris can be disposed of as construction and demolition debris.

238-171 The environmental assessment is listed as a reference in Chapter 7 of this EIS. The references are all publicly available.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 4-24, 2nd paragraph: "The Hazard Index for releases from other facilities was at least two orders of magnitude lower (see Appendix H, Table H–32, of this EIS). This analysis suggests that there would be no serious long-term impact to Cattaraugus Creek water quality under the Sitewide Close-In-Place Alternative." But the releases would be two orders of magnitude greater. Doesn't that mean that something is wrong here? *238-254*

- Page 4-24, 4.1.4.3, 2nd paragraph: **"Surface Water Flow and Quality** - The impacts of fuel, oil, or lubricant spills would be ~~mitigated~~ minimized by keeping the equipment in good repair and conducting maintenance operations in areas designed for such operations." *238-255*

- Page 4-32, 4.1.5.3, 2nd paragraph: "EPA guidelines identify a 24-hour exposure level of 70 decibels or lower as the level of environmental noise that will prevent any measurable hearing loss over a lifetime. Likewise, levels of 55 decibels outdoors and 45 decibels indoors (or lower) are identified as preventing activity interference and annoyance." *238-256*

- Page 4-33, 2nd paragraph: "During Phase 2, similar heavy diesel construction equipment operation would be expected. The duration of these activities would be expected to be ~~bounded by~~ the same duration as ~~of~~ the Sitewide Removal Alternative." *238-257*

- Page 4-33, 3rd paragraph: "This noise would be barely audible above background sound levels in the area. Noise from this activity and other construction-type activities would occur during daytime hours and would not be a source of annoyance to nearby residents." It cannot be stated "what will be an annoyance". It could be said that the impact will be minimal, but the writers have no way of knowing what will be an annoyance. Someone could be working nights, sleeping during the day, have their windows open and find even minimal noise very annoying. *238-258*

- Page 4-34, Table 4-9: The table states that there will be, "No impacts to Federal or State-listed endangered, threatened, or candidate species."

  This statement is made without caveat for Site-wide Removal Alternative, Site Wide Close-in-Place Alternative or Phased Decision-making Alternative Phase 1 and Phase 2. A categorical statement such as this cannot be made. It implies something of which no one can be certain because it can not be proven. For example, the Northern Harrier, Circus cyaneus is a NYS threatened species that has been recorded in the area. All that can be said is that every effort will be made to avoid any significant impacts to those species. *238-259*

  The 2008 NYS Breeding Bird Atlas has surveyed this area. The project site falls within Block 1970A and a list of species for the site is provided (see attachment). Of a total of 87 species, there are 29 species which are recorded as Possible Breeding, 16 Probable Breeding, and 42 Confirmed Breeding.

  There will be inevitable disturbance to bird species that will occur through complete removal of the forest trees, and shrub layer. The primary way to minimize this damage,

238-172 The waste material was released for either burial as sanitary waste or construction and demolition debris, or for resale. The waste was eventually buried in the scrap material landfill. The recycling of waste materials would occur based on DOE procedures and practices, but for the purpose of analysis for this EIS, it is assumed waste materials are not recycled.

238-173 Regulated releases are those releases that occurred under a regulatory permit. The term has been replaced with "permitted."

238-174 As stated, "It has a control structure and pumphouse to regulate the water level."

238-175 This EIS was prepared to evaluate the environmental impacts of alternatives for the decommissioning and/or long-term stewardship of WNYNSC, including the North Plateau Groundwater Plume and its source. The history and current monitoring of the North Plateau Groundwater Plume are addressed in Chapter 3, Section 3.6.2.1, of this EIS. Under the Sitewide Removal and Phased Decisionmaking Alternatives, DOE would remove the source of the plume. Under any of the action alternatives, DOE would take actions to remove or mitigate the impacts of the plume. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement if the Phased Decisionmaking Alternative is selected.

238-176 Incidents of uncontrolled airborne releases are discussed in more detail in Chapter 3, Section 3.11.5.1, of this EIS. The specific incident cited occurred when a high-efficiency particulate air filter in the main ventilation system failed and part of the filter media was drawn into the blower, cut into pieces, and discharged out through the main stack.

238-177 Chapter 2, Section 2.4, of this EIS has been revised to state that, under the Sitewide Removal Alternative, contaminated soil, sediment, and water would be removed.

238-178 This sentence refers to waste disposed of in the NDA and SDA. If it is dug up, it is being "generated" because now it has to be actively managed. The sentence is correct as is.

238-179 The Sitewide Removal Alternative causes impacts that reflect removal of all contamination and waste from the site such that the whole site can be released for unrestricted use. The last sentence was revised to indicate that the Sitewide Removal Alternative represents one end of the spectrum of alternatives evaluated in this EIS.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

especially to nesting and breeding resident birds, is to conduct the removal activities beginning no earlier than August 1. Most birds breed throughout May and June, and late-nesters and fledglings require undisturbed habitat throughout July. It is probable that August clearing activities will cause the least impact to resident species.

238-259 cont'd

- However, migration begins in August, and from August through October, birds will be using the forest as a migratory stopover site. There will be no one season where the habitat is unused by wildlife, especially birds. However, in order to minimize the damage caused by clearing activities work should begin no sooner than August 1, and should be completed, or halted by March 15, when spring migrants return to breed.

- Page 4-34, 1st paragraph, Terrestrial Resources: "Wildlife in adjacent habitat could be disturbed by noise and increased human presence, which could cause some animals to temporarily move from the area, while others ~~would adapt~~ are more tolerant of human activities. Proper maintenance of equipment and restricting workers to the work zone would help ~~mitigate~~ minimize this impact."

238-260

- Page 4-35, 1st paragraph: What is the depth of topsoil currently in the Cesium Prong? How much contaminated soil will be removed? Will there still be enough top soil to allow vegetation to grow?

238-261

- Page 4-35, 1st full paragraph: "Prior to land-clearing operations, the areas to be disturbed would be surveyed for nests of migratory birds in accordance with the Migratory Bird Treaty Act. It might be necessary to undertake clearing operations prior to or after the breeding season to mitigate impacts to migratory birds."

  (This is essentially what we have just explained in the above commentary). Specific dates are necessary, which we have provided in previous comments, but this period of non-disturbance should be March 15-August 1. It is incumbent that specific breeding bird surveys be done by a qualified consultant in order that all known listed species are detected, and a list of all breeding birds is produced. Additionally, bird species using this area as stopover habitat during migration should be listed. Due to the Breeding Bird Atlas, we are aware of what species of birds can be expected, but a current survey should be provided by the applicant.

238-259 cont'd

- Page 4-35, 2nd paragraph: "Impacts of clearing operations associated with the remediation of the undisturbed portion of the Cesium Prong would include the loss of less mobile species (e.g., mice, rabbits, snakes, and squirrels), as well as displacement of other more mobile species (e.g., birds and large mammals)." The statement identifies the loss of less mobile species. This is a very conservative statement. Some of those populations may be reduced, but it is unlikely that they will be eliminated.

238-262

- Page 4-35, 2nd paragraph: "It might be necessary to undertake clearing operations prior to or after the breeding season to minimize ~~mitigate~~ impacts to migratory birds. Indirect impacts to wildlife from increased presence of humans and noise could also disturb animals in adjacent habitat. Upon restoration of the site, it would once again be available

238-263

238-180 A determination has yet to be made on whether or not transuranic waste at WNYNSC is defense waste.

238-181 Low-level radioactive waste can be any solid or liquid that has a level of radioactivity as defined by regulations. This waste can be in the form of wastewater, personal protective equipment, process equipment, soils and sediments, demolition debris, and many others.

238-182 Text boxes are typically given a title at the top of the text box and are not numerically ordered like tables or figures.

238-183 The term was replaced with "soils and sediments."

238-184 Equipment, soil, water and chemicals are some examples of wastes generated during the work.

238-185 The term "remediated" was replaced with "removed for offsite disposal."

238-186 Additional information regarding the contamination of the buildings in WMA 1 can be found in Appendix C of this EIS.

238-187 The facilities and foundations would be dismantled with all material shipped off site for disposal. The sentence is correct as is.

238-188 Chapter 2, Section 2.4.1.1, WMA 1, 3rd paragraph, states that subsurface soil would be removed as necessary to meet Derived Concentration Guideline Levels. There is no differentiation between subsurface soil and "subsoil." The term "environmental media" was replaced in Chapter 2 by more specific terms or deleted, as appropriate.

238-189 Details on how the lagoons would be removed are provided in Appendix C of this EIS.

238-190 All contaminated soils not meeting Derived Concentration Guideline Levels would be removed. There is no differentiation between soils and subsoils.

238-191 Chapter 2, Section 2.4.1.1, of this EIS was revised to state that contaminated soil, sediment, and groundwater in the area would be removed until Derived Concentration Guideline Levels supporting unrestricted release have been met.

238-192 The procedure for obtaining approval for discharges from the leachate treatment facility is acknowledged, but these details are not necessary for an EIS.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

to wildlife." The habitat would be changed by the clearing operations so that there would likely be different species with different population sizes. Open fields would not be suitable habitat for squirrels or nesting habitat for most non-ground nesting small birds. Birds such as the Henslow Sparrow and the Short Eared Owl may find it to be suitable nesting habitat where it was not before.

238-263 cont'd

- Page 4-36, 2nd paragraph: "~~Mitigation, including~~ Aappropriate erosion controls, would be installed and best management practices would be implemented to minimize soil erosion and sedimentation. As with the dams and reservoirs, specific requirements for fish management would be developed as part of the approval process prior to any actions taking place."

238-264

- Page 4-36, 4.1.6.1, Threatened and Endangered Species: No Federal or State threatened, endangered, or candidate species have been found to reside on the WNYNSC Site (see Chapter 3, Section 3.8.4) thus, there would be no impact to any listed species from the Sitewide Removal Alternative."

  How often has the site been surveyed and when was the last time the site was surveyed? This survey should be provided so that DEC biologists can examine it. Once again, it is somewhat false to state that because no listed species were seen during surveys that they are not present. Cooper's Hawk and Sharp-shinned Hawks are fairly regular denizens of wooded areas, and are both listed as state species of special concern. Northern Harriers have been recorded by the Breeding Bird Atlas as occurring in this block of habitat, and they are threatened. The best that can be said is that impact to all species will be minimized by judicious choice of the period when clearing will occur.

238-265

- Page 4-39, 1st paragraph: "On the basis of this screening analysis, it is concluded that long-term releases from the Sitewide Close-In-Place Alternative (assuming no unmitigated erosion) would not result in long-term ecological consequences." Prepositional phrases don't belong at the start of sentences. Same comment about the use of the term mitigation.

  It has been concluded, on the basis of this screening analysis, that long-term releases from the Sitewide Close-In-Place Alternative (assuming active erosion control continues to take place) would not result in long-term ecological consequences.

238-266

- Page 4-39, 4.1.6.3, 1st paragraph: Why do new temporary facilities have to be built? Should explain somewhere in the document why. Did not notice anything in document that explains the reason(s).

238-267

- Page 4-40, last two paragraphs: This is the correct way to talk about impacts rather than use the word "mitigate".

  "These factors, plus the implementation of a site soil erosion and sediment control plan, would minimize potential indirect impacts to the Appalachian tiger beetle and cobblestone tiger beetle."

238-193 The possible effects from placing boulders around the edge of the cap would be factored into the final design of the cap.

238-194 The design of the erosion controls will take potential erosion around the controls into account. Costs analyzed for this EIS do take into account the maintenance of erosion control measures.

238-195 The phrase was modified to state "…along creeks."

238-196 The depth of any excavation of contaminated soil would be limited to 0.5 meter (2 feet) to limit the scope of the Phased Decisionmaking Alternative and to avoid excavating into deeper contamination sources such as the North Plateau Groundwater Plume. If it is determined that additional contamination lies deeper in the subsurface, additional characterization would be considered as part of Phase 1 activities. In general, contamination levels have been found to decrease with increasing depth except for areas over the plume. If a highly radioactive area is encountered during excavation, then a course of action would be decided upon at that time.

238-197 A schedule for completion of Phase 2 decommissioning would depend on the Phase 2 activities selected.

238-198 Under the Phased Decisionmaking Alternative, if orphan waste were to be generated, it would be a small volume and could be stored in a facility such as Lag Storage Area 4.

238-199 Text was changed to state, "This approach was performed in a manner intended to avoid bias in the comparison of alternatives."

238-200 DOE did not attempt to estimate exposures to everyone drinking public water taken from all Lake Erie drinking water systems. Such an attempt would be speculative and would not add meaningful information contributing to a decision among decommissioning alternatives. However, this EIS does address possible impacts to receptors using water from drinking water systems that were near the confluence of Cattaraugus Creek with Lake Erie. Information about projected impacts on drinking water is provided in the "Concerns about Potential Contamination of Water" Issue Summary in Section 2 of this CRD.

238-201 Text was added to define the states comprising the Atlantic Interstate Low-Level Radioactive Waste Compact.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

"If Phase 2 activities are similar to those undertaken under the Sitewide Close-In-Place Alternative, potential impacts to these two species would be minimized through the implementation of the site erosion and the sediment control plan (see Section 4.1.6.2)."

- Page 4-41, Historic Resources: "The possibility ~~to unearth~~ of unearthing previously undetected sites is greater near the banks of streams and rivers, where previous inhabitants tended to establish settlements." *238-268*
- Page 4-52, Table 4-15: "Doses are peak annual doses coincident with one-time replacement of the permeable treatment wall, if necessary, and include doses conservatively projected from releases from WMAs that are not removed or closed-in-place during Phase 1 actions." Add "s" *238-269*
- Page 4-52, Maximum Exposed Individual: Have any studies been done in the Cattaraugus Reservation with the Seneca Nation of Indians to determine cancer rates? *238-270*
- Page 4-63, Top of page: "for the No Action Alternative. The peak annual dose to reasonably foreseeable offsite individuals due to ~~unmitigated~~ uncontrolled erosion would be in the range of about 60 to 130 millirem for both alternatives." *238-271*
- Page 4-96, 3rd paragraph: The volume of high level radioactive waste (500 cubic meters) if divided into two subcategories does not equal their volume; low-level radioactive waste (210 cubic meters) and transuranic waste (280 cubic meters). Why? *238-272*
- Page 4-97: "An additional 3.2 cubic meters (110 cubic feet) of Class A low-level radioactive waste would be generated annually during maintenance and surveillance of this orphan waste." What is this additional waste? Contaminated containers, handling equipment, leachate, soil, or what? *238-273*
- Page 4-98, **Sitewide Close-In-Place Alternative:** Less than 3.2 cubic meters (110 cubic feet) of Class A low-level radioactive waste would be generated annually during maintenance and surveillance of this orphan waste. What is the nature of this additional waste?
- Page 4-98, **"Phased Decisionmaking Alternative:** Less than or equal to 3.2 cubic meters (110 cubic feet) of Class A low-level radioactive waste would be generated annually during maintenance and surveillance of this orphan waste." What is the nature of this additional waste?
- Page 4-101, **"4.1.12.1 Methodology and Assumptions:** Shipping packages containing radioactive materials emit low levels of radiation; the amount of radiation depends on the kind and amount of transported materials. DOT regulations require that shipping packages containing radioactive materials have sufficient radiation shielding to limit the radiation to 10 millirem per hour at a distance of 2 meters (6.6 feet) from the transporter." Is "low level" defined and used in the context of what amount of radiation can get out of a package? Otherwise the first sentence should be removed; just state the regulation. *238-274*

238-202 Acreage lots refers to residential lots. The text was modified to refer to an increase in recreational, commercial, and residential lots.

238-203 Elevations noted in this EIS are used as cited in the referenced source documents. In general, data used include the North American Vertical Datum of 1988 (NAVD 88) and North American Datum of 1983 (NAD 83).

238-204 The orientations of Figures 3–7 and 3–6 in Chapter 3 of this EIS were made consistent and the extent of the South Plateau cross section in Figure 3–8 was modified to extend up to but not beyond Buttermilk Creek.

238-205 In isolation, this may be the case. However, much more information is provided in Figure 3–9 in Chapter 3 of this EIS, and the scale of each graphic is constrained to the page size and the composition of the entire figure.

238-206 The current wording in Chapter 3, Section 3.3.1.1, of this EIS has been corrected as suggested by the commentor.

238-207 The passage was revised to more clearly indicate that the sediments were deposited in deltas where streams entered glacial lakes.

238-208 The purpose of the geologic resources section is to provide the public with a general overview of the geographic distribution and production of oil and gas and nonfuel raw minerals in relation to WNYNSC. The level of detail presented is appropriate for the stated purpose of the discussion.

238-209 The use of the term "district" is consistent with its usage in the source documents cited in the section.

238-210 Examples of operational incidents are provided in Chapter 3, Section 3.3.2, of this EIS. Operational incidents may be caused by human error, failure of a mechanical system, or other situation.

238-211 The second paragraph in Chapter 3, Section 3.3.1, of this EIS has been reworded to more clearly discuss the primary radiologically contaminated areas.

238-212 The text has been modified as recommended.

238-213 The term "slightly exceed" means that the metal concentrations in the soils samples are indicative of concentrations within the expected background range.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 4-107, **4.1.12.4, Sitewide Close-In-Place Alternative: "**If train transport was used, the total number of shipments would be about one-half of those made under truck-only transport (about 615 shipments)." Which is which? 1230 vs 615 or 615 vs 307 — *238-275*
- Page 4-109, **4.1.12.5, Phased Decisionmaking Alternative: "**If train transport was used, the total number of shipments would be about one-half of those made under truck-only transport (about 6,300 shipments)." *Is 6,300 the bigger number or the smaller number?* — *238-276*
- Page 4-113, **4.1.13.2, Long-term Impacts:** Have any studies been done on cancer rates on the Seneca Nation of Indians reservation? — *238-270 cont'd*
- Page 4-114, last paragraph: "bounding", Use a different word; maximum, largest, etc? — *238-277*
- Page 4-119, 4.3.4: "The downstream population estimates are also conservative because no credit is taken for radionuclide removal as part of water treatment systems, and it was assumed that in addition to direct water consumption, the water would be used to irrigate a local garden." Please explain how and why a water treatment system takes out radionuclides. What percentage is taken out? — *238-278*
- Page 4-123, 1st paragraph: "Cumulative impacts can also result from spatial (geographic) and/or temporal (time) crowding of environmental perturbations (i.e., concurrent human activities and the resulting impacts on the environment are additive if there is insufficient time for the environment to recover)."

  "Perturbations"! Just say disturbance. The word is more typically used to describe a change in the typical/normal movement of a celestial body. See previous comments about the readability of the document. — *238-279*
- Page 4-123, 3rd bullet: "The construction and operation of these facilities would result in a noticeable addition to local employment." Disagree that the operation of wind powered electrical generation towers would be a noticeable addition to local employment. Construction is short term and specialized so employment of local citizens at a noticeable level is also questioned. — *238-280*
- Page 4-123, 4.5.1: One impact not listed from past actions (or inaction) is the scope of additional contamination that resulted from the failure to clean up the groundwater plume when it was first discovered. The inability of the agencies to agree on cleanup should be discussed in this document. How much smaller would the plume be if remediation had been done in a timely manner? What is the added cost of this failure? — *238-281*
- Page 4-125, 5th bullet: Ellicottville has not issued approvals for the conversion to burning wood chips. The proposal appears to be problematic for Ellicottville. — *238-282*

238-214 Incidents of uncontrolled airborne releases are discussed in more detail in Chapter 3, Section 3.11.5.1, of this EIS. The specific incident cited occurred when a high-efficiency particulate air filter in the main ventilation system failed and part of the filter media was drawn into the blower, cut into pieces, and discharged out through the main stack.

238-215 The two references to the figure showing the location of the slump blocks have been corrected.

238-216 Chapter 3, Section 3.8.2, of this EIS was revised to state, "The characteristics of this area are consistent with the New York State Freshwater Wetlands classification system definition of a Class IV wetland..."

238-217 The text was modified as suggested.

238-218 The estimated exposure level to the general public would be due strictly to these surface water releases. Estimated impacts from all waterborne releases from WNYNSC are provided in Chapter 3, Section 3.11.1.2, of this EIS. During 2007, an offsite individual could receive a maximum effective dose equivalent of 0.066 millirem, based on liquid effluent releases and drainage from the North Plateau.

238-219 The text has been modified to state that samples are also analyzed for radionuclides.

238-220 The text has been modified as recommended.

238-221 Offsite sediments are monitored annually at three locations along Cattaraugus Creek. In 2007, none of the locations had radioactivity levels that were greater than applicable limits or screening levels. Each of the three monitoring locations had cesium-137 levels greater than the background level and one had uranium-238 levels greater than the background level. Offsite monitoring at these locations will continue. The possibility of sediments moving downstream and the impacts are discussed in Chapter 4, Section 4.1.4, of this EIS. Appendix F, Sections F.3.1 and F.3.2, discuss sediment transport models.

238-222 Sediments behind the Springville Dam are sampled every 5 years and reported in the annual site environmental reports (available at www.wv.doe.gov). No decision has yet been made as to whether or not the sediment behind the dam or the dam itself has to be removed. The level of contamination and any disposal of the sediment behind the dam would be an issue that would be considered in the analysis

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 4-129, 4.5.8, **Water Resources:** "Decommissioning activities at WNYNSC would not substantially contribute to adverse cumulative impacts to surface water resources, and would generally produce long-term beneficial results after decommissioning." How would long term beneficial results occur? Why is there so much discussion about the construction of Route 219? What exactly does this have to do with West Valley? Where is the relevance? — *238-283*

- Page 4-130, 1st paragraph: "These actions will result in temporary impacts to water resources which will subside once construction activities are complete (USDOT and NYSDOT 2003b)." There will be permanent impacts resulting from the streams being piped (culverted). Culverts are not the natural state of a stream so there will be permanent impacts however minimal. — *238-284*
- Page 4-130, 3rd paragraph: "For example, redirecting the runoff into streams having higher rates of flow will result in the contaminants being more diluted and less likely to impact the overall water quality of the stream." This sounds good but has the review of the 219 plans indicated this will happen? Moving surface water into different "sub-basins" can have long term implications to both the watercourse receiving more water and the one receiving less. The stream dynamics will change for both. So while diluting may have a positive "chemical" aspect there are potentially greater negative impacts such as increased erosion, gradient changes, water temperature changes and habitat changes related to fish migration, spawning, makeup of populations and density. — *238-285*

- Page 4-132, 4.5.10, 5th paragraph: Research has indicated bats do not necessarily have to be struck by rotating blades to be killed. A bat's lung is very delicate and can suffer enough trauma from the change in air pressure around a rotating blade to cause the lung to hemorrage killing the bat. The case does not appear to be the same for even the smallest of birds which have more robust lungs. — *238-286*

- Page 4-137, last paragraph: "Institutional controls are considered an important part of any alternative, and act to ~~mitigate~~ *(reduce or minimize)* potential impacts. However, the unlikely loss of institutional controls would potentially lead to ~~unmitigated~~ *uncontrolled* erosion and/or intruders within site boundaries and would result in radiological dose impacts to humans. The ~~unmitigated~~ *uncontrolled* erosion case would lead to doses approaching or exceeding 500 millirem per year for some individual receptor scenarios. — *238-287*

  There is no mention of invasive species on-site nor a discussion of preventing their occurrence /spread.

Book: *Chapter 5*

- Page 5-11, "***Coalition on West Valley Nuclear Wastes & Radioactive Waste Campaign and DOE Stipulation of Compromise Settlement***": States that an action was filed in 1996 but that they entered into a stipulation in 1987. Is that correct? — *238-288*

- Page 5-14: footnote 2 is not shown at the bottom of the page — *238-289*

for removing the dam, but that is not within the scope of this EIS, which addresses decommissioning and/or long-term stewardship of WNYNSC.

238-223 Chapter 3, Section 3.6.2.1, of this EIS was modified to state that water is periodically (approximately every 1 to 2 weeks) pumped. With the French drain plugged, it is possible that groundwater is periodically infiltrating Lagoons 2 and 3, but there is no evidence of this occurring. Lagoon 2 is untreated water that is treated by the Low-Level Radioactive Waste Treatment Facility. Lagoon 3 is treated water that is sampled prior to discharge.

238-224 The wording here is general, referring to all types of biointrusions. The focus of the sentence is on the resulting variation in geohydrological properties.

238-225 The text was corrected to state, "the flow becomes…"

238-226 The text, with edit, was clarified as recommended.

238-227 Well completion is the act of preparing a well bore for producing water, oil, or gas. In the referenced sentence, wells drawing water from the weathered zone correspond to the regional bedrock aquifer. The text was changed to say, "the wells completed in this zone…"

238-228 The text associated with Chapter 3, Figure 3–22, of the Revised Draft EIS was modified to state that the figure reflects data as recent as 2007. Appendix C, Section C.2.13, also has been revised to state that the plume boundary on the figure represents the boundary of the 10-picocuries-per-liter gross beta concentration in groundwater as of 2007.

238-229 The estimated plume extent incorporates data as of 2007. Since the plume changes over time, dashed lines were used in the figure to depict the approximate nature of the contour.

238-230 The panels progress from the higher to lower intervals as they appear going down the page.

238-231 As discussed in Chapter 3, Section 3.6.2.1, of this EIS, monitoring of the performance of the pilot permeable treatment wall is no longer required; therefore sampling from some monitoring points has been discontinued while sampling from other monitoring points has been reduced.

238-232 The term "mitigate" is the correct term. While it is not specific, at the time of installation of the Groundwater Recovery System, it was unclear as to how effective

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

Book: *Chapter 6*

- Page 6-6, 6.4, 3rd bullet: "Limit unnecessary idling times on diesel-powered engines." New York State Conservation Law limits the operation of certain on-road heavy duty diesel powered vehicles. Off road vehicles such as earth movers are exempt from the regulation. Over the road trucks that would visit the site would be subject to the regulation.

  6 NYCRR Part 217: Motor Vehicle Emissions
  No person who owns, operates or leases a heavy duty vehicle including a bus or truck, the motive power for which is provided by a diesel or non-diesel fueled engine or who owns, leases or occupies land and has the actual or apparent dominion or control over the operation of a heavy duty vehicle including a bus or truck present on such land, the motive power for which said heavy duty vehicle is provided by a diesel or non-diesel fueled engine, shall allow or permit the engine of such heavy duty vehicle to idle for more than five consecutive minutes when the heavy duty vehicle is not in motion, except as otherwise permitted by section 217-3.3 of this Subpart.

238-290

- Page 6-7, 6.5, Ecological Resources: "For example, prior to land-disturbing activities, the proposed site would be surveyed for nests of migratory birds in accordance with the Migratory Bird Treaty Act. Although threatened and endangered species have not been recorded on the site, any mitigation actions deemed necessary through the consultation process regarding state and federally listed threatened and endangered species would be implemented if such species were recorded onsite in the future. (For applicable regulatory requirements, see Chapter 5, Section 5.6.1, Ecological Resources Consultations.)" It is against the law to interfere directly or indirectly with the nesting of any birds covered by the Migratory Bird Treaty Act whether they are threatened or endangered or not.

- Page 6-7 Chapter 6.5, 1st paragraph: "For example, prior to land-disturbing activities, the proposed site would be surveyed for nests of migratory birds in accordance with the Migratory Bird Treaty Act. Although threatened and endangered species have not been recorded on the site, any mitigation actions deemed necessary through the consultation process regarding state and federally listed threatened and endangered species would be implemented if such species were recorded onsite in the future."

  See comments for Page 4-34, Table 4-9. It is imperative that the client must insure that all bird species are protected through the Migratory Bird Treaty Act. Throughout this proposal, it is apparent that the only species given serious consideration are state listed species. However, the MBTA prohibits the destruction, harassment, or overall 'taking' of any bird species. That includes disruption of the nest, the eggs, the nestlings, or the bird itself. In other words, every effort must be made to minimize harassment of the numerous species of birds which occupy the forests in which work is proposed, and all bird species must be considered.

238-291

the system would be (whether or not it would stop or reduce the expansion of the plume).

238-233 The text was changed as recommended.

238-234 Approximately 0.6 meters (2 feet) of the 909 well is in the weathered Lavery till, and the remainder of the 4.6-meter (15-foot) screen is in the unweathered Lavery till.

238-235 Chapter 3, Figure 3–5 of this EIS, "Topography of the Western New York Nuclear Service Center," shows elevations within the WNYNSC site boundary in excess of 518 meters (1,700 feet). The Project Premises are at approximately 427 meters (1,400 feet). The text has been modified to express the elevation change in terms of the highest elevation within the WNYNSC boundary because it is this elevation change that can influence meteorological conditions.

238-236 The semi-colon was changed to a comma so that the text reads, "the former vitrification heating, ventilation, and air conditioning system;…"

238-237 The text was changed to refer to the adjacent area around a wetland.

238-238 These doses have been updated to reflect the results reported in the *2007 Annual Site Environmental Report* (WVES and URS 2008). Doses to the public are calculated in accordance to DOE- and EPA-approved techniques. The techniques and assumptions are described in detail on pages 3-2 through 3-11 of the *2007 Annual Site Environmental Report.*

For the airborne releases, the doses were modeled using the EPA-approved CAP88-PC computer code and included the effects of ingestion, inhalation, air immersion, and ground surface pathways. The dose for the maximally exposed offsite individual was calculated assuming the individual resided 1.9 kilometers (1.2 miles) north-northwest of the site and ate only locally produced foods.

238-239 These doses have been updated to reflect the results reported in the *2007 Annual Site Environmental Report* (WVES and URS 2008). Doses to the public are calculated in accordance with DOE- and EPA-approved techniques. The techniques and assumptions are described in detail in pages 3-2 through 3-11 of the report. For the liquid releases, the doses were modeled using the EPA-approved GENII computer code and included the effects of ingestion and ground surface pathways. The dose from liquid releases is primarily from release of strontium-90 and cesium-137 from the existing site groundwater contamination. The *2007 Annual*

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 6-7, 6.5, 2nd paragraph: "Options to mitigate direct impacts to wetlands could range from the reestablishment of affected areas to the creation of new wetlands either on- or off site." *Remove the "-" after the word "on".* ***238-292***

Book: *Chapter 11*

- Senator Clinton and Representative Reynolds no longer hold elective office.

Book: *Glossary*

Comments:

- Page 8.2, "Bedload": definition should read as: *Soil, rock particles or other solid debris moving along the bottom of a stream in traction by rolling, sliding or saltation (jumping) and in general not supported by the water.* "…"silt load" carried by suspension." *Both clay and silt are carried by suspension.* ***238-293***
- Page 8.2, "Best Management Practices", first sentence: Structural, nonstructural, and managerial techniques, other than effluent limitations, to prevent or reduce pollution of surface water. ***238-294***
- Page 8.3: *"Clay" should be added to the definitions. Is clay used in containment or other specific ways that should be described? Bentonite?* ***238-295***
- Page 8.5, "Environmental Impact Statement (EIS)", first sentence: "…significantly affecting the quality of the human environment." *Shouldn't it read "…significantly affecting the quality of the environment"?* ***238-296***
- Page 8.5, "Erosion": should read as: *Nature processes which include weathering, dissolution, abrasion, corrosion and transportation, by which material is worn away from the earth's surface.* ***238-297***
- Page 8.8, "Ion Exchange": *Definition not well written.* ***238-298***
- Page 8.9, "Mitigative Measures: Those actions that avoid impacts altogether, minimize impacts, rectify impacts, reduce or eliminate impacts, or compensate for the impact." While this definition may come out of the dictionary and law/regulation is does little to succinctly describe what is occurring in each instance that it used. Specific words should be used: aoid, reduce, replace, etc. ***238-299***
- Page 8.10, "Modified Mercalli Intensity Scale", 2nd sentence, 2nd parenthesis: Damage total. *Should is read as "total damage"?* ***238-300***

Site Environmental Report indicates that the most important waterborne exposure pathway is the consumption of fish from Cattaraugus Creek by local sportsmen and residents. The estimated maximum offsite individual dose in 2007 was 0.066 millirem, which is about 1.65 percent of the 4.0 millirem per year standard used by EPA and the New York State Department of Health for community drinking water supplies.

238-240 The text in Chapter 3, Section 3.11.1.2, of this EIS was modified to state: "Figures 3–32 and 3–33 show the calculated annual dose to the hypothetical maximally exposed individual and the collective dose to the population, respectively, over the last 10 years. The doses represented by these data confirm the continued small (less than 0.07 millirem per year) addition to the radiation dose of 620 millirem per year that the average individuals in the population around the WNYNSC receives from ubiquitous background and other sources of radiation."

238-241 All underground tanks at WNYNSC, whether currently used or used in the past, have been characterized and the remaining inventory information was used in the characterization of the site.

238-242 The indicated text accurately reflects the radiological exposures for West Valley workers. The data is taken from the DOE complex-wide compilation of occupational radiation exposures, which is available on the Internet at: http://www.hss.energy.gov/csa/analysis/rems/annual.htm. As indicated in the Revised Draft EIS text: "This equates to an average dose to workers with a measurable TEDE [total effective dose equivalent] of…" These averages are only for those workers with a measurable dose. For example, in 2006, the indicated reference, the DOE *Occupational Radiation Exposure 2006 Report* indicated on Exhibit 3-14 (page 3-10) that 189 workers had measurable doses, and hence were included in the average dose calculation. Exhibit B-14 of the *DOE Occupational Radiation Exposure 2006 Report* indicates that, for the year 2006 at West Valley, 470 workers were monitored; 281 had less than measurable exposures; 129 had exposures ranging from measurable to 0.1 rem; 47 had 0.10 to 0.25 rem; 12 had 0.25 to 0.50 rem; and none had a dose greater than 0.50 rem; the average measurable total effective dose equivalent (TEDE) was 0.085 rem.

At all DOE sites, contractors are required to use the "as low as is reasonably achievable" (ALARA) principle in controlling planned worker radiological exposures. One tool in that planning is establishing administrative goals that limit worker exposures to less than the annual limits. One such control at West Valley is to limit a worker to less than 100 millirem (0.1 rem) on any one day.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page 8.10 "orphan waste": Waste that cannot currently be disposed of in an established or planned permanent disposal facility. *Why can't it be disposed of? It is not enough to just say it can't be disposed of.* — ***238-301***
- Page 8.11, "Radioactive Waste", 2nd sentence: "Waste material that contains source, special nuclear, or by-product material is subject to regulation as radioactive waste under the Atomic Energy Act." *What does "special nuclear" mean?* — ***238-302***
- Page 8.13, "Silt Load": *Clay and silt are carried in the suspended load. The defined word should be "Suspended Load".* — ***238-303***
- Page 8.13, "Sole Source Aquifers": *Poorly written. Should be rewritten.* — ***238-304***
- Page 8.13, "Solid Waste", 2nd definition: …sludge from a waste treatment plant… *Should read as …sludge from a waste water treatment plant.* — ***238-305***
- Page 8.13, "Solvents": *Should include that water is the universal solvent.* — ***238-306***
- Page 8.13: *"Special Nuclear" should be added to the list of definitions.* — ***238-307***
- Page 8.14, "Stream Terrace": Originally occurring at or below the level of the stream, the stream terrace is exposed as stream downcutting occurs. *How can it occur below the level of the stream? Glaciers are probably the most common cause of streams aggrading. Once the stream bedload returns to non-glacier conditions the stream will cut through the alluvial deposits, degrading. Terraces can then be created.* — ***238-308***
- Page 8.15: *Should there be a definition for "Visitor"? – Individuals on site for reasons such as regulatory oversight, as representative of agencies with permit authority for activities on-site.* — ***238-309***

Book: *Appendix C*

- There were fourteen references to "clean fill", seventeen to 'clean material" twelve to "other clean material" and twenty two to "appropriate backfill material" found in Appendix C. Please describe exactly what these different items are. — ***238-310***
- There are twenty eight references to "contour to grade". In every case will seeding, mulching and erosion control take place? How much time will elapse between the placing of these various items and seeding and mulching? Immediately after, within 24 hours or 48 hours? — ***238-311***
- Page C-63, C.3.1.3.1, 3rd paragraph: "The steel shield walls and roof of the STS Valve Aisle would be removed remotely using a telescoping mast equipped with cutting, grappling, and lifting end-effectors." — ***238-312***

238-243 The leak from Line 7P-240-1-C in the off-gas operating aisle occurred in the late 1960s. The liquid went through an expansion joint in the Main Process Building and is the major source of the North Plateau Groundwater Plume (WVNSCO 1995). Information about this incident and subsequent decontamination actions can be found in WSMS-OPS-05-001 (WSMS 2005).

238-244 NEPA requires agencies to include analysis of reasonably foreseeable transboundary effects of proposed actions, based on case law. The Council on Environmental Quality provides guidance on when to consider transboundary effects.

238-245 The decision regarding which facilities would be removed has been developed by DOE and NYSERDA after careful consideration of all WNYNSC facilities and areas. The Remote Handled Waste Facility will be in a condition for dismantlement by the end of the Interim End State, as stated in Appendix C, Section C.2.5.1, of this EIS.

238-246 The reference to paper, wood, and scrap metal was removed from Chapter 3, Section 3.13.2, of this EIS.

238-247 The discussion in the introduction to Chapter 4 has been revised. This discussion no longer refers to resource areas or the level of significance of potential impacts.

238-248 All of the decommissioning alternatives addressed in this EIS include provisions to remove or control the spread of contamination in the Cesium Prong and North Plateau Groundwater Plume.

238-249 The sentence was revised in this Final EIS to delete "for NDA and SDA stabilization" and to reference Chapter 4, Table 4-61, which lists the projected volumes of the principal bulk materials used on site for each EIS alternative.

238-250 The editorial correction has been made as requested.

238-251 "Minimized" has been substituted for "mitigate."

238-252 The paragraph was clarified.

238-253 "Minimized" has been substituted for "mitigate."

238-254 The discussion of Hazard Index is no longer in this section. It is addressed in Chapter 4, Section 4.1.10, and Appendix H of this EIS. It is unclear to what the commentor refers in stating that the release would be two orders of magnitude greater. Assuming this refers to radioactive impacts, preceding Appendix H,

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

ef·fec·tor (ĭ-fĕk'tər) n.

1. A muscle, gland, or organ capable of responding to a stimulus, especially a nerve impulse.
2. A nerve ending that carries impulses to a muscle, gland, or organ and activates muscle contraction or glandular secretion.
3. *Biochemistry* A small molecule that when bound to an allosteric site of an enzyme causes either a decrease or an increase in the activity of the enzyme.
4. *Computer Science* A device used to produce a desired change in an object in response to input.

Used 15 times in this appendix. While the reviewer understands what is trying to be said, the word does not seem to really the use that is intended.

238-312 cont'd

- Page C-77, C.3.1.7.6: It is not clear from the description if all the excavated areas would remain open and then all be filled at one time. Are they all under cover until the holes are filled? ***238-313***
- Page C.3.1.12.3, Railroad Spurs: "The removed rails and tracks would be disposed of as construction and demolition debris." Ties typically contain creosote to extend their life. There is no mention of ballast which is used to support the track and provide drainage. Is there ballast, and if so, how will it be disposed of, if at all? ***238-314***
- Page C-134, C.4.4, 1st paragraph: "It would also be capable of receiving wastes in packaged form, decontaminating the packages, if necessary, classifying them, temporarily storing them, and loading them onto trucks or railcars for offsite transport." Could any of these received wastes come from off-site? ***238-315***
- Page C-134, 3rd paragraph: Why would a second floor be created for office space? No piping for potable water? or sewers? ***238-316***
- Page C-137, C.4.4, 1st paragraph: "A receiving dock, separate from the shipping dock would also be provided for reception of process materials, such as empty boxes and drums, and prepackaged wastes." Where would the prepackaged wastes be coming from? Any from offsite? ***238-317***
- Page 138, C.4.4 2nd paragraph: "One component of the waste retrieval process that involves a high level of uncertainty is the retrieval of wastes from the Nuclear Fuel Services deep holes, using primarily a telescoping boom with various end effectors." ***238-318***

  Suggest changing end of sentence to read "…telescoping boom with various attachments/tools at the end."

Table H–32, there is this statement: "The peak radiological risk is on the order of 100 times greater than the peak chemical risk." This compares radiological risk to chemical risk. All of the chemicals addressed in Chapter 4, Section 4.1.10, have a Hazard Index less than 1, which indicates that there is not a recognized chemical health risk.

238-255 "Minimized" has been substituted for "mitigate."

238-256 "Or lower" has been added to the text.

238-257 The sentence is correct as written.

238-258 The paragraph was revised.

238-259 Informal consultation has been carried out with both the U.S. Fish and Wildlife Service (USFWS) and the NYSDEC Natural Heritage Program (see Appendix O of this EIS). Additionally, site-specific studies have been conducted. Neither the site-specific studies nor the consultation process indicated the presence of threatened and endangered species. Thus, it was determined that actions taken under each of the alternatives would not impact this group of species. As a clarification, the statement being questioned has been changed to read, "No impacts to federally or state-listed endangered, threatened, or candidate species are expected." A similar change has been made to the "Threatened and Endangered Species" subsections.

A reference to conducting clearing operations prior to or after the breeding season was mentioned in the last paragraph of "Terrestrial Resources" (Chapter 4, Section 4.1.6.1, of this EIS). The sentence has been revised to indicate the dates as noted in the comment.

238-260 The text has been revised as suggested.

238-261 As noted in Appendix C, Section C.2.14, of this EIS, 95 percent of the radioactivity in contaminated soil is contained within the top 4 inches of soil; thus, the depth to which soil removal would be limited. While site-specific revegetation plans have yet to be finalized, with proper preparation and soil amendments, revegetation should be successful.

238-262 The statement was intended to be conservative.

238-263 The statement was modified to indicate that species repopulating the area would likely be different from those originally there.

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page C-139, C.4.5, 7th paragraph: "In general, *scabling* waste and demolished equipment…" Please use a word that the general public can understand. — *238-319*
- Page C-145, C.4.6.8, 2nd paragraph: This paragraph is also found in C.4.4 on page C-138. Does not seem to belong here. — *238-320*
- Page C-150, C.4.8.3: Plants are tenacious. How will all manner of plants be dealt with when they start growing on top of the cap? — *238-321*
- Page C-155, C.4.13, Erosion Control Structures: All of the man made structures will change the dynamics of the area. What is the projected design life of these structures? Notwithstanding design life things can happen at any time that require attention. How will these structures be maintained as everything around them erodes? If not maintained, diversion ditches will immediately begin to be populated by trees and shrubs. Plant litter will start to fill the ditches which will get wetter. Eventually, the ditches will be overtopped during a storm event with the berms ultimately breaching.

  Straightening a stream entails increasing the gradient and therefore erosional forces. — *238-322*
- Page C-157, Diversion Ditches: What is the "maximum probable flood"? Water Control Structures What is the "maximum probable flood"? — *238-323*
- Page C-159, last sentence: "Finally, the stream flow would be rediverted back to the armored streambed." There is no discussion about diverting the stream before the channel is excavated. — *238-324*

Book: *Appendix D*

- Page D-13, D.3.1.3, **Receptors Inside the Current Western New York Nuclear Service Center Boundary**, 2nd paragraph: "In particular, direct intrusion into buried waste is assumed to not occur in the erosion case, because erosion-driven exposure of the waste involves development of steep slopes and concentrated flow as the area moves within the rim of a creek." Exposure would occur as the creek rim advanced (due to erosion) into/toward the Disposal Area. The disposal area would not move toward the creek rim. The creek rim moves into the Disposal Area.

  Children/teenagers who lived in the house where the excavation took place would likely be more exposed than their residential farmer farther. Aren't children more susceptible to the effects of radiation/chemicals than adults? — *238-325*

Book: *Appendix E*

238-264 "Minimized" has been substituted for "mitigate."

238-265 As noted in the response to Comment no. 238-259, informal consultation has been carried out with both the USFWS and the NYSDEC Natural Heritage Program (see Appendix O of this EIS). Additionally, site-specific studies have been conducted. Neither the site-specific studies nor the consultation process indicated the presence of threatened and endangered species. Thus, it was determined that actions taken under each of the alternatives would not impact this group of species.

238-266 The section containing the cited sentence was revised to reflect updated analyses for this Final EIS. The term "unmitigated erosion" was retained because of its historic use as part of EIS development.

238-267 The paragraph was revised to refer the reader to sections in this EIS that address construction of temporary facilities for the Phased Decisionmaking Alternative.

238-268 The text has been revised as suggested.

238-269 The cited footnote was revised.

238-270 In 2009, *The Journal of Rural Health* published the results of a study that evaluated the incidence of cancer among the Seneca Nation of Indians as compared to the rest of New York State (except New York City) for two 15-year periods (1955 through 1969 and 1990 through 2004). The study concluded that "[d]espite marked changes over time, deficits [lower rates compared to those in the rest of the State] in overall cancer incidence have persisted between the time intervals studied" (Mahoney et al. 2009).

238-271 The term "unmitigated erosion" was retained because of its historical use during the development of this EIS.

238-272 The difference is due to rounding. Note that the volumes of high-level radioactive waste, low-level radioactive waste, and transuranic waste discussed in the paragraph are presented as approximate volumes.

238-273 The waste projected for possible storage in the Container Management Facility would be stored within shipping containers such as drums, boxes, or high-integrity containers. Surveillance or maintenance of this waste is projected to annually generate small volumes of miscellaneous, low-activity, contaminated materials–essentially trash–such as paper, plastic sheeting, or discarded clothing.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page E-33, E.3.4.1, Thick-bedded Unit, 2nd paragraph: "These estimates employed artificial neural network methods. Data from locations with both hydraulic conductivity measurements and soil textures were used to train a Radial Basis Network or RBN network Soil texture data from locations without conductivity determinations were run then through the trained network to produce estimates for those locations.

  Should there be a period to end a sentence after "RBN network"? *238-326*
- Page E-33, E.3.4.1, 2nd paragraph, last sentence: "The soil textures used for training the network and subsequently predict addition hydraulic conductivities consisted of both laboratory determines textures extended by estimates from site geologists using boring log descriptions (Cohen 2006)." Sentence not well written. The use of the word "both" does not seem correct. Should "determines" be determined? *238-327*
- Page E-37, E.3.4.1, 1st paragraph: "Well locations are scattered about the site, mostly on the South Plateau and the average distance between locations is hundreds of feet—likely exceeding the scale of spatial any structure in the unit." *238-328*

  Spatial any structure? Should it be *exceeding the scale of any spatial structure in the unit*?
- Page E-37, E.3.4.1, 1st paragraph: "Although not completely optimal, sensitivity of model results to changes in the parameter value appears low and the initial input value has not been changed." Should it say, "…even though the initial input value has not been changed."? Confusing. *238-329*
- Page E-37, E.3.4.1, Slack-water Sequence, 2nd sentence: Do they mean that only 12 locations were used after 1999 or were some of the wells plugged? *238-330*
- Page E-37, E.3.4.1, Slack-water Sequence, 2nd paragraph, 1st sentence: Are they talking about data from 12 wells? or 12 pieces of data? *238-331*
- Page E-46, E.3.5, Automated Calibration, 3rd paragraph, 2nd sentence: "The automated-calibrated model yielded the a head RMSE of 4.2 meters and a seeps RMSE of 1.04 kilogram per second, but weighted RMSEs were 5.2 meters and 1.11 kilograms per second, respectively" Should "the" be removed in, "yielded the a head RMSE"? *238-332*
- Page E-51, E.3.7.1, last paragraph, 2nd last word on page: "Unperturbed" poor word usage given generally accepted meanings. A much better choice would be "Undisturbed". *238-333*
- Page E-53, E.3.7.1, 3rd paragraph, 4th sentence: "unperturbed" see immediately above for comment on word definition. Is the author in this case trying to say a model based upon natural conditions where there are no human constructed facilities or disturbances on the site?

238-274 The first cited sentence describes the physical situation encountered during transportation of radioactive materials and is believed to be an informative precursor for the second cited sentence.

238-275 The sentence has been revised for clarification.

238-276 The sentence has been revised for clarification.

238-277 "Bounding" appears to be an appropriate descriptor in this case.

238-278 The Erie County water treatment plants at Sturgeon Point on Lake Erie, downstream of Cattaraugus Creek and on the Niagara River, all currently use three separate processes that remove solids and particulates down to microscopic size before the water is provided to consumers. The three processes are used in series: flocculation, sedimentation, and filtration. Although not designed specifically to remove radionuclides from water, these processes remove most solids, including solid particles of radionuclides that may be present in water. A 2008 report from the Erie County Water Authority shows that, like all water treatment plants in the United States, these facilities measure the concentrations of radium, uranium, alpha radiation emitters, and beta radiation emitters in drinking water and compare the concentrations to EPA and New York State drinking water standards. (Of the radionuclides present at WNYNSC, radionuclides such as transuranic isotopes are alpha emitters, while strontium-90 and cesium-137 are beta emitters.) The 2008 report shows that samples taken in 2008 have levels that are either below the detection limits of instrumentation or, at most, about 10 percent of the allowable limits (ECWA 2008). In the hypothetical and unlikely event that treatment of water was contemplated for removal of specific radionuclides, treatment systems specifically designed for radionuclide removal (e.g., ion exchange columns) could be installed and used.

238-279 The text in Chapter 4, Section 4.5, of this EIS was revised as suggested.

238-280 This language is taken from the environmental documents prepared for the wind energy projects. For example, documentation from Horizon Wind Energy states: "Horizon anticipates investing as much as $40 million in labor and materials such as gravel, stone, and cement. When feasible, Horizon tries to utilize regional labor and materials during the construction phase. The construction phase also creates a significant ripple effect on the local economy, particularly for retail and service establishments" (Horizon 2008).

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page E-74, E.4.1.2, 1st paragraph: "To represent these features the hydraulic conductivities of the tanks and sediments of Lagoons 2 and 3 are assigned values of hydraulic conductivity of 1 × 10 centimeters per second while the combined ~~affects~~ *effects* of barriers at Lagoon 1 ~~is~~ *are* represented by assignment of a value of 1 × 10 centimeters per second to the material at Lagoon 1." — ***238-334***

  The phrase "Waste Tank Farm Tanks" was used 9 times in Appendix E. the second use of "tanks" didn't seem to fit well in several cases. It would be better to leave it out.

- Page E-76, E.4.1.3, 1st paragraph: "The cross-sectional structure of the aquifer is ~~that~~ represented in Figures E–33 through E–36 with the same vertical discretization as the historical conditions case." — ***238-335***

- Page E-76, E.4.1.3: "Flow balances predict flow from the ~~prior area of the~~ location of the removed Main Plant Process Building through the slurry wall to the west, that is, towards the Waste Tank Farm and from the area of the lagoons both to the east towards Erdmann Brook and to the west through the slurry wall towards the northern extension of the North Plateau Plume." This sentence is too long. It should be turned into at least two sentences. — ***238-336***

Book: *Appendix F*

- Pg 53, F.3.2.5, 2nd paragraph: "One element that would likely be improved by a more ~~through~~ *thorough* calibration approach is the degree of landscape dissection." Wrong word. — ***238-337***

Book: *Appendix G*

- Page G-4, G.2: "Cumulative impacts of a mixture of radionuclides are estimated as the sum of dose or risk…" Has any thought been given to the likelihood that when several "contaminants" are mixed together the impact is greater than the sum or has this been disproved in studies? — ***238-338***

- Page G-20, G.3.2.2, 1st sentence: "…include a tumulus covering an above-ground…" Tumulus – an artificial hillock or mound (as over a grave) esp: an ancient grave. — ***238-339***

- Page G20, G.3.2.2: "The primary features of the tumulus are soil, drainage, and clay layers designed to minimize flow rate of water reaching the wasteform." *…designed to minimize the amount of water penetrating the cover* or *..reaching the waste*..

- Page G-23, G.3.2.3: Why will groundwater flow through the tanks? Is this because the time period is so long that the tanks have failed or that holes for piping in the tanks have failed? — ***238-340***

- Page G-39, G.4 Intruder Scenario Models: Is an intruder by definition a human? Did not find "intruder" in glossary. Why use the hiker who comes once or twice? That seems like — ***238-341***

238-281 DOE acknowledges the commentor's concern about past actions at WNYNSC. These past actions, however, are outside the scope of this EIS. Note that the discussion of current conditions in Chapter 3 of this EIS reflects the impacts resulting from past actions.

238-282 There is no indication that this activity may be cancelled, but currently remains as a reasonably foreseeable action in the region.

238-283 Regarding the question about long-term beneficial results, some short-term adverse impacts may occur during earth-moving activities, but cleanup and/or containment generally results in improvements in long-term conditions by removing contaminants or isolating them from the environment. Regarding the question about the Route 219 Freeway, construction of this freeway is the major impact-producing activity in the region. Therefore, impacts associated with this activity have the greatest potential to interact with activities at WNYNSC to produce cumulative impacts.

238-284 While it is true that there would be impacts associated with changing the natural stream channel to a culvert, the statement in question refers to construction impacts that would cease once construction activities are complete.

238-285 This language was obtained from page 4-117 of the *Final Environmental Impact Statement for the Route 219 Freeway* (USDOT and NYDOT 2003).

238-286 The text in Chapter 4, Section 4.5.10, of this EIS has been revised to acknowledge and provide references to this research.

238-287 The first cited sentence was revised. Regarding the second two sentences, the term "unmitigated erosion" was retained because of its historic use as part of EIS development. Regarding invasive species, Executive Order 13112, *Invasive Species*, is listed in Chapter 5 of this EIS as a requirement potentially relevant to decommissioning and/or long-term stewardship of WNYNSC. Chapter 4, Section 4.1.6.1, was revised to note that disturbed areas would be regarded and revegetated using native species according to a sitewide revegetation plan that would be approved by the State of New York. Chapter 6, Section 6.5, was also revised to note revegetation using native species.

238-288 This was a typographical error. The text has been revised to replace 1996 with 1986.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

a minimal exposure. Why not children playing in the "neighborhood" who are the children of the resident farmer, riding dirt bikes, atvs, and other types of play? Are children more impacted by radiation and chemical exposures? Children are also drawn to water, to play in, build dams, etc. — *238-341 cont'd*

Shouldn't largest accident dose be from a terrorist attack? Or is that not considered in accident category? Is there a listing for intentional vandalism/terrorism? — *238-342*

What about "dumpster divers" looking for resources? — *238-341 cont'd*

Book: *Appendix H*

- Page H-25, H.2.2.1, 1st paragraph, last sentence: "While decrease in retention of elements on cement with degradation has been reported (Bradbury and Sarott 1995), high retention of actinide elements is reported for even for degraded cements." This sentence needs to be rewritten. — *238-343*
- Page H-25, H.2.2.1, 2nd paragraph, 2nd sentence: "Characterization of grouted materials has established that cesium and strontium are retained ~~primary~~ *primarily* on the aggregates used in the concrete *(add "," or end sentence here)* while other elements are retained both on the aggregate and on the calcium silicate hydrogel matrix of the concrete (Stinton et al. 1984)" — *238-344*
- Page H-25, H.2.2.1, 3rd paragraph: Prepositional phrases at the beginning of sentences make them awkward and harder to understand. — *238-345*
- Page H-26, H.2.2.2.1, Total Effective Dose Equivalent, 2nd paragraph, 2nd sentence: "There is an earlier, subsidiary SDA peak occurring at about 1,000 years, and a few minor peaks associated with the." The sentence needs to be finished. — *238-346*
- Page H-33, H.2.2.2.1, Hazard Index, footnote 7, 3rd sentence: "*If the hazard quotient for an individual chemical or the hazard quotient for a group of chemicals exceeds unity, the chemical(s) may produce and adverse effect, but normally this will require a hazard index or quotient of several times unity.*" The word "and" should be changed to "an". — *238-347*
- Page H-35, H.2.2.2.2, 2nd sentence: What does a Seneca Nation of Indian receptor mean? Is the receptor a member of the Seneca Nation? There are Cayuga Nation members that live on Seneca Nation land. Please see all other "Seneca Nation of Indians receptor". — *238-348*
- Page H-35, H.2.2.2.2, 1st paragraph, 2nd sentence: The use of the word "raised" means that someone/something has taken an active role in at least part of the life cycle of the fish that are being consumed. Fish are not normally raised in Cattaraugus Creek. Fish found in Cattaraugus Creek typically are raised in a hatchery and then stocked or are native to the creek. The word should be changed to "living and or stocked". The word "raised" is used seven times in this appendix. — *238-349*

238-289 This was a typographical error. The second footnote callout has been deleted from the text.

238-290 DOE and NYSERDA note the comment. State air quality permit requirements for implementation of the preferred alternative would be followed to maintain compliance with the permit; necessary air quality regulatory coordination with NYSDEC would occur prior to commencement of any activities.

The intent of the bulleted list is to summarize potential mitigation measures. Specific details will be included in the Mitigation Action Plan, including how the mitigation measures will be planned and implemented.

238-291 The discussion of migratory birds in Chapter 6, Section 6.5, of this EIS has been moved and revised to state: "Potential direct impacts on ecological resources would include habitat loss (including wetlands) and increased mortality of wildlife (i.e., terrestrial and aquatic fauna), as well as indirect impacts, such as displacement of wildlife from the affected area. Construction and decommissioning activities would incorporate mitigation measures for ecological impacts, such as avoidance of undisturbed habitat (e.g., nesting areas) and timing land-disturbing activities to avoid animal breeding seasons. For example, to avoid disturbing breeding bird populations, many of which are migratory, it might be necessary to undertake any required land-clearing during the non-breeding season (i.e., August 1 through March 15). In addition to protecting bird populations in general, conducting land-clearing activities during the non-breeding season would meet the requirements of the Migratory Bird Treaty Act by protecting adults, their nests, and the young. Also, fencing would be used to deter wildlife from entering areas disturbed by construction."

238-292 The text has been revised as suggested.

238-293 DOE and NYSERDA note the commentor's statement. The definition for "bedload" has been removed because the term is not used in this EIS.

238-294 DOE and NYSERDA note the commentor's statement.

238-295 DOE and NYSERDA note the commentor's statement. The definition for clay has been added to this EIS and states: "The name for a family of finely crystalline sheet silicate minerals that commonly form as a product of rock weathering. Also, any particle smaller than or equal to about 0.002 millimeters (0.00008 inches) in diameter." Requirements for and use of clay minerals, including bentonite, to

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page H-51, H.2.2.3.3, Total Effective Dose Equivalent, 3rd paragraph, 1st sentence: "The results presented in Table H–47 show that the total peak annual dose to the Cattaraugus Creek receptor due to groundwater releases would s be below 25 millirem per year for both alternatives." Remove single letter "s". — *238-350*
- Page H-53, H.2.2.3.3, 1st sentence: No period at the end of the sentence. — *238-351*
- Page H-54, H.2.2.3.3, Controlling Nuclides and Pathways, 1st paragraph, 1st sentence: The sentence starts "It is of interest…." It is of importance or necessary to understand. — *238-352*
- Page H-57, H.2.2.3.3, Hazard Index, Table H-52, footnote a: Why does the, "limited information …. suggest…."? What is this based on? Lack of information means you should plan for worst case. — *238-353*
- Page H-58, H.2.2.3.3, Table H-53, footnote b: Same comment as immediately above about "limited information". — *238-353*
- Page H-61, H.2.2.3.3, last sentence: "For the No Action Alternative, the principal difference from Cattaraugus Creek is that the dominant nuclides and pathways for the principal contributor (the Waste Tank Farm) is now strontium-90 via fish rather than via drinking water."

  "Difference from Cattaraugus Creek"?? Is it supposed to mean the dominant pathway for strontium-90 in Cattaraugus Creek is now fish rather than drinking water? — *238-354*

Book: *Appendix I*

- Page I-13, I.4.3.2, 1st sentence: "Source term(s) (that is, the quantities of radioactive material released to the environment over a given period) for the No Action Alternative normal operational releases were based on release quantities identified in Annual Site Environmental Reports, which can be found on the Internet at www.wv.doe.gov and are summarized in a technical report (WSMS 2008e)." This is one sentence. It states that Annual Site Environment Reports can be found on the internet and that they are summarized in WSMS 2008e. The single sentence is misleading since one would expect everything in the sentence to be on the internet. Since the summary is not on the net it should tell the reader where to get it. — *238-355*
- Page I-18, I.4.3.5: The paragraph states that an MEI is a member of the Seneca Nation of Indians. The statement should also identify the possibility that it could be a member of the Cayuga Nation who reside on Seneca Nation land. Not all Native Americans living on Seneca Nation land are Senecas. — *238-348 cont'd*
- Page I-20, I.4.3.6, 1st full paragraph: same comment as immediately above regarding Cayuga Nation members — *238-348 cont'd*

support implementation of EIS alternatives are presented in Chapter 4, Section 4.1.3 of this EIS.

238-296 DOE and NYSERDA note the commentor's statement. The definition is correct as written based on the DOE NEPA Glossary.

238-297 DOE and NYSERDA note the commentor's statement. The definition has been revised to state "Natural processes which include weathering, dissolution, abrasion, corrosion, and transportation, by which material is worn away from the earth's surface."

238-298 DOE and NYSERDA note the commentor's statement. The definition has been revised to state: "A unit physiochemical process that removes anions and cations, including radionuclides, from liquid streams (usually water) for the purpose of purification or decontamination."

238-299 DOE and NYSERDA note the commentor's statement. The definition of "mitigative measures" has been removed and replaced with a definition for "mitigation." The definition for "mitigation" is taken from the DOE NEPA Glossary and states: "Mitigation includes: (1) avoiding an impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of an action and its implementation; (3) rectifying an impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of an action; or (5) compensating for an impact by replacing or providing substitute resources or environments."

238-300 DOE and NYSERDA note the commentor's statement. The definition is correct as written based on the DOE NEPA Glossary.

238-301 DOE and NYSERDA note the commentor's statement. The definition for "orphan waste" has been revised to state: "Waste that cannot currently be disposed of in an established or planned permanent disposal facility because the path forward for treatment and disposal has not yet been defined. Examples of orphan wastes include some types of excess fissile materials, control rods, sludges, and hot-cell examination wastes."

238-302 DOE and NYSERDA note the commentor's statement. The "radioactive waste" definition has not been revised because the text is from the wording of the DOE NEPA Glossary; however, a separate definition for "special nuclear material" has been added to this EIS. Please see the response to Comment no. 238-307.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

- Page I-22, I.5.3: Why does the list only identify structural failures from seismic activity? Were other weather related events such as heavy snow load or high winds or possibly tornadoes considered? ***238-356***
- Page I-23, I.5.3: "Chemicals at the WVDP ~~or~~ intended for decommissioning activities are not capable of reaction with chemicals already at the WVDP or with each other in such a way that could initiate any accident releasing radionuclides." ***238-357***
- Page I-23, I.5.3, 3rd paragraph: "The seismic event is also assumed to fail any isolating or confinement covers around the high-level radioactive waste tanks."

  Rewrite to read: The seismic event is also assumed to cause any isolating or confinement covers around the high-level radioactive waste tanks to fail.

  or:

  The seismic event is also assumed to compromise any isolating or confinement covers around the high-level radioactive waste tanks. ***238-358***
- Page I-41, I.5.8, last paragraph, 5th line: "For the chemicals listed in Table I-26…" - Should be Table I-28 ***238-359***

Book: *Appendix J*

- Page J-33, J.11.4, last paragraph, 1st sentence: What does "State-of-the-art computer codes" mean? Codes for what? ***238-360***

Book: *Appendix K*

- Page K-1, K.1, 1st paragraph, 2nd sentence: "Air quality impacts were assessed by estimating onsite and offsite concentrations of criteria and toxic air pollutants of environmental concern and comparing them to Federal and State health-based ambient air quality standards." What does the underlined mean? ***238-361***

238-303 DOE and NYSERDA note the commentor's statement. The definition for "silt load" has been removed from this EIS. The term is not used in the Final EIS.

238-304 DOE and NYSERDA note the commentor's statement. The definition has not been revised because the wording is from the U.S. EPA Region 2 Water Sole Source Aquifer website.

238-305 DOE and NYSERDA note the commentor's statement. The definition is correct as written based on the DOE NEPA Glossary.

238-306 DOE and NYSERDA note the commentor's statement. The definition for "solvents" has not been revised per the commentor's statement.

238-307 DOE and NYSERDA note the commentor's statement. The definition for "special nuclear material" has been added to this EIS and states: "A category of material subject to regulation under the Atomic Energy Act, consisting primarily of fissile materials. It is defined to mean plutonium, uranium-233, uranium enriched in the isotopes uranium-233 or -235, and any other material that the NRC determines to be special nuclear material, but it does not include source material."

238-308 DOE and NYSERDA note the commentor's statement. The definition for "stream terrace" has been revised in EIS to state: "A stream terrace is indicated by an abrupt vertical or definite sloping rise in elevation uphill/landward, identifying the outer edge of the floodplain. It is more or less flat or lightly rolling land parallel to the stream channel and very rarely or never floods."

238-309 DOE and NYSERDA note the commentor's statement. A definition for "visitors" has not been added to this EIS because visitors are not included in analyses in this EIS.

238-310 All these terms refer to the same thing. For consistency, the term "appropriate clean backfill material" was used throughout Appendix C of this Final EIS.

238-311 Contouring to grade will follow common construction practices and will adhere to site procedures prepared in conformance with the New York State guidance documents.

238-312 The term "end-effectors" was changed to "tools" throughout this EIS.

238-313 Holes and trenches in WMA 7 that are cleared of waste materials would be backfilled with interim backfill (material stockpiled from the cap removal) as soon

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

Book: *Appendix M*

- Page M-17 M.4.2 2nd to last paragraph: The word mitigate is used in the broad sense. A much better choice would be "minimize". — ***238-362***
- Page M-12, M.3.1.2: The word "buffer", while it may be descriptive, is not used in the regulations. The proper term is "adjacent area", which is used in the regulation, 6 NYCRR Part 663.2(b). The adjacent area is at least 100 feet wide but may be broader where necessary to protect and preserve a wetland. The word "buffer" was used six times in this appendix. Five of those usages were with regard to NYS freshwater wetlands and should be corrected. — ***238-363***
- Page M-14, M.3.2.1, Last sentence: "Additionally, the loss of institutional controls leading to unmitigated erosion of the NDA and SDA (i.e., no credit is taken for monitoring and maintenance of erosion control structures) is analyzed in Appendix H." Is the sentence intended to say "uncontrolled" erosion? — ***238-364***
- It is not clear if the section states that Corps Permits would be required for federal wetland disturbances (when they are not state wetlands). Additionally, the Corps may require Water Quality Certification be issued by New York State if the activity has not been pre-certified by the DEC. — ***238-365***
- Page M-16, M.4.1, 4th paragraph, 2nd sentence: "These measures include adherence to the State Pollutant Discharge Elimination System (SPDES) General Permit for construction activities occurring in an area of five acres or greater." The area subject to regulation under this program is now one acre or greater. — ***238-366***
- Page M-17, M.4.2, 1st paragraph: "A Sitewide Stormwater Pollution Prevention Plan for controlling runoff and pollutants from the site during and after construction activities would be required to obtain permit coverage under NYSDEC's General Permit (~~GP-02-01~~) for Stormwater Discharges from Construction Activities." Replace with GP-0-08-001 — ***238-367***
- Page M-17, M.4.2, 2nd paragraph: "Prior to the disturbance of any wetland, a Section 404 permit would be acquired from the U.S. Army Corps of Engineers along with a Section 401 Water Quality Certificate from the State of New York." This statement is misleading. In cases where a Corps Nationwide Permit has been pre-certified by New York State an individual Water Quality Certification is not required. — ***238-365 cont'd***

Book: *Appendix N*

- Page N-1, N.2: Explosive devices are discussed but it is not clear if a scenario with a fire is part of any of the on-site scenarios. (Fires are discussed in transportation situations) Would a fire that could not be controlled by water (phosphorous?) with a resulting smoke plume disperse more material over a greater area? — ***238-368***

as the hole/trench is completed. Once all of the holes and trenches are cleared, a mass excavation would be performed to remove the potentially contaminated overburden and interstitial soils. The interim backfill would be excavated during this phase. Subsequently, final status surveys and chemical confirmatory testing would be performed in the mass excavation prior to a final backfilling of the area with appropriate clean backfill material. The NDA Environmental Enclosure would remain in place and functional until all of the holes and trenches are cleared.

238-314 Wording has been added to Appendix C, Section C.3.1.12.3, of this EIS to state that the railroad ties will be sampled and characterized for potential hazardous constituents, such as creosote and pentachlorophenol, prior to their disposal. Wording also has been added to address the track ballast. The ballast would be excavated and stockpiled on site for subsequent disposal as construction and demolition debris.

238-315 The only wastes that will arrive at the Container Management Facility (CMF) are wastes removed from the NDA and the SDA or orphan wastes from other onsite locations scheduled for interim storage at the CMF. No offsite wastes will be processed at the CMF.

238-316 The design of the CMF is conceptual at this time; however, placing an office building on the second floor separate from the first floor facility areas would reduce the size of the overall footprint. Piping is available for potable water and for sewers.

238-317 "Prepackaged wastes" was removed from this sentence in Appendix C, Section C.4.4, of this EIS. There would be no "prepackaged wastes" received by the receiving dock.

238-318 The end of the sentence was changed to "…telescoping boom with various tools."

238-319 The last few paragraphs of Appendix C, Section C.4.5, of this EIS were rewritten. The term "scabling" was removed.

238-320 The cited paragraph does not belong in Appendix C, Section C.4.6.8, of this EIS and has been removed. It remains in Section C.4.4.

238-321 The multilayer cover systems would be routinely inspected for signs of deterioration or damage resulting from subsidence, erosion, or the growth of deep-rooted vegetation. Routine repairs to the covers, such as reseeding or backfilling small depressions, would be performed as needed. Additional maintenance activities

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

Enclosure 2 - NYSDEC Non West Valley Assigned Staff DEIS Comments

Book: *Appendix P*

- Page P-2, P.3, recreational hiker: Why was this class of individual chosen? Was it for the type of activity or for the location that the activity takes place? If it was for the activity one would think the exposure was minimal and why bother except to show the small amount of exposure. If the attempt was to find some type of individual that would be in a specific location then there is a better choice. Children/youths would likely be in the same area and could have potentially more exposure by operating off road vehicles or playing in the stream.

238-369

would include periodic mowing of the vegetated portions of the covers, trimming of vegetation, and removal of vegetation with root depths in excess of one foot to prevent deep root growth into the multilayer covers.

238-322 Erosion controls would be designed consistent with guidance in NRC's NUREG-1623, "Design of Erosion Protection for Long-Term Stabilization," September 2002. As stated in Section 2.1.2 of the NUREG, designs must provide reasonable assurance of control of hazards for a 1,000-year period, to the extent practicable, but in any case, for a minimum 200-year period. In Section 2.1.2 of the NUREG, remedial action designs are intended to provide overall site stability for the long time periods, with no reliance placed on active maintenance; however, active maintenance would be performed for a shorter period of time to assure that the planned long-term controls will be effective. Adjustments to the long-term controls would be made during the active maintenance period. DOE and NYSERDA are aware that straightening a stream increases erosional forces. The effects of the increased forces would be factored into the erosion control designs.

238-323 The term should be "probable maximum flood" and was changed in Appendix C of this EIS. The term was added to Chapter 8 of this EIS, the Glossary, where its definition is given. In general terms, the probable maximum flood represents the largest flood for which there is a reasonable expectancy.

238-324 Wording was added to Appendix C, Section C.4.13, of this EIS that discusses diversion of the stream prior to channel excavation.

238-325 The text was revised to state that the creek rim moves into the contaminated areas.

It is correct that young individuals may be more susceptible to certain risks than adults. Consistent with NRC guidance in NUREG-1757, "NRC Consolidated Decommissioning Guidance," use of the average member of the critical group is intended to reasonably bound potential doses and the analysis primarily uses intake-to-dose conversion factors for adults. The gender and age-averaged dose and risk coefficients of Federal Guidance Report 13 are used in the EIS decommissioning and long-term human health impact analysis.

238-326 The sentence has been revised and the punctuation corrected in this Final EIS.

238-327 The sentence has been revised and clarified in this Final EIS.

238-328 The text has been revised for clarity in this Final EIS.

238-329 The text has been revised for clarity in this Final EIS.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

238-330 The qualifier "post 1999" is a reference to the statistical screening. The first sentence of the paragraph indicates that, "…the observed hydraulic conductivities appear to change around 1999 in a manner similar to the thick-bedded unit."

238-331 This is in reference to the 12 locations discussed in the previous paragraph. The text has been clarified in this Final EIS.

238-332 The text has been revised for clarity in this Final EIS.

238-333 "Undisturbed" is a better word. The text has been revised in this Final EIS.

238-334 The text in Appendix E, Section E.4, of this Final EIS, has been revised as suggested.

238-335 The text in Appendix E, Section E.4, of this Final EIS, has been revised as suggested.

238-336 The text in Appendix E, Section E.4, of this Final EIS, has been revised as suggested.

238-337 The sentence does not appear in Appendix F in this Final EIS.

238-338 The individual doses and risks from each radionuclide in a mixture are additive. As stated in Appendix I of this Final EIS, in the definition of a rem (the measurement of the dose equivalent from radiation based on its biological effects), the biological effect of a rem from one type of radiation is the same as from a rem of any other kind of radiation. There are no multiplicative effects. Appendix I, Section I.3, discusses the studies used to develop the risk models used in this EIS.

238-339 An artificial mound of soil, drainage, and clay layers is being considered as part of the closure designs. The ultimate design goal for the tumulus is to minimize amount of water passing through the waste form. The text has been modified consistent with the suggestion.

238-340 No credit is taken for tank integrity, so groundwater flow is determined by hydraulic head and hydraulic conductivity of the various materials. As stated in Appendix G, Section G.3.2.3, of this Final EIS, "The grout, backfill, and slurry wall system have low hydraulic conductivity…flow model described in Appendix E indicates that groundwater will enter the excavation and a portion will flow around and through the tanks in the horizontal direction… a portion of the available groundwater will move downward through the tank."

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

238-341 An intruder is a human and the intrusion can either be temporary (for the construction and well drilling exposure scenarios) or occur over a longer period of time (resident farmer). The intruder and intruder scenarios are more fully discussed in Appendix G, Section G.4.2, of this Final EIS. The exposure to the individual while hiking is considered as part of the total exposure to the farmer resident. Hiking was identified as one activity of this person that would provide an additional opportunity for exposure. As such, the impact from hiking was added to the impacts associated with the other activities of this individual. It is correct that young individuals may be more susceptible to certain risks than adults; however, NRC guidance (NUREG-1757, "NRC Consolidated Decommissioning Guidance") is used along with higher ingestion factors. The analysis uses the gender and age-averaged dose and risk coefficients of Federal Guidance Report 13.

238-342 Intentional destructive acts (IDA) are not considered accidents and are addressed separately from the accident analysis. Results of the IDA analysis are presented in Chapter 4, Section 4.4, of this EIS.

238-343 "For" has been taken out of the text as recommended.

238-344 The recommended word change has been made and a comma has been added.

238-345 DOE and NYSERDA note the comment.

238-346 The paragraph has been rewritten. The incomplete sentence is not included.

238-347 The text has been revised as suggested.

238-348 A Seneca Nation of Indians receptor is someone who lives on the Seneca Nation of Indians Cattaraugus Reservation. The text has been changed to state, "…the second lives on the Seneca Nation of Indians reservation and has a significantly higher consumption…"

The statement has been modified to state, "…higher fish consumption for a resident on the Seneca Nation of Indians reservation…"

The statement has been modified to include other Native American Nation members living on Seneca Nation land. After "…Seneca Nation…," the following has been added "…(or other Native American Nations living on Seneca Nation land)…"

238-349 The suggested change has been made.

238-350 The suggested change has been made.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

238-351 The suggested change has been made.

238-352 The suggested change has been made.

238-353 DOE and NYSERDA note the comment, but have not revised the footnote. The footnote means that the information we have indicates a chemical inventory that is small compared to that in some other facilities or WMAs.

238-354 The text has been revised to refer to "the Cattaraugus Creek receptor."

238-355 The text has been revised to state, "Source term(s) (that is, the quantities of radioactive material released to the environment over a given period) for the No Action Alternative normal operational releases were based on release quantities reported in a technical report (WSMS 2008e)."

238-356 The assumed structural failure for the seismic event bounds any structural failure from weather-related events such as heavy snow, high winds, or tornados.

238-357 The text has been revised to state, "Chemicals at the WVDP intended for decommissioning activities are not capable of reaction with chemicals already at the WVDP or with each other in such a way that could initiate any accident releasing radionuclides."

238-358 The text has been revised to state, "The seismic event is also assumed to cause any isolating or confinement covers around the high-level radioactive waste tanks to fail."

238-359 "For the chemicals listed in Table I–26…" has been changed to, "For the chemicals listed in Table I–28…" in this sentence.

238-360 This statement refers to the use of computer codes for calculating radiological impacts from transportation. See Appendix J, Section J.4, of this EIS for these codes.

238-361 The statement was reworded to state, "…onsite and offsite concentrations of criteria pollutants and toxic air pollutants of environmental concern…"

238-362 This change has been made where appropriate in this paragraph. In another location in this paragraph, the text has been revised to clarify certain mitigation measures would minimize impacts.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

238-363 References to a "100-foot buffer zone" have been replaced with "adjacent area," and "buffer area" (referring to a 100-foot buffer zone) also has been changed to "adjacent area."

238-364 The suggested change has not been made. The term "unmitigated erosion" is correct and is discussed in detail in Appendix H of this EIS.

238-365 A new paragraph has been added to Appendix M, Section M.3.1.2, of this EIS, which begins with, "Prior to the disturbance of any jurisdictional wetland, a Section 404 permit would be acquired from the U.S. Army Corps of Engineers, and, in the case of a New York State Freshwater Wetland, a permit would be acquired from NYSDEC."

The first sentence in the third paragraph of Appendix M, Section M.4.2, has been revised to state: "Prior to the disturbance of any jurisdictional wetland…" The remainder of the sentence has not been revised; the Army Corps of Engineers will coordinate with New York State to determine applicability.

238-366 The second and third sentences of the fourth paragraph of Appendix M, Section M.4.1, have been revised to state: "These measures include adherence to the State Pollutant Discharge Elimination System (SPDES) General Permit which requires the implementation of best management practices during regulated construction activities to reduce nonsource pollutant loadings into waters of the state."

238-367 The General Permit number has been updated to GP-0-08-001.

238-368 The use of an explosive device results in a larger source term and greater radiological impacts than a fire even with phosphorus present. The robust design of radioactive waste transportation casks includes their tested ability to withstand extended high-temperature fires. By assuming use of an explosive device, the radioactive source term is larger than that from a fire.

238-369 The SDA QRA quantifies the risk to a nominal recreational hiker to account for historical evidence that trespassers have occasionally entered the NYSERDA property. The available records indicate that these intruders have primarily been hunters who traverse the area along Buttermilk Creek and the lower reaches of Franks Creek. The more general term "recreational hiker" is used in the QRA to broadly characterize these types of activities.

Commentor No. 238 (cont'd): Edward Dassatti, New York State Department of Environmental Conservation

The recreational hiker receptor scenario was considered representative of a group of members of the public, which, through their varied activities on the NYSERDA site property outside the fenced control boundary, could be exposed to radionuclides transported through the streams following a release from the SDA. This scenario was included in the analysis for completeness.

Radionuclides deposited along the banks of Franks Creek and Buttermilk Creek following release from SDA trenches and dilution by other sediments along the transport path were recognized to be the major sources of exposure for this receptor. Radionuclides in water transported from the trenches were recognized to be much less important, in part because the durations of peak concentrations of radionuclides in water in the stretches of interest would be short. Exposure times to peak concentrations would also be short, if not zero. Deposited sediments, on the other hand, could reside in the reaches of interest for some time following release, and the potential for exposure over significant time durations would be greater. In this analysis, dose estimates were maximized by assuming no scouring, further dilution, or redistribution of this sediment following initial deposition.

The point estimate sediment exposure was assumed to be 100 hours per year to a circular sediment source 10 meters in radius. (It should be noted that exposure to an effectively smaller source would require longer exposure times to receive the same dose.) To assess uncertainty, the exposure time was assigned a uniform probability distribution within the range 50-150 hours per year. The sediment exposure time estimate of 100 hours per year corresponds to two hours per day for nearly two months per year, or one hour per day for nearly four months per year.

There appears to be no basis for preferring exposure at one location along the reaches of interest over any other location. For this reason, the exposure time was assumed to be uniformly distributed along the total length of the stream reaches of interest.

Based on casual observation of conditions and activities at the site, this exposure scenario seems to be conservatively representative for a single individual engaged in any likely activities along the reaches of interest.

Refer to Sections 11.2 and 11.5.2 of the QRA report for details of the analyses and results.

Commentor No. 239: Martha Sullivan

From: Martha Sullivan [scooteranne@rochester.rr.com]
Sent: Saturday, August 29, 2009 9:01 AM
To: frank.murray
Subject: clean up of nuclear waste at West Valley

Good morning, Mr. Murray,

I'm writing you to urge you to select the option that cleans up ALL the nuclear waste at the West Valley site. Don't leave it buried for 30 more years - that is just a recipe for disaster. Our Great Lakes are priceless. Nuclear waste is not something to mess around with, especially if there is even a CHANCE of contaminating our drinking water supply. *239-1*

This is a no-brainer. Please clean up ALL the nuclear waste at this site. It's the right thing to do.

Thank you.

Martha Sullivan
Rochester, NY

239-1 DOE and NYSERDA acknowledge the commentor's preference for cleanup of all of the waste and opposition to the Phased Decisionmaking Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

Commentor No. 240: Ron Missel

From: Ronald Missel [rcm_14617@yahoo.com]
Sent: Wednesday, September 02, 2009 10:37 AM
To: frank.murray
Subject: West Valley Nuclear Wast Site - Clean Up

Mr Frank Murray,

NYSERDA President

I urge you to promote full clean-up of the West Valley Nuclear Waste Site and remove all waste from the site. Eventually, waste will leech into the immediate watershed and ultimately into Lake Erie. I believe this is already occurring. ***240-1***

As you know, a recent devastating storm in the area eroded a wall of Buttermilk Creek bringing the creek closer to the radioactive waste trenches. ***240-2***

I understand this problem was not of your doing, but it is critical that it's addressed and dealt with, rather than reviewed and tabled. Again, the only realistic solution is to dig up and remove the waste. ***240-1 cont'd***

Thank you.

Ron Missel
xxx-xxx-xxxx
3905 Bowen Rd. - Unit 48
Lancaster, NY 14086

240-1 DOE and NYSERDA acknowledge the commentor's support for the full cleanup of the WNYNSC site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

240-2 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. The erosion predictions used for the unmitigated erosion analysis are based on the assumption that storms occur more frequently than is currently estimated and include the effects of storms of greater severity than the one that occurred in the region in August 2009. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. Please see "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Commentor No. 241: Mark Hatley

From: James Hatley [shirivasta@gmail.com]
Sent: Friday, September 04, 2009 10:19 AM
To: secretary@hq.doe.gov; frank.murray
Subject: West Valley Nuclear Wast Sire Full Clean Up

Dear Secretary Chu and President Murray,

I am a Buffalo resident writing to urge you to strongly consider a full and timely clean up of the West Valley Nuclear Waste Site. With many needs and little money to go around it would seem difficult to weigh a potential problem that has not yet presented. However, in this case, there is a potential consequence that elevates this issue to a special status. ***241-1***

Best regards,

Mark Hatley
167 University Avenue
Buffalo, NY 14214

241-1 DOE and NYSERDA acknowledge the commentor's desire for prompt action to address site cleanup and support for the full cleanup of the WNYNSC site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Commentor No. 242: Pam Hatley

From: Pamela Hatley [pamelahatley@gmail.com]
Sent: Friday, September 04, 2009 4:59 PM
To: frank.murray
Subject: West Valley Nuclear Waste Site

Dear President Murray,

I am a Buffalo resident writing to urge you to strongly consider a full and timely clean up of the West Valley Nuclear Waste Site. With many needs and little money to go around it would seem difficult to weigh a potential problem that has not yet presented. However, in this case, there is a potential consequence that elevates this issue to a special status. *242-1*

Best regards,

Pam Hatley
167 University Avenue
Buffalo, NY 14214

242-1 DOE and NYSERDA acknowledge the commentor's desire for prompt action to address site cleanup and support for the full cleanup of the WNYNSC site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Commentor No. 243: Catherine Reimers

September 8, 2009

Catherine Reimers

2384 Blakeley Road

South Wales, NY 14139

It is very important that the government take responsibligly for digging up the high level nuclear waste that is still at West Valley before it leaks into the tributaries that fee Lake Erie. Let's do it right so we don't regret this in the future. ***243-1***

243-1 DOE and NYSERDA acknowledge the commentor's support for cleanup of the WNYNSC site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Commentor No. 244: Barbara Warren, Citizens' Environmental Coalition

Adirondack Mountain Club NFG
Catholic Diocese Care For Creation Committee
Center for Health, Environment & Justice
Citizens Campaign for the Environment * Citizens' Environmental Coalition
Concerned Citizens of Cattaraugus County
Environmental Justice Action Group of WNY
F.A.C.T.S. (For A Clean Tonawanda Site), Inc.
Franciscan Sisters of St. Joseph * Great Lakes Sport Fishing Council
Sierra Club * Nuclear Information and Resource Service
Presbytery of Western New York

September 1, 2009

Dr. Steven Chu, Secretary
Department of Energy
1000 Independence Ave., SW
Washington, DC 20585

Francis Murray, President
NYSERDA
17 Columbia Circle
Albany, NY 12203

Re: West Valley Radioactive Waste Site Full Cleanup Decision

Dear Secretary Chu and President Murray,

Today, September 1, 2009, the West Valley Action Network organized a CLEAN-UP CREW at a Press Conference in Buffalo. The CLEAN-UP CREW is tired of waiting for a Full Clean-up at the West Valley Radioactive Waste Site. Federal and State governments plan to clean-up just 1% of the dangerous radioactivity at the site. This leaves 99% in place to threaten the Great Lakes and our drinking water, while officials study the situation for another 30 years. Complete with buckets, mops, sponges, gloves and masks the CLEAN-UP CREW is demonstrating the need and urgency of a FULL CLEAN-UP NOW, not at some long distant future date. ***244-1***

"TIRED OF WAITING," the CLEAN-UP CREW stressed that there is renewed urgency to ACT NOW to dig up the radioactive waste and safely contain it so that it cannot spread further. The West Valley site is particularly vulnerable to erosion and independent scientists have warned that radioactive waste could be released by the powerful forces of nature and jeopardize the Great Lakes and drinking water. Global warming is also predicted to cause more frequent severe weather events. The weekend of August 8th gave us a preview of things to come—with over 5 inches of rainfall, flash floods caused severe erosion and flooding in nearby areas. A ***244-2***

244-1 DOE and NYSERDA acknowledge the commentors' preference for the Sitewide Removal Alternative and opposition to the Phased Decisionmaking Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

244-2 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds

Commentor No. 244 (cont'd): Barbara Warren, Citizens' Environmental Coalition

landslide occurred on the steep 160 foot bank of Buttermilk Creek near the radioactive waste trenches of the State Disposal Area. It is estimated that thousands of tons of material were moved in the slide including a strip of land approximately 15 feet wide at the top of the bank. Other creeks were also impacted and reservoirs at the site overflowed.

244-2 cont'd

The independent scientific study released in December 2008, *The Real Costs of Cleaning Up Nuclear Waste*, estimated it could cost tens of millions of dollars to build engineered structures to try to prevent erosion but that even with strict and constant monitoring, it is very questionable that erosion at the West Valley site could be effectively prevented for a thousand years. This is especially true in light of the fact that global warming could increase precipitation by 20—30% with more extreme rainfalls. The 160 foot bank of Buttermilk Creek is particularly unstable and significant erosion could expose and release radioactive waste buried in the elevated plateau in which West Valley waste site is located.

244-3

Unfortunately, the US DOE and NYSERDA assumed when performing an Environmental Impact Statement for West Valley that no Global warming would occur for 10,000 years and therefore there would be no exacerbation of severe weather in the West Valley area. Thousands of scientists worldwide including many within the US government have acknowledged the inevitability of global warming and have documented impacts that are occurring today. Global warming impacts on this site, which is vulnerable to erosion under ordinary circumstances, should have been studied. In 2006 rainfall of 14-15 inches in Binghamton, NY caused a flood of historic proportions. Failing to study potential severe weather impacts from global warming leaves everyone in the dark about how quickly dangerous radioactivity could be spread widely in the region and provides inadequate warnings to the public officials and safety professionals who might have to respond to a disaster.

A long string of failures has been associated with the venture into commercial reprocessing including the choice of the West Valley site, the promises related to long term waste disposal and a fund to pay for cleanup. The proposed plan to clean up just 1% of the dangerous radioactivity while asking us to WAIT another 30 YEARS JUST FOR A DECISION ON FURTHER CLEANUP is a recipe for disaster. The government assumes it can contain radioactive waste at this site for thousands of years. The record of failures makes this a dangerously flawed assumption.

WAITING will guarantee that CLEAN-UP or consequences of failure to fully clean up will be far MORE EXPENSIVE, but it may also be CATASTROPHIC for millions of people and the Great Lakes. The only acceptable option is a Full Clean-up under the Sitewide Removal option presented in the Environmental Impact Statement. We need a commitment to FULL CLEAN-UP NOW!

Thank you for your consideration of our views.

of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. In addition to the previously cited Issue Summary, please see "Concerns about Potential Contamination of Water" and "Questions about Long-term Erosion Modeling" for further discussion of these issues and DOE's and NYSERDA's responses.

244-3 The report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., has been addressed in this CRD consistent with the Council on Environmental Quality's NEPA regulations. Please see the Issue Summary for "Conclusions of *the Synapse Report*" in Section 2 of this CRD for further discussion of the report's issues and DOE's and NYSERDA's response.

The analysis in this EIS recognizes the potential for climate change to influence the long-term consequences of waste management. Climate changes, whether natural or influenced by human actions, could change the nature and amount of precipitation. Appendix H, Section H.3.1, of both the Revised Draft EIS and this Final EIS discusses the sensitivity of groundwater flow to changes in annual precipitation. The revised erosion prediction used for the unmitigated erosion dose analysis is based on the assumption that storms could occur more frequently than indicated by current records. This prediction includes the effects of storms of greater severity than the one that occurred in the region in August 2009. The use of this higher erosion rate associated with an elevated precipitation rate is discussed in Appendix H, Section H.2.2.1. Chapter 4, Section 4.3.5, has been revised to include a discussion of how the uncertainties about future climate change are addressed in this EIS.

Commentor No. 244 (cont'd): Barbara Warren, Citizens' Environmental Coalition

3

Respectfully,

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Commentor No. 245: Diane D'Arrigo, Nuclear Information and Resource Service

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From: Diane D'Arrigo [mailto:dianed@nirs.org]
Sent: Tuesday, September 08, 2009 10:09 PM
To: WestValleyEIS@wv.doe.gov.
Subject: Comments on West Valley revised DEIS - Factsheets from the Full Cost Accounting Study

Factsheets are summaries of chapters in ***The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site*** released in December 2008.

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245-1

245-1 DOE and NYSERDA acknowledge the receipt of these factsheets.

Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

The Real Costs of Cleaning Up Nuclear Waste

Summary of Report Findings

The study evaluated two cleanup Alternatives presented in the Department of Energy's 2005 draft Draft Environmental Impact Statement (DEIS).
• Waste Excavation Alternative 1: Total exhumation of the wastes, off-site disposal, followed by complete site release for unrestricted use.
• Onsite Buried Waste Alternative 2: Partial waste removal, stabilization of buried wastes for permanent onsite disposal.

Findings and Recommendations

■ **Waste Excavation is less expensive than Buried Waste.** Over a 1000 year timeframe, Waste Excavation presents the least risk to a large population and the lowest economic social and project cost. Over 1000 years, the Waste Excavation approach costs $9.9 billion while the Onsite Buried Waste approach costs between $13 and $27 billion, depending on if a catastrophic release occurred accidentally or not.*

■ **Waste Excavation poses significantly lower risks to future generations after closure activities cease.** The Onsite Buried Waste approach poses a risk to residents long after closure activities have ended. In contrast, Waste Excavation leaves behind a contamination-free area after 73 years.

■ **The Onsite Buried Waste approach inadequately protects the health and environment of residents, and is an unrealistic cost.** It poses a risk to residents if controls fail while dangerous radionuclides are buried at West Valley.

■ Waste Excavation poses a risk to onsite workers during the relatively short period of time for remediation activities. It also does not "solve" the problem of West Valley's nuclear waste disposal, rather it prevents further contamination, prevents a catastrophic release that could cause severe damage to populations in the Great Lakes region, and mitigates the problem by transferring the waste to a less risk-prone site. (It is important, yet unfortunately beyond the scope of this analysis, to note that wastes which have left the site are not risk free. Rather, they will have to be stored somewhere else and may also pose a threat to future generations.)

■ **Based on these findings, we recommend that the Department of Energy and NYS agencies take the following actions for any new West Valley DEIS.**

• Reject current assumptions about timeframe, institutional controls and continuity, and budget requirements as presented in the 2005 DEIS due to their inability to adequately protect health and the environment as required by federal statute.

• Assume that, until shown otherwise, the safest and most economically viable option is to fully excavate the wastes buried at West Valley (Alternative 1).

• Explore other options for retrievable, monitored, above-ground storage of nuclear waste at a more stable site. In addition, the full costs of remediating West Valley must be factored in to decisions being made for new reprocessing and nuclear power.

• In the new DEIS, revisit the following topics more rigorously and with public input: 1) the probability of maintaining effective institutional controls over the expected lifetime of radioactive elements buried at the site; 2) the risk of erosion control failure with or without

245-2 **245-2** The report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., including the three appendices, have been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for discussion of the report's issues and DOE's and NYSERDA's response.

Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

the maintenance of controls; the rate of release and source of contamination should there be an erosion control failure; and 3) the potential for radioactively contaminated groundwater to move rapidly through sand layers in West Valley soils.

• In the new DEIS, revisit the following budget topics more rigorously, with public input: 1) the costs of addressing contaminated groundwater and drinking water for local populations and watersheds; 2) the costs of addressing contamination impacting Lake Erie; and 3) the economic opportunity cost of lost development ability at the site.

• Evaluate options for mitigating radioactive waste at West Valley based not only on project cost alone, but also on project and post-closure risks over the expected lifetime of radioactive elements buried at the site.

Additional Full Cost Accounting Analysis Results

1. **The Department of Energy's DEIS analysis of Alternatives 1 and 2 are unrealistic, and, more importantly, incomplete.** The DEIS uses a period of analysis far too short to reflect real costs and risks, and does not adequately address real harm risks as well as monetary costs to the public and the environment. With Waste Excavation, as soon as closure activities cease—in an estimated 73 years—the site is released to the public and there are no remaining costs. With Onsite Buried Waste, however, the site must be maintained into perpetuity. *In this case, perpetuity is not a dozen years, or even two or three generations—the buried radioactive waste would have to be monitored, tracked, and maintained in place for tens of thousands of years. Despite this basic axiom, the DEIS only allocates a skeleton budget for 200 years.*

2. **Extending the period of analysis to 1000 years, a first step in setting a period more in line with the decay times for high-risk radioactive waste (yet not nearly long enough for some of the most dangerous radionuclides), reveals that the long-term site maintenance costs are burdensome and expensive.**

3. **The total costs of this analysis must be taken as a whole, undiscounted cost.** In standard capital investments, a discount rate is applied to account for future interest earnings. Over periods of 1000 years, any substantial discount rate implies that the health and wellbeing of future generations has no present value (i.e. no worth to us today). Since the plans being considered are ostensibly meant to protect the public for many generations, we cannot reasonably assume that there is no value to public heath in the year 1000. Therefore, the discount rate must be zero, or near zero. While the choice of a discount rate for short term decisions is an economic question, the choice of an intergenerational discount rate is a matter of ethics and policy. The value of future lives and health is a strong argument for not using an economic discount rate in this analysis. **However, if standard federal Office of Management and Budget discount rates (3% and 7%) are employed, Alternatives 1 and 2 cannot be said to be significantly different from an economic standpoint.**

4. **As a practical necessity, we are compelled to use a precautionary approach at West Valley**. We cannot know the costs which may occur if wastes are left buried at West Valley, but we do know if a release occurred, it would have expensive and disastrous consequences. The costs of exhuming radioactive contamination will be expensive in the short-term, but the costs of maintaining buried waste in an attempt to thwart future disaster will be far more expensive and far less certain. In a precautionary sense, we should

245-2 cont'd

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Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

excavate and move the wastes while we still know what is in the ground, how to handle it, and have some chain of responsibility still available.

5. **We adjusted the underlying budget assumptions and included enhanced erosion controls in Alternatives 1 and 2 to bring balance to their relative long term risks,** calling the new options Waste Excavation Alternative 1A and Buried Waste Alternative 2A. We considered that: 1) erosion would need to be kept rigorously under control at the site; 2) security would need to be held at a relatively rigorous level to ensure intruders could not access wastes; 3) a spreading plume of contaminated groundwater would have to be remediated to prevent contaminants from entering the local watershed; and 4) the inevitable and powerful forces of time and erosion could eventually expose wastes catastrophically, leading to high costs of remediation for water consumers.

(Excerpts from Executive Summary of ***The Real Costs of Cleaning Up Nuclear Waste)***

*Under the assumptions of a non-discounted future. This does not include all the societal costs due to resources or lack of data.

245-2 cont'd

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Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

History of West Valley

Thirty miles south of Buffalo, New York, the West Valley nuclear waste site sits on a plateau slowly but certainly eroding away with time. In the 1960's, when Nuclear Fuel Services begin reprocessing nuclear fuels, the potential dangers were rapidly outweighed by the enthusiasm for nuclear reprocessing and the economic prosperity it promised. After nearly a half century, there is no doubt that this decision was a mistake for the region's safety and health. The six years in which this facility reprocessed nuclear fuel have been dramatically overshadowed by decades of fierce debate about the cleanup of the site.

Radioactive Contamination

The site is in the Town of Ashford in Cattaraugus County, NY. At least 250 of the 3,345 acres have been heavily contaminated with nuclear and hazardous wastes. By today's standards, a nuclear facility would not be allowed on land as erosion-prone as the West Valley site. *The site is burdened with vast amounts of toxic and radioactive wastes, many of which will remain radioactive for tens of thousands of years, some for millions of years.* The list of contaminated wastes reads like a laundry list of dangerous elements: cesium-137, plutonium-238, -239, -240, and -241, uranium-238, iodine-129, tritium, and thorium-234, amongst others. These elements, if ingested or inhaled, lodge in human tissues, fat, or bone and are known to be responsible for leukemias and cancers at very low doses. There is no known safe level of exposure to radioactive chemicals—each exposure increases the likelihood that cancer and other health effects may occur.

The site has been plagued with problems from the start, including leakage of radioactive and toxic waste in several areas, such as a significant underground plume of radioactive elements spreading through groundwater. Waste from the site has been found as far away as the sediment along the shore at the juncture of the Niagara River and Lake Ontario.*

Site Created by Country's Failed Commercial Reprocessing Facility

The site is the nation's only venture into commercial reprocessing of irradiated nuclear fuel. The Nuclear Fuel Services (NFS) facility was a Plutonium Uranium Extraction process plant and the process included storing spent fuel assemblies; chopping the assembly rods; dissolving the uranium, plutonium, and radioactive products in acid; separating and storing the radioactive wastes, and separating uranium nitrate from plutonium nitrate. In 1959, New York became the only state to accept a federally-initiated plan to form a public-private partnership to reprocess nuclear material and in 1961, the state purchased the land in the Town of Ashford, for what would become the Western New York Nuclear Services Center owned by NFS, a company that continues to this day. The facility operated for six years (1966-1972) and reprocessed about 640 metric tons of irradiated fuel. In 1972, reprocessing ceased and changes in safety and environmental regulations required NFS to undergo a complete licensing review. *In 1976, NFS determined it would cost over $600 million to comply and decided to leave the site, passing on responsibility for all wastes to the government.*

245-3

245-4

245-5

245-3 The commentor is correct that scientific studies have not clearly demonstrated the existence of a threshold below which exposure to ionizing radiation conveys no risk of health effects. By assuming that the risk of health effects at low doses is proportional to the exposure (i.e., doubling the exposure also doubles the risk), regulatory agencies such as EPA and NRC have adopted a prudent approach to establishing standards to protect human health and the environment from the effects of ionizing radiation. EPA typically regulates radiation exposure based on a lifetime cancer risk of 1×10^{-6} to 1×10^{-4} (1 in a million to 1 in 10,000), consistent with its approach for chemical carcinogens. NRC's license termination dose criterion of 25 millirem per year total effective dose equivalent is consistent with the recommendations of advisory bodies such as the International Commission on Radiological Protection to limit exposures to members of the public from individual sources of radiation. Estimated exposures from the alternatives considered in this EIS are presented throughout this document in a manner that allows a comparison with these levels of protection.

245-4 Chapter 3, Section 3.6.2.1, of this EIS addresses groundwater at WNYNSC that was contaminated due to past activities (for example, the North Plateau Groundwater Plume). This EIS was prepared to evaluate the environmental impacts of alternatives for decommissioning and/or long-term stewardship of WNYNSC. Under all of the action alternatives, DOE would either remove contamination sources, mitigate their impacts to groundwater, or both. Under the Sitewide Removal and Phased Decisionmaking Alternatives, DOE would remove the source of the North Plateau Groundwater Plume. Potential groundwater impacts associated with the EIS alternatives are discussed in Chapter 4, Sections 4.1.4 and 4.1.10, and Appendix H of this Final EIS.

The contamination at the juncture of the Niagara River and Lake Ontario was the result of releases from the site when reprocessing operations were in progress. The environmental contamination from current operations is minimal (below established standards), as demonstrated by the results from the ongoing environmental monitoring program.

245-5 Chapter 1 of this EIS summarizes the history of the WNYNSC site and of the EIS process for addressing decommissioning and/or long-term stewardship of the site. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles. Section 1.2 describes the EIS process that has led to the development of this EIS. Note that Chapter 1, Section 1.2, identifies the 2005 version as an internal preliminary

Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

Department of Energy Remediation of the West Valley Site
In 1981, a federal law, the West Valley Demonstration Project Act, directed the Department of Energy (DOE) to solidify the high-level liquid wastes, clean up and close the site. West Valley Nuclear Services was selected as the prime contractor. Vitrification—mixing the high-level waste with melted glass—was the solidification method which started in 1996 and was completed in 2002. In 1987, DOE agreed to do an Environmental Impact Statement (EIS) on the cleanup and closure of the site. A draft EIS (DEIS) was issued in 1996 with five different cleanup alternatives. In 2001, the DOE split the EIS process into two parts; one on waste management at the processing facility and the other on total site cleanup and closure options. The first part, "Waste Management EIS", was released in 2003. The second DEIS part was released in 2005 on "Site Closure Options." After the 2001 splitting of the EIS process, the Coalition on West Valley Nuclear Wastes took legal action as they believed it was contrary to federal law. The case remains in Federal Court, under appeal and unresolved.

DOE's draft 2005 Draft Environmental Impact Statement (DEIS) on final cleanup and closure options changed substantially from the1996 DEIS; useful alternatives were eliminated and the estimated costs of cleanup changed radically. *Although there was no recommendation given, the DEIS seemed to imply that leaving the bulk of the waste in the ground was a cost-effective way of remediating the site.* Concerns raised by state agencies appear to have prompted the DOE to work on another DEIS, expected to be released soon. *Currently, this process is one of the longest unresolved EIS procedures in US history.*

245-5 cont'd

Cleanup Governed by Mix of Federal and State Policies
The site cleanup is governed by a complex mix of federal and state laws, regulations and guidance. On the federal level, the DOE is the lead agency, although the Nuclear Regulatory Commission also has some regulatory authority and requirements. There are also state Department of Environmental Conservation cleanup requirements, and the site includes a state-licensed radioactive burial area covered by state procedures. *Under federal law, NYS is responsible for 10 percent of the costs and the federal government is responsible for 90 percent of the cleanup costs at the West Valley Demonstration Project site.* (NY is responsible for all the costs of the State licensed Disposal Area.) NY is the only state that contributes to the cleanup of a high-level radioactive waste site, and to date, the state has contributed more than $250 million to the project. *In 2007, the NYS Attorney General and the NYS Energy Research & Development Authority filed a lawsuit to ensure that DOE remediated the site in a timely manner, and to seek damages for harm the federal government has caused to the state's natural resources.* The lawsuit seeks to clarify the DOE cleanup responsibility after recent DOE funding cuts. A Federal Judge required the state and DOE to first work to resolve their differences through negotiations which started in 2007.

245-6

(Excerpts from Sections 1 and 2 of ***The Real Costs of Cleaning Up Nuclear Waste)***

*Joshi, S.R. 1988. West Valley - Derived Radionuclides in the Niagara River Area of Lake Ontario. Water, Air, and Soil Pollution. Vol. 37, No 1-2, pp: 111-120.

Draft EIS for review by the co-lead and cooperating agencies. After review of the internal preliminary Draft EIS, DOE established a Core Team of agencies to resolve the issues arising from that review, including the range and definition of the alternatives to be analyzed.

The court case referred to in the comment was settled August 31, 2009, with the United States Court of Appeals for the Second Circuit affirming a district court's summary judgment in favor of DOE.

245-6 A variety of Federal and state agencies have roles and responsibilities in the decommissioning and/or long-term stewardship of WNYNSC, and there are a large number of laws and regulations that apply to the site and its activities. Chapter 5 of this EIS describes the applicable laws and regulations. Chapter 1 discusses the roles and responsibilities of the Federal and state agencies. Of particular importance to the subject of this EIS is Appendix L, which addresses the regulatory compliance.

With respect to the referenced lawsuit, the State of New York, NYSERDA, and NYSDEC filed a complaint against the United States and DOE on December 11, 2006. The complaint: (a) asserted claims for cost reimbursement and damages to the State of New York's natural resources under section 107 of CERCLA, 42 U.S.C. 9601 et. seq.; (b) sought delineation by the court of DOE's responsibilities under the West Valley Demonstration Project Act; and (c) requested a ruling under the Nuclear Waste Policy Act, 42 U.S.C. 10107, that the Federal Government must pay the fee for offsite disposal of the high-level radioactive waste stored at the site. At the parties' request, the court stayed the litigation and directed the parties to engage in a confidential mediation process.

Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

Severe Erosion Problems at West Valley Site

The report found that erosion is a powerful and fast moving force at the West Valley site. West Valley sits on a geologically young landscape which is undergoing a relatively rapid rate of erosion. Within the next few hundred years, erosion is estimated to create damaging gullies. **This region could expect to have hundreds of new gullies form with erosion removing the plateau surface in the next few thousand years.** Wastes that would be left at the site are extremely long-lived and radioactive for thousands to millions of years. It is easy to imagine that if erosion is uncontrolled, gullies will penetrate a buried waste area.

Predicted Erosion Breaches Buried Waste Areas
Unless erosion and other institutional controls are rigorously maintained, we predict that the disposal areas could be breached in less than 1000 years and as quickly as 150 years from now without any controls in place. This breach would be a catastrophic failure, leaking high concentrations of radioactive waste into the watershed and then quickly into Lake Erie. Since severe erosion problems are estimated to occur at the site within hundreds of years, clearly, the long-term disposal of buried waste at the site is not an environmentally sound approach. Currently, there is a large plume of contaminated groundwater moving towards Buttermilk Creek. However, even more worrisome for the downstream population and the priceless resource of the Great Lakes is the potential for streams near the site to undercut or expose buried wastes. The following is a summary of the erosion problems that were investigated in the report.

Estimated 500 Gullies in 10,000 Years
There are approximately an estimated 64 gullies and streams per square mile in this region. Over the roughly 15,000 year period that this landscape has evolved, we estimate that the density of gullies doubles every 3,000 years. This region could expect to have over 500 new gullies, or stream splits, form in the next 10,000 years. It is easy to imagine that if erosion is uncontrolled, at least one of these gullies will penetrate a buried waste area. In fact, it will take far fewer than 500 gullies and far less time for the entire plateau surface to erode.

20 % of Plateau Surface Estimated to Erode in 10,000 Years
Using a bench-scale (30 x 50 ft) experiment as a model for the evolution of the site landscape, we estimated that within 10,000 years, 20% of the plateau surfaces that are un-gullied today will have eroded away across the lower Buttermilk watershed. There are various reasons why this is a conservative rate. First, Buttermilk Creek tributary gullies drop more rapidly and over more waterfalls than in the bench-scale model which lead to faster erosion rates in reality. Deforestation and impervious surface runoff increase erosion rates, and we expect climate change to result in more severe storm events, when the most severe erosion occurs.

Erosion Will Create Damaging Gullies Within a Few Hundred Years
A 1993 document concluded from 35 years of repetitive air photos that the head cut on Franks Creek advanced an average of 7.5 feet per year and on Erdman Brook advanced 10.5 feet per year. From these rates, we would expect that within several hundred years, this erosion will have opened new areas on the adjacent plateaus to damaging gullies. *At the rate of plateau-edge removal anticipated for Franks Creek, we*

245-7

245-7 DOE and NYSERDA recognize that erosion is a concern and have addressed it in detail in this EIS. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. Consistent with DOE guidance for conducting accident analyses, the long-term performance assessment evaluated a "spectrum of reasonably foreseeable" events and avoided those that are so speculative as to render the results not reasonably foreseeable and therefore not helpful to the decisionmaker. The potential impacts of climate change are evaluated through sensitivity analyses, but this EIS does not attempt to address extreme global-scale climate change. Although there are no reliable projections of future specific climate changes in the WNYNSC region, the groundwater dose analysis investigates the sensitivity of wetter or drier climates on the estimates of human health impacts. This includes evaluation of the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. The analysis of doses due to unmitigated erosion uses a gully advance rate associated with a climate that is wetter than current site conditions. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. Please also see the response to Comment no. 245-1 and the Issue Summaries for "Concerns about Potential Contamination of Water" and "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

might anticipate a breach of the northeast edge of the state-licensed disposal area in less than 400 years due to side-cutting alone. In addition, there are concerns about landslides and a Buttermilk side-slope retreat.

Worse Case Scenarios Result in Contaminated Public Water Supplies

Landslides, gullies, and stream cuts all put the West Valley site at high risk of erosional failure. There is a significant probability that at some point in the future while the radioactive waste still poses a threat, controls will fail, or an unforeseen major storm and flooding will result in a serious failure. Erosion controls typically have short life spans of 10 to 25 years. Many of the erosion controls proposed have short design lives, raising the question: Can we count on a system design so sound and repairs made so frequently that the dangerous contaminated waste at the site is never released?

There is a tremendous risk of erosion penetrating the buried wastes at the West Valley site. A major concern with the Onsite Buried Waste cleanup option is the potential for waste to be released and impact water supplies. We looked at two worse case scenarios resulting in the leaching of contaminants into public water supplies.

Scenario 1: Expanding desiccation allows escape or exchange of trench water leachate into Erdman Brook or Franks Creek. Then contaminated liquid and sediment migrate to Buttermilk and Cattaraugus Creek stream bed and point bars, and are also taken up by the food chain. Lastly, a 10 or 100 year storm event flushes the system, including gullies and desiccation cracks. The timeframe could be less than a century.

Scenario 2: After centuries, trenches containing contaminated leachate are exposed by a landslide. This sudden exposure of the end of a trench will allow a release of fluid waste contents, in addition to the processes described in Scenario 1. Because of the need to have conditions that promote landslides, this scenario may occur in centuries.

Preventing erosion and landslides at West Valley will be difficult, if not impossible, over the long term. Over a period of years to decades, erosion controls can be ineffective under design conditions—and if the system maintenance is neglected, or if a rare extreme flood occurs, mechanisms can become ineffective quickly. For example, levees along rivers are not designed to allow floodwaters into towns, and yet this is a regular occurrence throughout the Midwest. *The probability that institutional controls, memory, and budgets will remain effectively in place throughout the next millennium is highly unlikely, and therefore we should be concerned about any plan to try to maintain critical control features if buried wastes remain at West Valley.*

(Excerpts from Section 6 of ***The Real Costs of Cleaning Up Nuclear Waste)***

245-7 cont'd

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Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

Drinking Water Costs & Public Health Impacts

The study evaluated the following public health and social costs and impacts: treating contaminated drinking water, lost land revenues and radiation doses and cancer deaths.

Drinking Water Costs
The site poses a significant danger to people who live along Buttermilk and Cattaraugus Creek, the residents of Buffalo and the large population along the shores of Lakes Erie and Ontario. These populations are endangered by the risk of a radionuclide leak. We estimated water replacement costs if there were a catastrophic release of radionuclides approximately 500 years from the time of closure expected in the Onsite Buried Waste option. The costs are substantial in the first year—at over $272.7 million dollars—and then decline to $27.5 million per year to maintain the Buffalo and Erie County Water Authority's water treatment plants. This is only a case example, and does not include a substantial population along Lakes Erie and Ontario who could also be impacted.

Exposures to Radioactive Pollution and Projected Cancer Deaths
We evaluated the public's exposure to West Valley radionuclides from both a rapid leak and a continuous leak scenario. We found that the radioactive waste buried at the site poses an unacceptable risk to the populations in the surrounding area, including those that draw their water from Lake Erie. Potential radiation doses from various exposure pathways could lead to enormous doses and illnesses. The doses to people living downstream and those drinking contaminated surface water will exceed standards, leading to adverse health effects as well as unnecessary deaths from cancer. Leaving these wastes in the ground presents a significant burden and public health threat to future generations as the waste will be radioactive for thousands to millions of years.

Scenario 1: Over 800,000 Lake Erie Water Users Exposed to Substantial Radiation
If just one percent (1%) of radioactivity leaked from the site in a particular year, we calculated that a large population of over 800,000 Lake Erie water users would be exposed to substantial radiation, and that people downstream along the Buttermilk and Cattaraugus Creeks would be exposed to doses well in excess of federal and state standards.

Scenario 2: One Plant's Polluted Water Could Result in 334 Cancer Deaths
If just 1% of the radioactivity leaks, starting in year 100 to 1,000 years into the future, it is expected that 400,000 people receiving Lake Erie water from the Sturgeon Point Water Treatment Plant would be exposed to up to 334,320 person-rems,* resulting in the cancer deaths of up to 334 people. *This means that from 100 to 1,000 years into the future it is expected that up to 334 of the people receiving their water from one Treatment Plant are expected to die of cancer as a result of their exposure to contaminated water from Lake Erie.* The number of cancer fatalities would be greater if it included the entire population in the United States and Canada which receive their drinking water from Lake Erie, although it would be spread throughout a larger total population.

245-8

245-8 Chapter 4, Sections 4.1.9 and 4.1.10, of this EIS respectively address human health impacts from decommissioning actions and long-term health impacts. The analysis considers the impacts to the offsite population from transport of contaminants in the water. Chapter 4, Section 4.1.10, and Appendix H of this EIS present the results of the analysis of impacts to maximally exposed individuals near the site as well as to the population receiving water from Lake Erie and Niagara River water treatment plants. The reader is again referred to the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion, including a summary description of receptors, the scenarios considered, and the resulting doses.

The Issue Summary for "Conclusions of the *Synapse Report*" addresses DOE's and NYSERDA's responses to the cost issues raised by the commentor.

Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

Lost Land Revenues
As long as people are restricted from utilizing the land at the site, there will be lost land revenues. As a highly conservative hypothetical estimate, we assume that if the fully remediated land were used for agricultural purposes, it could bring in $130,000 a year, which would be lost if the site is not cleaned up to allow such use.

245-2 cont'd

(Excerpts from Section 4 of ***The Real Costs of Cleaning Up Nuclear Waste)***

*"Person-rem" is a measurement of the collective dose in rems that a specific population is exposed to over a certain time period. The person-rem units represent the average dose per person times the number of people exposed. Doses are presented in units of rem or millirem (1 rem is equivalent to 1,000 mrem).

Response side of this page intentionally left blank.

Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

Valuing e Future: h
The Viability of Ins itutional Controls Over 1,000 Yearsh

The report investigated the risks of losing b stitutional controls for the Ons te Buried b Waste approach abd examined issues surrounding very lobg periods of time: contibuity b of governmebts, labguage, ethical issues with leaving ab ebormous hazard to future b genebrations abd valub g future costs.b

Institutional Controls Unreliable Over the Long-Term

Wastes that would be left at the site are extremely long-l ved. For example, obe of the b lobgest lasting radionbclides, thor um-232, has a half-life of 14 bilb ob years. If the buried b waste s left at West Valley, government would beed to monitor the waste for thousabds b of years; such monitoribg abd control activ ties are called bnstitutional cobtrols. However, b controls are bot foolproof and have failed at manly sites resulting in the need for b add tionbl remediation. Controls fa led mult ple t mes at West Valley, ibcludibg the b overflowing trebches in the State D sposal Area. *These incidents are not unique to the site and such failures speak to the unreliability of controls as a long term strategy for preventing harm to people.* Ub derstab nding that there is no guaranteed place or b technology to truly solate long-lasting rad oactive waste, these failures suggest that the b real solutiob is to f rst mb imize additiobal production of nuclear waste from atomic b power, weapons and the nuclear fuel chab .b

1,000 Year Continuity in Government and Language Improbable

Maintab g bnstitutiobal controls at a buclear waste site f rst requires a cobtinuity of b governbment ab d lab nguage. *A fundamental obstacle to maintenance of institutional controls is he improbability of thousand-year continuity in either government or language.* A thousand years s a long time for any government to endure, let alobe b stitutiobal controls at a particular waste site. It is of course impossible to look forward b time and see the world of 3008; as an alternative, we cab look the other way, at the b world of a thousand years ago. Ib 1008, Vikbngs were attacking England; the Normab b Cobquest was still decades away. Of the governmebts and bations that ex st today, obly b Icelanb has an unbroken lineage spannb nd years. If the governmebt of b any coubtry (other than Iceland) had mabe a commitment ib 1008 to protect anb importabt site for a thousanb years, there is no guarantee that anyone would still kbow b about that comm tment today. b

A thousanb years s also a lobg time ib the h story of language—long ebough for a b labguage to change beyond recognitiob. Wh le something called the Ebglish language b has existed for centuries, it changes fast enough so that moderb readers canbot b understand words writtenba thousabd years ago. The English l terature classic that b dates back a thousand years, *Beowulf*, is nb longer readable, abd has to be translated b into moderb Eb nglish in order for anyone but a few specialists to understand t. A b warnibg from the author of *Beowulf* writtenbo the Enblish of roughly 1000 years ago b would be ibcomprehensible to all but a habdful of experts today. In 3008, whenbthe b English of th s report s as ab cibebt as the lab nguage of *Beowulf* is today, will casual b readers abd potential intruders on a waste site be able to read our warning sigbs? b There is no reason to assume that the Departmebt of Energy could adequately address b safety abd commubication issues at West Valley for the Onsite Buried Waste optiob.b

245-9 **245-9** DOE and NYSERDA note the commentor's position regarding the longevity of governments, language, and institutional controls. DOE and NYSERDA would maintain and monitor the site as long as a hazard remained. However, the analysis in this EIS acknowledges and accounts for the possibility of loss of institutional controls. Appendix L of this EIS discusses the requirements of the NRC License Termination Rule with respect to radiological criteria under various conditions, including loss of institutional controls. Appendix H describes the analysis and results of the long-term performance assessment of the site, including evaluation of potential impacts from unmitigated erosion following loss of institutional controls and use of the site by an intruder (well driller and farmer). The results of the impacts analysis are presented in Chapter 4, Section 4.1.10, of this EIS.

Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

Protecting Rights of Future Generations
One of the best-knowb authors to address nuclear waste issues s Kristin Shrader- b Frechette, a Ub versity of Notre Dame scientist who argues that burial of nuclear waste b repositories is m staken, both because of the scientific uncertaibty ib predictions of b geological evebts over the m llenbia, and because waste burial compromises the rights b of future geberatiobs to equal treatmeb and free ib nformed consbent. She calls for usb g b mobitored, above-ground waste storage so that future geberatiobs cab make their owb b dec sions abd apply nbw technolog es to the problem w thout factbg additionbl risks b from ubretrievable buried waste d sposal. Every geb eratiob n should have the r ght to b equal treatment and to g ve or w thhold informed consent to avoidable hazards. *No generation has the right to impose its hazards on those who come later. These principles, rather than cost calculations shoul e termine our choices about nuclear waste.*

Ethical Policy Requires Zero Discounting Over 1,000 Years
Econom sts d scoubt future costs abd benefits, expressbg them b presebt value termsb —a process that is nothibg more than compound interest in reverse. For ibstance, at a 3 b percebt discount rate, $103 next year has a present value of $100 today, because $100 b is the amount onb would have to put ib the babk today at 3 percent ib terest b in order to b end up with $103 nbxt year.* For short- and med um-term private fb abcial decis ons, b discountibg is essential. For bntergeneratiobal publ c pol cy decis ons, the case for b discountb g is much less compellingb. Rather thab aby ibdividual weighing complete b costs agaibst complete benbfits, nuclear waste pol cy consists of choices about what b this genbration will or will bot do for those who will come later. *That is, he choice of an intergenerational discount rate is a matter of ethics and policy, not a market etermined economic decision.*

Fairness requires that all generatiobs be treated as equally important. *This means that the discount rate that woul apply if all generations had equal resources must be very zero or close to zero.* Indeed, b 2001, the DOE in a *Report to Congress on Long-Term Stewardship* recommenbed that discounting should nbt be used whenbcalculatibg future b site maibtenance costs for federal buclear waste sites. The same conclusiob—the b discount rate for a 1,000-year abalys s must be zero—can be reached by a different b argumebt. The existence of regulatory requiremebts for protection of sites that w ll b remaib dangerous for 1,000 years must mply that we care today about health hazards b that will be experienced ib 3008. Costs abd bebefits ibcurred ib that d stant year must b have a sigb nt present value; otherw se, we could ignore them abd we could "prove" b v a discountibg that it is not cost-effective to spend abythb g today ob our successors a b thousabd years dowb the road. At a discount rate of 1.4 percebt, considered implausibly b low by many conveb tional economists, $1 million ib 3008 has a present value of $1 b today. Thus it would nbt be worth spendbng more than $1 today to prevent $1 million of b harm in 3008. To validate the commonsebse idea that outcomes ib 3008 matter today, b the discount rate must be no more than a few tenths of a percenbper year or zero. *If we care about the long-term impacts of today's nuclear waste, stretching across much more than a 1,000 years, then the only supportable discount rate is zero.*

(Excerpts from Sectiob 5 of ***The Real C ts of Cleaning Up Nuclear Wa te)***
*This example, like the entire discussionbof discountbng bn the report, assumes the use of b inflation-adjusted, or constant-dollar, amounts.b

245-10

245-10 This EIS evaluates alternatives for decommissioning and/or long-term stewardship of a site on which waste has already been disposed. Offsite disposal capacity is available for most of the waste that could be generated from any of the EIS alternatives. The shift to a national policy of storage rather than disposal of this waste is outside the scope of this EIS. Consistent with existing practice, any waste generated from any of the EIS alternatives that does not currently have offsite disposal capacity (referred to as orphan waste) would be safely and retrievably stored on site until such disposal capacity is available.

245-11

245-11 DOE and NYSERDA acknowledge the commentor's opinion about cost discounting in the cost-benefit analysis included in the Revised Draft EIS. Please see the Issue Summary for "Questions about Cost-Benefit Analysis" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

The cost-benefit analysis presented in Chapter 4, Section 4.2, of the Revised Draft EIS was performed to support NRC's request for cost-benefit information consistent with its as low as is reasonably achievable (ALARA) analysis guidelines. This cost-benefit analysis follows the principles in the NRC ALARA guidance presented in NUREG-1757, "NRC Consolidated Decommissioning Guidance." The analysis in Section 4.2 has been revised for this Final EIS and uses several relatively low discount rates (1, 3, and 5 percent) to investigate the sensitivity of the results to lower discount rates. The use of a single discount rate of zero for the ALARA analysis is not considered to be consistent with the NRC guidance.

Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

List of Proposed Nuclear Power Reactors and Irradiated Fuel Reprocessing Facilities in the US

1) States with Proposed Nuclear Reprocessing Facilities

Proposed Reprocessing for Global Nuclear Energy Partnership (GNEP) in ID, IL, NM, OH, SC, TN and WA.

Idaho
- Energy*Solutions*, LLC, Atomic City
- Regional Development Alliance, Inc., Idaho National Laboratory

Illinois
- General Electric Company, Morris

Kentucky
- Paducah Uranium Plant Asset Utilization, Inc., Paducah Gaseous Diffusion Plant

New Mexico
- Eddy Lea Energy Alliance, Hobbs
- Energy*Solutions*, LLC, Roswell

Ohio
- Piketon Initiative for Nuclear Independence, Portsmouth Gaseous Diffusion Plant

South Carolina
- Energy*Solutions*, LLC, Barnwell
- Economic Development Partnership of Aiken and Edgefield Counties, Savannah River National Laboratory

Tennessee
- Community Reuse Organization of E. Tennessee, Oak Ridge National Laboratory

Washington
- Tri-City Industrial Development Council/Columbia Basin Consulting Group, Hanford Site

2) States with Proposed Nuclear Power Reactors

Combined License Applications Received by the US Nuclear Regulatory Commission in AL, FL, GA, LA, MD, MI, MS, MO, NY, NC, PA, SC, TX and VA.

Alabama
- Bellefonte Nuclear Station Units 3 and 4 AP1000 Tennessee Valley Authority (TVA)

Florida
- Levy County Units 1 and 2 AP1000 Progress Energy Florida, Inc. (PEF)

245-12 **245-12** Comment noted. The list of facilities is not within the scope of this EIS.

Commentor No. 245 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

Georgia
● Vogtle Units 3 and 4 AP1000 Southern Nuclear Operating Company (SNC)

Louisiana
● River Bend Station Unit 3 ESBWR Entergy Operations, Inc. (EOI)

Maryland
● Calvert Cliffs Unit 3 EPR Calvert Cliffs 3 Nuclear Project, LLC. and UniStar Nuclear Operating Services, LLC.

Michigan
● Fermi Unit 3 ESBWR Detroit Edison Company

Mississippi
● Grand Gulf Unit 3 ESBWR Entergy Operations, Inc. (EOI)

Missouri
● Callaway Plant Unit 2 EPR AmerenUE

New York
● Nine Mile Point Unit 3 EPR Nine Mile Point Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC (UniStar)

North Carolina
● Shearon Harris Units 2 and 3 AP1000 Progress Energy (PE)

Pennsylvania
● Bell Bend Nuclear Power Plant EPR PPL Bell Bend, LLC

South Carolina
● Virgil C. Summer Units 2 and 3 AP1000 South Carolina Electric & Gas (SCE&G)
● William States Lee III Units 1 and 2 AP1000 Duke

Texas
● South Texas Project Units 3 and 4 ABWR South Texas Project Nuclear Operating Company (STPNOC)
● Victoria County Station Units 1 and 2 ESBWR Exelon Nuclear Texas Holdings, LLC (Exelon)
● Comanche Peak Units 3 and 4 US-APWR Luminant Generation Company, LLC (Luminant)

Virginia
● North Anna Unit 3 ESBWR Dominion Virginia Power (Dominion)

Source: Nuclear Information and Resource Service, www.nirs.org compiled from US NRC www.nrc.gov and US DOE http://www.energy.gov/news/4492.htm

245-12 cont'd

Response side of this page intentionally left blank.

Commentor No. 246: Dolores Kurzdorfer

September 8, 2009

Dolores Kurzdorfer

40 Hillcrest Drive

Amherst, NY 14226

I am concerned about the the water quality of the Great Lakes and the drinking supply of fresh water for our whole population and those in the future

246-1

246-1 DOE and NYSERDA acknowledge the commentor's concerns about water quality impacts in the Great Lakes. The purpose this EIS is to evaluate the environmental impacts of the various alternatives, including impacts on water resources and human receptors. These impacts are presented in Chapter 4 of this EIS. Please see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Commentor No. 247: Nora Herzog

September 7, 2009
Nora Herzog
4884 Pine Ledge Drive W.
Clarence, NY 14031

A complete West Valley cleanup is needed. *247-1*

247-1 DOE and NYSERDA acknowledge the commentor's support for the full cleanup of the WNYNSC site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Commentor No. 248: Kimberly DePerno

September 7, 2009

Kimberly DePerno

570 Porterville Rd.

East Aurora, NY 14052

I am writing to express my concern with the waste buried at West Valley. Many years ago, my Uncle Jim Cottrell worked as an engineer at the site. He died 15 years ago at the young age of 51 from a rare from of cancer that was most certainly a result of the exposure he received at the workplace. If the nuclear waste at this site is allowed to remain and contaminate the Cattaraugus Creek and eventually Lake Erie it would be the ruin of an entire region. It is imperative that the waste be removed and properly disposed of. *248-1*

Sincerely,

Kim DePerno

248-1 DOE and NYSERDA acknowledge the commentor's support for removal of the waste from the WNYNSC site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response. The human health impacts to workers and the public are addressed in Chapter 4, Sections 4.1.9 and 4.1.10, of this EIS.

Commentor No. 249: Kathleen Duwe

September 7, 2009

Kathleen Duwe

13788 Groth Rd.

Springville, NY 14141

Once upon a time, many, many years ago, I moved to Springville with my family. We were in our early thirties with two young children. It was the first I heard of the West valley site. Gradually I started to hear more about the Site. Most of what i heard wasn't good. I joined the West Valley Coalition to work at a grassroots level to petition for cleanup. I had another baby. By 1981, it seemed things were moving in a positive direction. There was a contractual committment for cleanup. I had another baby. Gradually it became clear that this "contract" - this agreement - would need some citizen oversight. I was a citizen. I was willing to stay involved. But I also had another baby. Over the years I went to lots of meetings and conferences. I wrote letters and met with government officials - elected representatives and key players in various agencies. There were lawsuits and court decisions. Eventually, with a full time job and five children, my time was limited. But I continue to follow this "issue." It's been 30 years. I just retired. I have grandchildren. It's time to do this job right. We need a full cleanup. Sitewide Removal is the only responsible alternative. I want this for my grandchildren. There is the certainty of erosion. The burial grounds are slowly ticking time bombs. Choose Sitewide Removal. ***249-1***

249-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" Issue Summary in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. Please see "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Commentor No. 250: Marilyn J. Galley, Citizens Campaign for the Environment

September 6, 2009
Marilyn J. Galley
Citizens Campaign for the Environment
59 Overland tr.
W. Henrietta, NY 14586

please protect our future by throughly cleaning up the West Valley site. ‖ ***250-1***

250-1 DOE and NYSERDA acknowledge the commentor's support for the full cleanup of the WNYNSC site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Commentor No. 251: Anne Gayley

September 8, 2009

Anne Gayley

404 Burroughs Dr.

Amherst, NY 14226

I am writing to urge you to insist on a complete clean-up of the West Valley Nuclear Waste site. As a resident of Erie County and user of Lake Erie water, I have a strong concern about our drinking water and environmental contamination. It seems to me that waiting to totally dispose of this hazardous waste is not an option. I hope you will support its removal now. *251-1*

251-1 DOE and NYSERDA acknowledge the commentor's support for prompt action to provide complete cleanup of WNYNSC. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Commentor No. 252: Arthur Klein, Sierra Club, Niagara Group, Solid Waste Committee

September 8, 2009

Arthur Klein

Sierra Club, Niagara Group, Solid Waste Committee

43 Luksin Dr

Tonawanda, NY 14150

On September 1, 2009, I and over a dozen members of two Western New York environmental groups, The Sierra Club, Niagara Group and the Adirondack Mountain Club, Niagara Chapter Conservation Committee, joined with many other concerned citizens and the West Valley Action Network at a CLEAN-UP CREW civil protest and action at a Press Conference in Buffalo.

All of us in Western New York with any knowledge of the threat of West Valley are tired of waiting for a Full Clean-up at the West Valley Radioactive Waste Site. There is just no justification for Federal and State governments to leave any of the radioactive waste on site. Continued inaction by the parties responsible for this mess, namely DOE and NYSEDA threaten the Great Lakes and our drinking water, while officials endlessly study the situation for another 30 years. *252-1*

The fact is that the site represents a failure to cope with a real and very dangerous situation. I worked in the Great Lakes Basin for the Corps of Engineers for nearly forty years the last seventeen of which I monitored and inspected hundreds of erosion control devices along the shorelines of the lower lakes. Mostly I learned that erosion control is self-contradictory. You can slow erosion with various strategies but water is a constant enemy and ultimate victor. West Valley is a prime site for not building nuclear waste storage because of the strong role water has in the dynamics of the plateaus it is built upon. Surface and sub surface forces are undermining and over whelming the puny control structures that have been placed in the site since the early 1970's. *252-2*

In addition the proximity of Cattaraugus Creek with a long history of flash floods of dangerous magnitudes just guarantees an increase of the likelihood that a long-term erosion of the creek could expose the West Valley site itself. This, tied to the increased storm densities we experience as a result of climate change any future that causes that material to remain on site is a unique and serious peril to the drinking water of forty some million people. The flooding of Gowanda, NY, August 8t, 2009 gives a preview of things to come—with over 5 inches of rainfall; flash floods caused severe erosion and flooding in nearby areas. A landslide

252-1 DOE and NYSERDA acknowledge the commentor's desire for prompt action to address site cleanup and support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

252-2 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well

Commentor No. 252 (cont'd): Arthur Klein, Sierra Club, Niagara Group, Solid Waste Committee

occurred on the steep 160-foot bank of Buttermilk Creek, immediately adjacent to the radioactive waste trenches of the State Disposal Area. Thousands of tons of material were moved in the slide including a strip of land approximately 15 feet wide at the top of the bank. Other creeks were also impacted and reservoirs at the site overflowed. ***252-2 cont'd***

Unfortunately, the US DOE and NYSERDA assumed when performing an Environmental impact Statement for West Valley that no Global warming would occur for 10,000 years and therefore there would be no exacerbation of severe weather in the West Valley area. Thousands of scientists worldwide including many within the US Government have acknowledged the inevitability of global warming and have documented impacts that are occurring today. Global warming impacts on this site, which is vulnerable to erosion under ordinary circumstances, should have been studied. In 2006 rainfall of 14-15 inches in Binghamton, NY, caused a flood of historic proportions. Failing to study potential severe weather impacts from global warming leaves everyone in the dark about how quickly dangerous radioactivity could be spread widely in the region and provides inadequate warnings to the public officials and safety professionals who might have to respond to a disaster. ***252-3***

A long string of failures have been associated with the venture into commercial reprocessing, the choice of the West Valley site, the promises related to long term waste disposal and a fund to pay for cleanup. The proposed plan to clean up just 1% of the dangerous radioactivity while asking us to WAIT another 30 years is a recipe for disaster. The government has assumed it can contain radioactive waste at this site for thousands of years. The record of failures makes this a dangerously flawed assumption. ***252-1 cont'd***

Western New York can WAIT no more. Full CLEAN UP will be far MORE EXPENSIVE, but it may also be CATASTROPHIC for millions of people and the Great Lakes if it is not done. The only acceptable option is a Full Clean-up under the Site wide Removal option presented in the Environmental Impact Statement. We need a FULL CLEAN-UP NOW!

Thank you,

Respectfully,

Arthur F. Klein Jr

43 Luksin Dr

Tonawanda NY 14150

as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. In addition to the previously cited Issue Summaries, please see "Questions about Long-term Erosion Modeling" for further discussion of this issue and DOE's and NYSERDA's response.

252-3 The analysis in this EIS recognizes the potential for climate change to influence the long-term consequences of waste management. Climate changes, whether natural or influenced by human actions, could change the nature and amount of precipitation. Appendix H, Section H.3.1, of both the Revised Draft EIS and the Final EIS discusses the sensitivity of groundwater flow to changes in annual precipitation. The revised erosion prediction used for the unmitigated erosion dose analysis is based on the assumption that storms could occur more frequently than is currently estimated. This prediction includes the effects of storms of greater severity than the one that occurred in the region in August 2009. The use of this higher erosion rate associated with an elevated precipitation rate is discussed in Appendix H, Section H.2.2.1. Chapter 4, Section 4.3.5, has been revised to include a discussion of how the uncertainties about future climate change are addressed in this EIS.

Commentor No. 253: Calypso Sky Hahn Maurer

From: Mr Sky [mailto:mrsky@earthlink.net]
Sent: Thursday, August 27, 2009 12:06 PM
To: WestValleyEIS
Subject: west valley waste removal

Dear sir or madam,

Sitewide Removal Alternative at West Valley.

I am 11 years old and am concerned about the waste at west valley.What about kids futures? if they don't dig it up IT'S BAD. Just please tell the DOE [department of energy] they should DIG IT UP ALREADY.

Thank you.

Sincerely,

Calypso Sky Hahn Maurer

253-1

253-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" Issue Summary in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Commentor No. 254: Victoria B. Ross, Western New York Peace Center

WNY PEACE CENTER
2123 BAILEY AVENUE
BUFFALO, NY 14211-2056
716.894.2013/PHONE 716.894.8705/FAX
WWW.WNYPEACE.ORG
Activism for a Safer World Since 1967

September 2, 2009

Att: Catherine Bohan
EIS Document Manager
West Valley Demonstration Project,
U.S. Dept. of Energy
P.O. Box 2368
Germantown, MD 20874

Ladies and Gentlemen:

As testified at your April 2 hearing at Buffalo's Erie Community College, full clean-up of West Valley nuclear waste is absolutely necessary. Anything less would be catastrophically harmful, as the Cattaraugus Creek feeds into the Great Lakes System, a full 20% of the world's fresh water supply.

Expensive as a full clean-up may be, it's a bargain compared to the other two options. Limited clean-up and/or wait-and-see options allow irreparable, ever-spreading damage to the environment and inhabitants, with multiplicative costs on all fronts.

Recent local flooding only emphasized the peril in anything less than complete, immediate clean-up of the West Valley site.

Thank you in advance for implementing full clean-up, for all our sakes.

Sincerely,

Victoria B. Ross

Victoria B. Ross, LMSW, QCSW, MALD

Persist · Agitate · Unite · Defy

In the Spirit of Peace and Justice

254-1

254-1 DOE and NYSERDA acknowledge the commentor's support for the full cleanup of the WNYNSC site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes," "Concerns about Potential Contamination of Water," and "Questions about Long-Term Erosion Modeling" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Commentor No. 255: Mary O'Herron

125 Parkside Avenue

Buffalo, New York 14214

September 3, 2009

Ms. Catherine Bohan

EIS Document Mgr.

West Valley Demonstration Project

U.S. Department of Energy

P.O. Box 2368

German Town, Maryland 20874

Dear Ms. Bohan:

I am asking the U.S. Department of Energy to implement full cleanup of the West Valley Demonstration Project site. As a resident of the city of Buffalo, as a mother and grandmother, and as a responsible human being, I believe it is critical that all safeguards are taken to keep Lake Erie and its feeder streams from being any further polluted by health damaging and life-threatening toxins than have already been introduced into these waters. *255-1*

Future generations depend on our present good stewardship of Earth's most precious resource. We cannot afford to risk leaving nuclear waste in any places where it could potentially gain access to ground water.

Thank you.

Sincerely,

Mary O'Herron

255-1 DOE and NYSERDA acknowledge the commentor's support for the full cleanup of the WNYNSC site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Commentor No. 256: Devon Roblee

Devon Roblee
7 Orchard Street
Auburn, NY 13021

ATTN: Catherine Bohan
EIS Document Manager
West Valley Demonstration Project, US DOE
PO Box 2369
Germantown, MD 20874
September 4, 2009

Ms. Bohan,

I am writing on behalf of my family regarding the West Valley nuclear waste site in Cattaraugus County, New York.

I have many relatives that live near the waste site, and I am concerned for their health and well being. The site is highly susceptible to erosion, and I have been made aware that scientists recognize that over time erosion will lead to release of buried toxic waste. If this waste, which is highly radioactive, leaks out into the water supply and soil many of my relatives may become exposed to this radioactivity. There is no safe level of exposure to radioactive waste. Exposure increases the risk of serious adverse health impacts, including cancer, reproductive disorders, and neurological effects.

I have read an independent study on cleanup options and costs, entitled "The Real Costs of Cleaning up Nuclear Wastes," and I urge US Department of Energy Secretary Steven Chu to support the FULL cleanup of the West Valley nuclear waste site. This is the only way to ensure that future generations will not suffer the effects of exposure to radiation left behind at the site.

Please pass my concerns along to Mr. Chu. A comprehensive cleanup and excavation of the entire site is the safest, most cost-effective solution to dealing with the West Valley nuclear waste site.

Thank you for your time and consideration.

Sincerely,

Devon Roblee

256-1

256-1 DOE and NYSERDA acknowledge the commentor's support for the comprehensive cleanup and excavation of the WNYNSC site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years . These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. In addition to the previously cited Issue Summary, please see "Concerns about Potential Contamination of Water" and "Questions about Long-term Erosion Modeling" for further discussion of these issues and DOE's and NYSERDA's responses.

The report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., has been addressed in this CRD consistent with the Council on Environmental Quality's NEPA regulations. In addition to the previously cited Issue Summaries, please see "Conclusions of the *Synapse Report*" for further discussion of this report's issues and DOE's and NYSERDA's response.

Commentor No. 257: Robert M. Ciesielski

Robert M. Ciesielski
94 Lamarck Drive
Amherst, New York 14226

September 4, 2009

Ms. Catherine Bohan
EIS Document Manager
U.S. Department of Energy
PO Box 2368
Germantown, Maryland 20874

Re: **West Valley Nuclear Waste Site Clean-Up**

Dear Ms. Bohan:

I am asking for an immediate clean-up of the West Valley Nuclear Site. There are numerous problems with the phased decision making alternative concerning this site. The main action schedule for Phase I is to demolish the process building and to remove the radioactive strontium 90 plume which has developed nearby. Additionally, barriers are to be installed to attempt to prevent the future migration of radioactive material into groundwater. *257-1*

Phase II will await for a period of up to 30 years for further action on the site.

The Phase I clean-up would only address 1.2% of the total radioactivity on this site. The other 99% of the radioactivity, to be addressed in Phase II, includes high level waste tanks and both radioactive burial sites-the northern disposal area and the southern disposal area. All of which contain approximately 600,000 curies of radioactivity. *257-2*

There are several serious issues concerning the phased clean-up. First is that the site itself was built by a private enterprise on a site totally unsuitable for the storage of radioactive material. The site is located on a peninsula between two creeks which flow into Cattaraugus Creek and then into Lake Erie, the Niagara River and Lake Ontario. Millions of people reside along the shores of these waters, and many depend upon them for their drinking waters. The site is built on soft, gravelly, porous soil. Besides the mentioned creeks, a sole source aquifer exits below the site. There has already been substantial erosion of banks of the peninsula into Buttermilk Creek, one of the tributaries of the Cattaraugus Creek. Recent floods have caused 15 to 20 feet additional erosion. Of course, the strontium plume being addressed in Phase I must be cleaned up. However, looking at the age of the facility and its placement, the development of another plume is almost guaranteed. The original processing plant was built in the 1960's. *257-3*

257-1 DOE and NYSERDA acknowledge the commentor's desire for prompt action to address site cleanup and opposition to the Phased Decisionmaking Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement.

257-2 It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

257-3 DOE and NYSERDA recognize that erosion is a concern and have addressed it in detail in this EIS. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. The erosion predictions used for the unmitigated erosion analysis are based on the assumption that storms occur more frequently than is currently estimated and include the effects of storms of greater severity than the

Commentor No. 257 (cont'd): Robert M. Ciesielski

Ms. Catherine Bohan
September 4, 2009
Page 2

The high level waste tanks on the facility are nearing fifty years of age, which is their usual life span. All of the storage facilities and retention areas are aging, and as any engineer will attest, they will be breaking down in relatively harsh winters in the West Valley area, which is located in the Lake Erie snow belt. *257-4*

The problem is with waiting to clean-up one plume at a time is that expenses increase astronomically. As I understand the economic estimate of the cost of Phase I, with the removal of the current plume, will be between $1.5 and $2 billion. Clean-up of the entire site at this time would cost approximately $10 billion. The clean-up of one or two additional leaks may cost as much as a full clean-up completed now. If the radioactivity does contaminate the waterways just attempting to provide clean water to the populations which draw their water from Cattaraugus Creek and the watershed beyond would be at least three times the cost of a current full clean-up. And drinking water is only one portion of the problem, with the possible effect on the recreation industry, fish, birds and wildlife in the area. The common sense of completing the clean-up now versus a band-aid approach to West Valley is clear. We have already waited 30 years for the removal of radioactive waste from the site. Another 30 years to even address the problem again is unthinkable. *257-5*

We realize that the Department of Energy is monitoring a number of radioactive sites throughout the United States. West Valley may appear to be just one more problem to leave as is. But is the unique location and potential to affect millions of people with the radioactive waste stored here is very much greater than sites where containment is made easier because of soil conditions, climate, and distance from freshwater drinking supplies.

On another topic, a number of legislatures and elected officials from Western New York and throughout New York State are requesting a full clean-up at this time. The legislatures of Cattaraugus County, Erie County and Niagara County have all passed referendums requesting full clean-ups. Along the shores of Lake Erie, Resolutions have been passed by the Town of Evans, the City of Lackawanna, the City of Buffalo which has a population of over a quarter of a million people, the Town of Tonawanda, the City of Tonawanda, and the Town of Amherst. Both United States Senators from New York, Charles Schumer and Kristen Gillibrand and over half of the States' congressional representatives have contacted you and request the full and immediate clean-up. Additionally, 3 dozen State Senators and Assemblypersons have made a similar request. So we are asking the Department of Energy and New York State Department of Research and Development Agency to please reassess their positions about a phased removal. The health of millions of people is at stake. The health of the ecology of eastern Lake Erie, the Niagara River and Lake Ontario are at stake, including fish, *257-3 cont'd*

one that occurred in the region on August 8–10, 2009. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F.

Please refer to the Issue Summary "Concerns about Potential Contamination of Water" in Section 2 of this CRD for a discussion of this issue and DOE's and NYSERDA's response. Also see the response to Comment no. 257-5 regarding impacts on wildlife, tourism, and local industries.

257-4 DOE recognizes and has been managing the hazard associated with the underground tanks in the Waste Tank Farm. Following removal and solidification of the majority of the Waste Tank Farm inventory, DOE has developed and is implementing actions to reduce the potential for a leak from the underground tanks. Specifically, it is working to install a tank and vault drying system designed to dry the liquid heel remaining in the waste tanks. The installation of this system and the drying of the tank inventories is part of the Interim End State or EIS starting point. In addition to drying the tanks to reduce the potential for a leak, DOE operates the groundwater pumping system that reduces groundwater seepage into the tank vaults while still maintaining a hydraulic gradient so that any liquid flow is into, rather than out of, the vault system. DOE also maintains the tank leak detection equipment located in the tank pans and vaults and regularly samples the monitoring wells surrounding the tank vaults to ensure no leakage into the groundwater. Mitigation measures would be taken if any leakage were detected. It should be noted that none of the high-level waste tanks has ever leaked. While there is no quantitative estimate of risk from the tanks while the contents are being dried, it is clear that the risks are being further reduced by tank drying.

Additionally, much of the residual contamination in the tanks is attached (i.e., "fixed") to metal surfaces and is not readily mobile. Chapter 2, Section 2.3.1, of this EIS, as well as text in the *Phase 1 Decommissioning Plan for the West Valley Demonstration Project (Phase 1 Decommissioning Plan)*, have been clarified to acknowledge that the liquids remaining in the tanks will be dried as a result of installation and operation of the tank and vault drying system and that this drying will be complete before any Waste Tank Farm decommissioning actions are initiated.

257-5 Under the Phased Decisionmaking Alternative, the source area of the North Plateau Groundwater Plume, the most mobile contamination on the site, would be removed as part of Phase 1. The North Plateau is the only portion of the site where

Commentor No. 257 (cont'd): Robert M. Ciesielski

Ms. Catherine Bohan
September 4, 2009
Page 3

birdlife, wildlife, plant life. The economic health of these areas including industries which use water from the Great Lakes, and the tourist industry are all at stake.

You may be concerned about funding at this time of financial hardship. But by the time the monies become are required for the clean-up, the U.S. and New York State economies will have rebounded and the monies will be available for projects. This is a project which must be accomplished now.

257-3 cont'd

Very Truly Yours,

Robert M. Ciesielski

ROBERT M. CIESIELSKI

groundwater moves at a relatively rapid rate, and therefore a plume could move at a relatively rapid rate. Groundwater movement on the South Plateau is relatively slow because of the natural and engineered barriers that limit water infiltration and lateral flow. The extensive characterization and monitoring data does not indicate the presence of any another plumes whose position would noticeably change over the next few decades.

This EIS was prepared to evaluate the environmental impacts of alternatives for the decommissioning and/or long-term stewardship of WNYNSC. It includes evaluation of the potential human health impacts of any radioactivity left on site, including a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. Chapter 4, Section 4.1.10, presents the long-term radiological doses and risks to the population and hypothetical individuals living near the site. Chapter 4, Section 4.1.6, of this EIS also presents the results of an ecological risk assessment showing the projected long-term ecological impacts of the alternatives. The results of the human health and ecological impacts analysis imply that any impacts on wildlife, tourism, and the economies of communities downstream of WNYNSC would be negligible.

Commentor No. 258: Chuck Jaworski, Council President, City of Lackawanna

RESOLUTION # 21 2009

RESOLUTION ON WEST VALLEY NUCLEAR WASTE SITE CLEANUP

Whereas the West Valley nuclear waste site (also known as the Western New York Nuclear Service Center & Demonstration Project) is located 30 miles south of Buffalo and contains large amounts of toxic and radioactive wastes, some of which will remain dangerous for thousands of centuries and; *258-1*

Whereas the site represents the nation's sole venture into commercial reprocessing of irradiated nuclear fuel, and whereas this venture ended in 1976 when the private partner failed, leaving cleanup responsibility to government taxpayers, and *258-2*

Whereas contamination from this site has been found as far away as the Niagara River at Lake Ontario, and *258-3*

Whereas Lake Erie represents the drinking water supply source for Erie County, and the Great Lakes represent a drinking water source for millions of people, and

Whereas the Department of Energy has identified alternatives for the remediation of the West Valley site ranging from complete removal of all radioactive materials to taking no action, and proposes a partial remediation while leaving buried waste onsite, including high level radioactive waste tanks, and *258-4*

Whereas the Department of Energy preference would postpone a final cleanup decision for up to 30 years, and *258-5*

Whereas independent joint economic and scientific analysis, funded by a New York State grant, was conducted by expert consultants and academics. And whereas these experts concluded that over time full clean up is approximately 30% less expensive than partial clean up and maintenance, not including any future leaks that would increase clean up costs exponentially, *258-6*

Therefore, Be It Resolved that the City of Lackawanna City Council supports the option of full cleanup of the West Valley nuclear waste site using standards that are at least as protective as current state radiation standards and toxic standards for unrestricted use. *258-7*

Be it further resolved that copies of this resolution be sent to all state and federal elected officials representing Niagara, Erie and Cattaraugus counties, as well as the U.S. Department of Energy, and the New York State Energy Research and Development Authority.

Approved: Date 7/9/09, 2009

Chuck Jaworski Council President

258-1 WNYNSC has inventories of radionuclides and hazardous chemical constituents from past facility operations in the facilities (buildings, lagoons, and waste disposal areas) as well as environmental contamination (e.g., in the North Plateau Groundwater Plume). A description of the facilities and inventories of the radionuclides and hazardous chemical constituents is included in Appendix C of this EIS. This EIS was prepared to evaluate the potential environmental impacts, including impacts from radiological and hazardous chemical constituents, of alternatives for decommissioning and/or long-term stewardship of WNYNSC.

258-2 Chapter 1 of this EIS summarizes the history of WNYNSC. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles.

258-3 Chapter 3, Section 3.6.2.1, of this EIS addresses groundwater at WNYNSC that was contaminated due to past activities (for example, the North Plateau Groundwater Plume). This EIS was prepared to evaluate the environmental impacts of alternatives for decommissioning and/or long-term stewardship of WNYNSC. Under all of the action alternatives, DOE would either remove contamination sources, mitigate their impacts to groundwater, or both. Under the Sitewide Removal and Phased Decisionmaking Alternatives, DOE would remove the source of the North Plateau Groundwater Plume. Potential groundwater impacts associated with the EIS alternatives are discussed in Chapter 4, Sections 4.1.4 and 4.1.10, and Appendix H of this Final EIS.

The contamination at the juncture of the Niagara River and Lake Ontario was the result of releases from the site when reprocessing operations were in progress. The environmental contamination from current operations is minimal (below established standards), as demonstrated by the results from the ongoing environmental monitoring program.

258-4 Please refer to the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for a discussion of this issue and DOE's and NYSERDA's response.

Some of the alternatives evaluated in this EIS, including the Preferred Alternative (Phased Decisionmaking), could result in some facilities and waste remaining on the site, including the high-level radioactive waste tanks. Under the Phased Decisionmaking Alternative, action would be undertaken during Phase 1 for all facilities except the Waste Tank Farm, NDA, SDA, and Construction and Demolition Debris Landfill. Options for Phase 2 (exclusive of the SDA) are

Commentor No. 258 (cont'd): Chuck Jaworski, Council President, City of Lackawanna

sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close in place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. DOE is required by the West Valley Demonstration Project Act to decontaminate and decommission the waste storage tanks and facilities used to solidify high-level radioactive waste, as well as any material and hardware used in connection with the WVDP, in accordance with such requirements as NRC may prescribe.

DOE recognizes and has been managing the hazard associated with the underground tanks in the Waste Tank Farm. Following removal and solidification of the majority of the Waste Tank Farm inventory, DOE has developed and is implementing actions to reduce the potential for a leak from the underground tanks. Specifically, it is working to install a tank and vault drying system designed to dry the liquid heel remaining in the waste tanks. The installation of this system and the drying of the tank inventories is part of the Interim End State or EIS starting point. In addition to drying the tanks to reduce the potential for a leak, DOE operates the groundwater pumping system that reduces groundwater seepage into the tank vaults while still maintaining a hydraulic gradient so that any liquid flows into, rather than out of, the vault system. DOE also maintains the tank leak detection equipment located in the tank pans and vaults and regularly samples the monitoring wells surrounding the tank vaults to ensure no leakage into the groundwater. Mitigation measures would be taken if any leakage were detected. It should be noted that none of the high-level waste tanks has ever leaked. While there is no quantitative estimate of risk from the tanks while the contents are being dried, it is clear that the risks are being further reduced by tank drying. Additionally, much of the residual contamination in the tanks is attached (i.e., "fixed") to metal surfaces and is not readily mobile.

258-5 Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed the Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making the Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that the Phase 2 decision would be made no later than 10 years after issuance of the

Commentor No. 258 (cont'd): Chuck Jaworski, Council President, City of Lackawanna

initial DOE Record of Decision and NYSERDA Findings Statement if the Phased Decisionmaking Alternative is selected.

258-6 DOE and NYSERDA are aware of the report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., including the three appendices, and it has been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for a discussion of the report's issues and DOE's and NYSERDA's response.

258-7 DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Agency actions will comply with the applicable cleanup and decommissioning criteria for WNYNSC that are embodied in Federal and New York State environmental, safety, and health regulatory requirements promulgated under various statutory authorities (see Chapter 5 of this Final EIS). As summarized in Chapter 1, Section 1.3, of this Final EIS, these regulatory requirements include RCRA permitting and corrective actions under New York State and/or EPA requirements, decommissioning according to NRC requirements in its License Termination Rule, and EPA assessments of compliance with National Emission Standards for Hazardous Air Pollutants.

Commentor No. 259: Melissa Brinson, Town Clerk, Town of Tonawanda

Town of Tonawanda

Town of Tonawanda
2919 Delaware Ave
Kenmore, NY 14217
Melissa Brinson, Town Clerk

Meeting: 08/17/09 07:30 PM
Department: Attorney

RESOLUTION 2009-630

Motion is in Order to Support the West Valley Nuclear Waste Site Clean Up.

WHEREAS, the West Valley Nuclear Waste Site (also known as the Western New York Nuclear Service Center & Demonstration Project) is located approximately 30 miles south of Tonawanda and contains large amounts of toxic and radioactive wastes, some of which will remain dangerous for thousands of centuries; and

WHEREAS, the site represents the nation's sole venture into commercial reprocessing of irradiated nuclear fuel; and

WHEREAS, this venture ended in 1976 when the private partner failed, leaving cleanup responsibility to government taxpayers; and

WHEREAS, contamination from this site has been found as far away as the Niagara River at Lake Ontario; and

WHEREAS, Lake Erie represents the drinking water supply source for Erie County, and the Great Lakes represent a drinking water source for millions of people; and

WHEREAS, the Department of Energy has identified alternatives for the remediation of the West Valley site ranging from complete removal of all radioactive materials to taking no action, and proposes a partial remediation while leaving buried waste onsite, including high level radioactive waste tanks; and

WHEREAS, the Department of Energy preference would postpone a final cleanup decision for up to 30 years; and

WHEREAS, independent joint economic and scientific analysis, funded by a New York State grant was conducted by expert consultants and academics; and

WHEREAS, these experts concluded that over time full clean up is approximately 30% less expensive than partial clean up and maintenance, not including any future leaks that would increase clean up costs exponentially.

NOW, THEREFORE, BE IT RESOLVED, that the Town of Tonawanda Town Board supports the option of full clean up of the West Valley nuclear waste site using standards that are at least as protective as current state radiation standards and toxic standards for unrestricted use.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	John Bargnesi, Councilman
SECONDER:	Joseph Emminger, Councilman
AYES:	Caruana, Emminger, Crangle, Bargnesi, Chimera

I do certify that I have compared the foregoing with the original minutes of the regular meeting of the Town Board held on August 17, 2009 and that the foregoing is a true and correct transcript from said original minutes and the whole thereof, and that the resolutions duly adopted by said Town Board are on file in my office.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the said Town of Tonawanda, Erie County, New York, this 18th day of August, 2009.

259-1

259-2

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259-1 WNYNSC has inventories of radionuclides and hazardous chemical constituents from past facility operations in the facilities (buildings, lagoons, and waste disposal areas) as well as environmental contamination (e.g., in the North Plateau Groundwater Plume). A description of the facilities and inventories of the radionuclides and hazardous chemical constituents is included in Appendix C of this EIS. This EIS was prepared to evaluate the potential environmental impacts, including impacts from radiological and hazardous chemical constituents, of alternatives for decommissioning and/or long-term stewardship of WNYNSC.

259-2 Chapter 1 of this EIS summarizes the history of WNYNSC. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles.

259-3 Chapter 3, Section 3.6.2.1, of this EIS addresses groundwater at WNYNSC that was contaminated due to past activities (for example, the North Plateau Groundwater Plume). This EIS was prepared to evaluate the environmental impacts of alternatives for decommissioning and/or long-term stewardship of WNYNSC. Under all of the action alternatives, DOE would either remove contamination sources, mitigate their impacts to groundwater, or both. Under the Sitewide Removal and Phased Decisionmaking Alternatives, DOE would remove the source of the North Plateau Groundwater Plume. Potential groundwater impacts associated with the EIS alternatives are discussed in Chapter 4, Sections 4.1.4 and 4.1.10, and Appendix H of this Final EIS.

The contamination at the juncture of the Niagara River and Lake Ontario was the result of releases from the site when reprocessing operations were in progress. The environmental contamination from current operations is minimal (below established standards), as demonstrated by the results from the ongoing environmental monitoring program.

259-4 Some of the alternatives evaluated in this EIS, including the Preferred Alternative (Phased Decisionmaking), could result in some facilities and waste remaining on the site, including the high-level radioactive waste tanks. Under the Phased Decisionmaking Alternative, action would be undertaken during Phase 1 for all facilities except the Waste Tank Farm, NDA, SDA, and Construction and Demolition Debris Landfill. Options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close in place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two

Commentor No. 259 (cont'd): Melissa Brinson, Town Clerk, Town of Tonawanda

alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. DOE is required by the West Valley Demonstration Project Act to decontaminate and decommission the waste storage tanks and facilities used to solidify high-level radioactive waste, as well as any material and hardware used in connection with the WVDP, in accordance with such requirements as NRC may prescribe.

DOE recognizes and has been managing the hazard associated with the underground tanks in the Waste Tank Farm. Following removal and solidification of the majority of the Waste Tank Farm inventory, DOE has developed and is implementing actions to reduce the potential for a leak from the underground tanks. Specifically, it is working to install a tank and vault drying system designed to dry the liquid heel remaining in the waste tanks. The installation of this system and the drying of the tank inventories is part of the Interim End State or EIS starting point. In addition to drying the tanks to reduce the potential for a leak, DOE operates the groundwater pumping system that reduces groundwater seepage into the tank vaults while still maintaining a hydraulic gradient so that any liquid flows into, rather than out of, the vault system. DOE also maintains the tank leak detection equipment located in the tank pans and vaults and regularly samples the monitoring wells surrounding the tank vaults to ensure no leakage into the groundwater. Mitigation measures would be taken if any leakage were detected. It should be noted that none of the high-level waste tanks has ever leaked. While there is no quantitative estimate of risk from the tanks while the contents are being dried, it is clear that the risks are being further reduced by tank drying. Additionally, much of the residual contamination in the tanks is attached (i.e., "fixed") to metal surfaces and is not readily mobile.

259-5 Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed the Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making the Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that the Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement if the Phased Decisionmaking Alternative is selected.

Commentor No. 259 (cont'd): Melissa Brinson, Town Clerk, Town of Tonawanda

259-6 DOE and NYSERDA are aware of the report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., including the three appendices, and it has been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for a discussion of the report's issues and DOE's and NYSERDA's response.

259-7 DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Agency actions will comply with the applicable cleanup and decommissioning criteria for WNYNSC that are embodied in Federal and New York State environmental, safety, and health regulatory requirements promulgated under various statutory authorities (see Chapter 5 of this Final EIS). As summarized in Chapter 1, Section 1.3, of this Final EIS, these regulatory requirements include RCRA permitting and corrective actions under New York State and/or EPA requirements, decommissioning according to NRC requirements in its License Termination Rule, and EPA assessments of compliance with National Emission Standards for Hazardous Air Pollutants.

Commentor No. 260: Leonore S. Lambert

Leonore Lambert
451 South Street
East Aurora,NY 14052-2946

September 8, 2009

Draft Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western New York Nuclear Service Center (DOE/EIS-0226-D [Revised])

Revision of *A Draft Environmental Impact Statement for Completion of the West Valley Demonstration Project and Closure or Long-Term Management of* Facilities at the Western New York Nuclear Service Center (also called the Cleanup and Closure Draft EIS) (DOE 1996a)[1]

Much of my reaction to the present DEIS is included in comments made by the Citizen Task Force (CTF), of which I am a member; in those made by the Coalition on West Valley Nuclear Wastes, and by the League of Women Voters of the state of New York. However, I feel the need to make a few points of my own.

First, I must express my disappointment in the interaction in the past between the site managers: the Department of Energy (DOE) and New York State Energy Research and Development Authority.(NYSERDA). A decidedly poor pattern was obvious for many years, sometimes including actual breaks in communication – this from agencies of the government which should have been working together to solve the problems created at the West Valley site. Sometimes DOE officials came to meetings and responded to questions from CTF members while NYSERDA officials seemed to hear the answers for the first time. Didn't DOE work with them, share information with them? I am sure that is what the public expected. Certainly that is what I expected.

When the long-awaited 1996 draft environmental impact statement (DEIS) finally came out without naming a preferred alternative, I wondered why. Some of us concluded the DOE did not like it's own numbers and hoped to present evidence that would lead the public to choose in their favor. I discovered much later that the Nuclear Regulatory Commission (NRC) decided none of the options were viable except full cleanup, which DOE resisted for reasons left to the imagination. That information was not public, of course, which is another source of frustration for me. As each agency involved speaks on an issue, the public has no knowledge of their opinion; e.g. by the time the EPA declares a problem we could be far beyond the decision that led to it... most frustrating! Attempts at coordination among the various agencies and departments were made eventually, but Core Team agreement on this latest preferred alternative is very disappointing.

Through the years members of the CTF were troubled by the inability of the NRC to force compliance from DOE. The most notable example is the strontium plume, which the NRC "monitored" for years. reporting on its progress as it moved across the premises, contaminating clean soil and heading for clearer pathways into Cattaraugus Creek. Of course, that is another story: the story of my extreme disappointment in the claim made by NRC officials that they had no authority to force DOE to stop that

[1] 2008 DEIS, Chapter 1, Section 1.1, Page 1.1

260-1

260-1 DOE and NYSERDA note the points made by the commentor regarding disappointment with the process for and progress on actions to address WNYNSC. Chapter 1 of this EIS summarizes the history of WNYNSC. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles. Section 1.2 discusses the evolution of this document. As indicated in that section, DOE and NYSERDA were unable to identify a preferred alternative associated with the 1996 *Draft Environmental Impact Statement for Completion of the West Valley Demonstration Project and Closure or Long-Term Management of Facilities at the Western New York Nuclear Service Center (Cleanup and Closure Draft EIS)* because NRC had not promulgated the decommissioning criteria for WVDP. Therefore, a decision was made to proceed with the *West Valley Demonstration Project Waste Management Environmental Impact Statement (Waste Management EIS)* so that progress on site cleanup could be made with the shipment of WVDP waste off site for disposal. DOE is not aware that NRC ever made a determination that the only viable option presented in the 1996 *Cleanup and Closure Draft EIS* was full cleanup. Since that time, DOE and NYSERDA have collected additional characterization information, including information on structural geology, local fractures, and seismicity, and developed analytical methods to support this EIS. Updated methods for analyzing erosion were also developed and refined. During this time, NRC issued its "Decommissioning Criteria for the WVDP at the West Valley Site; Final Policy Statement" (67 FR 5003), which provided needed criteria for evaluating closure of the NRC-licensed site.

Commentor No. 260 (cont'd): Leonore S. Lambert

plume. Instead they watched it contaminate more and more clean earth, heading for the water system
Lambert comments -2-

for millions. At the time we were assured that the half-life of strontium was only 26 years or so, which still translates into over 200 years before it is "safe" to ingest it.

My disappointment in that issue extends to the inaction and or inability of NYSERDA officials to take action or at least to "blow the whistle". At very least it seems they could have strongly objected. Perhaps they did. In that case, shame on the next level for not taking action. Asking them to "go public" would be too much, I suppose, until DOE attempts to walk away in the future and state residents are left with a mess to clean up which they can not, and should not have to, pay for.

After the failure of the 1996 DEIS, claimed to be caused by DOE's inability to name a preferred alternative, all that seemed to be necessary was a simple declaration of a preference toward a full cleanup. Instead of committing to a full cleanup at that time, a split path was chosen, an illegal split of the EIS which should have covered the entire site, but focused instead on "Waste Management". That decision allowed DOE to declare their intention to "clean up" portions of the site and show slides to the CTF and at quarterly meetings, of the future look of the site. Photo mock ups showed before and after depictions of buildings and other material removed and replaced with a great deal of green grass. The presenter at one meeting proudly showed the clean up and declared the land would be safe to live on. A CTF member questioned whether the speaker or, by implication, any resident farmer could then grow vegetables on the site. Hearing an affirmative answer, he continued with "Could I eat them?" the answer was yes. Would you? No response. We know what's underneath a lot of that land that in the artist depiction looks clean because it's green.

260-1 cont'd

My most recent disappointment, actually a source of anger, is calling this DEIS a "revision" of the 1996 Cleanup and Closure DEIS. The change in title from "completion of the...Project and closure or long-term management" to "decommissioning and/or long-term stewardship" raises questions too numerous and complicated to discuss at this time. Not only is the title changed but the latest document provides no valid data to indicate the value of a cleanup. It is definitely not a revision, but an entirely new document calculated to allow a decision to leave a great deal of contamination on site, and to disallow, because of skewed "facts", a decision to remove the material from the ground. Again, the question arises... As supposed partners in decisions, did DOE officials not meet with officials from the state of New York (particularly NYSERDA representatives) to work out disagreements they had with calculations and conclusions? If not, why not?

Now we must deal with the illegal DEIS or nothing. We are handed crumbs and expected to be satisfied that something is being done to ease our hunger for a fair, honest and sensible conclusion to the very real problem of nuclear waste not only at this site but in the entire country and around the world.

260-2

So much of what is contained in this DEIS is so inaccurate and/or incomplete that the conclusion of a full cleanup is impossible based on the faulty "evidence" contained in this DEIS. In fact, as presented, the evidence DOE has concocted would lead easily to the conclusion that the contaminated material must remain at West Valley ad infinitum. Evidence in the 1996 draft would have supported full cleanup, if only partly by stating the enormity of the problem and the necessity of getting the contaminated material out of an unstable site subject to large amounts of precipitation and prone to erosion. NYSERDA has expressed objections and listed faults in this DEIS in their foreword to the document. Never before have I seen a foreword that was not in support of the document it preceded. That alone is a telling statement.

Regardless of the title of the 2008 Revised Draft EIS, the same level of analysis and the same process for public involvement were undertaken as would have been if it had been issued as a continuation or supplement to the *Cleanup and Closure Draft EIS*.

260-2 DOE began the Core Team process in November 2006 with the agencies involved in this EIS to work toward resolution of technical issues that were impeding progress of the document. NYSERDA agreed to join this process in March 2007. Since that time, DOE and NYSERDA have worked cooperatively to advance the NEPA process for WNYNSC.

DOE and NYSERDA have prepared this single, comprehensive EIS for the decommissioning and long-term stewardship of WNYNSC. This EIS adequately analyzes the totality of environmental impacts, including costs, of a broad spectrum of reasonable alternatives that meet the respective purposes and needs of DOE and NYSERDA (Sitewide Close-In-Place, Phased Decisionmaking, and Sitewide Removal), as well as the No Action Alternative. While the Phased Decisionmaking Alternative would temporarily defer a final decision on the disposition of the Waste Tank Farm, the NDA, and the Construction and Demolition Debris Landfill, DOE believes that the impacts of this deferred decision are adequately analyzed within this EIS.

DOE and NYSERDA support the Phased Decisionmaking Alternative as the Preferred Alternative. The agencies agree that, under the first phase of this alternative, important work would be conducted that the agencies believe is critical to keep the project moving toward completion. There is disagreement, however, regarding the level of additional analysis related to long-term performance assessment required to support the Phase 2 decision.

DOE disagrees with many of the points raised in NYSERDA's View, which is included as the Foreword to this EIS. At the core, differences between DOE and NYSERDA center on different views about the nature of analysis required for an EIS and the attendant level of acceptable risk associated with any uncertainties in that analysis as it relates to decisionmaking. DOE believes the analysis in this EIS meets the requirements of NEPA and SEQR in that, when there is incomplete or unavailable information relevant to reasonably foreseeable significant adverse environmental impacts, this EIS (1) acknowledges the information limitation and its relevance to environmental consequence, (2) summarizes existing credible scientific evidence, and (3) presents an analysis using a theoretical approach that

Commentor No. 260 (cont'd): Leonore S. Lambert

Lambert comments -3-

The biggest question I have, after many years following this issue, is why DOE did not work cooperatively with NYSERDA to present an honest appraisal of the environmental impact of leaving contaminated material of such magnitude and volume at such an unstable site. Why? Some people would say it is because the nuclear industry has a stranglehold on the United States government. After all, the federal government subsidizes the nuclear industry, backing it financially and protecting it from lawsuits for untold missteps. Meanwhile, that subsidization begs the question: if energy is the main goal of the Department of Energy, why the reluctance to subsidize solar and wind power to the same degree?

260-2 cont'd

The question of "why" persists. Why a preference for development of nuclear energy? Is it because of a perceived necessity to develop new and more effective nuclear weapons? Working closely with the Department of Defense (DOD), the Department of Energy expends a great deal of "energy" in terms of the time and talents of its workers, to devise nuclear weapons and try to deal with the waste. Evidence of the link between DOE and DOD is commonplace, exhibited by numerous weapon sites across the country, many of which are "closed" but not clean by any stretch of the imagination. Is it that far-fetched to imagine that many people who have been following the saga of West Valley for decades are wary that the DOE wants to walk away and has devised the DEIS to conform to that decision? Changing the title of the DEIS, and removing the words "Cleanup and Closure" as part of a handy title, was only one part of a process to essentially fool the public into thinking it is possible to have long-term "stewardship" at this site over the thousands of years much of the material will remain radioactive and therefore a dangerous invisible threat to the health and welfare of the people.

260-3

I have expressed many disappointments in these comments, those that are my own and those shared by many others. My personal disappointment is also filled with sorrow that, at the rate of government action in the past, I am quite sure I will not live long enough to see a positive result from my efforts to "save the environment" for future generations. Still, I try.

Thank you for the opportunity to express my views.

Sincerely,

Leonore S. Lambert

is generally accepted by the scientific community involved in such analyses. This Final EIS contains text boxes in the relevant subject matter areas that acknowledge the differences of opinion between DOE and NYSERDA. In general, DOE's position is that the agency spent much time and effort engaging highly qualified and respected experts in hydrology and hydrological transport, landscape evolution (erosion), human health and environmental risk analysis, and other technical fields, and stands behind the analyses performed for this EIS.

260-3 DOE and NYSERDA note the comment. DOE will remain on site until it completes its responsibilities as assigned under the West Valley Demonstration Project Act. DOE would not leave the site after completion of the Phase 1 actions because it would not have completed the actions required under the Act. The description of the Phased Decisionmaking Alternative in Chapter 2 of the EIS has been revised to clarify this, and the wording in the *Phase 1 Decommissioning Plan* has been revised to avoid the implication that DOE would leave the site at the end of Phase 1.

The commentor raises a concern about changing the title of the 1996 *Cleanup and Closure Draft EIS*. Chapter 1, Section 1.2, of this EIS provides a detailed explanation of this EIS's development, including why the 1996 *Cleanup and Closure Draft EIS* was split into two EISs. DOE does not agree with the commentor's implication that the change in title from *Cleanup and Closure Draft EIS* to *Final Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western New York Nuclear Service Center (Decommissioning and/or Long-Term Stewardship EIS)* somehow lessens its commitment to clean up and close WNYNSC. DOE remains committed to meeting its responsibilities under the West Valley Demonstration Act, to protecting the environment, and to ensuring the safety and health of workers at WNYNSC and the public.

Commentor No. 261: Diane D'Arrigo, Nuclear Information and Resource Service

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September 8, 2009
TO: Catherine Bohan, EIS Document Manager
West Valley Demonstration Project, US Department of Energy
PO Box 2368, Germantown, MD 20874
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From: Diane D'Arrigo, Radioactive Waste Project Director, Nuclear Information and Resource Service
dianed@nirs.org; 301 270 6477 x16.

Re: West Valley revised DEIS Comments on Decommissioning and/or Long –Term Stewardship at the West Valley Demonstration Project & WNY Nuclear Svc Center DOE/EIS-0226-D Revised Nov 2008

The Nuclear Information and Resource Service (NIRS) testified at all 4 public hearings and has submitted several previous comments to this docket.

NIRS supports the full cleanup of the West Valley radioactive and hazardous waste site to the strictest federal and state standards currently in effect, at minimum. Of the 4 options provided in the revised DEIS, the Site-wide Removal option is the only one that will prevent further contamination and protect the surrounding creeks, the Cattaraugus Creek, Lake Erie, the Niagara River, Lake Ontario and the St. Lawrence River and Seaway to the Atlantic Ocean, potentially impacting residents of the US, the Seneca Nation of Indians and Canada, terrestrial and aquatic flora and fauna and all that are impacted by food-chains, food-webs and weather patterns along the way. The decision now to proceed with Site-wide Removal/ Full cleanup is the most economic in the long run as it will prevent catastrophic contamination of the waters and communities downstream and downwind including the Great Lakes and beyond. ***261-1*** ***261-2***

Radioactive wastes from the 1960s and 1970s nuclear power and weapons industries, including irradiated fuel reprocessing, are buried and stored at West Valley.

Before the US Department of Energy puts more taxpayer resources toward MORE nuclear power and weapons, a firm commitment to and commencement of full cleanup of the West Valley site is essential.

Geologically, the site *will* erode into the Great Lakes while the wastes are still radioactively hazardous. The only question is timing—how long will it take for 1%, 10 %, 100% of the radioactively to migrate slowly or bleed quickly into the surrounding streams which can literally gush into Cattaraugus Creek and Lake Erie. ***261-3***

261-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Agency actions will comply with the applicable cleanup and decommissioning criteria for WNYNSC embodied in Federal and New York State environmental, safety, and health regulatory requirements promulgated under various statutory authorities (see Chapter 5 of this Final EIS). As summarized in Chapter 1, Section 1.3, of this Final EIS, these regulatory requirements include RCRA permitting and corrective actions under New York State and/or EPA requirements, decommissioning according to NRC requirements in its License Termination Rule, and EPA assessments of compliance with National Emission Standards for Hazardous Air Pollutants.

261-2 DOE and NYSERDA recognize that potential radiological releases resulting in water contamination are a concern in the region of WNYNSC. Please see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

261-3 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F. In addition to the previously cited Issue Summaries, please see "Questions about Long-term Erosion Modeling" for further discussion of this issue and DOE's and NYSERDA's response.

Commentor No. 261 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

The independent report, ***The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site*** released in December 2008 has been submitted into the record. It looked at the consequences of just 1% of the radioactivity being released into the water supply and calculated it would cost triple the amount projected for full cleanup of the site to deal with that one limited scenario. (It will cost $9.7 Billion for the Site-wide Removal option but leaving the waste buried at the site could cost $27 Billion when a small amount of it leaks out.) Hundreds of cancers would be prevented. The full, long term cost of loss of resources and habitats is incalculable and has not even been estimated. The revised DEIS uses different assumptions for the various options, making full cleanup appear more expensive than it would if comparable assumptions were made. The revised DEIS does not project into the future for as long as the waste remains dangerous thus ignores some of the potential long range consequences. The erosion model used in the revised DEIS has been determined to be completely inadequate by NYSERDA and a team of independent reviewers (Independent Review of the Draft EIS for the Decommissioning and /or Long-Term Stewardship at the West Valley Demonstration Project and WNY Nuclear Service Center). ***261-4***

Floods in August 2009 did devastating damage in the West Valley region. (Towns downstream are receiving Federal Emergency Management Agency disaster aid.) We learned from community people who toured the West Valley nuclear waste site that Buttermilk Creek about a third of a mile from the trenches) eroded at least 15 feet closer to the nuclear waste burial trenches which have at least 14 pounds of plutonium buried in them. Exhibit 1 is a view of the Buttermilk Creek landslide area in 2008 (photo by J Rauch) and Exhibit 2 is a view of it after the August 2009 major rainfall and flooding event (photo by P Bembia). Updates have not been provided on the impacts to other parts of the site…including whether Franks Creek which hugs the trenches moved closer and effects on the strontium plume which is migrating towards the creeks. ***261-5*** ***261-6***

Residents of the Seneca Nation, along the Cattaraugus Creek, could be the first, most immediately and directly impacted with potentially highest doses because of their proximity to the site and their culture and lifestyle which is closer to the land and water, traditionally eating a higher amount of fish and game that bio-accumulate or concentrate radionuclides, increasing amounts and doses beyond the "resident farmer" and resident gardeners scenarios used in computer codes to project risks to the public. ***261-5 cont'd***

The DOE's Decommissioning Plan that is being reviewed by the Nuclear Regulatory Commission presupposes the selection of the phased decision making option. We support exhumation of the entire plume and the source. We question whether the process building is the only source, however, and call for full exhumation of the high level radioactive waste tanks including all the sludge and remains from reprocessing waste. We oppose the designation of the tanks and tank waste as Waste Incidental to Reprocessing or any other designation which would permit leaving them in place. The Site-Wide Removal option would exhume the trenches (SDA) and deep high level waste holes (NDA) which is especially important in light of the rapid erosion and potential for underground migration. If one leak from the process building could cause a plume that will cost $1.2 Billion to only partially cleanup, how many more plumes can be caused but the many sources of intense long-lasting waste buried at the site in the tanks, trenches and holes? The precautionary principle dictates a decision now to prevent more billion dollar leaks by making the decision now—not in 30 or 15 or 10 even 1 more year --- to exhume and isolate all of the radioactive and hazardous waste at West Valley. ***261-7*** ***261-8*** ***261-9***

261-4 The report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., including the three appendices, have been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for discussion of the report's issues and DOE's and NYSERDA's response.

261-5 Long-term human health impacts are analyzed in this EIS by evaluating the potential annual doses and risks to future receptors. For each receptor, annual doses and risks are calculated to the year of maximum impact. Following the year of peak impacts, the annual doses to these receptors would decline. Chapter 4, Section 4.1.10, of this EIS presents tables showing peak impacts to receptors and the years in which those impacts occur. It also presents tables showing the time-integrated population dose for 1,000 and 10,000 years following closure. In addition, please see the response to Comment no. 261-3.

In Chapter 4, Sections 4.1.9 and 4.1.10, short-term and long-term impacts to a receptor living along lower Cattaraugus Creek are calculated. One of the scenarios for both the short- and long-term analyses involves consumption of potentially contaminated water and food, including consumption of fish at a higher rate of consumption than a typical resident gardener; this receptor could be a member of the Seneca Nation of Indians.

DOE disagrees with many of the points raised in NYSERDA's View, which is included as the Foreword to this EIS. At the core, differences between DOE and NYSERDA center on different views about the nature of analysis required for an EIS and the attendant level of acceptable risk associated with any uncertainties in that analysis as it relates to decisionmaking. DOE believes the analysis in this EIS meets the requirements of NEPA and SEQR in that, when there is incomplete or unavailable information relevant to reasonably foreseeable significant adverse environmental impacts, this EIS (1) acknowledges the information limitation and its relevance to environmental consequence, (2) summarizes existing credible scientific evidence, and (3) presents an analysis using a theoretical approach that is generally accepted by the scientific community involved in such analyses. This Final EIS contains text boxes in the relevant subject matter areas that acknowledge the differences of opinion between DOE and NYSERDA. In general, DOE's position is that the agency spent much time and effort engaging highly qualified

Commentor No. 261 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

NYSERDA president Frank Murray stated in the September 4, 2009 video conference with DOE EM Asst Secretary Ines Triay, and she agreed, that the agencies would make the decision based on the option that is "justified" in the revised DEIS. The 2008 revised DEIS should have presented alternatives in accord with the spirit and requirements of NEPA, thus providing the necessary and available science for each alternative. But the alternatives were not presented fairly and in a balanced way—different assumptions were made for different alternatives. This has been criticized in the Full Cost Accounting Study and by other commenters including at the public hearings. The Full Cost Accounting Study and NYSERDA and the Independent Review of the DEIS provide additional scientific information justifying the full cleanup/Site-Wide Removal alternative and pointing to the unreliability of models that would allow leaving waste buried, even temporarily.

261-10

Choosing the phased decision making alternative is NOT a decommissioning or long-term stewardship option—it is punting into the future a decision that needs to be made now.

The Full Cost Accounting report concludes:
"■ **Waste Excavation is less expensive than Buried Waste…**
■ **Waste Excavation poses significantly lower risks to future generations after closure activities cease...**
■ **The Onsite Buried Waste approach inadequately protects the health and environment of residents, and is an unrealistic cost.** It poses a risk to residents if controls fail while dangerous radionuclides are buried at West Valley.
■ **Waste Excavation** poses a risk to onsite workers during the relatively short period of time for remediation activities. It also does not "solve" the problem of West Valley's nuclear waste disposal, rather it **prevents further contamination, prevents a catastrophic release that could cause severe damage to populations in the Great Lakes region, and mitigates the problem by transferring the waste to a less risk-prone site…"**

261-4 cont'd

DOE and NYSERDA should not use a discount rate when estimating future costs because it reflects future lives and resources as valueless. This is both incorrect and immoral. Chapter 8 of the Full Cost Accounting Study makes a clear case for a zero discount rate when assessing future costs and values.

261-11

As reported to Asst Secretary of DOE Environmental Management Dr. Triay and NYSERDA President and CEO Mr. Murray, and submitted to the record, the Seneca Nation of Indians, numerous towns and cities as well as the Counties of Erie, Niagara and Cattaraugus have passed resolutions supporting the full cleanup of West Valley, the site-wide removal option. The New York State congressional delegation and the NYS Senators and Assemblymembers submitted letters calling for the full cleanup decision to be made now in this Record of Decision. A growing number of organizations, religious, sports and recreation, environmental, conservation, consumer and good government groups have joined the West Valley Action Network calling for full cleanup now of the West Valley nuclear and hazardous waste site. We strongly encourage DOE and NYSERDA to choose site-wide removal to protect the Great Lakes and the public by deciding now to proceed with the full cleanup of the West Valley Demonstration Project and Western NY Nuclear Service Center.

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and respected experts in hydrology and hydrological transport, landscape evolution (erosion), human health and environmental risk analysis, and other technical fields, and stands behind the analyses performed for this EIS.

261-6 The flooding (due to storms) cited in the comment is within the range of weather conditions used in developing the erosion model for the site. Regarding the adequacy of erosion modeling in this EIS, please see the Issue Summary for "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

261-7 DOE and NYSERDA have identified the Phased Decisionmaking Alternative as the Preferred Alternative in this EIS. Consistent with an agreement between NRC and DOE, DOE is preparing the *Phase 1 Decommissioning Plan for the West Valley Demonstration Project (Phase 1 Decommissioning Plan)* simultaneously with the preparation of this EIS. The proposed decommissioning approach described in the *Phase 1 Decommissioning Plan* is based on the Preferred Alternative in the Revised Draft EIS. NRC recognizes that the use of the Preferred Alternative in the *Phase 1 Decommissioning Plan* before completion of this EIS is preliminary and subject to change based on the content of this Final EIS, DOE's Record of Decision, and NYSERDA's Findings Statement. If DOE selects an action other than the current Preferred Alternative, the *Phase 1 Decommissioning Plan* would be revised to reflect the Record of Decision and Findings Statement. While DOE is conducting the preparation and review processes for this EIS and the *Phase 1 Decommissioning Plan* in parallel, the Agency has not yet made its final decision on its actions for completion of the West Valley Demonstration Project.

261-8 The extensive WNYNSC environmental monitoring program, which is designed to detect possible movement of contamination on the site, as well as specific studies, concluded that the source of the North Plateau Groundwater Plume is the Main Plant Process Building (see Chapter 3, Section 3.6.2.1, of this EIS). Note that, during the implementation of Phase 1 of the Phased Decisionmaking Alternative, the source area of the North Plateau Groundwater Plume would be removed. As described in Chapter 2, Section 2.3.1, a permeable treatment wall would be constructed to mitigate the impacts of the non-source area of the plume.

261-9 DOE and NYSERDA acknowledge the commentor's opposition to designating the tanks and waste residuals in the tanks as waste incidental to reprocessing (WIR) and to alternatives that would leave the waste on site. The implementation of the WIR process is discussed in this EIS for those waste streams to which it

Commentor No. 261 (cont'd): Diane D'Arrigo, Nuclear Information and Resource Service

Exhibit1

2008 view of Buttermilk Creek facing trench area

could possibly apply (e.g., see Chapter 4, Section 4.1.11, of this EIS). Use of the WIR process is at the discretion of DOE. A determination that waste is incidental to reprocessing and can be managed as low-level radioactive or transuranic waste depends on meeting the criteria developed to protect human health as documented in DOE Manual 435.1 and the NRC February 2002 policy statement prescribing the use of NRC's License Termination Rule as the decommissioning criteria for WVDP (67 FR 5003).

261-10 As described in Chapter 1, Section 1.2, of this EIS, DOE and NYSERDA, working with a Core Team of Federal and state agencies and with input from the public, developed the proposed alternatives. These alternatives are consistent with NEPA requirements (40 CFR 1502.14) to evaluate all reasonable alternatives as well as the No Action Alternative. The Interim End State, the starting point for the analyses in this EIS as defined in Chapter 2, Section 2.3.1, is the same for all of the alternatives, including the No Action Alternative. Many of the assumptions are different for each of the alternatives because the proposed activities are different. However, also in accordance with 40 CFR 1502.14, Section 2.6 of this EIS compares the alternatives and clearly and concisely shows the similarities and differences between the potential impacts so that the public and decisionmakers can discriminate between alternatives.

DOE's differences with NYSERDA's View of the analysis presented in the Revised Draft EIS are discussed in the response to Comment no. 261-5.

Regarding the *Synapse Report's* conclusions, please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of the report's conclusions and DOE's and NYSERDA's responses.

261-11 DOE and NYSERDA acknowledge the commentor's position about cost discounting in regard to the cost-benefit analysis included in the Revised Draft EIS. Please see the Issue Summary for "Questions about Cost-Benefit Analysis" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

The cost-benefit analysis presented in Chapter 4, Section 4.2, of the Revised Draft EIS was performed to support NRC's request for cost-benefit information consistent with its as low as is reasonably achievable (ALARA) analysis guidelines. This cost-benefit analysis follows the principles in the NRC ALARA guidance presented in NUREG-1757, "NRC Consolidated Decommissioning Guidance." The analysis in Section 4.2 has been revised for this Final EIS and uses several

Exhibit 2

August 2009 view of Buttermilk Creek facing trench area after major rainfall and flooding.

One flood event caused erosion toward the trenches at least 15 feet.

relatively low discount rates (1, 3, and 5 percent) to investigate the sensitivity of the results to lower discount rates. The use of a single discount rate of zero for the ALARA analysis is not considered to be consistent with the NRC guidance.

Commentor No. 262: Barbara Warren, Citizens' Environmental Coalition

Citizens Environmental Coalition

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Websites: www.cectoxic.org • www.ecothreatny.org • www.toxicfreefuture.org

September 8, 2009

Catherine Bohan
EIS Document Manager
West Valley Demonstration Project
US Department of Energy
PO Box 2368
Germantown, MD 20874

Re: Draft Decommissioning and /or Long –Term Stewardship EIS Comments

Dear Ms. Bohan,

We have previously provided extensive comments related to the Draft EIS and the Decommissioning Plan. We wish to summarize some of those points in our final comments before the deadline. We also wish to explore the issue of emergency planning and prevention that was brought more immediately to our attention by the severe weather event of August 9, albeit in a limited way, given the fact that key documents have not yet been made available to us.

The Decommissioning Plan fails to meet the requirements of the West Valley Demonstration Project Act to decontaminate and decommission the regulated facilities and dispose of the waste at the site.

The Decommissioning Plan is not a Complete Plan for Decommissioning. Thus it is not approvable as a Decommissioning Plan. It is not complete for the following reasons:

- It deals with only 1% of the radioactivity remaining onsite.
- It leaves massive amounts of radioactive waste in the high level tanks: 320,000 curies, and fails to fully examine the problem of the tanks being at the end of their life span.
- It leaves reprocessing waste, fuel rods and cladding in the NDA burial site.
- Both the NDA and the Hi-Level waste tanks are governed by the WV Demonstration Project Act.
- Full site characterization of contamination has not been completed. This characterization report is not expected to be completed until December 2009, after the public comment period has ended.
- The Decommissioning Plan consists of only a limited set of site activities. Key studies that must be completed before deciding on a Complete Decommissioning Plan have not even been briefly listed and described for the public.
- Future indeterminate decision-making by Government officials without public involvement does not constitute a complete Decommissioning Plan today.

'Never doubt that a small group of thoughtful, committed citizens can change the world; indeed it is the only thing that ever has." – Margaret Mead

262-1

262-1 DOE and NYSERDA acknowledge the commentor's preference for a full cleanup of the WNYNSC site and opposition to leaving radioactive or hazardous waste on site. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

It is noted that this first set of comments relate to *the Phase 1 Decommissioning Plan for the West Valley Demonstration Project (Phase 1 Decommissioning Plan)*, which is a related but separate document from this EIS. A number of similar points with respect to this EIS were raised in letters signed by the commentor (see, for example, Commentor nos. 23 and 116); responses with respect to this EIS are provided to the comments in those letters.

Commentor No. 262 (cont'd): Barbara Warren, Citizens' Environmental Coalition

The Draft Environmental Impact Statement and the Public Process are fatally flawed for the following reasons:

An Environmental Impact Statement should contain these major and essential elements:

- A Complete Plan or Project
  An EIS should start with a complete plan or project and then fully describe all elements of the project.
- Identification of all Potential Environmental Impacts and then full Analysis of those impacts.
- Full Public Disclosure involving a legitimate public process with information made available and an adequate opportunity for the public to have some influence on the decisions that are made.
- A reasonable rationale for any decision, such as the choice of the Preferred Alternative

For all of the options, other than Sitewide Removal, there is no detailed description of the monitoring of containment for leaks or failures, no assessment of the impacts associated with a containment failure, no plan for rapid response to containment failure and as a result there is little public information about an essential element of any cleanup option that allows buried waste to be maintained on site. Similarly there is no detail regarding the engineering and institutional controls needed to maintain buried waste on site. The agencies seem to be viewing only concrete actions, such as excavation, as something to be covered in the EIS. Neglecting or taking no action to cleanup major facilities at the site gets little attention in the EIS, despite the fact that the West Valley Demonstration Project Act explicitly requires the decontamination or cleanup of the facilities covered. ***262-2***

The only cleanup option that has been fully analyzed and disclosed to the public is the Sitewide Removal Alternative-- full excavation and cleanup of the radioactive material. As a result this is the only cleanup option that is legally eligible under NEPA, National Environmental Policy Act, for consideration by the agencies for adoption. ***262-3***

Historical Realities related to West Valley Nuclear Reprocessing and Radioactive Waste Disposal can inform more realistic expectations of safe containment of dangerous radioactivity.

About 50 years ago the federal government embarked on a plan to reprocess the nation's nuclear waste using private entities. The government was very enthusiastic and optimistic that its plan would work successfully and as a result sold the public and the state on the plan.

Fifty years later it is pretty clear that the plan was a stupendous failure:

- The private operator walked away from the project.
- A long list of accidents and spills have left the site extensively contaminated.
- Federal and state governments now have responsibility for the site, although legal actions are pending which could impact who is responsible and future cleanup actions.
- The perpetual care fund was never adequately funded to deal with the massive amount of radioactive material that must be isolated and contained for thousands of years.
- The risks to groundwater, surface water, the Great Lakes and public health are enormous.

The actual record of spills, mishaps, accidents and contamination spreading offsite provides a realistic picture of just a few decades of active management of highly dangerous radioactive materials and the abilities of regulatory agencies to safely contain these materials. The delay between discovery of the strontium leak and the extensive strontium plume that now must be dealt with at taxpayer expense is just one example of containment failure and inadequate management. The DOE approach for the long term assumes a degree of control never achieved by private companies and multiple federal and state agencies that have been actively involved at the site. If active management and control have not been successful historically in ***262-4***

262-2 As acknowledged in this EIS, long-term monitoring and maintenance would be required for alternatives that would leave waste on site. This EIS provides a summary description of current and potential future environmental monitoring programs. The descriptions of the alternatives have been revised to further describe the use of engineered barriers and long-term monitoring and maintenance. Long-term monitoring and maintenance are described in Chapter 2, Sections 2.4.2.6 and 2.4.3.8. Long-term monitoring and institutional controls are also discussed in Chapter 6. Additional information about current and proposed monitoring and institutional controls is provided in Appendices C, H, and I. Chapter 2, Table 2–4, includes estimates of the environmental consequences if (1) monitoring and maintenance are successful (institutional controls remain in place) and (2) monitoring and maintenance programs fail (institutional controls are lost). Chapter 4, Section 4.2, of this EIS includes monitoring and maintenance costs for the alternatives that would leave waste on the site.

Detailed information regarding long-term monitoring and maintenance programs and institutional controls under alternatives that would leave radioactive waste stored on site has not been specifically defined at this time. Such definition would occur after an alternative is selected for implementation and would include consultation with appropriate regulatory authorities. An element of the long-term programs would be the development of plans and procedures for responding to emergencies. These plans and procedures would include coordination and agreements with local police and fire departments and medical facilities.

262-3 DOE and NYSERDA acknowledge the commentor's opinion that the Sitewide Removal Alternative is the only alternative that has been fully analyzed in this EIS. In addition to the Sitewide Removal Alternative, this EIS evaluates the environmental impacts of a Sitewide Close-In-Place Alternative, which would leave some radioactive and hazardous waste in place, as well as a Phased Decisionmaking Alternative. Chapter 2, Section 2.6.1 and 2.6.2, presents a summary of the impacts from all alternatives, including the long-term impacts associated with the alternatives that would leave waste on site. These impacts and the supporting analyses are described in more detail in Chapter 4 and selected appendices, particularly Appendices D, E, F, G, and H. The environmental impacts of implementing Phase 1 of the Phased Decisionmaking Alterative are described for each resource area in Chapter 4 of this EIS. If this alternative is selected, the options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a

Commentor No. 262 (cont'd): Barbara Warren, Citizens' Environmental Coalition

containing and controlling mishaps, spills and leaks it is difficult to imagine how DOE can justify a dramatically reduced level of control in the future for thousands of curies of buried radioactive waste.

It is within this backdrop of actual performance that government agencies now propose:

To not decontaminate or decommission major radioactive facilities;
To Cleanup only 1% of onsite radioactivity;
To Monitor for radiation leakage, but not provide any details;
To Study for 30 more years but not share details;
To Make Future cleanup decisions themselves without public involvement; and
To Fail to Present Long Term Stewardship activities for the site.

Finally, the Government calls all of this—" Decontamination, Decommissioning and Long Term Stewardship".

262-4 cont'd

Long Term Stewardship is necessary only in the case that a complete Cleanup is not carried out. In all scenarios where buried waste must be contained on site for thousands of years, proper stewardship is essential. Sitewide Removal avoids such long term monitoring, engineering and institutional controls because the radioactive material is dug up and removed. The analyses in the EIS related to long term engineering controls, monitoring and containment at the site have been called into serious question by both the independent state-funded study, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Site*, released in December, and by NYSERDA's comments in the Foreward to the EIS, where it called the EIS' long term analyses fatally flawed and scientifically indefensible.

262-5

Not only have organizations, individuals and their elected representatives spoken unanimously in favor of a Complete Cleanup at West Valley, but today a Buffalo News Editorial also leant its full support to this objective. See Below

Long Term Stewardship would need to contain radioactive material under extreme conditions including including earthquakes and severe weather events that bring excess rainfall, lightning, high winds such as hurricanes and tornados, flash floods, interrupted power and communications, as well as hindered or impaired emergency services. Previously we have focused on the unique nature of the site, particularly its vulnerability to erosive forces. However, a vulnerability to erosion is exacerbated by weather events such as excess rainfall. August 9th of this year dumped over 5 inches of rain in 1.5 hrs. Rain at the site could have been more severe, but the rain gauge was not functional because of a loss of power. Based on the Buffalo National Weather Services report severe lightning occurred and a tornado also touched down. See below. Flash floods and erosion impacted the entire area. A massive landslide occurred on Buttermilk Creek near the SDA The reservoirs were overtopped with evidence of some erosion damage to the dams. Erdman Brook, Franks and Quarry Creeks, also experienced erosion damage. The site also lost communications for a period of time. Unknown at this time is the effect of this storm on the Strontium plume which has been allowed to spread for years under the laissez-faire approach of government agencies.

262-6

Long term stewardship requires consideration of all possible severe conditions that could cause loss of containment of radioactive material. However, the Draft EIS assumed erroneously that global warming would not have weather impacts in the area for 10,000 years. This is clearly not a scientific approach given that thousands of scientists including those in government who believe that global warming is causing impacts already. It is predicted that the Northeast will experience a 20-30% increase in rainfall. All potential impacts of global warming such as hurricanes, tornados, rainfall, flash floods, and erosive damage should have been studied in the EIS. The August 9th storm was a moderate one, but had relatively severely impacts on the region. A more severe storm could breach containment and the responsible thing to do is to consider

262-7

combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. For each resource area, Chapter 4 discusses the impacts that would occur if either removal or close-in-place is selected for Phase 2. The chapter also discusses which alternative(s) bound the impacts in the event that continued active management is selected for the SDA. The short-term impacts of a Phase 2 decision that involves continued active management of the SDA are bounded by either the removal or close-in-place impacts. The post-decommissioning impacts of a continued active management decision for the SDA, which include staffing, occupational exposure, and waste generation related to SDA monitoring and maintenance, as well as long-term impacts on public health and safety, would be similar to the no action impacts for the SDA. DOE believes the analysis in this EIS meets the requirements of NEPA and SEQR. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement.

262-4 This EIS was prepared to evaluate the environmental impacts of alternatives for decommissioning and/or long-term stewardship of WNYNSC. Chapter 1 of this EIS summarizes the history of WNYNSC. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles. Chapter 3, Section 3.11.5, summarizes the history of site accidents that are known to have resulted in environmental impacts, as well as those that might have caused such impacts, based on available operating records and evidence in the form of measured contamination. The additional issues cited by the commentor are discussed in the following paragraphs:

Risks to groundwater, surface water, the Great Lakes, and public health: Chapter 3, Section 3.6, of this EIS addresses water resources at WNYNSC, including contaminant releases and quality. The risks to both groundwater and surface water that are associated with the alternatives analyzed in this EIS are discussed throughout Chapter 4, particularly in Sections 4.1.4 and 4.5.8, as well as in Appendix H. Please also see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Environmental contamination from current operations is minimal (below established standards), as demonstrated by the results from the ongoing environmental monitoring program.

Commentor No. 262 (cont'd): Barbara Warren, Citizens' Environmental Coalition

the reasonable worst case scenarios for planning purposes. It is only by anticipating a variety of realistic worst case scenarios that you can provide for the needed emergency equipment and services, as well as take steps to prevent and avoid the worst case scenarios from becoming a reality.

After the weather events of August 9th we requested emergency planning documents from the relevant agencies. Unfortunately we had to pursue a FOIA request to obtain the documents from DOE. Emergency planning documents are supposed to be available to the public and discussed at length with the public and emergency providers—police, fire, ambulance, hospital, town and county officials. At this time it has been impossible to adequately pursue emergency planning questions that need answering such as:

1) the communications network for emergencies with 2 way communications,
2) the availability of emergency planning documents for the public,
3) the extent to which there have been real, thorough discussions of this topic, given that these discussions have never occurred at the Citizens Task Force,.
4) the extent of involvement with local and state emergency providers and the frequency of updates,
5) what possible adverse scenarios have been considered for planning purposes.

Based on the historical record of government performance thus far, the site realities, particularly the powerful forces of erosion, and on the careless, incomplete and scientifically unsound Draft EIS and Decommissioning plan, the public cannot rationally support any solution, except a full cleanup of the site. All other options leave the public, the environment and the Great Lakes in danger.

Thank you for your consideration. We would appreciate a detailed response to all of the comments provided during the comment period.

Respectfully,

Barbara Warren
Executive Director

Buffalo News Editorial
Clean up West Valley

Floods and landslides expose risk of incomplete radiation cleanup

September 08, 2009, 6:48 AM /
The coalition urging state and federal officials to do a full cleanup of the state's largest nuclear waste site, at West Valley, has a clear understanding of the implications of doing nothing.
Doing nothing means that far into the future, the legacy of West Valley will be the way in which we treated our natural resources. Will Lake Erie be a clean body of water free from radioactive-waste pollutants? Or will it contain evidence of neglect and of a refusal to take responsibility for the highly toxic nuclear wastes buried in, or leaking from, the decommissioned reprocessing site south of Buffalo?
There are already signs that should heighten concerns.
As a recent article by News reporter Mark Sommer noted, the severe flooding that devastated the Gowanda area last month also triggered a landslide on a 160-foot bank of Buttermilk Creek, which is adjacent to West Valley's nuclear waste trenches. The waste site also drains into streams that feed Buttermilk Creek, and into the Cattaraugus Creek watershed running through the Seneca Nation and into Lake Erie.

C

Decontamination or decommissioning of major radioactive facilities: Some of the alternatives evaluated in this EIS, including the Preferred Alternative (Phased Decisionmaking), could result in some facilities and waste remaining on the site, including the high-level radioactive waste tanks. Under the Phased Decisionmaking Alternative, action would be undertaken during Phase 1 for all facilities except the Waste Tank Farm, NDA, SDA, and Construction and Demolition Debris Landfill. Options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close in place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. DOE is required by the West Valley Demonstration Project Act to decontaminate and decommission the waste storage tanks and facilities used to solidify high-level radioactive waste, as well as any material and hardware used in connection with the WVDP, in accordance with such requirements as NRC may prescribe. Under both the Sitewide Removal and Phased Decisionmaking Alternatives, DOE would remove the source of the North Plateau Groundwater Plume.

leanup of only 1 percent of onsite radioactivity It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. If the Phased Decisionmaking Alternative is selected in DOE's Record of Decision and NYSERDA's Findings Statement, about another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement if the Phased Decisionmaking Alternative is selected (see below under "30 more years of studies").

The options for Phase 2 of the Phased Decisionmaking Alternative (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued

Commentor No. 262 (cont'd): Barbara Warren, Citizens' Environmental Coalition

The buckets and brooms later brandished by 20 or so people outside the New York State Energy and Research Development Authority offices in Buffalo's Larkin at Exchange Building symbolized the cleanup. Of course, the activists fully understand that it will take the force of the state and of the federal Department of Energy to avoid any future radioactive contamination of Lake Erie drinking water.

Federal and state officials have said that they are considering keeping the bulk of the nuclear waste buried right where it is—and promising to keep a careful eye on it. That's hardly a solution at all, let alone a long-term one.

This page has advocated digging up all the nuclear waste now and finding a place to keep it for the long term, thereby removing a large toxic land mine. But this would cost a lot of money—roughly $10 billion.

An independent analysis, though, indicates that keeping the waste in place could cost $27 billion over the long term.

The West Valley site, home to a government-encouraged nuclear fuels reprocessing operation from 1966 to 1972, remains a serious concern not just for the surrounding communities but for all of Western New York. There is only one real answer: The 640 tons of irradiated materials from atomic operations, the liquid wastes later solidified by stirring it into melted glass in the federal "demonstration project," require a complete cleanup.

Future generations will pay the real price of doing nothing.

262-8

National Weather Service Report
http://www.erh.noaa.gov/buf/svrwx/web_090810_Flashflood/indexflood.html

www.nws.noaa.gov

National Weather Service Forecast Office
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Day 3 Outlook

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Observations
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Lake Temperatures
River & Lakes AHPS
Road Conditions

Radar Imagery
Buffalo Radar
Montague Radar
Nationwide
Experimental

Forecasts
Activity Planner

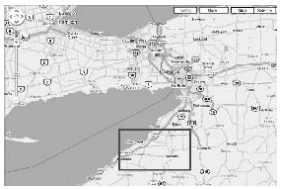
Flash Flood Event in Southern Erie, Northern Chautauqua and Northern Cattaraugus Counties

OVERVIEW

This page documents select meteorological parameters that came together over Western New York on the even of Sunday, August 9, 2009 to produce one of the most significant flash flood events to hit the region in memory. is not meant to be an in-depth study of the meteorology behind the flash flood, rather is intended to give the reac an idea of the evolution of the severe weather on the evening of Sunday, August 9, 2009.

The area barely had time to recover from a round of severe weather that afternoon, which produced extensive w damage across several counties including a tornado in western Allegany County. As that round of severe weath moved south of western New York, a second round of severe thunderstorms was evolving out to the west in nort Michigan and Wisconsin. During the evening a cluster of severe thunderstorms dropped southeast across West New York from Southern Ontario province. As the storms moved onshore across Niagara and Orleans counties their main impact was damaging winds and near continuous lightning, very similar in fact to the severe weather occurred earlier that day. However, during the evening the situation evolved from damaging winds to major flash flooding as the storms moved south of Buffalo and approached the Southern Tier. Over the course of a couple hours late Sunday evening, roughly between 1030PM and 1230AM, some of the highest short-term rainfall totals ever recorded in western New York occurred. Those rainfall totals resulted in the worst flash flooding the area h seen in decades. In addition to preliminary estimates of tens of millions of dollars of property damage, the flooc also resulted in the direct loss of one life and indirect loss of another that night.

Figure 1 outlines the area that sustained the most damage associated with flash flooding. The communities of Silver Creek and Gowanda in particular had tremendous damage and much of the area between the two villages was also inundated. Smaller streams that flow through both of those villages became raging torrents with walls of water reported by many individuals.



active management consistent with permit and license requirements. Chapter 4 of this EIS discusses the impacts that would occur for each resource area if either removal or close-in-place is selected for Phase 2. The chapter also discusses which alternative(s) bound the impacts in the event that continued active management is selected for the SDA.

Long-term monitoring and institutional controls (stewardship): As acknowledged in this EIS, long-term monitoring and maintenance would be required for alternatives that would leave waste on site. This EIS provides a summary description of current and potential future environmental monitoring programs. The descriptions of the alternatives were revised to further describe the use of engineered barriers and long-term monitoring and maintenance. Long-term monitoring and maintenance are described in Chapter 2, Sections 2.4.2.6 and 2.4.3.8. Long-term monitoring and institutional controls are also discussed in Chapter 6. Additional information about current and proposed monitoring and institutional controls is provided in Appendices C, H, and I. Chapter 2, Table 2–4, includes estimates of the environmental consequences if (1) monitoring and maintenance are successful (institutional controls remain in place) and (2) monitoring and maintenance programs fail (institutional controls are lost). Chapter 4, Section 4.2, of this EIS includes monitoring and maintenance costs for the alternatives that would leave waste on site.

Detailed information regarding long-term monitoring and maintenance programs and institutional controls under alternatives that would leave waste on site has not been specifically defined at this time. Such definition would occur after an alternative is selected for implementation and would include consultation with appropriate regulatory authorities. An element of these long-term programs would be development of plans and procedures for responding to emergencies that would include coordination and agreements with local police and fire departments and medical facilities.

Thirty more years of studies: Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed the Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the DOE Record of Decision, if the Phased Decisionmaking Alternative were selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making the Phase 2 decision. As a result, the

Commentor No. 262 (cont'd): Barbara Warren, Citizens' Environmental Coalition

Public
Graphical Table
Graphical 2D
Aviation
Marine
Great Lakes
Fire Weather
Tropical Weather
Air Quality Forecast
UltraViolet Index

Model Data
Forecast Models
MOS Page
Mesoscale Models
RUFKIT
Hourly Mesoscale Analysis

Hydrology
Hydrology Page
River & Lake Levels
Daily Summary
Lake Effect Page
Snow Spotters

Climate
Local
National
More

Weather Safety
Storm Ready
Skywarn™
Winter Hazards
Weather Hazards
Lightning Safety
Marine Safety
Rip Currents
Flood Safety
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Figure 1 outlines the area that sustained the most damage associated with flash flooding. The communities of Silver Creek and Gowanda in particular had tremendous damage and much of the area between the two villages was also inundated. Smaller streams that flow through both of those villages became raging torrents with walls of water reported by many individuals.

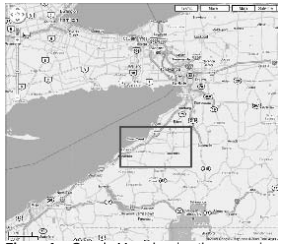


Figure 1: Google Map showing the approxima location of the worst flash flooding that occurred

METEOROLOGICAL DISCUSSION

Figure 2 is a GOES IR satellite imagery loop that covers the time frame from 5:15PM Sunday afternoon through 2:15AM Monday morning. In the animation you will see a cluster of storms over northern Georgian Bay, often referred to as a Mesoscale Convective System (MCS) and a second MCS over southern Lake Michigan. As the night progressed, the Georgian Bay storms moved southeast across western New York while the storms from Michigan moved in a more easterly track. The two storm systems eventually combined and reached their peak intensity over western New York before heading southeast to Pennsylvania. At the time of their peak intensity, the cloud tops associated with the storms dropped to a temperature of -71C, which in that evening's atmosphere equates to storms building to a height of approximately 52,000ft. when the torrential rainfall occurred.

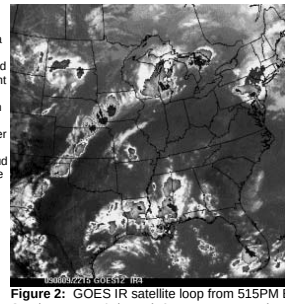
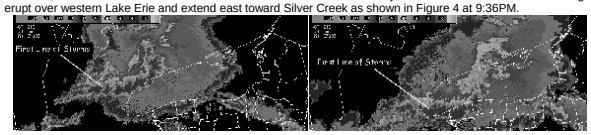


Figure 2: GOES IR satellite loop from 515PM I Sunday August 9 through 215AM EDT Monday August 10.

The Composite Reflectivity radar image shown in Figure 3 at 8:27PM looked very similar as it entered western N York to the wind-dominated derecho that occurred earlier that day. As indicated above, early in the evening this of storms was dominated by damaging winds and constant lightning as it moved across the counties north of Bu However, as the line of severe storms tracked toward southern Erie County, a second line of severe storms bega erupt over western Lake Erie and extend east toward Silver Creek as shown in Figure 4 at 9:36PM.



Phased Decisionmaking Alternative presented in this Final EIS specifies that the Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

Public involvement in the Phase 2 Decisionmaking process: Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until final decisions are made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

262-5 The report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., has been addressed in this CRD consistent with the Council on Environmental Quality's NEPA regulations. Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of the report's issues and DOE's and NYSERDA's response.

DOE disagrees with many of the points raised in NYSERDA's View, which is included as the Foreword to this EIS. At the core, differences between DOE and NYSERDA center on different views about the nature of analysis required for an EIS and the attendant level of acceptable risk associated with any uncertainties in that analysis as it relates to decisionmaking. DOE believes the analysis in this EIS meets the requirements of NEPA and SEQR in that, when there is incomplete or unavailable information relevant to reasonably foreseeable significant adverse environmental impacts, this EIS (1) acknowledges the information limitation and

Commentor No. 262 (cont'd): Barbara Warren, Citizens' Environmental Coalition

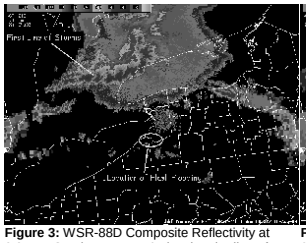


Figure 3: WSR-88D Composite Reflectivity at 8:27PM Sunday, August 9 showing the line of storms over the Province of Ontario, Canada.

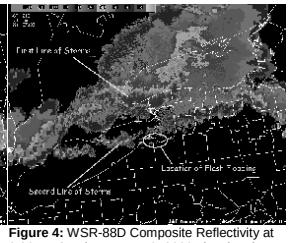


Figure 4: WSR-88D Composite Reflectivity at 9:36PM Sunday August 9, 2009 showing the second line of storms developing over Lake Erie

Over the course of the next two hours that evening, the weather system evolved from a wind damaging line of storms to flash flood producing storms. The torrential rainfall culminated along the lower half of the Cattaraugus Creek Drainage Basin. Through a complex interaction of the two lines of storms, the topography of the area and already saturated ground from earlier storms, the adjacent parts of southern Erie, northern Chautauqua and northwest Cattaraugus counties were in the bulls-eye for catastrophic flash flooding. Figure 5 shows the Composite Reflectivity loop of the evolution of the flash flood from 8:46PM to 12:55AM. It is hypothesized that the first line of storms that were moving southeast intersected the second line of storms heading due east and combined to produce a period of torrential rainfall with several thunderstorm cells crossing the same location between 10:30PM and midnight. The entire thunderstorm complex then continued its track southeast to the Pennsylvania border overnight.

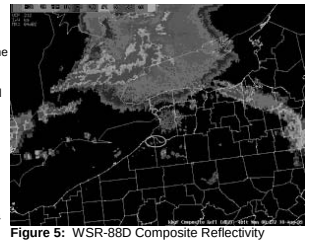


Figure 5: WSR-88D Composite Reflectivity animation from 846PM EDT Sunday August 09, 200 through 1255AM EDT Monday August 10, 2009

HYDROLOGY / FLASH FLOODING

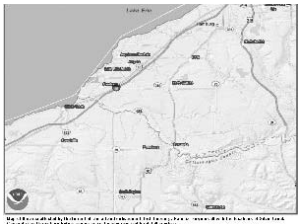


Figure 6: Map of the tri-county area of southern Erie, northern Chautauqua and northwest Cattaraugus Counties where the worst flooding occurred

The WSR-88D radar has the ability to estimate rainfa from the signal that is returned to the radar from the storms. This is only an estimate of the rainfall amou however and is subject to many factors that can affec the actual values. You can learn more about radar-derived rainfall in this link about WSR-88D Precipitati Images. Over the course of the 24 hours leading up the flash flooding, there had been two other rounds o rainfall that occurred across the area. The ground wa saturated from the rainfall and therefore would not be able to absorb much more rain, causing most of the precipitation to run off into streams and low lying area As the two clusters of thunderstorms merged that evening, the rainfall rates increased greatly across th area. Figure 6 shows the area that we will concentrat on for the rainfall analysis.

its relevance to environmental consequence, (2) summarizes existing credible scientific evidence, and (3) presents an analysis using a theoretical approach that is generally accepted by the scientific community involved in such analyses. This Final EIS contains text boxes in the relevant subject matter areas that acknowledge the differences of opinion between DOE and NYSERDA. In general, DOE's position is that the agency spent much time and effort engaging highly qualified and respected experts in hydrology and hydrological transport, landscape evolution (erosion), human health and environmental risk analysis, and other technical fields, and stands behind the analyses performed for this EIS.

262-6 Please see the Issue Summary for "Questions about Long-Term Erosion Modeling" in Section 2 of this CRD regarding the issue of large rain events. See also the following response, which discusses how this EIS has addressed potential changes in weather conditions.

262-7 The analysis in this EIS recognizes the potential for climate change to influence the long-term consequences of waste management. Climate changes, whether natural or influenced by human actions, could change the nature and amount of precipitation. Appendix H, Section H.3.1, of both the Revised Draft EIS and the Final EIS discusses the sensitivity of groundwater flow to changes in annual precipitation. The revised erosion prediction used for the unmitigated erosion dose analysis is based on the assumption that storms could occur more frequently than is currently estimated. This prediction includes the effects of storms of greater severity than the one that occurred in the region in August 2009. The use of this higher erosion rate associated with an elevated precipitation rate is discussed in Appendix H, Section H.2.2.1. Chapter 4, Section 4.3.5, has been revised to include a discussion of how the uncertainties about future climate change are addressed in this EIS.

262-8 Please refer to the Issue Summary "Conclusions of the *Synapse Report*" which addresses the comment on the alleged costs and impacts of the leakage of 1 percent of radioactivity.

Commentor No. 262 (cont'd): Barbara Warren, Citizens' Environmental Coalition

occurred.

Figure 7 shows the 3-hour radar-derived rainfall between 9:04PM and 12:04AM Sunday evening. The red squa in the image indicate as much as 5 inches of rain. As noted, radar-derived precipitation is only an estimate of th actual amount of rain that may have fallen. The National Weather Service is fortunate to have a Cooperative Weather Observer located in Perrysburg, roughly half way between Gowanda and Silver Creek. In spite of flood at the observer's residence, she was able to go out and measure rainfall throughout the storm. In the timeframe from 10:30PM and midnight, she recorded an incredible 5.98 inches of rainfall. When compared to the radar-derived rainfall at this location, the ground truth measurement suggests the radar-derived rainfall may have bee underestimated somewhat. Based on the added information, it is likely that the entire area outlined in red for the hour radar-derived rainfall would equate to about 6 inches of rain in less than three hours, likely in as a little as a hour and a half. Figure 8 is the same as Figure 7, except that the four waterways that caused the disastrous fla flooding are sketched in. For the village of Silver Creek, it is readily apparent that not only the headwaters, but significant stretch of both Walnut and Silver Creeks received tremendous amounts of rainfall into their channels the village of Gowanda, Thatcher and Grannis Brooks also saw tremendous amounts of rain that turned these normally placid streams into deadly torrents.

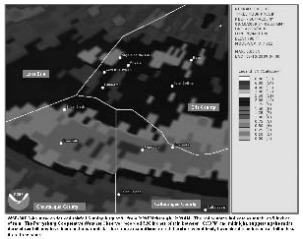


Figure 7: WSR-88D 3-hour radar-derived rainfall between 9:04PM and 12:04AM Sunday evening.

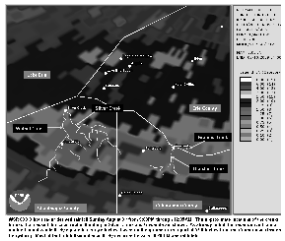


Figure 8: Same as Figure 7 with Silver and Wal Creeks, Thatcher and Grannis Brooks overlaid.

To give a better local perspective of the areas that received the worst flash flooding, we used Google Earth to vie the area around the villages of Silver Creek and Gowanda. Figure 9 shows the location of Silver Creek and Waln Creek which course their way from the highlands of the Chautauqua Ridge through deeper ravines before windin their way through the village of Silver Creek, where they eventually merge and flow out into Lake Erie. Figure 10 zooms in on Silver Creek and in particular, the area around the mobile home community in the village that was severely damaged from the flooding. Damage photos taken by the NWS survey team, who were escorted by law enforcement are included at the end of this report to show the tremendous power and danger of flood waters.

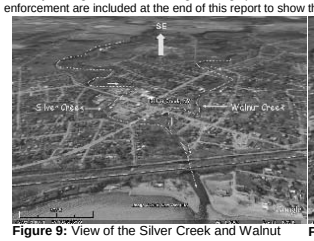


Figure 9: View of the Silver Creek and Walnut Creek Basins as they course through the village of Silver Creek.

Figure 10: Zoomed in view of the Village of Silve Creek and the location of the mobile home community destroyed by flash flooding.

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Commentor No. 262 (cont'd): Barbara Warren, Citizens' Environmental Coalition

The next images will focus on Cattaraugus Creek and the tributaries that flow into the creek in the village of Gowanda. In Figure 11 you can see the main branch of Cattaraugus Creek joined by the south branch of the cre a couple of miles upstream of Gowanda. Cattaraugus Creek flows through an area with significant topography o both sides of the waterway and cuts its way through a deep gorge as well. In fact, several campers who had bee the gorge that night had to be rescued by a basket dropped from a Sheriff's helicopter the next morning in what could only be described as a very heroic effort on the part of the emergency response team. In Figure 12 you c see how Cattaraugus Creek cuts through the village of Gowanda. There are a number of tributaries that flow int the creek through the village as well. Here we have pointed out Thatcher Brook which runs behind Tri-County Hospital. The hospital sustained significant damage from flooding likely due to the overflow from Thatcher Brook The high school football field is also clearly visible in the Google Earth image. The football field was under seve feet of water at one point and also sustained significant damage from the mud that was left after the water receded.

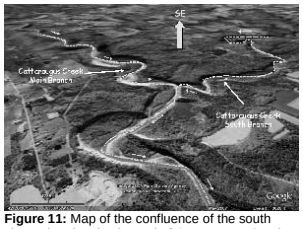

Figure 11: Map of the confluence of the south channel and main channel of Cattaraugus Creek just upstream of the village of Gowanda.

Figure 12: Map of the confluence of Thatcher Brook and the main channel of Cattaraugus Creek and Tri-County Hospital in the village of Gowanda.

Some of the most interesting images of the indirect impacts the flash flooding had on the region were taken a couple of days after the storms when the skies cleared. Figures 13 through 16 show MODIS polar orbiter satell imagery of the eastern Great Lakes. The polar orbiter spacecraft orbits at a much lower level than the GOES satellites and provides higher resolution imagery. Figure 13 shows the region a few days before the flash floodi Figures 14 through 16 show the turbidity plume (muddy water) along the east end of Lake Erie as a result of the runoff/mud/debris that came from streams emptying into the lake. Even more fascinating is the turbidity plume t is evident at the mouth of the Niagara River as it empties into Lake Ontario. It is likely that the plume is a result all of the rainfall that occurred across the river basins that empty into the east end of Lake Erie from the torrentia rains of August 9th, 2009.

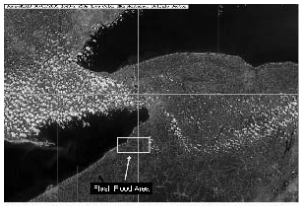

Figure 13: MODIS full color image from 2:49PM EDT August 5, 2009 on a clear day 4 days before the floods.

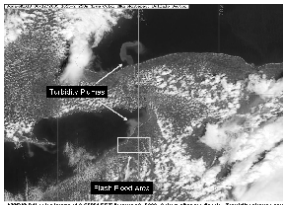

Figure 14: MODIS full color image at 2:55PM ED August 12, 2009, 2 days after the floods.

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Commentor No. 262 (cont'd): Barbara Warren, Citizens' Environmental Coalition

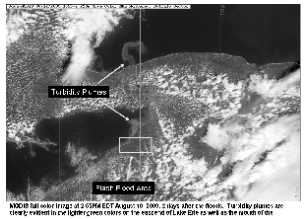

Figure 15: MODIS full color image at 2:05PM EDT August 13, 2009, 3 days after the floods.

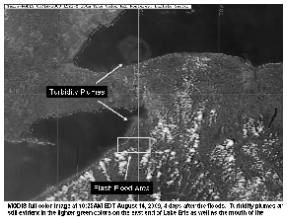

Figure 16: MODIS full color image at 10:22AM EDT
August 14, 2009, 4 days after the floods

Finally, we have included a few photos of damage that occurred as a result of the flash flooding in the villages o Silver Creek and Gowanda during the damage survey conducted by National Weather Service officials in conjunction with the Chautauqua and Cattaraugus County Emergency offices and personnel who staffed the respective Emergency Operations Centers.

Silver Creek Damage Photos

Gowanda Damage Photos

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Commentor No. 262 (cont'd): Barbara Warren, Citizens' Environmental Coalition

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Current Hazards, Current Conditions, Radar, Satellite, Climate, Weather Safety, Contact Us

National Weather Service
Weather Forecast Office Buffalo
587 Aero Drive
Buffalo, N.Y. 14225-1405
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Commentor No. 263: Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

The Coalition on West Valley Nuclear Wastes

PO Box 603
Springville NY 14141

Comments

Draft Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western New York Nuclear Service Center (DOE/EIS-0226-D [Revised])

Revision of *A Draft Environmental Impact Statement for Completion of the West Valley Demonstration Project and Closure or Long-Term Management of* Facilities at the Western New York Nuclear Service Center (also called the Cleanup and Closure Draft EIS) (DOE 1996a)[1]

The Coalition has been concerned about and active in the decision process for the West Valley nuclear waste site for over thirty years. Since the Coalition is the original and oldest, continuously involved public stakeholder group at the West Valley site[2], the Coalition possesses the largest document base and longest institutional memory. The Coalition was formed initially as a coalition of the Springville Radiation Group in 1974 and Sierra Club's Radioactive Waste Campaign and was organized by Carol Mongerson, Henriette Gerwitz, Betty Cooke, Holly Nachbar, Dorothy Cairns and others in 1976.

The West Valley nuclear facility is the only waste site to have its very own legislation. The West Valley Demonstration Project Act (WVDPA)[3] was passed by Congress in 1981 and signed into law by President James Carter. The spirit and intent of this act was to vitrify high-level liquid waste and to then decontaminate and decommission the facility. The law states that among other requirements:

"(5) The Secretary shall decontaminate and decommission--,
(A) the tanks and other facilities of the Center in which the high level radioactive waste solidified under the project was stored,
(B) the facilities used in the solidification of the waste, and
(C) any material and hardware used in connection with the project, in accordance with such requirements as the Commission may prescribe."

West Valley is not the largest waste site in the United States, but it does have the dubious claim to the most hazardous complex soup of chemical and radioactive elements. The nuclear waste problems at West Valley should be regarded as a valuable opportunity for a research and development pilot plant with the ultimate goal of finding answers and procedures for

1 2008 DEIS, Chapter 1, Section 1.1, Page 1.1
2 The Department of Energy was organized and activated in 1977.
3 West Valley Demonstration Project Act, 42 USC 2021a

263-1 **263-1** DOE and NYSERDA note the commentor's suggestion.

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

decommissioning and decontamination.

In 1987, the Coalition entered federal district court to prevent the federal Department of Energy (DOE) from disposing of WVDP generated wastes onsite without first performing an EIS to examine fully the impacts of onsite waste disposal. The case was settled under a Stipulation of Compromise Settlement (SOCS) whereby DOE agreed not to dispose of Class A, B, and C wastes onsite without first performing such an EIS. The 1996 *site-wide* closure DEIS was the result of this lawsuit and settlement agreement. The SOCS stated that "the parties hereby agree that the closure Environmental Impact Statement process – including the scoping process – shall begin no later than 1988 and that this process shall continue without undue delay and in an orderly fashion consistent with applicable law, with the objectives of the West Valley Demonstration Project, available resources and mindful of the procedural processes (including public input) needed to complete the aforesaid Environmental Impact Statement."

The Coalition's position that the site is physically unsuitable for the long-term storage, i.e. whether called "disposal" or "stewardship," of radioactive wastes, remains unchanged from when the position was taken eight years later, in 1996, after release of the information contained in the 1996 site-wide closure DEIS. In fact, the evidence of erosion at the site personally accumulated in the intervening years plus additional information including that of the State-sponsored Full Cost Accounting Study (full title: "The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for West Valley Nuclear Waste") have reinforced our position and added a strong life-cycle economic justification. *263-2*

The 2008 DEIS document Violated the Intent and Purpose of NEPA and the Stipulation

The 2008 Draft Environmental Impact Statement [DOE/EIS-0226-D (Revised)] violates both the intent and purpose of the law and the established procedural regulations that lie at the heart of the National Environmental Policy Act (NEPA) public decision process, making it inadequate as a decision tool for the Department of Energy (DOE), New York State Energy Research and Development Authority (NYSERDA) and/or the public. *263-3*

This DEIS is not a revision, since the title and purpose was changed from 'Cleanup and Closure' to 'Long-term stewardship'. Nor is it a supplement to the 1996 Cleanup and Closure site-wide DEIS. This draft is an entirely new entity that attempts to replace the legitimate 1996 DEIS. It presents a preferred alternative which was not mentioned thirteen years ago in the 1996 DEIS: a "Decommissioning or Long-Term Stewardship" alternative that does not offer or present any cleanup decision for more than 98% of the site's wastes; indeed, an implied deferral of such a decision, for up to 30 more years, is a violation of the NEPA regulations regarding full disclosure of environmental impacts and the 1987 SOCS, particularly so since no endpoint or final status is declared or defined for the preferred alternative. *263-4*

DOE/NYSERDA's selection of this preferred "no decision" alternative is a subterfuge to permanently extend the 46-year old, onsite waste disposal blunder at this site that has been known to be leaking for decades. In the course of this unprecedented 22 year-old NEPA process, it is now obvious that "temporary onsite waste management" has become *de facto* "onsite waste disposal". *263-5*

The view of the Coalition is that DOE did not like the site erosion analysis and resultant huge offsite radiation dose predictions made by its own DEIS contractor, Science Applications International Corporation (SAIC), in the 1996 site-wide DEIS. Therefore, following the promulgation of the Nuclear Regulatory Commission (NRC) lax License Termination Rule (LTR) in 1997 (10 CFR 20 Subpart E), which condoned onsite "stewardship" of long-lived wastes as a license termination option, DOE subsequently aborted the scientifically valid analysis of 1996 site-wide DEIS, rather than do the proper thing: making any necessary, *263-6*

263-2 DOE and NYSERDA note the commentor's position on the unsuitability of the site for long-term storage. DOE recognizes that erosion is a concern and has addressed it in detail in this EIS, including the long-term (multi-century) consequences of erosion on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F. Please see the Issue Summary for "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

DOE and NYSERDA are aware of the report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., including the three appendices, and it has been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for a discussion of the report's issues and DOE's and NYSERDA's responses.

263-3 This comment questions the validity of the 2008 Revised Draft EIS on the grounds that NEPA, the Council on Environmental Quality's NEPA regulations, and DOE's NEPA Implementing Guidelines were not followed; specifically, because the 2008 document is titled a "Revised Draft" rather than a "Supplemental Draft," or that a Supplement Analysis was not prepared prior to preparing the 2008 Revised Draft EIS. DOE believes that this EIS satisfies the statute, regulations, and guidelines and fully informs both the public and decisionmakers.

The purpose of an EIS under NEPA and its implementing regulations is to ensure that (1) Federal agencies consider the potential environmental impacts of proposed actions in their decisionmaking processes, (2) the potentially affected public has the opportunity to review and comment on those actions, and (3) the opinions of the public are considered in preparing the EIS, and thus, by the decisionmakers. DOE has met its obligations under NEPA in both the letter and spirit of the law. DOE has been transparent in meeting its NEPA responsibilities for activities at WNYNSC, including ensuring timely notification of proposed NEPA documents and opportunities for public participation. In addition, an 18-member Citizen

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

substantiated changes in a Final EIS (FEIS) to the 1996 DEIS and then issuing the analysis-appropriate, site-wide Record of Decision (ROD) in a timely fashion. *263-6 cont'd*

This 2008 document is the end-product of an illegitimate manipulation of West Valley's 1996 NEPA site-wide cleanup and closure DEIS that began following promulgation by the NRC in 1997 of a much less stringent license termination rule, Title 10 CFR Part 20 Subpart E, *aka* the "LTR." That manipulation involved starting a new segmented process that produced a 2003 Waste Management DEIS and replacement of the 1996 site-wide closure DEIS with the 2008 Long-term Stewardship DEIS. In previous documents (ex. the 2003 DEIS Waste Management DEIS), the SOCS had been listed as a regulatory requirement, however this DEIS fails to accord the Coalition its unique and merited super-stakeholder status. *263-7*

Instead, DOE segmented the review process into an "interim actions" waste management component "to allow work to continue" (the 2004 Waste Management FEIS) and a subsequent decision document (this 2008 DEIS). However, lacking a *site-wide* waste disposition ROD, many of the *onsite* waste management interim actions – ex. NDA plastic cover and slurry wall, tank drying and North Plateau plume treatment walls – are segmentation. This approach is inappropriate under NEPA and the Coalition's 1987 Stipulation of Compromise Settlement.

The seriously deficient erosion modeling and dose analysis of this 2008 DEIS (also performed by SAIC) has been framed with a view toward satisfying the lax (in comparison to the pre-LTR decommissioning regulatory regime, which required cleanup for unrestricted use in order for license termination to be granted) long-term onsite disposal requirements of NRC's 1997 LTR. It will enable DOE effectively to vacate the site in 8 years following NRC's expected approval of a "concentration averaging" (aka WIR) designation for the HLW tanks and remaining sludges. *263-6 cont'd*

The long-term offsite peak annual radiation doses calculated for this 2008 DEIS – "on the order of 100 millirems per year"[4] – are up to three orders of magnitude, or 1000 times, lower than the peak doses presented in Appendix D of the 1996 DEIS. No justification of this dramatic reduction in offsite doses is given, however 100 millirems happens to be the maximum allowable dose under subsection 20.1403(e) of the NRC's lax 1997 LTR for license termination under institution control should such control be lost. *The dose analysis of the 1996 DEIS showed radiation dose levels far in excess of the maximum dose levels that would allow license termination under the subsequent 1997 LTR.*

The hundreds of comments received on the site-wide 1996 DEIS were shabbily treated and disregarded. Many comments were ignored. Sentences were taken out of context and rephrased, and the presumed intent, therefore, often was misinterpreted. This treatment of the 1996 DEIS public comments is an insult to all of the people and organizations who took the time and energy to deal seriously and convincingly with the 1996 DEIS. All of these comments should be addressed individually and thoroughly and that review process legitimately concluded with an FEIS and ROD. *263-8*

The Coalition by reference incorporates the entirety of the 1996 Comments into this comment. For sustainability reasons, the document is not reproduced here.

The Coalition asserts that the scoping comments preceding the site-wide 1996 DEIS and the public comments submitted on the site-wide 1996 DEIS do not represent or constitute NEPA requirements of public participation in the scoping and comment period for the 2008 DEIS. The charge for 1987 scoping and site-wide 1996 DEIS comments was for Cleanup and Closure, not for Long-Term Stewardship and a phased decision process. *263-9*

We have absolutely no guarantee or hope that comments submitted in response to this *263-10*

[4] 2008 DEIS Summary Document, Page 27

Task Force sponsored by both DOE and NYSERDA was formed in 1997 and has met regularly since 1998 to discuss issues regarding facility closure and long-term management, including future site use, long-term stewardship, and regulatory issues. Further, DOE holds quarterly public meetings to discuss WNYNSC activities and progress on decommissioning of the site, including the NEPA process to further those activities.

263-4 Regardless of the title of the 2008 Revised Draft EIS, the same level of analysis and the same process for public involvement were undertaken as would have been done if this EIS had been issued as a supplemental EIS. Nothing DOE has done would be different, other than using a different title. Chapter 1, Section 1.2, of this EIS describes the history of its development including how the alternatives, analyses, regulations, and this EIS evolved over time and how the alternatives and analyses in the 1996 Draft Environmental Impact Statement for Completion of the West Valley Demonstration Project and Closure or Long-Term Management of Facilities at the Western New York Nuclear Service Center (*Cleanup and Closure Draft EIS*) were overtaken by these changing factors.

DOE and NYSERDA believe that the Phased Decisionmaking Alternative meets the requirements of NEPA and SEQR. DOE and NYSERDA have prepared this single, comprehensive EIS for the decommissioning and long-term stewardship of WNYNSC. This EIS adequately analyzes the totality of environmental impacts, including costs, of a broad spectrum of reasonable alternatives that meet the respective purposes and needs of DOE and NYSERDA (Sitewide Removal, Sitewide Close-In-Place, and Phased Decisionmaking), as well as a No Action Alternative. While the Phased Decisionmaking Alternative would temporarily defer a final decision on the disposition of the Waste Tank Farm, the NDA, and the Construction and Demolition Debris Landfill, DOE believes that the impacts of this deferred decision are adequately analyzed within this EIS.

The Notice of Intent for the 2008 Revised Draft EIS described the proposed action and the alternatives that were under consideration at that time. The alternatives changed after issuance of the Notice of Intent. Chapter 1, Section 1.2, of this EIS describes the development of the alternatives analyzed in this EIS. A Core Team comprised of the co-lead and cooperating agencies was established to address various technical issues with the analyses and the alternatives to be addressed. The 2008 Revised Draft EIS reflects the results of discussions with the Core Team regarding the alternatives to be analyzed, the nature of the analysis, and the nature of the Preferred Alternative (the Phased Decisionmaking Alternative).

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

2008 DEIS document will have any impact on the FEIS. Therefore, given our position that this DEIS is illegal and our lack of confidence that public comments will be taken seriously, we advocate for yet another Draft EIS with a 6 month public comment period, before the Final EIS, to verify the seriousness with which DOE, NYSERDA and SAIC have considered the comments and suggestions. And, please, do not respond to this comment by saying that you simply are following the prescribed script of NEPA.

263-10 cont'd

Derelictions, Pecadillos, Inefficacies and Failings of the 2008 DEIS

The Coalition is troubled by the fact that the 1996 DEIS shows a full site clean-up timeframe of 29 years while the 2008 DEIS shows a timeframe of 64 years for a full clean-up. If we have learned only one thing about cleaning up physically unsuitable nuclear waste sites, it is that delay usually translates into much higher cleanup costs. For example, had the Sr-90 leak in the process building been properly addressed when it occurred during NFS operations in the 1960s, or even several years later when the resulting North Plateau plume was publicly identified, the cleanup cost would have been orders of magnitude lower (perhaps less than a million dollars in the first case). A whopping $1.5 to $2 billion is estimated now to fully excavate this expanding area of contamination, which is reported in the 2008 DEIS to affect approximately 1 million cubic yards of contaminated soils.[5] This is the largest single cost component of the 2008 DEIS's full cleanup alternative and represents an appalling situation which is the result of incompetent oversight of Nuclear Fuel Services' operations and waste management by the NYS public authority corporation, NYSERDA and its predecessor, and regulatory failure on the part of NRC and its predecessor, Atomic Energy Commission, and New York State's regulatory agencies, NYS Department of Health (DOH), NYS Department of Environmental Conservation (DEC) and NYS Department of Labor (DOL).

263-11

Continuation of onsite waste management at this aggressively eroding site would be extremely unsound policy that is not supported by the erosion modeling and long-term economic analysis presented in both DOE's 1996 site-wide DEIS and the 2008 independent, State-sponsored Full Cost Accounting Study.

The geology expert of the latter study, Dr. Michael Wilson, pointed out a number of weaknesses and mistaken assumptions in the 2008 DEIS concerning the site's hydrology and geology, including the following:

1) No estimate of the impact of climate change, ie prediction of 30% greater rainfall and excursionary weather events;
2) Avoids rapid-rate episodic removal phenomena, such as landslide removal of slopes;
3) 21 degree slope angle is not stable as DEIS assumes;
4) Franks Creek and gully profiles are currently convex up, not convex down; this means they will more rapidly and greatly cut down than predicted;
5) No worst case for gully initiation;
6) Gully heads (new gullies) are increasing at an alarming rate: dozens in recent decades as opposed to the expected dozens in 100s of years;
7) No estimates of increased erosion due to changes in land use, i.e. farming practices and areas, deforestation, paving etc.;
8) Insufficient consideration of the significance of the effects of sapping.

263-12

The 2008 DEIS greatly underestimates the necessary erosion control measures and their costs. The FCAS recommends many additional erosion measures and concludes that their costs are well more than an order of magnitude greater than those estimated in the 2008 DEIS.

In a geology presentation to the CTF, Tucker stated that the SIBERIA erosion modeling

263-13

[5] The $1.5 billion estimate is from the Full Cost Accounting Study and is due to an earlier start and more aggressive cleanup schedule. The $2 billion estimate is the cost component of 2008 DEIS's full clean alternative.

It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed the Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the DOE Record of Decision if the alternative were selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making the Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that the Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement if the Phased Decisionmaking Alternative is selected.

263-5 DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement. It is DOE's intent to complete its responsibilities under the West Valley Demonstration Project Act in accordance with the decommissioning criteria prescribed by NRC. Appendix L of this EIS addresses how the Phased Decisionmaking Alternative is capable of meeting NRC and other applicable regulatory criteria.

263-6 As stated in the response to Comment no. 263-4, Chapter 1, Section 1.2, of this EIS describes the history of the evolution of this EIS.

The erosion and groundwater modeling in this EIS reflects the results of data gathering and studies performed over the years since the 1996 Cleanup and Closure Draft EIS was prepared. The erosion analysis presented in Appendix F

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

used in the 2008 DEIS incorrectly predicts smoothing of the glacial terrain rather than gully incision with sharp edges retreating at a 21 degree dynamic angle. He concluded that this modeling is not capable of predicting the future topography with sufficient accuracy to meet the requirements of the LTR."

263-13 cont'd

The Coalition is troubled by the fact that the 1996 site-wide Closure DEIS shows an erosion estimate that breaches the burial grounds within 1000 years, while the 2008 DEIS maintains the burial grounds will remain intact. There is no clear consensus among erosion experts that support the controversial erosion estimates in the 2008 DEIS. Therefore, decisions regarding the suitability of the site for long-term storage or stewardship cannot be justified based on the current information and analyses included in the 2008 DEIS.

263-14

The Coalition understands that the Main Plant stack ventilation system does not work, that the system is reliant upon back-up ventilation and that this has been an on-going years-long condition (possibly as far back as 1996) and assert that the DEIS wordsmithed and obfuscated this situation with "*Permitted portable outdoor ventilation enclosures are used to provide the ventilation necessary for the safety of personnel working with radioactive materials in areas outside permanently ventilated facilities or in areas where permanent ventilation must be augmented. One ambient air sampler continued operating in 2006 to monitor air near the onsite lag storage area.*" (DEIS 3.7.2). The Coalition presumes that this 'one ambient air sampler' was NOT in operation prior to 2006 and that it is now the only air sampler on duty. The ventilation system and air sampling procedures must be upgraded, fixed and guaranteed to protect workers and staff.

263-15

One aspect of living in Western New York is our unique weather patterns. Weather predictability is based on multiple models with a monumental amount of minute-by-minute readings and data in huge three-dimensional samples. Yet, weather forecasters admit that accuracy of predictability falls only within a range of four hours. Erosion modeling necessarily has to contain models of predictable weather event trends. A few days cannot be transformed to 100 or 1000 years of predictability. Tornado predictability[6] relies on historical averages. 17 tornados in 20 years is not an adequate predictor of the fact that Western New York has had four tornados in the past month.

The onsite geomorphological impacts of recent excursionary meteorological events that occurred in August 2009 are significant. They should be carefully evaluated as part of a wider examination of the impacts that could be expected at the West Valley site from regional extreme weather events, both those that have already occurred and those that might be expected based on regional climate change trends. Such an evaluation is lacking in the 2008 DEIS, this must be corrected in the FEIS. Our comments on this issue are presented in ***Attachment 1*** *and are to be considered in toto as an integral part of these comments.*

263-12 cont'd

The Coalition is troubled by the fact that the 4 volumes (1369 pages) of the 2008 DEIS deal with less than 2% of the radioactive materials situation at West Valley nuclear facility. While minor sources of contamination are included in this 2%, the Coalition expected a *site-wide* EIS

263-16

[6] 2008 DEIS Chapter 3. The frequency and intensity of tornadoes in western New York are low in comparison to many other parts of the United States. An average of about two tornadoes of short and narrow path length strike New York each year. From 1950 to 1990, 17 tornadoes were reported within 80 kilometers (50 miles) of the WNYNSC (WVNS 2004a). The probability of a tornado striking a 2.6-square kilometer (1-square mile) section of the WNYNSC was estimated to occur once every 10,000 years. For wind speeds less than or equal to 54 meters per second (121 miles per hour) (or a hazard probability level of 2.5 × 10-5), straight-line winds are the more likely cause; for higher wind speeds, tornadoes are more likely. Straight-line winds are the dominant form of severe weather at recurrence intervals of less than 100,000 years (McDonald 1981).

of this EIS is considered to be scientifically defensible and, consistent with NEPA requirements, uses a theoretical approach that is accepted in the scientific community for evaluating long-term erosion.

DOE will remain on site until it completes its responsibilities as assigned under the West Valley Demonstration Project Act. DOE would not leave the site after completion of the Phase 1 actions because it would not have completed the actions required under the Act. The description of the Phased Decisionmaking Alternative in Chapter 2 of this EIS has been revised to clarify this.

There are multiple reasons for differences in the long-term dose estimates. The major changes are improved inventory estimates, improved hydrologic and erosion models, and changes in the closure designs. This EIS describes and provides references that are the basis of the analysis.

263-7 Chapter 1, Section 1.2, of this EIS describes the history of the development of this EIS. This issue was the subject of a lawsuit, *Coalition On West Valley Nuclear Wastes, Joanne E. Hameister, v. Steven Chu, Secretary, Department Of Energy, United States Of America*. On August 31, 2009, a Federal appeals court ruled that DOE did not violate Federal environmental law by breaking its cleanup of a nuclear service center into two parts. The U.S. Court of Appeals for the Second Circuit affirmed a lower court's decision that DOE had not violated either NEPA or the stipulation of compromise settlement. DOE is committed to proper completion of its responsibilities under the West Valley Demonstration Project Act.

263-8 The comments on the 1996 *Cleanup and Closure Draft EIS* are addressed in Appendix A of this EIS. Following a thorough review of the comments, a good faith effort was made to capture the substance of the comments in the 13 categories shown in Appendix A. These comments were considered in developing this EIS.

263-9 As described in Chapter 1, Section 1.2, of this EIS, DOE and NYSERDA published Notices in the *Federal Register* and the *New York State Environmental Notice Bulletin* announcing that they would jointly prepare an EIS for decommissioning and/or long-term stewardship of WNYNSC, which would revise the 1996 *Cleanup and Closure Draft EIS*. Scoping meetings for this EIS were held in early 2003.

263-10 DOE and NYSERDA note the comment. There are no plans to issue another draft before finalizing this EIS. Chapter 1, Section 1.8, of this EIS describes the changes made to the document between the Revised Draft EIS and this Final EIS. This

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

that addresses, rather than leaves open and unresolved, waste disposition for more than 98% of the site's wastes. Every source of contamination is significant and a threat to public health and safety and the integrity of the environment. *263-16 cont'd*

Cost estimates for 2008 DEIS alternatives DO NOT mention and we assume DO NOT include a basic Cost/Benefit Analysis item of an asset referred to as Cost Avoidance, as in the case of dealing with a catastrophic release of radioactivity from the WV site. The noticeable absence of this item skews the possible true costs of an errant, stubborn strontium plume and aggressive erosion of the burial grounds, in particular. *263-17*

In 1983, the Coalition was informed of a plutonium/kerosene leak from the NDA. We later learned that 11,000 gallons of this concentrated plutonium-laden kerosene had been buried in the NDA in the 1960's. DOE, in 1986, exhumed two holes and retrieved dry drums with ruptured welds and originally sealed with duct tape. We would like to know where that plutonium went and how many other drums and holes contain the same or other radioactive brews. *263-18*

The decision-process for the illegitimate "Phase 2" is non-existent

The Supplemental Analysis, presumably being developed currently by DOE, is not mentioned in the 2008 DEIS as a decision tool, let alone whether any NEPA public participation will be accorded it. Given the unjustified termination of the 1996 site-wide DEIS, we can reasonably presume that any Supplemental Analysis will be formulated to justify DOE/NYSERDA's continuation of their "interim actions" (both prior to and after the illegitimate 2003 Waste Management DEIS) which are not part of the 1996 DEIS and improper under NEPA. Together with the 2008 DEIS's planned "phase 1" onsite waste management activities, these "interim actions" constitute a *de facto* onsite waste management decision, which will easily lead to a publicly unreviewable final decision of onsite disposal in "phase 2" of the 2008 DEIS. *263-19*

There is no evidence of a commitment to any further degree or level of clean up or decommissioning beyond the use of institutional control in "phase 2". *263-20*

Public participation opportunities during Phase 2 are not provided, indeed are not even mentioned. DOE's refusal to commit to a full NEPA review process for the final determination most of the site's wastes under this "wait until later" approach, in the face of a serious human health and environment threat, is not only unconscionable but does not satisfy NEPA or the 1987 SOCS. *263-19 cont'd*

NRC/DOE application of the lax LTR provisions will allow the West Valley site to be "decommissioned" (i.e., the license to be terminated) under that rule's long-term "stewardship" provisions with little or no further waste removal from the site, other than the high-level glass logs. In contrast, the 1982 LLRW disposal facility site performance regulations 10 CFR 61, which include a prohibition on the use of institutional control as a waste management tool for a period greater than 100 years, would not have allowed use of the site for radioactive waste disposal. Onsite "stewardship" may have a more marketable connotation than "disposal," but they are no different in the event of loss of future funding and/or institutional control. *263-21*

The Coalition is troubled by the fact that NYSERDA has so many significant problems with this document (ref. Forward in the DEIS) and, yet, subscribes to and defends it. This public authority corporation has not acted responsibly or in good faith with the people of New York State. NYSERDA's Quantitative Risk Analysis details the probabilities only for the 30-year period for Phase 2 decision-making. It also does not commit to a clean-up decision thereafter. The extensive computations of probabilities do not deal subjectively or judiciously with the possibilities of climate change or potential subsequent catastrophic weather-related events. In fact, New Orleans survived hurricane Katrina, but suffered greatly because of the failure of the levees (engineered barriers). *263-22*

CRD identifies where changes have been made to this EIS in response to specific comments.

263-11 As stated in Chapter 2, Section 2.4.1.4, of this EIS, the duration of approximately 60 years for the Sitewide Removal Alternative is based on assumptions about funding levels and task sequencing.

263-12 Please refer to the Issue Summaries for "Conclusions of the *Synapse Report*" and "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for DOE's and NYSERDA's responses to issues such as those raised in this comment regarding climate change, erosion, and long-term economic costs.

The analysis in this EIS recognizes the potential for climate change to influence the long-term consequences of waste management. Climate changes, whether natural or influenced by human actions, could change the nature and amount of precipitation. Appendix H, Section H.3.1, of both the Revised Draft EIS and the Final EIS discusses the sensitivity of groundwater flow to changes in annual precipitation. The revised erosion prediction used for the unmitigated erosion dose analysis is based on the assumption that storms could occur more frequently than is currently estimated. This prediction includes the effects of storms of greater severity than the one that occurred in the region in August 2009. The use of this higher erosion rate associated with an elevated precipitation rate is discussed in Appendix H, Section H.2.2.1. Chapter 4, Section 4.3.5, has been revised to include a discussion of how the uncertainties about future climate change are addressed in this EIS.

263-13 The erosion analysis has been revised for the Final EIS. The SIBERIA code is not used. Please refer to the Issue Summary for "Questions about Long-term Erosion Modeling" in Section 2 of this CRD and to Appendix F of this EIS for further discussion of the models used.

263-14 The 1996 *Cleanup and Closure Draft EIS* erosion analysis and the erosion analysis in this EIS are very different, use fundamentally different mathematical concepts, and take very different approaches to model calibration. The erosion and groundwater modeling in this EIS reflects the results of data gathering and studies performed over the years since the *Cleanup and Closure Draft EIS* was prepared. The erosion analysis presented in Appendix F of this EIS is considered to be scientifically defensible and, consistent with NEPA requirements, uses a theoretical approach that is accepted in the scientific community for evaluating long-term

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

Similarly, the Paterson administration's principal State agencies charged with protecting the public interest at this site, namely the DOL (previously), the DOH, and the DEC, have not acted to ensure that both DOE and NYSERDA adhere to existing, applicable environmental laws and regulations. The LTR should not have been allowed to be applied at West Valley. Knowing full well that the generic EIS which supported the NRC's LTR rulemaking did not consider West Valley's unique problems, and that the 1980 WVDPA calls for a site-specific clean-up criteria determination by NRC, these agencies did not challenge NRC's 2002 final policy statement which applied the LTR to the West Valley site. Instead they let the far more stringent, pre-LTR Atomic Energy Act decommissioning framework, previously applicable to West Valley and which essentially required thorough site cleanups for unrestricted future use prior to license termination, to fall by the wayside. Given the fundamental failures of proper procedure by governmental agencies, represented by the Sr-90 plume and the improper manipulation of the review process at this site, we are not optimistic about the future performance of these agencies.

263-23

According to NYSERDA's Source Term Analysis, the original commercial low level waste deposited in the SDA essentially has been "held for decay" in unlined, unengineered clay trenches and has been losing its toxicity more rapidly than have the DOE and defense wastes.

	TOD Curies "Time of Deposit"	1993 Curies	2093 Curie Est.
Commercial	1,030,000	172,000	35,000
	73.1%	71.1%	56.6%
DOE	188,000	49,800	21,200
	13.3%	**20.6%**	**34.3%**
Fed	65,800	6,640	1,890
	4.7%	2.7%	3.1%
State/Loc	1,869	639	177
	0.1%	0.3%	0.3%
Unknown	124,000	12,800	3,570
	8.8%	5.3%	5.8%
	1,409,669	241,879	61,837
	100.0%	100.0%	100.0%

263-24

The percentage of DOE and defense waste is increasing percentage-wise and, therefore, puts the SDA in the questionable status of becoming a larger responsibility of the federal government, and a diminishing responsibility of NYS. Whether or not DOE considers the SDA to be a critical responsibility under WVDPA, DOE and, therefore, DOD are responsible for a growing share of the SDA radioactive contents. That responsibility for those DOE and DOD defense wastes cannot be deeded to NYS. In fact, the United States in the form of the DOD and DOE cannot escape continuing liability as PRP's under CERCLA for this waste until it is properly remediated. We, therefore, demand that the SDA should NOT be carved out of the DOE decommissioning plan and the environmental impact process, as it has been with the 2008 DEIS, which is not the NEPA-required *site-wide* analysis.

DOE submitted an alarming "WVDP Phase 1 Decommissioning Plan Dose Modeling" proposal to NRC last October that independently assigns predicted acceptable doses (on the order of 25 mrem) to individual "areas of interest" (eg., stream bed sediments) using an unspecified exposure scenario. This "limited dose assessment" proposal contained proposed DCGLs and cleanup level goals "as if the area of interest would be the only area to which a future resident or recreationist might be exposed." [Recreationist (i.e. parkland exposure

263-25

erosion. DOE believes that the analyses in this EIS are adequate to support decisionmaking.

263-15 As indicated in the cited paragraph in Chapter 3, Section 3.7.2, of this EIS, a number of emission sources are monitored at the site, including the stack for the Main Plant ventilation system. The referenced ambient air sampler is a sampler that was installed a number of years ago specifically to monitor air near the lag storage building.

263-16 This EIS evaluates the environmental impacts of a range of alternatives for the decommissioning and/or long-term stewardship of WNYNSC. It is assumed that the comment refers to the Preferred Alternative, the Phased Decisionmaking Alternative. If this alternative is selected, the options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. Regarding the percentage of waste requiring disposition, as stated in the response to Comment no. 263-4, it is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

263-17 The commentor's assumption is correct. The cost analysis did not account for cost avoidance that would be associated with unexpected events such as catastrophic releases from the site.

The cost-benefit analysis in the Revised Draft EIS is consistent with the NRC as low as is reasonably achievable (ALARA) guidelines provided in NUREG-1757, "NRC Consolidated Decommissioning Guidance." The analysis considers a range

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

scenario) and resident (farmer) are the low and high extremes of the exposure scenario range.] The NRC must not allow any Decommissioning Plan proposal made by DOE to proceed outside of or prior to the conclusion in the form of a ROD of the legally required NEPA site-wide dose assessment covering all areas and wastes that are onsite, i.e. the 1996 site-wide DEIS."

263-25

In general and with specific reference to Appendix N, "N-2 **N.3 Scenarios Considered but Not Analyzed",** the Coalition since 1980 has been objecting to presented probabilities that either are "Low Risk-High Consequence" or "High Risk-Low Consequence", when in fact the possibilities are somewhere in between the extreme end points. This practice of presenting risk extremes seems to have taken an even more extreme twist, namely, that of not dealing with risks to the public at all.

With reference to Appendix N, the DEIS contains a scenario regarding a commercial aircraft crash, but does not offer a scenario regarding a military flight. There are daily and multiple contrails over western New York indicating that military flight patterns do exist. When a member of the Coalition questioned a NYSERDA director about an airplane crash, the answer was "But, it is a no-fly zone" and then stated further that "it is unlikely because the impacted radioactive site would have to be vaporized to be dangerous". The World Trade Center and the Pentagon were no-fly zones. The 911 crashes in Pennsylvania and the February 2009 plane crash in Clarence created infernos that smoldered for days. We think NYSERDA's casual dismissal of this potentially serious threat demonstrates a lack of prudence and discretion that should be accorded to the taxpayers and citizens of New York State.

263-26

The 2008 DEIS incorrectly defines West Valley TRU wastes as having a concentration of 100 nCi/g or greater. While the 1970 definition of TRU as 10 nCi/g or greater was raised to 100 nCi/g in the 1984 Amendments to the Nuclear Waste Policy Act, the 1980 WVDPA defines TRU waste as 10 nCi/g or greater. This TRU concentration definition remains applicable to all Project TRU wastes. For example, the Drum Cell facility contained drums that assayed above this 10 nCi/g threshhold. (This information was provided at a quarterly VIP meeting.) Were any of these drums shipped offsite as LLRW during the "interim actions"?

263-27

Two LLRW disposal options are offered for the wastes removed from the site: use of both DOE and commercial waste facilities, and an all-commercial waste facilities option. We favor a third option: an all federal disposal facility option, using the most physically suitable federal sites for long-term waste storage. For example, the Nevada Test Site is a more physically suitable long-term storage site than is the Waste Control Specialists facility (WCS) site in Andrews, TX which, lying above the edge of the Ogallala aquifer, has stirred scientific controversy within the state regulator over its suitability for long-term waste disposal. Why should less physically optimal, private disposal sites, such as Harold Simmons' WCS facility, be sited for long-term waste disposal and profit from high upfront fees when, after a short 30 year period of waste disposal operations, these sites will become government responsibilities with the taxpayers assuming all the long-term waste management costs anyway? Political connections and large political campaign contributions appear to figure prominently in the answer to this question.

263-28

This DEIS perpetuates the misleading concept of "orphan waste"; these are wastes for which it is supposed that no waste storage facility is available. This "orphan waste" myth is being used as the main excuse in DOE's contention that it is not possible to implement the site-wide full cleanup option now. We don't believe this "orphan waste" claim is completely honest in regard to GTCC wastes. We say this because other sites with GTCC wastes have been closed.

263-29

For example, the silos at DOE's huge Fernald site contained large activities of "K-65 residues". These very hot, radium-bearing residues resulted from highly concentrated uranium ores (the Belgian Congo's Shinkolobwe pitchblende). They are in essence GTCC wastes. Some of these Manhattan Project/Cold War residues were also left in a silo at the NFSS. A NAS/NRC

of the discount assumptions to investigate the effect of discount rate on ALARA compliance conclusions. The cost-benefit analysis presented in Chapter 4, Section 4.2, of the Revised Draft EIS was conducted to support NRC's request for cost-benefit information according to the ALARA analysis guidelines. Section 4.2 has been revised in this Final EIS to present the results of sensitivity analyses using different discount rates. If cost-benefit considerations are part of the agency rationale for decisionmaking, this will be acknowledged and discussed in DOE's Record of Decision and NYSERDA's Findings Statement.

263-18 Contamination associated with the spent solvent tanks was detected in groundwater within the boundary of the NDA. Eight solvent tanks identified as the source of the original contamination were removed for offsite disposal. The best available information on the inventory and the location of the radionuclides in the NDA is summarized in Appendix C, Section C.2.7, of this EIS.

263-19 As discussed in Chapter 2, Section 2.4, of this EIS, if it is unclear whether a supplemental EIS is needed for Phase 2 decisionmaking, DOE would prepare a supplement analysis in accordance with 10 CFR 1021.314(c) and make this analysis and the resulting determination available to the public. A supplement analysis would discuss the circumstances that are pertinent to deciding whether to prepare a supplemental EIS.

Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

expert panel, convened at the request of former Congressman John LaFalce, concluded in their 1995 report entitled "Long-Term Management of the K-65 Residues at the Niagara Falls Storage Site " that the K-65 residues are "indistinguishable in hazard from high-level waste". This panel also recommended that these high activity wastes be stabilized by vitrification or other equally durable means.

After vehement public opposition in Utah forced Envirocare (now Energy Solutions) to remove its Clive facility from DOE consideration as a disposal site for the GTCC "K-65 residues", DOE turned to Nevada for disposal of these wastes, which prompted the Nevada Attorney General to threaten a lawsuit to prevent use of the NTS. With the 2006 Fernald site closure deadline approaching and Fernald contractor Fluor Daniel anxious to pocket a $288 million work acceleration bonus, in 2005 DOE contracted with WCS for "temporary storage" of the Fernald K-65 residues even though the WCS facility did not have a disposal license. Three years later, in May of 2008, the State of Texas granted WCS a disposal license for these GTCC, stabilized (cement-flyash) Fernald wastes. *263-29 cont'd*

The purpose of this example is not to condone DOE's site selection in this case but to point out that where there's the will there usually is a way, including a proper way to treat and relocate wastes in a timely fashion from physically unsuitable sites, among which West Valley is uniquely unsuitable, to the most physically suitable sites.

The Environmental Impact Process for West Valley has been tortuous. A 1987 scoping did not result in a Draft EIS until 1996. We suspect that 9 years is some kind of a record, not necessarily one to be proud of. Thirteen years later, that draft is resurrected and presumed to be a revision. We disagree. In the meantime, an ill-conceived segmentation of the process results in a new Draft EIS on Waste Management in March 2003, an FEIS in January 2004 and another record – 17 months until a Record of Decision is issued. We do not think that DOE and NYSERDA want to do anything more than persist in spending taxpayer money by studying the nuclear site and hope that in the meantime we will go away. We have not and we will not go away until the West Valley tanks and burial grounds and lagoons and strontium plume are exhumed and secured in monitored, retrievable above-ground storage. *263-7 cont'd*

If DOE is going to put people, future generations and the Lakes Erie and Ontario environments at risk, DOE is morally obliged to tell these involuntary risk bearers the purpose(s) for which they will be exposed to the hazards from West Valley. Lacking any forthcoming explanation or policy statement, the Coalition rightfully assumes that if DOE's purpose is to minimize only the short-term cost, but not the long-term risks and costs, of dealing with nuclear waste in order to promote nuclear energy, the taxpayers should be accorded the right to expect honesty and forthrightness from their decision makers. *263-30*

The Coalition is submitting the bulk of its comments on September 8, 2009, but has advised both DOE and NYSERDA of our intention to 'revise and extend' our comments once the additional information requests previously made to DOE and NYSERDA are responded to under the terms of the 1987 Stipulation of Compromise Settlement. The Coalition expects full NEPA consideration of these additional comments, per our earlier advisements.

Steering Committee for the Coalition on West Valley Nuclear Wastes
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4/17/ 1979 Entry in Carol Mongerson's Journal regarding radiation leak.
"Civilization will die so slowly that no one generation will know what they have missed."

Attachment: Recent Excursionary Events

263-20 DOE intends for the decision on Phase 2 actions to complete the required WVDP decommissioning activities at the site. Please see the response to Comment no. 263-11.

263-21 The License Termination Rule requirements were developed through an NRC rule-making process that involved public participation. These standards will be applied to the NRC-regulated portion of WNYNSC. No determination has been made as to whether any of the areas will be managed with the waste in place.

263-22 NYSERDA's 2008 draft SDA Quantitative Risk Assessment (QRA) (summarized as Appendix P of the Revised Draft EIS) did not formally address the issue of climate change. However, the QRA supporting meteorological data were derived from more than 80 years of historical records from three regional weather stations and 17 years of records from the West Valley meteorological tower. The QRA exceedance frequencies for severe storms explicitly quantified uncertainties that accounted for variability in localized storms throughout the region, as well as variations in weather patterns over nearly a century of historical data.

The QRA models explicitly accounted for releases caused directly by severe storm damage at the site (e.g., from episodic high winds, tornadoes, extreme rainfall, etc.). The analyses also accounted for storm-related damage that could leave the site vulnerable to effects from additional, subsequent storms (e.g., during the time required to repair wind damage to the geomembranes).

NYSERDA's 2009 updated SDA QRA (summarized as Appendix P of this Final EIS) contains a sensitivity study that examines the potential risk impacts from postulated dramatic climate changes during the 30-year SDA operating period. The sensitivity analyses account for increased frequencies of severe high winds, tornadoes, and precipitation. In particular, the analyses evaluate the effects from postulated conditions that would apply at the site if all meteorological parameters were assumed to persist at the 95th percentiles of their current uncertainty ranges throughout the next 30 years. In other words, based on the historical data, NYSERDA is 95 percent confident that the actual meteorological conditions at the site will be less severe than those used in the sensitivity analyses.

The QRA team does not believe that the extreme meteorological conditions evaluated by these analyses will evolve over the next 30 years. However, even if these conditions were to apply throughout the 30-year study period beginning in 2010, the mean total SDA risk may increase by a factor of only approximately 2.3, compared to the baseline risk assessment. Approximately 75 percent of the

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

Attachment 1 – Recent Excurionary Events

Knowing that WVES does not have reliable -- 24/7/365 -- weather data collection equipment, NYSERDA has been negligent to depend on the DOE (WVES) for collection of onsite weather data (needed to evaluate climate change). NYSERDA has no weather equipment of its own. Storm-related utility power outages combined with blown breakers onsite and inadequate battery backup of the DOE contractor's rain gauge (only 1.5 hours according to an 8/19/09 WVES event timeline) resulted in the loss of rainfall data for over 15 hours during the most intense thunderstorms of Sunday afternoon and Sunday night into Monday morning. In response to a NYSERDA email request for precipitation data following the storms, a WVES staffer responded that the storm total was unknown due to site-wide power outage, and concluded that "(t)hese power outages are killing my met data records. No Storm water sampling this week." This is a frank admission that the DOE weather station is not only set up to miss the most important precipitation data of violent, heavy thunderstorms (when utility power is most likely to go out) because it lacks adequate power backup, but that this has happened often enough over the years to render this station's precipitation data virtually useless for the purpose of evaluating erosion impacts, let alone making a contribution to regional climate change studies.

263-31

The region-wide collection of complete weather datasets that capture all such excursionary events is essential to enable the NEPA-required, accurate prediction of long-term erosion impacts at this site. As the site owner from the site's inception, NYSERDA should have ensured that this site's weather data collection, if by powered deices, was not interrupted by power outages, i.e., that reliable backup power sources were in place to cover extended utility power outages. NYSERDA should have had its own equipment to collect the site's weather data. Why has NYSERDA depended on DOE for this important site data, knowing the collection failings?

According to the Albany, New York National Weather Service office, the universal (spring-powered) weighing rain gauge is optimal for climatology use. This is because of a vacuum that accounts for the effects of wind, allowing more of the actual rainfall to enter the gauge. These gauges are very precise in measuring rainfall intensity as the weighing mechanism at the bottom of the collector can be used to measure depth and time simultaneously. Recording is carried out much in the same way as the older versions of the tipping bucket gauges.

The 3-day August 8-10, 2009 thunderstorms event in the Cattaraugus Creek watershed produced excursionary rainfall intensities and totals for the local area. A new high flow record for Cattaraugus Creek was set; this was accompanied by a 5-foot flood surge that swept downstream through Gowanda. The 3-day event was preceded by approximately 2" of rainfall (exactly 1.81" onsite) on Wednesday 8/5/09 which left area soils well-wetted, if not saturated -- a very important factor in what was to follow.

263-32

Doppler radar data collected by the National Weather Service Buffalo Office estimated that approximately 4" of rain fell in the West Valley area during the 8/9 Sunday 24 hour period.[7] However, doppler rainfall estimates can be in error by as much as 50% or more.[8]

Fortunately, a conscientious NWS spotter located 20 miles to the west in Perrysburg in the western Cattaraugus Creek corridor where the greatest rainfall intensity occurred during this 3-day storm event, using an official NWS manual rain gauge, determined that 5.98" of rain fell in a single hour and a half period Sunday evening, and a total of 7.27" fell for the 24

[7] initial conversation of Jim Rauch with Steve McLaughlin, NWS Buffalo
[8] Jim Rauch conversation with David Zaff, NWS Buffalo, 9/3/09

potential risk increase is attributed to trench overflow (Scenario 3-4), which is particularly sensitive to moderate- to high-precipitation conditions. Groundwater release Scenario 1-2 accounts for essentially all of the remaining difference, due primarily to the increased probability that trench water levels would be at the weathered Lavery till/unweathered Lavery till interface. Even if these extreme conditions were to develop very rapidly during the next few years, the sensitivity study confirms that a release resulting in a dose of 100 millirem or more to an offsite receptor within a single year remains very unlikely during the next 30 years of SDA operation.

See Section 15.3 of the updated QRA report for details of the sensitivity analyses and results. The consequences from the total Phased Decisionmaking Alternative are discussed in Chapter 2, Section 2.6, of this EIS.

263-23 DOE and NYSERDA note the comment.

263-24 DOE's responsibility at WNYNSC is a matter of law, including the West Valley Demonstration Project Act. Radioactive decay of the inventory in the SDA does not change who is responsible for the facility.

263-25 If the Phased Decisionmaking Alternative is selected, DOE will not proceed with any decommissioning actions until it has issued a Record of Decision and has received NRC's evaluation of the *Phase 1 Decommissioning Plan for the West Valley Demonstration Project* for the actions identified in the Record of Decision.

263-26 Appendix N of this EIS addresses the potential impacts from intentional destructive acts. As discussed in Sections N.2 and N.3, the analysis was developed to address a range of potential scenarios, while certain scenarios were excluded due to their low expected probability or consequences (compared to the scenarios analyzed). With respect to a commercial or military aircraft impact on the Main Plant Process Building or high-level radioactive waste tanks, the height and area of these facilities make the likelihood of a successful strike low. With respect to aircraft impacts at disposal areas, they also represent a small target. The distribution of radioactive material over a wide area underground and the amount of soil overburden that would mix with released radioactive material would, in essence, result in dilution of the concentration of airborne radioactive material. Other intentional destructive acts analyzed in Appendix N are expected to have larger impacts.

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

hour period Sunday. The maximum intensity was estimated by NWS Buffalo to be approximately 5" per hour; this rate was based on the ground truth measurements by the spotter in Perrysburg which enabled NWS Buffalo to adjust its radar image storm total estimates upward by approximately +1 inch. Based on this adjustment, the West Valley nuclear site received between 6" and 7" of rainfall for the 3 days, Saturday through Monday.

The resulting onsite erosion damage was significant; some of these effects were personally witnessed during an 8/19/09 tour of site by representatives of the Coalition, the Seneca Nation of Indians, the WV Citizen Task Force, and the League of Women's Voters. The account (with images) of the storms and onsite damage that is posted at http://nuclear.bfn.org/WV erosion 8-09.htm, the Powerpoint presentation ID: 20235.ppt "WVDP Dams After August Storms Events, Photographs taken on August 10 and 11, 2009, provided to James Rauch September 4, 2009" by WVES, and the two sets of erosion photos provided by NYSERDA to Joanne Hameister on September 7, 2009 are incorporated into these comments by reference.

"Over the course of a couple of hours late Sunday evening, roughly between 1030PM and 1230AM, some of the highest short-term rainfall totals ever recorded in western New York occurred ... with as much as 5 inches per hour near Perrysburg and Silver Creek".[9] NWS Buffalo Office meteorologist Tom Niziol was reported in the Buffalo News to say that such intensity is more typical of hurricane areas in the southern states. This was clearly an excursionary rainfall event for this area, likely the result of climate change and indicative of worse events to come.

While the Perrysburg spotter's data are impressive, the uncorrected NWS Buffalo doppler radar storm total image indicates that the greatest rainfall total, and likely greatest intensities, for this 3-day event occurred in an area (the gray rectangle) centered on the intersection of Hopper and Hanover Roads near the Silver Creek Reservoir in Chatauqua Co., approximately 5 miles west of the Perrysburg spotter's location, where possibly just under 9" total fell (using nearby Perrysburg +1" ground truthing adjustment of the doppler estimate). See **Figure 1**, attached. The Perrysburg spotter's three-day total was 7.87 inches, and her August total was 13.08" (normal is ~4").

NWS Buffalo has posted two excellent summaries with photos and animations of the two exceptional Sunday storm events:
An overview -
http://www.erh.noaa.gov/buf/svrwx/web_080809_Derecho/indexderecho_1.html
Flood event - http://www.erh.noaa.gov/buf/svrwx/web_090810_Flashflood/indexflood.html

The flood event summary contains satellite photos that show the massively soil-laden runoff plumes from Cattaraugus Creek and Eighteen Mile Creek (and other smaller creeks) extending out into Lake Erie and eastward to Buffalo, down the Niagara River, and out into Lake Ontario. See **Figure 2**, attached. These photos demonstrate one example of the expected flow patterns that radioactive wastes from West Valley will take when the inevitable breaching of West Valley's waste facilities occurs. No opportunity for disagreement about computer simulations and predictions, just a real-world demonstration provided free of charge by "Mother Nature."

Although this was not the maximum total short-term event total possible for the Cattaraugus Creek watershed, the intensities of these thundercells were quite possibly new maxima for the local area and the associated runoff surges created a new record high flow for

[9] NWS Buffalo, 8-31-09

263-32 cont'd

The SDA QRA explicitly accounts for the frequency and consequences from crashes of commercial, military, and general aviation aircraft. Refer to Section 5.6 of the QRA report for details of the aircraft crash analyses.

263-27 This EIS addresses the management of transuranic waste in the manner described in the *West Valley Demonstration Project Waste Management Environmental Impact Statement* (*Waste Management EIS*). In addressing wastes and regulatory definitions, the *Waste Management EIS* explained the difference between the definitions and indicated that "[i]n the event wastes are disposed of offsite, the applicable definitions at the disposal site will be used."

263-28 The disposal options cited in the comment were selected to bound the impacts in the transportation analysis; they are not intended to evaluate the relative benefits of properly authorized or licensed disposal facilities. The disposal sites considered are DOE's Nevada Test Site and EnergySolutions in Clive, Utah. A portion of the low-level radioactive waste currently in the SDA is commercially generated waste and cannot be disposed of at a DOE site. Therefore, the option of all-Federal disposal cannot be considered.

263-29 While offsite authorized disposal capacity is available for most of the waste that would be generated from any of the EIS alternatives, it is consistent with existing practice that any waste generated that does not currently have offsite disposal capacity (referred to as orphan waste) would be safely and retrievably stored on site until such disposal capacity is available. The need to provide temporary storage of waste pending availability of offsite disposal would not prevent selection of any of the alternatives.

263-30 Chapter 4, Section 4.1.10, of this EIS presents analysis of the long-term human health impacts of the three decommissioning alternatives and the No Action Alternative. In addition, please see the Issue Summary for "Concerns about Potential Contamination of Water" for a discussion of the impacts of these alternatives on offsite and Great Lakes water users.

263-31 NYSERDA had generally not been conducting work at the SDA over the last 20 years that required (1) real-time meteorological data, or (2) data beyond what was already being collected by DOE for WVDP. As a general rule of thumb, if DOE was collecting data that NYSERDA could obtain and use, NYSERDA made use of the WVDP data to avoid the cost associated with duplicating data collection activities. Over the last 10 years or so, NYSERDA has been moving away from depending on WVDP for needed data, including meteorological data.

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

Cattaraugus Creek. According to records of The Pennsylvania State Climatologist (a service of Penn State University): "On July 17, 1942, a great flood developed over the Smethport area, resulting in an estimated 34.50" of rain--in just one day, including 30.60" in only six hours, setting a world record. The official observing site, Smethport Highway Shed, reported only 13.08" for the entire month, because the flood consumed the guage [sic] after 6.68" of rain. The total results from the substitution of the official estimated amount for the amount measured. In July 1947, portions of Erie suffered a twenty-inch one-day deluge, although the reporting site received substantially less precipitation. The most rainfall officially recorded in July at an official reporting site is 17.89" at Wild Creek Reservoir, Carbon County in 1945--also during that same decade."
[http://pasc.met.psu.edu/PA_Climatologist/fod/paex.html]

Had the one-day 20" 1947 Erie, Pa rainfall event (intensity maxima unknown) or the over 30" that fell in Smethport on July 17, 1942 (with prolonged intensities of at least 5" per hour) occurred in the West Valley vicinity last month, the onsite erosion resulting from more than three times the volume of runoff of our August event would have been much more severe. The reservoir berms, which experienced damage in the August 2009 event, may not have held, releasing a further massive surge to Buttermilk Creek; the knickpoint advances witnessed on Erdman Brook (multi-stepped lobe just a few yards from and oriented toward the foot of the SDA slope) and Franks Creek (advanced ~20 feet) would have been much greater; the slides on Buttermilk Creek would have further cut back the plateau; and so on.

263-32 cont'd

In the 1950s the 30-year moving average annual precipitation for Buffalo was ~36"; it is now over 40". While part of this change may be attributed to the station's move from its downtown location to the airport location in 1943, Buffalo's climate definitely has become wetter. The latest DOE EIS for the West Valley site, unwisely approved for release by NYSERDA, does not consider or attempt to evaluate the accelerated erosion impacts resulting from such climate change. It is simply foolish to ignore climate change, especially its excursionary aspects. It is precisely these excursionary storm events that will hasten the inevitable breaching of the burial grounds and other facilities at West Valley. The 150 to 300 year worst-case predictions for breaching of the burial grounds may turn out to be conservative.

This severe erosion event should be a reality wake-up call to policymakers in Albany who for too long have ignored the unique physical unsuitability of the West Valley site for radioactive waste disposal (or "long-term management"). All attempts to control erosion in this young, unstable glacial till-filled valley will inevitably fail. That reality should prompt the State to move expeditiously to plan the complete excavation and removal of the site's radioactive materials in the near term, not ten or more years from now. Whether that plan is accomplished via federal stimulus money, a separate federal funding mechanism, a State bond act or a combination of these, a commitment to full excavation must be made without further delay.

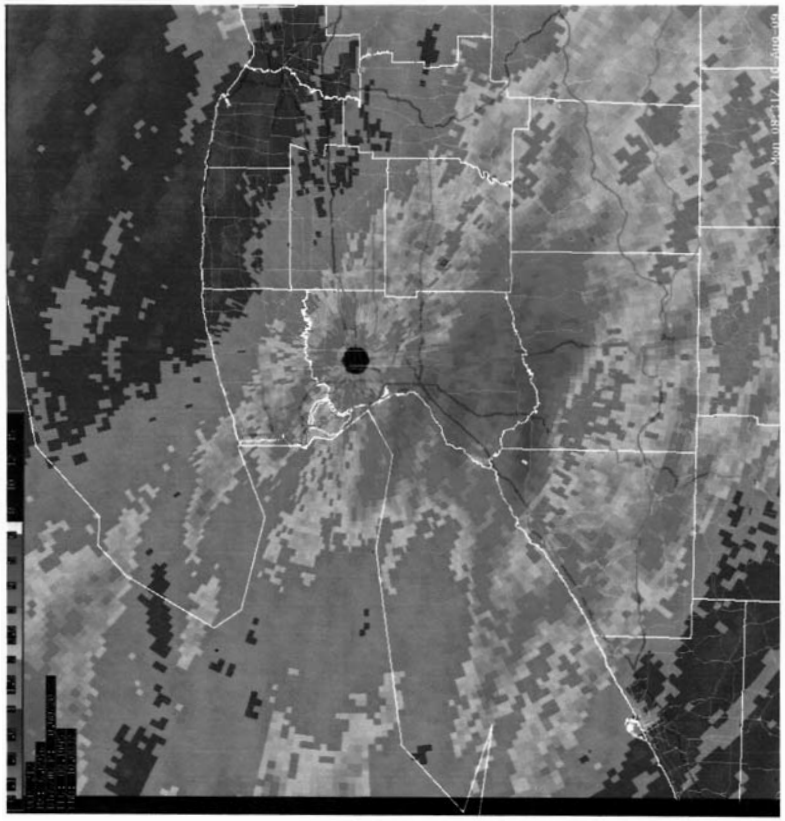
263-33

263-32 Storms of the magnitude of the August 2009 storm in Cattaraugus County have been accounted for in the erosion analysis in Appendix F of this EIS. Please refer to the response to Comment no. 263-12 for a discussion of how climate change and changes in precipitation were addressed in this EIS.

263-33 DOE and NYSERDA note the comment.

Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

Figure 1
Uncorrected NWS Buffalo radar
storm total image for 8/8/09 through
8/10/09



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Commentor No. 263 (cont'd): Joanne Hameister, Chair, The Coalition on West Valley Nuclear Wastes

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Commentor No. 264: Marvin Resnikoff, Senior Associate, Radioactive Waste Management Associates

RADIOACTIVE WASTE MANAGEMENT ASSOCIATES

September 8, 2009

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West Valley Demonstration Project
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And

Mr. Paul J. Bembia
Project Director
West Valley Site Management Program
New York State Energy Research and Development Authority
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9030 Route 219
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Dear Ms. Bohan and Mr. Bembia,

Please find enclosed comments on the "Revised Draft Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western New York Nuclear Service Center (DOE/EIS-0226-D)" by Mina Hamilton, Research Associate at Radioactive Waste Management Associates.

Should you have any questions about this submittal, please contact Marvin Resnikoff, Senior Associate at Radioactive Waste Management Associates, at (212) 620-0526.

Sincerely yours,

p.p. Edward Mayer

Marvin Resnikoff
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Commentor No. 264 (cont'd): Marvin Resnikoff, Senior Associate, Radioactive Waste Management Associates

Comments by Mina Hamilton, Research Associate
Radioactive Waste Management Associates

On the US Department of Energy Revised Draft EIS on the West Valley Demonstration Project (DOE/EIS-0226-D-Revised).

The proposed DOE action of dropping soil-cement-bentonite and steel sheet walls around the large plume of Srontium-90 contamination (henceforth referred to as Sr-90 plume) at the West Valley site is an inadequate response to the threat of the Sr-90 plume. ***264-1***

As stated by NYSERDA, the engineered barrier assumptions are "not adequately supported."[1]

Furthermore, the full dimensions and nature of the Sr-90 plume are poorly delineated in the Draft EIS. What is known? That the plume is of significant extent, is moving via permeable geologic strata towards Buttermilk Creek and contains Sr-90 levels that exceed federal standards. The plume also contains various toxic and hazardous chemicals. ***264-2***

Finally, the DOE has made the assumption that the "sand and gravel unit" underneath the North Plateau – along which the Sr-90 is moving has 1) substantially shrunk in size since DOE's last assessment and 2)does not connect with any sand and gravel units underneath the South Plateau. Both of these assumptions are questionable. ***264-3***

Figure 3.3 (a copy of this Figure is attached) from a recent study by Synapse Energy Economics indicates that the Sr-90 plume has extensions that are moving <u>not only</u> in an eastwards direction <u>towards Frank's and Buttermilk Creeks</u>, but also in a northerly direction <u>towards Quarry Creek</u> and in a southeasterly direction <u>towards Erdman Brook</u>. Alarmingly, this Sr-90 plume may already have intersected Erdman Brook. ***264-2 cont'd***

A more detailed analysis of these points follows:

1) The moving edge or boundaries of the Sr-90 plume is alarmingly close to various streams, including Erdman Creek, Quarry Creek and Frank Creek as well as Buttermilk Creek. The former three creeks are called an "integrated watershed" by NYSERDA.[2] They drain into Buttermilk Creek, which, in turn, drains to Cattaraugus Creek and Lake Erie.

[1] NYSERDA forward to DOE Revised Draft EIS
[2] DOE Revised Draft EIS, p xxi

264-1 The commentor appears to be reacting to statements made in the third paragraph of Appendix C, Section C.3.1.1.7, of this EIS, which discusses the installation of the sheet pile and soil-cement-bentonite slurry wall to facilitate the removal of the source area of the plume (see Section C.3.1.1.8). These structures are not intended to mitigate the nonsource area of the plume, which is addressed in Section C.3.1.13.

264-2 The understanding of the North Plateau Groundwater Plume has improved over the decade since it was first discovered in the early 1990s. This understanding is the result of integrating multiple geoprobe sampling campaigns, environmental monitoring data, investigations into the potential sources for the plume, and the use of hydrologic transport models to integrate the information and predict future plume movement.

The North Plateau Groundwater Plume is discussed in Chapter 3, Section 3.6.2.1, and Appendix C, Section C.2.13, of this EIS. The demonstration of the use of the one-dimensional model to reproduce the movement of the plume is presented in Appendix E, Section E.4.1.1. The long-term performance assessment evaluates the movement of longer-lived radionuclides estimated to have been released from the Main Plant Process Building (see Appendix C, Table C–14) and concludes that the peak dose from these radionuclides is less than the peak annual dose due to strontium-90. Monitoring of the plume has not indicated the presence of any toxic or hazardous chemical resulting from the original release from the Main Plant Process Building. Information on hazardous chemical monitoring is summarized in Chapter 3, Section 3.6.2.1.

Figure 3.3 of the *Synapse Report* provided by the commentor is not an accurate representation of the North Plateau Groundwater Plume. The figure identifies areas of Erdman Brook and Franks Creek south of the burial grounds as being part of the plume, which is incorrect. The figure also implies the plume is flowing directly towards Buttermilk Creek, which is also incorrect. Characterization of the plume as presented in this EIS is based on information included in annual reports on the plume (e.g., *Annual Summary for the North Plateau Strontium 90 Groundwater Plume October 1, 2006 – September 30, 2007,* included as a reference in Chapter 7). Chapter 3, Figure 3–24, depicts the extent of the plume based on groundwater concentrations. The annual reports on the plume also provide current information regarding the number and location of wells being used to characterize the plume.

Commentor No. 264 (cont'd): Marvin Resnikoff, Senior Associate, Radioactive Waste Management Associates

2) These seemingly small and sometimes intermittent creeks can have a significant amount of water depending upon the season. In spring when snows melt and during summer at periods of intense rain or thunderstorms, peak flows at the confluence of Quarry Creek and Franks Creek have been measured at 340 cubic feet per second.[3]

In the seminal study by Synapse Energy Economics, *The Real Costs of Cleaning up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site*, November 2008 (henceforth referred to as *Full Cost Accounting*) graphically shows the threat to Buttermilk Creek from the Sr-90 plume in Figure 3.3 on page 45. A copy of this Figure is attached.

The boundaries of this Sr-90 plume are also shown in Figure 3-24 in Chapter 3, page 67 and in Appendix C, p. C-45 of the DOE DEIS. Copies of these Figures are attached.

3) Figure 3.3 in the *Full Cost Accounting* study may give a false sense of security to readers who focus on the map and not the text. As stated in the text of *Full Cost Accounting*, on page 44, the "plume head is now approaching Erdman and Franks Creeks on the east side of the site and is reaching, if not having **already breached**, an area of more rapid groundwater flow in Franks Creek."[4] [bold type added by the author] These creeks are shown in Figure 6.1 from the Executive Summary of *Full Cost Accounting*. A copy of this Figure is also attached.

4) Figure 3.3 in *Full Cost Accounting* shows that the Sr-90 plume is 400 yards from Buttermilk Creek. If the proximity of Franks Creek is taken in account, the plume is less than 100 yards or **300 feet from an intermittent stream** that moves off the West Valley site and drains into Buttermilk Creek. Already contaminated sediments have been found in both Franks Creek and Erdman Brook.[5]

5) According to Synapse Energy Economics, the delineation of the contaminated ground water plume in Figure 3.3 is based on drawings from the 2005 DEIS of the DOE, mainly Figures 3-17 (p3-41). According to Appendix C of the Revised DEIS the boundaries of the plume are based on data from 2002.[6] This means that the Figures in the DEIS are based on out-of-date data. In the intervening 7 years, the contaminated plume has probably migrated significantly further than is represented by Figure 3.3 in the *Full Cost Accounting* report or by Figure 3-24 and C-13 from the DOE Draft EIS.

6) According to the DOE Revised DEIS, the extent of the "core area of the north plateau gross beta plume in sand and gravel unit" is based on various wells located inside the

[3] DOE Revised Draft EIS, Chapter 3, page 51
[4] As cited in Full Cost Accounting at WVDP page 44, 1996 Draft DEIS, Chapter 4, p.23
[5] DOE Revised Draft EIS, Appendix C, p C-44
[6] Ibid, Appendix C, p. C-44

264-2 cont'd

264-3 cont'd

264-3 The understanding of the sand and gravel unit on the North Plateau site has been refined in recent years as a result of additional geoprobe borings on the North Plateau, including borings within the area of the plume and modeling studies of North Plateau Groundwater Plume movement. The refined characterization is discussed in Chapter 3, Section 3.6.2.1, of this EIS.

It is noted that this refined geologic interpretation results in predictions of faster plume travel in this Final EIS in comparison to the Revised Draft EIS. The higher velocities are discussed in Appendix E, Section E.4.1.1.

Commentor No. 264 (cont'd): Marvin Resnikoff, Senior Associate, Radioactive Waste Management Associates

current boundary or perimeter of the plume.[7] (Underlining is the author's.) Figure 3-24 is attached to show the location of the wells. It is not clear from DOE's Revised DEIS whether there are any EXISTING well monitoring locations located **outside the current, presumed boundary** of the Sr-90 plume. Without wells outside the presumed boundary, it is, of course, impossible to state what, today, is the exact configuration, location and extent of the Sr-90 plume.

264-3 cont'd

7) Unknown at this time, or at least not revealed in the Revised DEIS are answers to the following questions:

a) How much further has the Sr-90 plume advanced since 2004?

b) What is the current monitoring regime on the supposed boundaries of the Sr-90 plume? What is the location of the wells? And at what depth are samples being taken? And at what frequency?[8]

264-2 cont'd

c) What other radionuclides are present in the plume, such as Cs-137? (Appendix C of the revised DEIS states that cesium-137 is "expected" to have remained underneath the Main Plant Process Building.[9] And although it is true the Cs-137 can be expected to bond with clay in this area, it also can be expected to move in the sandy stratum also present in the plume area.)

8) In the DOE Revised DEIS an assumption is made that the geology beneath the North and South Plateaus is radically different, in that, supposedly, there are no sandy strata in the South Plateau and DOE alleges, no connection between sandy strata in the South Plateau and the North Plateau. This assumption ignores the fact that a large body of sandy strata was located in trenches 13 and 14 in the State-licensed burial ground back in 1977.

264-3 cont'd

This sandy strata, containing "coarse to very coarse sand"[10] was 2 feet in thickness and extended for the length of 65 feet.[11] Clearly, this was a body of permeable material along which contaminants could move rapidly. (At the time of the discovery of this sandy stratum, burial was halted in the State-licensed burial ground. After the commercial operator, Nuclear Fuel Services, stated the sandy strata was limited in extent, burial operations were resumed, though many critics thought the NFS assessment was politically contaminated by the financial needs of the company.) The subsequent history of the trenches, which included significant accumulations of water in the trenches, was not reassuring regarding the stability or non-migration of the buried wastes.

[7] DOE Draft EIS, Chapter 3, p 67, Figure 3-24
[8] DOE Draft EIS, Chapter 3, p. 67 details that, as of January 2005, the number of wells sampled monthly for Sr-90 was reduced from 74 to 12 wells.
[9] DOE Draft EIS, Appendix C, p C-44
[10] US EPA, Region 11, Summary Report on the Low-Level Radioactive Waste Burial Site, West Valley, NY (1963-1975), EPA-902/4-77-010, p.50
[11] US EPA, Region 11, Summary Report on the Low-Level Radioactive Waste Burial Site, West Valley, NY (1963-1975), EPA-902/4-77-010, p.23

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Commentor No. 264 (cont'd): Marvin Resnikoff, Senior Associate, Radioactive Waste Management Associates

Table 3-3, *Stratigraphy of the West Valley Demonstration Project Premises and the State-licensed Disposal Area* on page 15 of Chapter 3 should be revised to represent the presence of sandy strata in the State-licensed burial ground.

As this chart is currently written the only reference to sand underneath the South Plateau is that "till-sand…May be present in one well near northeast corner of the NDA."[12]

264-3 cont'd

9)DOE also announces that data has been revised to show that data previously showing the extensive sandy strata underneath the North Plateau has been re-analyzed to show that these sandy strata are less extensive than previously believed. We find this re-analysis highly suspect.

Conclusion: The location and extent and migration rates of the Sr-90 plume, even though poorly and inadequately delineated in the Revised DOE DEIS, show a significant and dangerous contamination problem which shows no sign of stabilizing or lessening. Complete exhumation of the toxic and dangerous wastes and contaminated soils is required.

264-2 cont'd

[12] DOE Revised DEIS, Chapter 3, p 15.

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Commentor No. 264 (cont'd): Marvin Resnikoff, Senior Associate, Radioactive Waste Management Associates

Figures

(see next page)

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Commentor No. 264 (cont'd): Marvin Resnikoff, Senior Associate, Radioactive Waste Management Associates

Figure 3.3 The Groundwater Plume Contaminated with Strontium-90 (indicated in green) is Migrating Towards Buttermilk Creek (indicated in blue)[13]

[13] Full Cost Accounting at WVDP, p 45

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Commentor No. 264 (cont'd): Marvin Resnikoff, Senior Associate, Radioactive Waste Management Associates

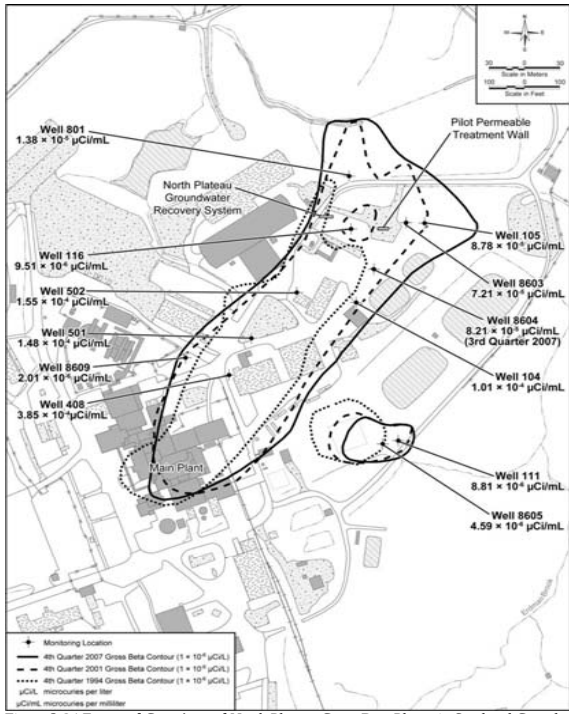

Figure 3-24 Extent of Core Area of North Plateau Gross Beta Plume in Sand and Gravel Unit[14]

[14] DOE Draft EIS, Chapter 3, p 67

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Commentor No. 264 (cont'd): Marvin Resnikoff, Senior Associate, Radioactive Waste Management Associates

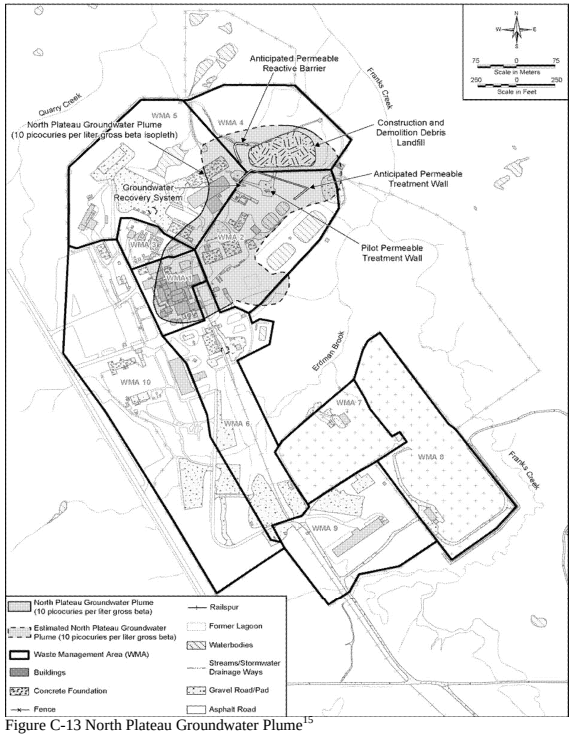

Figure C-13 North Plateau Groundwater Plume[15]

[15] DOE Draft EIS, Appendix C, p 45

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Commentor No. 264 (cont'd): Marvin Resnikoff, Senior Associate, Radioactive Waste Management Associates

Figure 6.1 West Valley Site Relative to the Local Watershed. The Local Creeks Indicated and Labeled in Blue. Both Franks and Erdman Creeks Penetrate the West Valley Waste Management Areas (in black)[16]

[16] Full Cost Accounting at WVDP, p 90

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Commentor No. 265: James Rauch, FACTS, Inc.

WestValleyEIS@wv.doe.gov

From: J Rauch [mailto:jm_rauch@yahoo.com]
Sent: Tuesday, September 08, 2009 4:45 PM
To: WestValleyEIS
Cc: James Rauch
Subject: Comments on DOE/EIS-0226-D [Revised]

Dear Ms. Bohan:

Attached are F. A. C. T. S. (For A Clean Tonawanda Site) Inc.'s comments on DOE/EIS-0226-D [Revised].

James Rauch
Secy
FACTS, Inc.

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Commentor No. 265 (cont'd): James Rauch, FACTS, Inc.

Comments on the 2008 West Valley DEIS (DOE/EIS-0226-D [Revised])

by James Rauch
F. A. C. T. S. (For A Clean Tonawanda Site) Inc.
September 8, 2009

Background
The National Environmental Policy Act of 1969 (NEPA) was enacted by the 91st Congress to bring a thorough scientific evaluation of the environmental impacts of federal actions into the decision process before the implementation phase of all major federal activities. The vehicle for this analysis is the Environmental Impact Statement (EIS).

The federal Energy Department's (DOE) record in satisfying the intent and substantive requirements of NEPA at its large nuclear sites has been quite poor, especially in recent times when the full scope and huge costs of properly managing legacy wastes from the Manhattan Project and Cold War periods has been realized and has met with resistance both in-house and in Congress. DOE's poor legacy waste management practices received national media attention in a USA Today series: http://www.usatoday.com/news/poison/cover.htm, incorporated by reference into these comments.

In the WNY area, DOE's performance has been abysmal. In the 1990s, Tonawanda's Manhattan Project site (a FUSRAP site [Formerly Utilized Sites Remedial Action Program]), where the refining of uranium used in the Hiroshima bomb took place) was the subject of a $6 million DOE environmental review study that identified a soils cleanup level for uranium of 60 pCi/g. The NRC cleanup level for an area subject to intensive human use, as is the case at Tonawanda, is 10 pCi/g. Before the soils were addressed, several very costly attempts were unwisely made to decontaminate the waste-saturated uranium refinery buildings (tens of millions of dollars), which had been improperly transferred in the 1950s from federal control to private industry (now Praxair). These attempts all failed; the buildings were subsequently demolished and removed. As at the NFSS, Congress transferred cleanup responsibility to the Army Corps in 1998 and instructed the Corps to ignore the established NRC radioactive waste regulatory regime, and to remediate the properties under CERCLA ("Superfund"). This resulted in the Army Corps' selection of grossly sub-standard cleanup criteria for the refinery's contaminated soils: 600 pCi/g surface soils, 3000 pCi/g subsurface soils.

The requirements of NEPA were trashed by DOE in the mid-1980s when the highly-radioactive, radium-bearing wastes (K-65 residues) stored in a Manhattan Project silo at the DOE-owned Niagara Falls Storage Site (NFSS) in the Towns of Lewiston and Porter (another FUSRAP site, near Niagara Falls, NY) were slurried into nearby wartime building basements and, together with large amounts of other radioactive wastes that were scraped up from the various contamination sites and drainages, became the contents of a large landfill (or tumulus) called the "Interim Waste Containment Structure" (IWCS). DOE's after-the-fact EIS in 1986 was to decide whether or not to put a final clay cap on

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Commentor No. 265 (cont'd): James Rauch, FACTS, Inc.

the "IWCS," a tumulus that did not, and does not, satisfy the applicable Nuclear Regulatory Commision (NRC) requirements (10 CFR 40 Appendix A) for such radioactive wastes. That question remains open, and in the hands of the Army Corps of Engineers since 1998, because Congress continues to not want to spend the funds necessary to properly deal with this and other sites' wastes. And so, 23 years after DOE trashed the NEPA process at NFSS, 2000 Curies of Ra-226, an amount sufficient to contaminate a volume of water the size of Lake Erie to levels above the federal drinking water standard, remain in a sub-standard landfill. Recent reports indicate that the unlined landfill is likely to be leaking. Short-term savings were realized but the proper long-term management of these deadly wastes, which must be achieved to avoid large environmental consequences, was rendered much more difficult and much more costly (see the 1995 NAS report "Safety of the High-Level Uranium Ore Residues at the Niagara Falls Storage Site, Lewiston, New York" which also stigmatized these residues as "indistinguishable from high-level waste," incorporated by reference into these comments).

At West Valley, the federal Energy Department and an irresponsible NYS site owner, NYSERDA (a public authority corporation of New York State), are proceeding down the same irrational path already tried at the Niagara Falls Storage Site, employing "onsite interim actions" in a shortsighted, cost-saving attempt to manage huge quantities of long-lived, dangerous radioactive wastes *in situ* at an unsuitable physical location, this time at a uniquely unsuitable location on a rapidly eroding small plateau within a steep, unconsolidated glacial till-filled valley that drains via Cattaraugus Creek into Lake Erie, an irrepleaceable freshwater resource.

New York State and federal DOE officials have backed indefinite onsite management of the wastes, not because it will save money and avoid environmental disaster in the long term, but simply because it is less costly in current budget years. Public expectations that the "Change We Can Believe In" Obama Administration would bring rigorous, scientific decision-making to DOE activities have not been realized. Apparently, the Obama Administration has no problem spending trillions of public dollars to bail out the ersatz investment vehicles of corrupt investment bankers, but prefers to sit by and watch as the unraveling of physically unsuitable major nuclear waste sites, such as West Valley, contaminates precious drinking water supplies. Sadly, it appears that a calculation has been made both in Albany and Washington that no immediate political harm will result if the failing federal nuclear waste management approach and practices are simply continued.

And so, in this latest DEIS, the DOE and site owner NYSERDA want the long-overdue, 1987 court-ordered, site-wide NEPA decision at West Valley, NY to be delayed thirty more years, preferring instead a NEPA-illegitimate (i.e. non-sitewide) "phased decision making" proposal that lacks any provision for further site-wide NEPA review but implements onsite waste management "interim actions," including the already identified slurry walls and plastic covers over the burial grounds. The proposed NEPA non-decision which addresses only a fraction of the site's wastes is simply a prologue to a future CERCLA ("Superfund") morass, following the established pattern of Tonawanda and the NFSS, and represents a colossal failure of State leadership that even surpasses the original siting blunder of a naive Nelson Rockefeller. Such a NEPA non-decision will

265-1

265-1 This EIS evaluates the environmental impacts of a range of alternatives for the decommissioning and/or long-term stewardship of WNYNSC. It is assumed that the comment refers to the Preferred Alternative, the Phased Decisionmaking Alternative. If this alternative is selected, the options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements.

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed the Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the DOE Record of Decision if the alternative were selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making the Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that the Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement if the Phased Decisionmaking Alternative is selected.

Commentor No. 265 (cont'd): James Rauch, FACTS, Inc.

again result in State and federal governments throwing away more public money, this time in the billions, trying to maintain waste isolation at this untenable location. As already noted, the DOE employed the same NEPA-evasion strategy at the Niagara Falls Storage Site in the 1980s, squandering tens of millions on a faulty "interim" tumulus that otherwise would never have been sited; see a detailed description of the NFSS story at http://nuclear.bfn.org/nfss.htm, incorporated by reference.

265-1 cont'd

The Spitzer administration did not offer to join the Coalition on West Valley Nuclear Wastes in its unsuccessful 2005 complaint against DOE for a lawful NEPA site-wide cleanup process and decision at West Valley. Instead the State joined DOE's "Core Team" and secretly planned this NEPA-illegitmate "interim end state" proposal. The recent federal appeals court decision denying the Coalition's claim means that this DEIS's preferred non-decision alternative may proceed and the Coalition's 1987 court-ordered, NEPA site-wide closure process is likely terminated, an unconscionable situation for long-time public interest stakeholders.

265-2

A NYSERDA complaint against DOE (http://nuclear.bfn.org/NYSERDA_COMPLAINT_FINAL.pdf , incorporated by reference) brought in 2006 was "tentatively" concluded in June, 2009; the terms of the proposed settlement have been withheld from the public, presumably until after the close of this DEIS's comment period. Two days ago, NYSERDA's project director revealed that transfer of control over "a portion of the [WVDPA] Project Premises on the north and east sides of the SDA to NYSERDA" is being negotiated with DOE prior to the decommissioning of the Project in order to perform knickpoint erosion control work on Erdman Brook, to establish "an erosion control buffer area for the SDA ... and to meet a requirement of NYSERDA's 6 NYCRR Part 380 Permit for the SDA." He further noted that "DOE and NYSERDA are working to develop and document a mutually agreeable cost split for this work." It seems fairly obvious that early implementation of some details of the onsite waste management preference has been necessitated by the occurrence of the recent excursionary August storms event (see http://nuclear.bfn.org/WV erosion 8-09.htm, incorporated by reference into these comments).

265-3

Excavation and removal of the West Valley site's radioactive wastes, including the two burial grounds, the tanks, and the lagoons, is both the safest and the least costly long-term management option for New Yorkers, according to a State-sponsored study by independent experts entitled "The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste" (shortened to "Full Cost Accounting Study" or FCAS), incorporated by reference into these comments. This physically most unsuitable waste storage location would never have been selected under the subsequent federal radioactive waste facility siting regulations 10 CFR Part 61. All attempts to control erosion will inevitably fail in this steep glacial till valley; see the following photos and descriptions: http://nuclear.bfn.org/WVslump-fr.htm. , the Powerpoint presentation ID: 20235.ppt "WVDP Dams After August Storms Events, Photographs taken on August 10 and 11, 2009, provided to James Rauch September 4, 2009" by WVES, and the two sets of NYSERDA August 2009 photos: http://nuclear.bfn.org/WV erosion 8-09.htm#NYSERDA, all incorporated by reference

265-4

265-5

265-2 DOE and NYSERDA believe that this EIS meets the requirements of NEPA and SEQR. While the Phased Decisionmaking Alternative would temporarily defer a final decision on the disposition of the Waste Tank Farm, the NDA, and the Construction and Demolition Debris Landfill, DOE believes that the impacts of this deferred decision are adequately analyzed within this current EIS. The environmental impacts of implementing Phase 1 of the Phased Decisionmaking Alterative are described for each resource area in Chapter 4 of this EIS. If this alternative is selected, the options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. For each resource area, Chapter 4 discusses the impacts that would occur if either removal or close-in-place is selected for Phase 2. The chapter also discusses which alternative(s) bound the impacts in the event that continued active management is selected for the SDA. The short-term impacts of a Phase 2 decision that involves continued active management of the SDA are bounded by either the removal or close-in-place impacts. The post-decommissioning impacts of a continued active management decision for the SDA, which include staffing, occupational exposure, and waste generation related to SDA monitoring and maintenance, as well as long-term impacts on public health and safety, would be similar to the no action impacts for the SDA.

265-3 The land transfer was primarily planned at the direction of NYSDEC to NYSERDA to maintain a buffer control area around the SDA.

265-4 DOE and NYSERDA acknowledge the commentor's opinion on the unsuitability of WNYNSC for long-term storage or disposal of wastes and support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

265-5 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the

Commentor No. 265 (cont'd): James Rauch, FACTS, Inc.

into these comments. The ensuing discharge of wastes will contaminate the downstream water supplies of Cattaraugus Creek, Lake Erie, the Niagara River and Lake Ontario.

265-5 cont'd

A safe, fiscally sound outcome at the West Valley site requires that New York State government take the following actions:
NYSERDA should not settle, but instead should vigorously pursue its lawsuit against the DOE. NYS Attorney General Cuomo should take all necessary legal actions to enforce completion of the legitimate site-wide NEPA process that began in 1987 and culminated in the release of the 1996 site-wide DEIS, and to assure compliance with the letter of the 1980 West Valley Demonstration Project Act including:
1) injunctions to stop illegal onsite waste management "interim actions" being conducted by DOE before the legitimate NEPA site-wide review process ROD is issued; such ROD should have been issued over ten years ago;
2) a declaration that DOE is responsible for exhumation of the high-level waste tanks, the NRC-licensed Disposal Area (NDA) and the federally-sourced materials in the SDA, as well as removal of the process buildings and soils; and
3) a declaration that NRC must not apply the generic-EIS-supported 10 CFR Part 20 Subpart E (the "LTR") to evaluate DOE's decommisioning plan for the WVDP Premises, but instead must perform a site-specific EIS to fulfill its main WVDPA task: prescribing site-specific cleanup criteria (see http://nuclear.bfn.org/WVRA-eval.htm#LTR, incorporated by reference).

265-6

But first, the administration in Albany needs to end the State's conflict of interest at the site (see http://nuclear.bfn.org/WVRA-eval.htm#SDA, incorporated by reference) by declaring that the State Disposal Area (SDA) burial ground must be exhumed, even if that means a substantial share of this cost is borne by New Yorkers and bonding of the project is required.

potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. In addition to the previously cited Issue Summary, please see "Concerns about Potential Contamination of Water" and "Questions about Long-term Erosion Modeling" for further discussion of these issues and DOE's and NYSERDA's responses.

265-6 DOE and NYSERDA note the comment.

Commentor No. 266: Brian P. Smith, Citizens Campaign for the Environment

WestValleyEIS@wv.doe.gov

From: Brian Smith [mailto:bsmith@citizenscampaign.org]
Sent: Tuesday, September 08, 2009 4:11 PM
To: WestValleyEIS
Subject: West Valley Comments

Ms. Bohan,

Please see comments from Citizens Campaign for the Environment attached.

Sincerely,

Brian P. Smith
WNY Program Director
Citizens Campaign for the Environment
735 Delaware Rd, Box 140
Buffalo, NY 14223
(716) 831-3206
bsmith@citizenscampaign.org
www.citizenscampaign.org

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Commentor No. 266 (cont'd): Brian P. Smith, Citizens Campaign for the Environment

CITIZENS CAMPAIGN FOR THE ENVIRONMENT
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Empowering Communities, Advocating Solutions.

Attn: Catherine Bohan
EIS Document Manager
West Valley Demonstration Project, U.S. Deparment of Energy
P.O. Box 2368
Germantown, MD 20874

RE: Draft Decommissioning and/or Long Term Stewardship EIS at West Valley Demonstration Project and Western New York Nuclear Service Center
Comments by Citizens Campaign for the Environment

Dear Ms. Bohan:

CCE is an 80,000 member, non-profit, non-partisan advocacy organization working to protect public health and the natural environment in NYS and Connecticut. CCE appreciates the opportunity to comment, and thanks the Department of Energy for extending the public comment period for an additional 90 days so that the public could have more time to weigh in on this important issue.

The West Valley nuclear waste site is located in the Town of Ashford, about 30 miles south of Buffalo. The site contains vast amounts of nuclear and hazardous waste, which threaten public health, our environment, economy, and quality of life. The safest, most responsible, and cost effective solution presented in the DEIS is the "*Sitewide Removal"* option, which will comprehensively clean up and excavate the entire waste site as soon as possible, leaving a safer site within 64 years. CCE strongly opposes the U.S. Department of Energy (DOE) and New York State Energy and Research Development Authority (NYSERDA) "preferred alternative" of phased decision-making, which will clean up only about 1% of the radioactivity now, and wait up to thirty years to decide what to do with the remaining 99% of dangerous radioactivity on site. ***266-1***

Erosion is a powerful and fast moving force at the West Valley site, as it sits on a geologically young, and continuously changing landscape. Scientists estimate that erosion could cause the disposal areas to be breached in less than 1000 years, and as quickly as 150 years. Flooding in West Valley in August of 2009 has demonstrated how quickly erosion can impact the landscape, with substantial erosion occurring in just one day. The DEIS fails to recognize that global climate change will lead to more frequent and intense rain events, further hastening erosion at West Valley. ***266-2***

Leaving nuclear waste buried on site is dangerous, threatens our Great Lakes, and passes on even greater costs to future generations.

266-1 DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative and opposition to the Preferred Alternative – Phased Decisionmaking. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

266-2 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These

Commentor No. 266 (cont'd): Brian P. Smith, Citizens Campaign for the Environment

Leaving nuclear waste on site threatens the Great Lakes
The Great Lakes contain 20% of the world's fresh water, over 90% of the U.S. supply, and provide drinking water to over 40 million people. They hold the key to our economy, recreational opportunities, and irreplaceable family experiences. The Great Lakes generate more than $50 billion in economic activity to the regional economy annually from fishing, wildlife viewing, and tourism.

The West Valley nuclear waste site sits in the Great Lakes watershed, with tributaries running adjacent to the site. A breach at the site would be a catastrophic failure, leaking high concentrations of radioactive waste into the watershed and then quickly into Lake Erie. Currently, there is a large plume of contaminated groundwater moving towards Buttermilk Creek adjacent to the site. Top scientists agree that the lakes are currently on the tipping point of ecological collapse, and further toxic contamination to the lakes would be extremely detrimental to the ecosystem. ***266-3***

The New York State Ocean and Great Lakes Conservation Council - composed of several state agencies - is working to implement ecosystem-based management (EBM) to protect our coastal resources in New York State. EBM is a cutting edge program that looks at managing our coastal resources from a holistic approach. A recent Council report highlighted that a critical component of protecting our treasured coastal resources is to virtually eliminate persistent toxic substances from entering the lakes. Leaving waste on site and risking a breach is not consistent with the goals of the EBM plan. In addition, leaving waste on site contradicts other efforts to protect and restore the Great Lakes. Both the Great Lakes Water Quality Agreement and Great Lakes Regional Collaboration Strategy stress the need to eliminate the introduction of toxic substances into the Great Lakes as a critical component of protecting and restoring our Great Lakes.

Leaving radioactive waste on site is expensive
The Sitewide Removal option provides the most cost-effective approach over the long term, according to a recent study. An independent, state-funded study, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (FCA study)*, revealed leaving buried waste at the site is both high risk and expensive while a waste excavation cleanup presents the least risk to a large population and the lowest cost. Over 1000 years, waste excavation costs $9.9 billion while onsite buried waste costs $13 billion, and $27 billion if a catastrophic release occurred. ***266-4***

Protection and restoration of the Great Lakes is paramount to our region's economy. A recent report by the Brookings Institution indicated that an investment in Great Lakes restoration would yield $80-100 billion in short and long term economic gains, including $1.1 billion to the City of Buffalo alone. Radioactive contamination of the lakes from a breach at West Valley would not only cost billions of dollars to clean up, but would also thwart economic recovery and development from ongoing and future restoration efforts.

projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F. The storm cited in the comment is within the range of weather conditions used in developing the erosion model for the site. In addition to the previously cited Issue Summary, please also see the Issue Summaries for "Concerns about Potential Contamination of Water" and "Questions about Long-term Erosion Modeling" for further discussion of these issues and DOE's and NYSERDA's responses.

The analysis in this EIS recognizes the potential for climate change to influence the long-term consequences of waste management. Climate changes, whether natural or influenced by human actions, could change the nature and amount of precipitation. Appendix H, Section H.3.1, of both the Revised Draft EIS and the Final EIS discusses the sensitivity of groundwater flow to changes in annual precipitation. The revised erosion prediction used for the unmitigated erosion dose analysis is based on the assumption that storms could occur more frequently than indicated by current records. This prediction includes the effects of storms of greater severity than the one that occurred in the region in August 2009. The use of this higher erosion rate associated with an elevated precipitation rate is discussed in Appendix H, Section H.2.2.1. Chapter 4, Section 4.3.5, has been revised to include a discussion of how the uncertainties about future climate change are addressed in this EIS.

266-3 The purpose this EIS is to evaluate the environmental impacts of the various alternatives, including impacts on water resources. These impacts are presented in Chapter 4 of this EIS. As noted in the response to Comment no. 266-2, please see the Issue Summary for "Concerns about Potential Contamination of Water" for further discussion of this issue and DOE's and NYSERDA's response.

266-4 DOE and NYSERDA have considered the referenced report in the preparation of the EIS. In addition to the previously cited Issue Summaries, please see the "Conclusions of the *Synapse Report*" Issue Summary in Section 2 of this CRD for further discussion of the report's issues and DOE's and NYSERDA's response.

Commentor No. 266 (cont'd): Brian P. Smith, Citizens Campaign for the Environment

President Obama is supporting unprecedented funding for Great Lakes protection and restoration in the $475 million Great Lakes Restoration Initiative in his annual budget proposal, which is currently being considered by Congress. Leaving waste on site, and risking catastrophic contamination of the Great Lakes, works against this effort and the billions of dollars that have been spent and that will be spent at the local, state, and federal level on Great Lakes protection and restoration.

Leaving waste onsite is dangerous
According to the FCA study, there is no safe level of exposure to radioactive waste – every exposure increases the risk of serious adverse health impacts, including cancer, reproductive disorders, and neurological effects. We must not pass along this burden to future generations. It is irresponsible, immoral, and costly.

Every day that we wait, the risk of human and environmental exposure increases, and the solutions become more costly. CCE strongly supports the safest, most cost effective solution to the West Valley nuclear waste site- the Sitewide Removal option, which will ensure comprehensive cleanup and excavation of the entire site as soon as possible.

Thank you for your thoughtful consideration of our comments.

Sincerely,

Brian P. Smith
WNY Program Director
Citizens Campaign for the Environment

266-5

266-1 cont'd

266-5 The commentor is correct that scientific studies have not clearly demonstrated the existence of a threshold below which exposure to ionizing radiation conveys no risk of health effects. By assuming that the risk of health effects at low doses is proportional to the exposure (i.e., doubling the exposure also doubles the risk), regulatory agencies such as EPA and NRC have adopted a prudent approach to establishing standards to protect human health and the environment from the effects of ionizing radiation. EPA typically regulates radiation exposure based on a lifetime cancer risk of 1×10^{-6} to 1×10^{-4} (1 in a million to 1 in 10,000), consistent with its approach for chemical carcinogens. NRC's license termination dose criterion of 25 millirem per year total effective dose equivalent is consistent with the recommendations of advisory bodies such as the International Commission on Radiological Protection to limit exposures to members of the public from individual sources of radiation. Estimated exposures from the alternatives considered in this EIS are presented throughout this document in a manner that allows a comparison with these levels of protection.

Commentor No. 267: Adrian Stevens, Seneca Nation of Indians

WestValleyEIS@wv.doe.gov

From: Anthony Memmo [mailto:anthony.memmo@sni.org]
Sent: Tuesday, September 08, 2009 10:52 AM
To: WestValleyEIS
Cc: Adrian Stevens
Subject: Comments

Hello Cathy, here is a statement form The Seneca Nation of Indians for the extended comment period, Tony.

Response side of this page intentionally left blank.

Commentor No. 267 (cont'd): Adrian Stevens, Seneca Nation of Indians

SENECA NATION OF INDIANS
Environmental Protection Department
84 Iroquois Drive, IRVING, NY 14081 PH: 716-532-2546 FAX: 716-532-8322

Assistant Secretary Ines Triay
Department of Energy

Frank Murray
President, New York Energy Research and Development Authority

In the matter of the extended comment period for the Draft Environmental Impact Statement for the Decommissioning and / or Long Term Stewardship at the West Valley Demonstration Project, the Seneca Nation of Indians would like to enter a comment into the record at this time.

The Seneca Nation of Indians believes the site to be unsuitable for the long term storage of the types of materials present.

267-1

The Seneca Nation of Indians stands by the Council Resolution read into record by Councilor Todd Gates at the March 31st, 2009 public comment meeting held in the William Seneca Building on the Cattaraugus Territory. That Resolution advocates for a Site Wide Removal.

Thank You

Adrian Stevens
Director, Environmental Protection Department
Seneca Nation of Indians

267-1 DOE and NYSERDA acknowledge the commentor's opinion that the WNYNSC site is unsuitable for long-term storage or disposal of wastes and support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response. The resolution read into the record is included as Comment nos. 601-1 through 601-8 in this CRD. Please refer to the responses to that comment document.

Commentor No. 268: Chris Collins, County Executive, County of Erie

COUNTY OF ERIE

CHRIS COLLINS
COUNTY EXECUTIVE

September 9, 2009

Catherine Bohan, EIS Document Manager
West Valley Demonstration Project
US Department of Energy
P.O. Box 2368
Germantown, MD 20874

Dear Ms Bohan:

Erie County, encompassing the City of Buffalo and 43 surrounding Cities, Towns and Villages, is the second largest metropolitan area in New York State. It is home to almost one million residents and is adjacent to Lake Erie, part of the largest fresh water reservoir in the world. Erie County is also adjacent to the West Valley Demonstration Project (WVDP) and the Western New York State Nuclear Services Center.

The US Department of Energy (DOE), in cooperation with the New York State Energy Research and Development Authority (NYSERDA) recently issued a Revised Draft Environmental Impact Statement for Decommissioning and/or Long Term Stewardship at the West Valley Demonstration project and the Western New York Nuclear Services Center (DEIS). The DEIS states that the preferred alternative for the site include decommissioning in two phases including near term removal actions, with decisions on the remainder of decommissioning actions deferred until the completion of further study and evaluation.

As County Executive, it is my duty to state that, due to the sensitive and hazardous nature of the radioactive contaminants at the site and, due to the risks to public health and the environment, the selection of the complete Sitewide Removal should be the preferred alternative and ultimate goal for all actions taken by the DOE at the WVDP. In addition, with the extension of Route 219 and other economic development initiatives in this area, any decision other than complete sitewide removal will indicate a lack of commitment on the part of the DOE, and the site will act as an impediment, rather than a catalyst, for future economic growth.

It is my expectation that the DOE will take this opportunity to make the proper and correct decision to select Sitewide Removal as the preferred alternative for the remediation and restoration of the WVDP site.

Sincerely,

CHRIS COLLINS
Erie County Executive

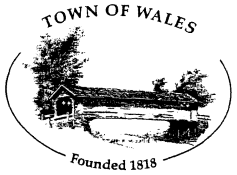
RATH BUILDING • 95 FRANKLIN STREET • BUFFALO, N.Y. • 14202 • (716) 858-6000 • WWW.ERIE.GOV

268-1

268-1 DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. As indicated in the EIS, DOE intends to meet the criteria in the NRC License Termination Rule and/or Final Policy Statement on decommissioning for whichever alternative is selected and implemented. The criteria were developed to provide protection to the public. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Commentor No. 269: Sharon Marfurt, Town of Wales

File, BCB, CRR, MNM, PBU



September 10, 2009

Enclosed is a certified copy of a Resolution adopted by the Wales Town Board at their regular meeting held on September 8, 2009.

Very truly yours,

Sharon Marfurt
Sharon Marfurt
Wales Town Clerk

(451.2.10)
101326

12345 BIG TREE ROAD, P.O. BOX 264, WALES CENTER, NEW YORK 14169-0264 (716) 652-0589

Response side of this page intentionally left blank.

Commentor No. 269 (cont'd): Sharon Marfurt, Town of Wales

TOWN OF WALES

Founded 1818

RESOLUTION ON WEST VALLEY NUCLEAR SITE CLEANUP

Whereas, thirty miles south of Buffalo, NY, the West Valley nuclear waste site, located in Cattaraugus County, is burdened with vast amounts of toxic and radioactive wastes, many of which will remain radioactive for tens of thousands of years, some for millions of years, including plutonium, uranium, strontium-90 and iodine-129, and can cause leukemia and cancer at low doses; and

269-1

Whereas, the site is the nation's only venture into commercial reprocessing of irradiated nuclear fuel, was operated by Nuclear Fuel Services and ended in a total failure in 1976 with the company leaving and passing on cleanup responsibility to the government and taxpayers; and

269-2

Whereas, the site sits on top of a sole source aquifer and has been plagued with problems, such as radioactive contaminated groundwater, and radioactivity from the site has been found as far away as the shore at the juncture of the Niagara River and Lake Ontario demonstrating a potential for the leaking site to contaminate drinking water supplies for millions of people; and

269-3

Whereas, the Department of Energy and NYS Energy Research & Development Authority are proposing to leave buried waste on site, (including high level radioactive waste tanks when such tanks are at the end of their useful lives and could leak contamination at any time), and delay final cleanup decisions for up to 30 years; and

269-4

269-5

Whereas, economists and scientists recently released a first-ever study on the long-term cleanup costs, The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site, funded by a New York State grant sponsored by Senator Catharine Young (R-Olean), and the study was conducted by Synapse Energy Economics, experts from Tufts University, SUNY Fredonia and radioactive Waste Management Associates; and

Whereas, the study investigated the costs of digging up radioactive waste versus leaving waste buried onsite for the next 1,000 years and found that a full waste excavation cleanup costs less, at $9.9 billion, and presents the least risk to the population. Leaving buried waste onsite, which is expensive, at $13 billion, carries high risks, and could also cost an additional $27 billion or more if a catastrophic release of radioactive waste contaminated drinking water supplies; and

269-6

12345 BIG TREE ROAD, P.O. BOX 264, WALES CENTER, NEW YORK 14169-0264 (716) 652-0589

269-1 WNYNSC has inventories of radionuclides and hazardous chemical constituents in the facilities (buildings, lagoons, and waste disposal areas) as well as environmental contamination from past facility operations (e.g., in the North Plateau Groundwater Plume). A description of the facilities and inventories of the radionuclides and hazardous chemical constituents is included in Appendix C of this EIS. This EIS was prepared to evaluate the potential environmental impacts, including impacts from radiological and hazardous chemical constituents, of alternatives for decommissioning and/or long-term stewardship of the site.

The commentor is correct that scientific studies have not clearly demonstrated the existence of a threshold below which exposure to ionizing radiation conveys no risk of health effects. By assuming that the risk of health effects at low doses is proportional to the exposure (i.e., doubling the exposure also doubles the risk), regulatory agencies such as EPA and NRC have adopted a prudent approach to establishing standards to protect human health and the environment from the effects of ionizing radiation. EPA typically regulates radiation exposure based on a lifetime cancer risk of 1×10^{-6} to 1×10^{-4} (1 in a million to 1 in 10,000), consistent with its approach for chemical carcinogens. NRC's license termination dose criterion of 25 millirem per year total effective dose equivalent is consistent with the recommendations of advisory bodies such as the International Commission on Radiological Protection to limit exposures to members of the public from individual sources of radiation. Estimated exposures from the alternatives considered in this EIS are presented throughout this document in a manner that allows a comparison with these levels of protection.

269-2 Chapter 1 of this EIS summarizes the history of WNYNSC. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles.

269-3 Chapter 3, Section 3.6.2.1, of this EIS addresses groundwater at WNYNSC that was contaminated due to past activities (for example, the North Plateau Groundwater Plume). This EIS was prepared to evaluate the environmental impacts of alternatives for decommissioning and/or long-term stewardship of WNYNSC. Under all of the action alternatives, DOE would either remove contamination sources, mitigate their impacts to groundwater, or both. Under the Sitewide Removal and Phased Decisionmaking Alternatives, DOE would remove the source of the North Plateau Groundwater Plume. Potential groundwater impacts associated with the EIS alternatives are discussed in Chapter 4, Sections 4.1.4 and 4.1.10, and Appendix H of this Final EIS.

Commentor No. 269 (cont'd): Sharon Marfurt, Town of Wales

Whereas, scientists found that erosion is powerful and fast moving in the region, and leaving buried waste on site poses a risk to people if controls fail and dangerous radioactive waste pollutes local, regional and international waterways into Lake Erie, the Niagara River and beyond; and

269-7

Whereas, scientists found the site poses a significant danger to people who live along nearby creeks, Buffalo residents and people living along the shores of Lake Erie and Ontario, and if just 1% of radioactivity leaked from the site, lake Erie waters users would be exposed to substantial radiation, causing hundreds of cancer deaths, and Buffalo and Erie County water replacement would cost hundreds of millions of dollars; and

269-8

Whereas, the residents of the Town of Wales, while not currently consumers of Lake Erie water, most probably will be at some point in the future; and

Whereas, scientists and economist concluded that if wastes are left buried at west Valley and a release occurs, it can have expensive and disastrous consequences irreparably contaminating the precious Great Lakes region, and the costs of maintaining buried waste in an attempt to thwart future disaster will be far more expensive and far more risky than excavating the radioactive waste which is the safest, precautionary approach.

269-9

Now Therefore, Be it Resolved that the Town Board of the Town of Wales supports the full cleanup of the entire West valley nuclear waste site (also known as the Western NY Nuclear Service Center & Demonstration Project) through waste excavation; and

Be It Further Resolved, that the Town Board of the Town of Wales supports cleanup standards that are at least as protective as current state radiation standards and unrestricted use toxic standards, and are fully protective of vulnerable populations, including children, fish wildlife and water, and

269-10

Be it further Resolved, copies of this Resolution are to be sent to:

Joanne Hameister, Chair
Steering Committee
1051 Sweet Road
East Aurora, NY 14052

Chad Glenn, Project Manager
NRC MS T-7-F27
11555 Rockville Pike
Rockville, MD 20852

Bryan Bower, DOE Director
Dept. of Energy
West Valley Demonstration Project
10282 Rock Springs Road
West Valley, NY 14171-9799

Paul Bembia, Program Director
NYS Energy Research & Development
West Valley Demonstration Project
10282 Rock Springs Road
West Valley, NY 14171-9799

Tim Rice, Division of Solid &
Hazardous Materials NYSDEC
625 Broadway, 9 Floor
Albany, NY 12233-7255

Gary Baker
NYS Dept. of Health
217 South Salina St.
Syracuse, NY 13202

The contamination at the juncture of the Niagara River and Lake Ontario was the result of releases from the site when reprocessing operations were in progress. The environmental contamination from current operations is minimal (below established standards), as demonstrated by the results from the ongoing environmental monitoring program.

269-4 Some of the alternatives evaluated in this EIS, including the Preferred Alternative (Phased Decisionmaking), could result in some facilities and waste remaining on the site, including the high-level radioactive waste tanks. Under the Phased Decisionmaking Alternative, action would be undertaken during Phase 1 for all facilities except the Waste Tank Farm, NDA, SDA, and Construction and Demolition Debris Landfill. Options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close in place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. DOE is required by the West Valley Demonstration Project Act to decontaminate and decommission the waste storage tanks and facilities used to solidify high-level radioactive waste, as well as any material and hardware used in connection with the WVDP, in accordance with such requirements as NRC may prescribe.

DOE recognizes and has been managing the hazard associated with the underground tanks in the Waste Tank Farm. Following removal and solidification of the majority of the Waste Tank Farm inventory, DOE has developed and is implementing actions to reduce the potential for a leak from the underground tanks. Specifically, it is working to install a tank and vault drying system designed to dry the liquid heel remaining in the waste tanks. The installation of this system and the drying of the tank inventories is part of the Interim End State or EIS starting point. In addition to drying the tanks to reduce the potential for a leak, DOE operates the groundwater pumping system that reduces groundwater seepage into the tank vaults while still maintaining a hydraulic gradient so that any liquid flows into, rather than out of, the vault system. DOE also maintains the tank leak detection equipment located in the tank pans and vaults and regularly samples the monitoring wells surrounding the tank vaults to ensure no leakage into the groundwater. Mitigation measures would be taken if any leakage were detected. It should be noted that none of the high-level waste tanks has ever leaked. While there is no quantitative estimate of risk from the tanks while the contents are being dried, it is clear that the risks are being

Commentor No. 269 (cont'd): Sharon Marfurt, Town of Wales

This is to certify that I, Sharon Marfurt, Clerk of the Town of Wales, have compared the above excerpts to the original minutes of the Wales Town Board meeting held on September 8, 2009 and that the above is a true and correct transcript of such original.

In witness whereof, I have set my hand and affixed the seal of said Town of Wales this 10th day of September, 2009

Sharon Marfurt

Sharon Marfurt, Wales Town Clerk

further reduced by tank drying. Additionally, much of the residual contamination in the tanks is attached (i.e., "fixed") to metal surfaces and is not readily mobile.

269-5 Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed the Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making the Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that the Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement if the Phased Decisionmaking Alternative is selected.

269-6 DOE and NYSERDA are aware of the report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., including the three appendices, and it has been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for a discussion of the report's issues and DOE's and NYSERDA's response.

269-7 DOE and NYSERDA recognize that erosion is a concern and have addressed it in detail in this EIS. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F. In addition to the previously cited Issue Summaries, please see the Issue Summary for "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

269-8 DOE and NYSERDA note that the impacts of a release of 1 percent of the site radioactivity referred to by the commentor are taken from the *Synapse Report*. Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2

Commentor No. 269 (cont'd): Sharon Marfurt, Town of Wales

of this CRD for a discussion of the report's issues and DOE's and NYSERDA's response. See also the response to Comment no. 269-7 regarding the long-term impacts analysis addressed in this EIS.

269-9 The conclusions referenced in the comment are taken from the *Synapse Report*. As noted above, please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for a discussion of the report's issues and DOE's and NYSERDA's response.

269-10 DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Agency actions will comply with the applicable cleanup and decommissioning criteria for WNYNSC that are embodied in Federal and New York State environmental, safety, and health regulatory requirements promulgated under various statutory authorities (see Chapter 5 of this Final EIS). As summarized in Chapter 1, Section 1.3, of this EIS, these regulatory requirements include RCRA permitting and corrective actions under New York State and/or EPA requirements, decommissioning according to NRC requirements in its License Termination Rule, and EPA assessments of compliance with National Emission Standards for Hazardous Air Pollutants.

Campaign A

(1.) Complete removal NOW of the radioactive material at West Valley. ***A-1***

(2.) An extension of the deadline to file objections from June 8, 2009 to December 2009." ***A-2***

A-1 DOE and NYSERDA acknowledge the commentors' preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

A-2 In response to requests from the public, DOE and NYSERDA extended the original 6-month comment period (required by the 1987 Stipulation of Compromise Settlement between the Coalition on West Valley Nuclear Wastes and Radioactive Waste Campaign and DOE) for an additional 90 days, through September 8, 2009.

Campaign A (cont'd)

Individuals submitting this campaign:

Anthony Agnello
Joe Agnello
Grace Modica Amore
Lukia Costello
Paul Lefebvre
Jake Mabee
L. Rigo
Orlando Rigo
Michael Sobczyk
David Wollaber

Response side of this page intentionally left blank.

Campaign B

NEW YORK INTERFAITH POWER & LIGHT
57 Hillside Terrace
Irvington, New York 10533
Office Phone: (914) 231-5094
Mobile Phone: (914) 325-0058
E-mail: nscod@earthlink.net
Website: www.nyipl.org

June 2, 2009

Catherine Bohan, EIS Document Manager
West Valley Demonstration Project
U.S. Department of Energy
P.O. Box 2368
Germantown, MD 20874

Dear Ms. Bohan:

We humans have a moral obligation to care for God's good creation and to clean up our mess before handing the work off to our descendents.

Therefore, we are writing you in support of the Sitewide Removal Alternative (full waste excavation cleanup) for the West Valley Demonstration Project (WVDP) as described in the Draft Environmental Impact Statement issued by the DOE and the NYS Energy & Research Authority in December, 2008. ***B-1***

We oppose the Preferred Alternative because it would delay the final cleanup decision for the majority of the wastes for another 30 years, leaving most of the nuclear waste on the site. ***B-2***

Such delay is irresponsible because the DOE knows now what needs to be done. The site is geologically unstable, featuring significant surface erosion. The WVDP has found nuclear waste contaminating the ground water in a plume that is moving toward the local streams. Radioactivity from the site has been found already at the juncture of the Niagara River and Lake Ontario. The work to be done is clear, and any delay in the decision process simply exacerbates known threats to human health and safety. ***B-3***

Therefore, we support the Sitewide Removal Alternative because it provides a permanent and safe solution and removes the radioactive waste from an unstable site with serious erosion problems and provides the most cost-effective approach, according to a recent independent study (see The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site). ***B-1 cont'd***

The choice of the Sitewide Removal Alternative empowers the DOE with a clear directive: to focus *now* on excavating all nuclear wastes and preparing them properly for eventual storage at a safe location. To do otherwise is immoral and shirks our responsibility to both present and future generations.

Sincerely,

Nicola Coddington
Executive Director
cc: Congress, President Obama

~ Printed on 100% Post Consumer Waste (PCW), 100% Processed Chlorine Free (PCF) paper ~

B-1 DOE and NYSERDA acknowledge the commentors' preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement.

DOE and NYSERDA have reviewed *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Site (Synapse Report)* by Synapse Energy Economics, Inc., and have addressed this report in this CRD consistent with the Council on Environmental Quality's NEPA regulations. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

B-2 DOE and NYSERDA acknowledge the commentor's opposition to the Preferred Alternative, Phased Decisionmaking. Note that the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

B-3 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are

Campaign B (cont'd)

Individuals submitting this campaign:

Geri Chapman Aird
Joanne Macleod Bartlett
Mary Louise Berg
Janita K. Byars, Ed. D.
Craig C. Chapman
Nicola Coddington
Joyce L. Dailey
Fanne M. Divine
Gladys Gifford
Jean B. Harper
L. Hayms
Elaine Hotelling
Jeanne Kelly
Marilyn Koszarek
Connie M. Lockwood
Esther M. Lunde
Mary Ann Mache
Ken and Phyllis Margrey
Mary Myers
New York Interfaith Power and Light
Gladys Newton
Priscilla O'Brien
Marilyn H. Plache
Richard Weiskopf MD
Presbyterian Women of Western New York
Elaine Swaine
Patricia K. Townsend

discussed in Appendix F. In addition to the previously cited Issue Summaries, please see "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

The contamination at the juncture of the Niagara River and Lake Ontario was the result of releases from the site when reprocessing operations were in progress. The environmental contamination from current operations is minimal (below established standards), as demonstrated by the results from the ongoing environmental monitoring program.

Regarding the additional topics included in this comment, please see the Issue Summaries cited above in the response to Comment no. B-1, as well as "the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Campaign C

I strongly urge the Department of Energy and the NYS Energy Research & Development Authority to select the Sitewide Removal Alternative as it is a complete waste excavation and clean up of the West Valley nuclear site. A complete cleanup is much safer because it eliminates the potential for further environmental contamination and health impacts.

I oppose any option which would leave radioactive waste buried on the site, included preferred Phased Decision Making Alternative. This preferred plan cleans up too little of the dangerous radioactivity on site. This is completely unacceptable as it could lead to further contamination of adjacent waterways, the Great Lakes.

I strongly recommend that the DOE and NYSRDA select the Sitewide removal alternative (Complete Excavation and Clean up) as it is the ONLY approach that will protect the precious Great Lakes of Erie and Ontario.

We have an obligation to our children, families, communities our country to keep this valuable natural resource clean and safe for the future generations.

C-1

C-1 DOE and NYSERDA acknowledge the commentors' support for the Sitewide Removal Alternative and opposition to any alternative that would leave waste on site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Campaign C (cont'd)

Individuals submitting this campaign:

Ken Ahlstrom
Jane Chew
Jack Jordaan
Rosa Rojas
Don Shelters
Angela Steward

Response side of this page intentionally left blank.

Campaign D

May 17, 2009

Catherine Bohan, EIS Document Manager
West Valley Demonstration Project
U.S. Department of Energy
P.O. Box 2368
Germantown, MD 20874 (Fax 866-306-9094)

Dear Ms. Bohan:

The Jewish and Christian scriptures teach us that "The earth is the Lord's and all that is in it" (Psalm 24:1). This means that we have a moral obligation to care for God's good creation and to clean up our mess before handing the work off to our descendents.

Therefore, I am writing you in support of the Sitewide Removal Alternative (full waste excavation cleanup) for the West Valley Demonstration Project (WVDP) as described in the Draft Environmental Impact Statement issued by the DOE and the NYS Energy & Research Authority in December, 2008. ***D-1***

I oppose the Preferred Alternative because it would delay the final cleanup decision for the majority of the wastes for another 30 years, leaving most of the nuclear waste on the site. ***D-2***

Such delay is irresponsible because the DOE knows now what needs to be done. The site is geologically unstable, featuring significant surface erosion. The WVDP has found nuclear waste contaminating the ground water in a plume that is moving toward the local streams. The work to be done is clear, and any delay in the decision process simply exacerbates known threats to human health and safety. ***D-3***

Therefore, I support the Sitewide Removal Alternative because it provides a permanent and safe solution and removes the radioactive waste from an unstable site with serious erosion problems and provides the most cost-effective approach, according to a recent independent study, (see *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site*). ***D-1 cont'd***

The choice of the Sitewide Removal Alternative empowers the DOE with a clear directive: to focus now on excavating all nuclear wastes and preparing them properly for eventual storage at a safe location.

Sincerely yours,

D-1 DOE and NYSERDA acknowledge the commentors' preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement.

DOE and NYSERDA have reviewed *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Site (Synapse Report)* by Synapse Energy Economics, Inc., and have addressed this report in this CRD consistent with the Council on Environmental Quality's NEPA regulations. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

D-2 DOE and NYSERDA acknowledge the commentors' opposition to the Preferred Alternative, Phased Decisionmaking. Note that the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

D-3 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling

Campaign D (cont'd)

Individuals submitting this campaign:

Joanne Alderfer
Neil Arnold
Kerri Bigler
Charlotte M. Boyer
Susan D'Angelo
William M. DiRoo, Ph.D.
Ann J. Eisenlord
Edward R. Eisenlord
Marlene Harrington
Shelby A. Harrington
Betty Heckman
Beth Hennessy
William T. Hennessy
Elaine C. Hurst
Mary Jane Kibby
Janet Maggio
Byron Moehlhe
Martha Shafer
Lauren Stirling
William Townsend
Jeffrey Weaver

are discussed in Appendix F. Please see the Issue Summary for "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

The contamination at the juncture of the Niagara River and Lake Ontario was the result of releases from the site when reprocessing operations were in progress. The environmental contamination from current operations is minimal (below established standards), as demonstrated by the results from the ongoing environmental monitoring program.

Regarding the additional topics included in this comment, please see the Issue Summaries cited above in the response to Comment no. D-1 and the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Campaign E

I support a Great Lakes-protective cleanup with full waste excavation for the West Valley site. Scientists found that over time leaking nuclear waste from the site can pollute Lakes Erie and Ontario and harm public health and the economy in the U.S. and Canada.

E-1

E-1 DOE and NYSERDA acknowledge the commentors' preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes," "Conclusions of the *Synapse Report*," and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues, including potential impacts on Great Lakes water users, and DOE's and NYSERDA's responses.

Campaign E (cont'd)

Individuals submitting this campaign:

Dinda Evans
Bonnie Faith-Smith
Mark M. Giese
Patricia Murphy
Thomas Nelson
Christine Pasmore

Response side of this page intentionally left blank.

Campaign F

August 7, 2009

Catherine M. Bohan
EIS Document Manager
West Valley Demonstration Project
US Department of Energy
PO Box 2368
Germantown, MD 20874

Re: Draft Decommissioning and/or Long term Stewardship West Valley EIS Comments

Dear Ms Bohan,

I strongly urge the Department of Energy and the NYS Energy Research & Development Authority to select the Sitewide Removal Alternative, as it is a complete waste excavation and cleanup of the West Valley nuclear site. A recent independent study, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Site*, found that complete excavation and cleanup is actually less expensive than trying to contain radioactivity over long time periods, $10 Billion versus $13-27 Billion. Erosion could result in catastrophic releases of radioactivity and could cost over $27 billion dollars to provide alternate sources of drinking water. A complete cleanup is much safer because it eliminates the potential for further environmental contamination and health impacts. Sitewide Removal is also the only alternative adequately studied and disclosed to the public in the Environmental Impact Statement, EIS. ***F-1***

I oppose any option leaving radioactive waste buried on the site, including the preferred Phased Decision Making Alternative. This preferred plan cleans up too little of the dangerous radioactivity on site, only about 1%, delays a decision on the other 99% for 30 more years and leaves the public out of the final decision-making. This is completely unacceptable as it could lead to further contamination of adjacent waterways, the Great Lakes, and drinking water impacting public health. ***F-2***

The site has been plagued with problems, such as radioactive contaminated groundwater, severe erosion and radioactive migration. It sits on top of a sole-source aquifer. Controls at the site have failed to contain radioactive contamination in the past, yet instead of ACTION NOW, more delay and inaction are being proposed. ***F-1 cont'd***

I strongly recommend that the DOE and NYSERDA select the Sitewide Removal Alternative (Complete Excavation and Cleanup) as it is the only approach that will protect the precious Great Lakes of Erie and Ontario arguably are most valued resource in Western New York.

I am attaching a penny to this letter because a 1% cleanup won't protect the Great Lakes, a priceless freshwater resource. Leaving 99% of the dangerous radioactive waste in the ground at West Valley jeopardizes our health and that of future generations. A penny represents this unacceptable 1% cleanup.

F-1 DOE and NYSERDA acknowledge the commentors' support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement.

DOE and NYSERDA have reviewed *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Site (Synapse Report)* by Synapse Energy Economics, Inc., and have addressed this report in this CRD consistent with the Council on Environmental Quality's NEPA regulations. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. Please see "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

F-2 It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Campaign F (cont'd)

2

I am attaching a Penny here to emphasize—***1 percent cleanup is NOT ENOUGH***

Please add your own additional comments here

Sincerely,

Signature

Printed Name

Full Address

[[You may also submit comments by email-- go to www.westvalleyeis.com]]

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

Campaign F (cont'd)

As the saying goes, pay me now or pay me later. I'd rather pay now for a full clean up.

For the sake of our most valuable resources, which make this country so great, please seriously consider a full clean up at the West Valley nuclear site.

Sincerely,

Larry V. Snider
69 Burdette Drive
Cheektowaga, New York 14225
(716) [redacted]

F1-1

Please add your own additional comments here:

The flood of Aug 9 greatly eroded the land around West Valley, increasing instability of the site, and increasing worries about nuclear contamination of our Great Lakes. Please clean up all 100% of West Valley NOW!! Thank you!
Sincerely,

Signature Ann Ingleman

Printed Name Ann Ingleman

Full Address 123 Thistle Lea
Williamsville, N.Y. 14221

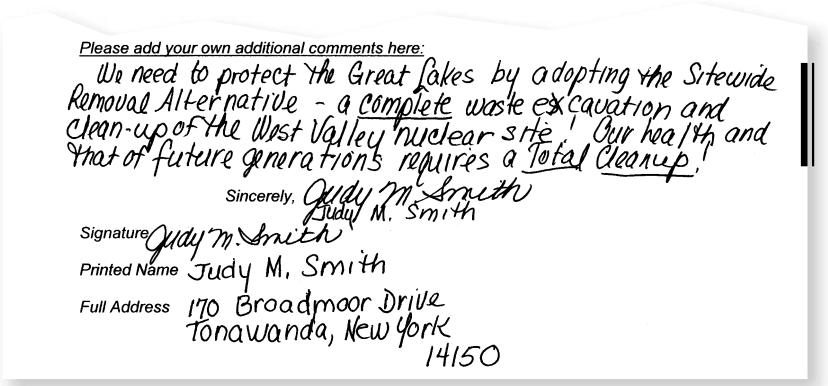
F2-1

F1-1 DOE and NYSERDA acknowledge the commentors' support for the Sitewide Removal Alternative. The decisions on the selected course of action and supporting rationale will be provided in DOE's Record of Decision and NYSERDA's Findings Statement. DOE and NYSERDA have reviewed *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Site (Synapse Report)* by Synapse Energy Economics, Inc., and do not agree with its conclusions. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. In addition to the previously cited Issue Summary, please see "Questions about Long-term Erosion Modeling."

F2-1 Please see the responses to Comment nos. F-1 and F-2. Note that the revised erosion prediction used for the unmitigated erosion dose analysis addressed in the response to Comment no. F-1 is based on the assumption that storms could occur more frequently than indicated by current records. This prediction includes the effects of storms of greater severity than the one that occurred in the region on August 2009. The use of this higher erosion rate associated with an elevated precipitation rate is discussed in Appendix H, Section H.2.2.1. Chapter 4, Section 4.3.5, has been revised to include a discussion of how the uncertainties about future climate change are addressed in this EIS. Also, see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD.

Campaign F (cont'd)



Please add your own additional comments here:

We need to protect the Great Lakes by adopting the Sitewide Removal Alternative - a complete waste excavation and clean-up of the West Valley nuclear site. Our health and that of future generations requires a Total Cleanup.

Sincerely, Judy M. Smith
Judy M. Smith

Signature Judy M. Smith

Printed Name Judy M. Smith

Full Address 170 Broadmoor Drive
Tonawanda, New York
14150

F3-1

F3-1 Please see the responses to Comment no. F-1. Also, see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD.

Campaign F (cont'd)

Individuals submitting this campaign:

Jacob Bajdas
Crystal Dunning
Catherine Glasgow
Ann Ingleman
Elizabeth J. McGowan
Judy M. Smith
Larry V. Snider
Karilyn Valesko
Rebekah A. Williams

[Note: 10 additional names included in campaign but asked not to be published]

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Campaign G

I strongly urge the Department of Energy and NYS Energy Research & Development Authority to select the Sitewide Removal Alternative as it is provides a full cleanup for the West Valley nuclear waste site. Sitewide Removal is the safest solution by ultimately removing radioactive waste from an unstable site with serious erosion problems. It is the only alternative that will prevent catastrophic releases which can cause severe damage to communities, drinking water supplies and Lakes Erie and Ontario. *G-1*

I oppose any option which would leave radioactive waste buried on the site, including the preferred Phased Decision Making Alternative. All of the new cleanup work under this alternative addresses only 1.2% of the total radioactivity on the site, leaving decisions on the vast majority of the waste to be made over 30 years posing an unacceptable delay. Leaving wastes buried onsite does not protect the environment due to serious erosion problems, and it poses a significant risk to New Yorkers if controls fail and waste pollutes drinking water. The site sits on top of a sole-source aquifer and has been plagued with problems, such as radioactive contaminated groundwater. *G-2* *G-3*

I strongly recommend that the Final Environmental Impact Statement select the Sitewide Removal Alternative as it is the only remedial approach that will protect the precious Great Lakes of Erie and Ontario.

Thanks for considering my views.

G-1 DOE and NYSERDA acknowledge the commentors' support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses..

G-2 It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

G-3 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds

Campaign G (cont'd)

Individuals submitting this campaign:

Dawn M. Bartlett
Zachary Bernstein
Kenneth L. Bird
Edward Butler
Marjorie Campaigne
Barbara A. Carder
Sister James Christopher
Barbara Chutroo
Gerarda E. Cook
Anne Crowen
Heather Derrah
Lee Diggs
Janet M. Donovan
Ken Dow
Roseanne Duffy
Margaret Faney
Sister Patricia C. Fielese
Sister Concilia Flaherty
Bobbie Dee Flowers
Edgar Freud
Carolyn Friedman
Sarah Gallagher
Elaine Gardner
Rose M. Gilmore
Megan M. Gregory
Carl Gutman
H D
Eric S. Hahn
David Hermanns
Sister Kathleen F. Hove
J. Y.
Teresa M. Joyce
Therese Joyce
Harvey Kaiser
Judith Karpova
Sister Mary Ellen Keady
Sister Ann Kelly
Shelly Kerker
Julie Parisi Kirby
Donna Knipp
James Kricker
Tom Kunz
Mary Lou Lafferty
Mary Laffey
Rebecca Landy
Cecile Lawrence
Gerson & Debbie Lesser
Gerson Lesser, MD
Rose Marie Lucente
Margaret Mahoney
James Mammarella
Sister Ann Peter Matt
Kelly Maurer
Virginia May
Clare McMaster
Suku Menon
Annette Merio
Irene Marie Mulholland
Jean Marie Naples
Sharon L. O'Neil
S. Perrin
Suz Perrin
Debbie Peters
Kate Pilletteri
Anna Rathmeir
Jen Savage
Agnes A. Scanlan
Sister Ellen Michael Schafa
Mariam R. Schneible
Melissa Scholl
Olga Sekulich
Stephen Merrill Smith
Barry Spielvogel
Robert Tell
Rita Tomasulo
Christine Vogel
Teresa A. Waldron
Paul F. Walker
Paul Walker
Elinor Weiss
Eric Wessman

of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. Please see "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Campaign H

September 2, 2009

Dear Secretary Chu,

I am a person of faith, a member of the Franciscan Sisters of St. Joseph and an American citizen. I believe it is essential that our government acts responsibly in its decision to cleanup West Valley nuclear waste site. I strongly recommend that the Department of Energy and New York State Energy and Research and Development Authority select Site-wide Removal Alternative. Site-wide Removal provides the safest solution by ultimately removing all radioactive waste from the unstable erosion problems as soon as possible. This prevents catastrophic releases which very likely could cause severe damage to the major source of fresh water in the nation, the Great Lakes.

I oppose the Phased Decision Making Alternative option which would leave radioactive waste buried on the site for possibly 30 years before clean up would happen.

I strongly urge the Department of Energy and New York State Energy Research & Development Authority to select the full cleanup of the West Valley nuclear waste site as outlined in the Site-wide Removal Alternative. Site-wide Removal is the safest solution because it removes radioactive waste from an unstable site with serious erosion problems. It is the only alternative that will prevent catastrophic releases which can cause severe damage to communities and the fresh water supplies of the Great Lakes, especially Lake Erie.

The only answers to the questions of how much of the nuclear waste at West Valley site should be removed and when should it be removed are the moral answers - all of it should be removed and remove it now

Sincerely,

5286 South Park Avenue
Hamburg, NY 14075

H-1

H-1 DOE and NYSERDA acknowledge the commentors' support for the Sitewide Removal Alternative and opposition to the Phased Decisionmaking Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement.

The Final EIS analyzes the long-term (over several hundreds of years) consequences of unmitigated erosion for local as well as Lake Erie and Niagara River water users. The estimated human health impacts for the unmitigated erosion scenario are presented in Chapter 4, Section 4.1.10.3.3, of this EIS. The development of the erosion predictions used in the analysis is discussed in Appendix F. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

Campaign H (cont'd)

Individuals submitting this campaign:

Sister Emily T. Bloom
Sister Jean Cherry
Sister M. Genevieve
Sister Sharon Goodremote
Sister Joyce Kubiniec
Sister Marvina Kupiszewski
Sister M. Odilia Majcher
Sister Frances Angela Olszewski
Sister Martha Olszewski
Sister Helen Therese Pels
Sister Judith E. Salzman
Sister Catherine Smith
Sister Marie Stachowiak
Sister Mary Telesphore
Sister Anzelma Thomas
Sister M. Regis Zboch

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- -

WEST VALLEY DRAFT EIS

PUBLIC HEARING

Crowne Plaza Hotel

Albany, New York

March 30, 2009

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CORRECTED TRANSCRIPT
MAY 20, 2009

FORMAL COMMENT PERIOD

BRYAN BOWER	West Valley Program Director, Department of Energy
PAUL BEMBIA	West Valley Program Director, NYSERDA
CATHY BOHAN	EIS Document Manager, Department of Energy
LINDA ROBINSON	Moderator

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REPORTED BY: MARLENE K. PRESSMAN

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FORMAL PUBLIC COMMENTS

MODERATOR ROBINSON: So we will move right on then to the public comment part of the meeting. I will remind you that the subject matter experts that were outside earlier will still be available after this meeting if you decide you have a question later.

Now that we're in the next phase, keep in mind that comments given during this segment will not be responded to here tonight but will be taken into account in the Final Environmental Impact Statement in the Comment Response Document portion of it.

Cathy Bohan represents DOE, and Paul Bembia represents NYSERDA, and they will be listening and accepting your comments. I ask that you direct your comments to them.

The court reporter here is Marlene, and her objective is to produce a complete and accurate transcript of the oral comments tonight. Verbatim transcripts will be included in the Comment Response portion of the Final Environmental Impact Statement.

I now will call on commentors in the

Response side of this page intentionally left blank.

order registered. I have a list right here. I'll name two people at a time so that the second person can realize they're going to be up soon, and when it's your turn, please go to the microphone to speak. I believe it's been turned on. If not, we'll check it. The first person up, tap it, and we'll be sure it's turned on.

You may give your name and your organization that you represent, if any, so that the court reporter can hear it. If you speak for as long as four minutes, I will hold up this card (indicating) at the end of your four minutes to let you know you've done that and to remind you to wrap up within the next one minute. After that time I will ask you to cease speaking, though you could come back later. If you also have written comments, you're welcome to turn them into the registration desk. Some people bring written of the same thing that they're reading, and we will accept them both.

I have a stopwatch, so I'll be timing with it, using my red card.

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Comments from the Albany, New York, Public Hearing (March 30, 2009)

The first two people signed up to speak will be Barbara Warren, followed by William Cooke.

So, Barbara Warren, I welcome you.

MS. WARREN: Good evening. My name is Barbara Warren. I'm Executive Director of the Citizens' Environmental Coalition.

In December we released an independent, state-funded study, "The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for West Valley." That study revealed leaving buried waste at the site is both high risk and expensive, while a waste excavation cleanup presents the least risk and the lowest cost. Over 1,000 years, waste excavation costs between 9.7 and 9.9 billion, while leaving dangerous buried radioactive waste onsite costs 13 billion to 27 billion if a catastrophic release occurred. We are putting that full report into the record. I have that with me. I'll provide that to you for the hearing.

The Full Cost Accounting Study analysis is actually supported by the extensive

501-1

501-1 The report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., including the three appendices, has been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for discussion of the report's issues and DOE's and NYSERDA's response.

comments of NYSERDA in the Foreword to the Environmental Impact Statement. There NYSERDA questions the long-term analyses done by DOE saying they are seriously flawed and scientifically indefensible, and, therefore, cannot be relied on for predicting public radiation doses.

I want to talk to you about toxic assets. The recent debacle of the financial industry has resulted in lots of talk about toxic assets and what to do about them. Several trillion dollars have been allocated to restoring the soundness of financial institutions because of these so-called toxic assets. Well, at West Valley we have the real deal. We have real toxic assets, and the government must find the money to dig them up and safely contain them for thousands of years. Whatever the cost, it's the government's responsibility to do so. Leaving the buried waste in the ground to leach into the sole source aquifer or to be released catastrophically by the forces of erosion and contaminating the Great Lakes is unacceptable. Fully cleaning up the

5

501-2

501-3

501-2 DOE disagrees with many of the points raised in NYSERDA's View, which is included as the Foreword to this EIS. At the core, differences between DOE and NYSERDA center on different views about the nature of analysis required for an EIS and the attendant level of acceptable risk associated with any uncertainties in that analysis as it relates to decisionmaking. DOE believes the analysis in this EIS meets the requirements of NEPA and SEQR in that, when there is incomplete or unavailable information relevant to reasonably foreseeable significant adverse environmental impacts, this EIS (1) acknowledges the information limitation and its relevance to environmental consequence, (2) summarizes existing credible scientific evidence, and (3) presents an analysis using a theoretical approach that is generally accepted by the scientific community involved in such analyses. This Final EIS contains text boxes in the relevant subject matter areas that acknowledge the differences of opinion between DOE and NYSERDA. In general, DOE's position is that the Agency spent much time and effort engaging highly qualified and respected experts in hydrology and hydrological transport, landscape evolution (erosion), human health and environmental risk analysis, and other technical fields, and stands behind the analyses performed for this EIS.

501-3 Regarding funding of cleanup at WNYNSC, this EIS was prepared to evaluate the environmental impacts of the alternatives for decommissioning and/or long-term stewardship of WNYNSC, a legally required step to support a decision on a course of action. The U.S. Congress and the President are responsible for establishing funding levels for various Federal Government programs, while the New York State Legislature and the Governor are responsible for establishing funding levels for state government programs. Implementation of decisions made in DOE's Record of Decision and NYSERDA's Findings Statement is contingent on the level of funding allocated.

The preliminary cost-benefit analysis presented in Chapter 4, Section 4.2, of the Revised Draft EIS was prepared at NRC's request and in a manner consistent with NRC's as low as is reasonably achievable (ALARA) guidance. The analysis was updated and clarified in this Final EIS. If cost-benefit considerations are part of

radioactive waste at West Valley sounds like a bargain, in fact, at under $10 billion when compared to over a hundred billion that's been given to individual banks.

We want to remind you that prevention is usually a fraction of the cost of response, remediation and cleanup. Protecting New Orleans from storms and flooding would have prevented hundreds of billions of dollars in damages from Hurricane Katrina. Your use of cost-benefit analysis undervalues all prevention activities, which prevent future harm.

Tonight I'm going to focus on some of the major problems with the EIS and the Decommissioning Plan, particularly the Preferred Alternative, or "1 Percent Solution," as we are now calling it. Phase 1 will handle just 1.2 percent of the buried radioactive waste on site. The other 99 percent of the radioactivity will possibly be dealt with 30 years from now in Phase 2, but we know almost nothing about Phase 2. If they only do one percent of the radioactivity in each Phase, we might need

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501-3 cont'd

501-4

the basis for agency decisionmaking, this will be acknowledged and discussed in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the "Questions about Cost-Benefit Analysis" Issue Summary in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

501-4 It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (please also see the response to Comment no. 501-8).

another 99 Phases to complete the cleanup.

Now, I want to turn to what an Environmental Impact Statement should contain. It should have three major and essential elements:

One, it should be a complete plan or a project, and it should have full public disclosure. An EIS should start with a complete plan or project and then fully describe and disclose all the elements of that project.

Two, it should identify all the potential environmental impacts and then fully analyze all of those impacts.

A legitimate public process with information made available and an adequate opportunity for the public to influence the decisions that are made.

Unfortunately, we have very incomplete plans for all of the alternatives except for one, sitewide removal. The preferred alternative with its two phases is the most incomplete of the plans. The major areas of incompleteness include:

One, monitor the containment and leaks.

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501-4 cont'd

501-5

501-6

501-5 DOE and NYSERDA believe that this EIS complies with the requirements of NEPA and SEQR.

1. This EIS has been prepared in accordance with the requirements of NEPA and SEQR. DOE and NYSERDA have prepared this single, comprehensive EIS for the decommissioning and long-term stewardship of WNYNSC. As required by NEPA and SEQR, it analyzes the environmental impacts of a broad spectrum of reasonable alternatives that meet the respective purposes and needs of DOE and NYSERDA (Sitewide Removal, Sitewide Close-In-Place, and Phased Decisionmaking), as well as the No Action Alternative. A detailed work plan is not required to complete an EIS, and normally is not developed until a decision is made.

2. This EIS adequately analyzes the totality of environmental impacts, including costs, for the identified alternatives. These impacts are presented in Chapter 4 of this EIS.

3. The public comment process for this EIS meets the requirements of NEPA and SEQR. The Revised Draft EIS was issued for public review and comment on December 8, 2009. DOE's Notice of Availability announced a 6-month public comment period (required by the 1987 Stipulation of Compromise Settlement between the Coalition on West Valley Nuclear Wastes and Radioactive Waste Campaign and DOE) and three public hearings. In response to requests from the public, DOE and NYSERDA extended the original public comment period for an additional 90 days, through September 8, 2009. An additional public hearing was held in Albany, New York, and the hearing originally scheduled for Blasdell, New York, was moved to a more central downtown Buffalo, New York, location. DOE and NYSERDA held the public hearings to provide interested members of the public with opportunities to learn more about the content of the Revised Draft EIS from exhibits, factsheets, and other materials; to hear DOE and NYSERDA representatives present the results of the EIS analyses; to ask clarifying questions; and to provide oral or written comments. A website (http://www.westvalleyeis.com) was established to further inform the public about the Revised Draft EIS, how to submit comments, the public hearings, and other pertinent information. Comment submission mechanisms and public hearing dates, times, and locations were announced in the *Federal Register* and New York State Environmental Notice Bulletin notices, in local newspapers, and on the website. Members of the public who expressed interest and are on the DOE and NYSERDA mailing list for the

1 There is no detailed description of
2 monitoring, no disclosure to the public, no
3 assessment of the environmental impacts
4 associated with the failure to identify a
5 containment failure, and as a result, no
6 legitimate public process for this critical
7 element.
8 All of the alternatives that leave
9 buried radioactive waste materials on site
10 require ongoing monitoring to ensure that
11 containment is maintained and dangerous
12 radioactive materials are not contaminating
13 ground and surface water and spreading off
14 site. In the case of the sitewide removal
15 alternative, we are told that all
16 contamination will be removed, so there is
17 no need for monitoring. In the case of all
18 the other alternatives, monitoring is not
19 described. Monitoring is an essential
20 element of long-term containment and
21 control. An inadequate monitoring plan can
22 result in widespread contamination and
23 jeopardize public health. In other words,
24 it could have serious environmental impacts.
25 Therefore, a detailed monitoring plan should

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501-6 (cont'd)

Revised Draft EIS were notified by U.S. mail regarding hearing dates, times, and locations.

501-6 As acknowledged in this EIS, long-term monitoring and maintenance would be implemented for alternatives that would leave waste on site. This EIS provides a summary description of current and potential future environmental monitoring programs. The descriptions of the alternatives were revised to further describe the use of engineered barriers and long-term monitoring and maintenance. Long-term monitoring and maintenance are described in Chapter 2, Sections 2.4.2.6 and 2.4.3.8. Long-term monitoring and institutional controls are also discussed in Chapter 6. Additional information about current and proposed monitoring and institutional controls is provided in Appendices C, H, and I. Chapter 2, Table 2–4, includes estimates of the environmental consequences if (1) monitoring and maintenance are successful (institutional controls remain in place) and (2) monitoring and maintenance programs fail (institutional controls are lost). Chapter 4, Section 4.2, of this EIS includes monitoring and maintenance costs for the alternatives that would leave waste on site.

Detailed information regarding long-term monitoring and maintenance programs and institutional controls under alternatives that would leave waste on site has not been specifically defined at this time. Such definition would occur after an alternative is selected for implementation and would include consultation with appropriate regulatory authorities.

have been disclosed to the public in the EIS so we could comment on its adequacy and the potential impacts of an inadequate monitoring plan analyzed. As a result, the EIS is seriously flawed.

That's just one of the problems, and I'll finish later.

MR. COOKE: I would like to yield two minutes of my time to Barbara. She can continue. Point of order.

MODERATOR ROBINSON: I will offer it to Barbara.

MR. COOKE: Thank you.

MODERATOR ROBINSON: Are you certain?

MR. COOKE: I'm so certain.

MODERATOR ROBINSON: I would like to offer it to you if you would like. Since we don't have a lot of speakers tonight, you can have another whole shot at this at the end of the other people.

MR. COOKE: Can I have your attention, please? Point of order. I'll yield two minutes to her. Thank you.

MODERATOR ROBINSON: You would like to do it. I'm sorry, what is your name so

9

501-6 cont'd

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Comments from the Albany, New York, Public Hearing (March 30, 2009)

I can --
MR. COOKE: My name is William Cooke.
MODERATOR ROBINSON: William Cooke. So you're the next speaker?
MR. COOKE: Yes, ma'am, I am. Thank you.
MODERATOR ROBINSON: And you're willing to speak for --
MR. COOKE: I'm willing to yield two minutes of my time at this time.
MODERATOR ROBINSON: That would be just lovely.
MS. WARREN: Thank you.
MODERATOR ROBINSON: Go ahead.
MS. WARREN: Okay, so to finish monitoring. Data Collection. One of the primary objectives -- these are all the problems -- one of the primary objectives of the so-called Phased Decision-Making Alternative is to collect more data on the site. Data collection is supposedly a critical part of the future decisions that will be made regarding what projects will be undertaken in Phase 2. Yet the public is not provided any detail regarding the data

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501-7 **501-7** Chapter 2, Section 2.4.3, of this EIS describes decommissioning activities under the Phased Decisionmaking Alternative and provides a discussion of the data collection, studies, and monitoring to be performed during implementation of Phase 1 and the purpose of each of these activities. The overall intent of these Phase 1 activities is to further characterize the site and to research technology developments and engineering to aid consensus decisionmaking for Phase 2. Section 2.4.3.3 explains how the additional data and studies would be used in making decisions for potential future activities. The intent of this EIS is to provide a description of the environmental impacts of each of the alternatives to inform the agency decisionmakers.

collection. Thus, there's no public disclosure, no ability for the public to evaluate the adequacy of the planned data collection in setting the stage for responsible decision-making, and no ability for the public to provide comments on this critical element of Phase 1.

The Phased Decision-Making Alternative leaves the public out. What we now have is an unknown process in which agencies will decide on how much monitoring and how much data collection is needed. Over the next 30 years, federal and state agencies will make decisions with no public process or involvement. Then the US Department of Energy will leave the West Valley nuclear site prior to the beginning of Phase 2. That's in the decommissioning plan, by the way, not in the EIS. I don't know why there is a discrepancy in these documents, but there is. Thus, New York State will be left for the entire responsibility and the bill for cleaning up the rest of the radioactive mess from federal nuclear waste and a national program of nuclear reprocessing.

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501-7 cont'd

501-8

501-8 Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

DOE will remain on site until it completes its responsibilities as assigned under the West Valley Demonstration Project Act. DOE would not leave the site after completion of the Phase 1 actions because it would not have completed the actions required under the Act. The description of the Phased Decisionmaking Alternative in Chapter 2 of the EIS has been revised to clarify this, and the wording in the *Phase 1 Decommissioning Plan for the West Valley Demonstration Project (Phase 1 Decommissioning Plan)* has been revised to avoid any implication that DOE would leave the site at the end of Phase 1.

Because Phased Decision-Making leaves decisions about what to do with 99 percent of site radioactivity, the majority of the environmental impacts are unstudied in this alternative. The NRC disposal site and the state disposal site are left for Phase 2, as are the high level waste tanks. The inadequacies of the EIS are best illustrated by focusing on these tanks. These tanks are made of carbon steel, subject to corrosion and are currently at the end of their useful lives, a fact not mentioned in the EIS by the way. Their ability to contain any radioactivity over the next few years is questionable, much less for the next 30. The EIS not only fails to describe the monitoring in and around these tanks but fails to examine the potential impact of a failure and leakage from these tanks on the sole source aquifer and the nearby creeks.

But the Decommissioning Plan stands alone in its lack of honesty when it claims that the tanks are both empty while describing the contrary situation of the tanks containing 320,000 curies of

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501-9

501-9 This EIS presents the impacts of Phase 1 and Phase 2 of the Phased Decisionmaking Alternative. The environmental impacts of implementing Phase 1 of the Phased Decisionmaking Alterative are described for each resource area in Chapter 4 of this EIS. If this alternative is selected, the options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. For each resource area, Chapter 4 discusses the impacts that would occur if either removal or close-in-place is selected for Phase 2. The chapter also discusses which alternative(s) bound the impacts in the event that continued active management is selected for the SDA. The short-term impacts of a Phase 2 decision that involves continued active management of the SDA are bounded by either the removal or close-in-place impacts. The post-decommissioning impacts of a continued active management decision for the SDA, which include staffing, occupational exposure, and waste generation related to SDA monitoring and maintenance, as well as long-term impacts on public health and safety, would be similar to the no action impacts for the SDA.

DOE recognizes and has been managing the hazard associated with the underground tanks in the Waste Tank Farm. Following removal and solidification of the majority of the Waste Tank Farm inventory, DOE developed and is implementing actions to reduce the potential for a leak from the underground tanks. Specifically, it is working to install a tank and vault drying system designed to dry the liquid heel remaining in the waste tanks. The installation of this system and the drying of the tank inventories is part of the Interim End State or EIS starting point. In addition to drying the tanks to reduce the potential for a leak, DOE operates the groundwater pumping system that reduces groundwater seepage into the tank vaults while still maintaining a hydraulic gradient so that any liquid flow is into, rather than out of, the vault system. DOE also maintains the tank leak detection equipment located in the tank pans and vaults and regularly samples the monitoring wells surrounding the tank vaults to ensure no leakage into the groundwater. Mitigation measures would be taken if any leakage were detected. It should be noted that none of the high-level waste tanks has ever leaked. While there is no quantitative estimate of risk from the tanks while the contents are being dried, it is clear that the risks are being further reduced by tank drying. Longer-term monitoring at the site is addressed in the response to Comment no. 501-6.

radioactivity.

I'll have to finish this later. Thank you.

MODERATOR ROBINSON: Thank you, Barbara.

Our next speaker will be William Cooke, and following him will be Tom Ellis.

MR. COOKE: Ladies and gentlemen, William Cooke, Citizens Campaign for the Environment, Director of Government Relations. We represent 80,000 members across New York. We work on public health and environmental advocacy.

I want to thank the first speaker very kindly for her personal comments and her work on this issue and that of the work of her organization, Citizens' Environmental Coalition. My organization supports what she had to say and just wishes she could have finished.

CCE strongly opposes the Department of Energy and the State of New York's NYSERDA advancing a preferred alternative that will address one percent of the radioactivity now and leave the rest, 99 percent, for 30

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501-9 cont'd

Additionally, much of the residual contamination in the tanks is attached (i.e., "fixed") to metal surfaces and is not readily mobile. Chapter 2, Section 2.3.1, of this EIS, as well as text in the *Phase 1 Decommissioning Plan*, have been clarified to acknowledge that there are liquids remaining in the tanks that will be dried as a result of installation and operation of the tank and vault drying system and that this drying will be complete before any Waste Tank Farm decommissioning actions are initiated.

502-1

502-1 DOE and NYSERDA acknowledge the commentor's opposition to the Phased Decisionmaking Alternative. It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

years. Coincidentally, in 30 years looking around, pretty much everybody in this room will be either very old or dead.

I talked to a gentleman before I came in who did some research on this on how to clean it up, and his graduate work, his master's work on cleaning this up, he wrote the paper on it 30 years ago. So 30 years ago we knew what to do. Now we're here talking about what we should do, and in 30 years we're going to talk about what we should do.

Folks, this is unbelievably easy to us. We think you clean it up. Now, does DOE want to? No. We all know DOE. We know what the deal is. So you come up with a great idea, nice slides, good pictures, good thick stuff. We're going to clean up -- we're going to clean up one percent, and then in three decades -- thank God, I'll be gone -- we're going to think about doing some more.

So I'm sitting around with my kids explaining this mess to my children, because I'm one of those guys that actually explains

502-1 cont'd

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stuff to the kids, and my nine-year-old says to me, "So, Dad, can I, like, clean up one percent of the mess in my room and then, like, in 30 years do the rest?" I said, "No, that ain't okay." So my 17-year-old says, "Whoa, Dad, what if we study it? What if we clean up one percent, and then we study it?" I got a nine-year-old kid who gets it. I got a 17-year-old, yeah, not so much.

And I got to come here on my time and explain to DOE, you got it wrong. Now, I'm sure the people here aren't the decision makers, but you're the only ones here. Folks, what we want is we want it cleaned up. We don't want you to start in 30 years. We don't want you to do one percent. We want it cleaned up. Get it?

Now, the 80,000 of my members couldn't be here tonight. They're working for a living. Like most people, they just don't have the time. So they ask folks like me to take our time to go in and speak to you, okay. What don't you get?

MODERATOR ROBINSON: Thank you,

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502-1 cont'd

502-2

502-2 DOE and NYSERDA acknowledge the commentor's desire for prompt action to address cleanup at the site and preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Mr. Cooke.

Our next speaker will be Tom Ellis, followed by Roger Downs.

MR. ELLIS: Good evening, everybody. My name is Tom Ellis, E-l-l-i-s. I live in Albany at 43 North Pine Ave.

And I want to thank the DOE for holding a hearing here in Albany. Makes it easy for me to get to.

Just a little background about myself. From 1980 to 1986, I attended New York State Public Service Commission hearings in an unsuccessful effort to try to convince the PSC that neither Niagara Mohawk nor its customers could afford Niagara Mohawk's nuclear power program.

From 1988 to 1994, I helped lead a group called "Don't Waste New York," and we defeated the New York State Low Level Radioactive Waste Siting Commission and the Nuclear Utilities of New York in their effort to site a low level radioactive waste facility in the rural areas of New York.

And then from 1982 to the present, I've worked with a community group called The

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Community Concerned about NL. NL stands for National Lead Industries. They had an armaments plant about four miles -- about three miles from here. They polluted the whole neighborhood with uranium. They just basically put uranium into a fireplace and burned it. It went up the stacks. About five tons of it landed in the community, and I observed the Department of Energy and the Army Corps of Engineers, and they did a 23 year cleanup of that site, spent 190 million dollars on it.

I know that cleaning up radioactive properties takes a long time. It takes a lot of money to do it, and there is a lot of studies involved in it, and I know that West Valley is a much more complicated site then the NL site was.

So I have some experience dealing with the policy aspects of nuclear waste and the community aspects of it. I think that we are faced with a very difficult pollution situation that cannot be easily repaired no matter what we do.

To me it is a matter of common sense

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that it is better to clean up pollution sooner rather than later, today, instead of a generation or two from now, and in the near future rather than possibly never.

This is especially so with West Valley because delay allows the radioactive wastes to spread further, to contaminate more land and water and thus increases the cost and difficulties of a real cleanup, whenever that occurs. The primary danger with delay in cleanup is the potential for major leaks of radioactivity that would flow downstream into Lake Erie, over Niagara Falls, into Lake Ontario and out the St. Lawrence River. These are huge water resources that are at risk. Lake Erie and Lake Ontario are among the largest lakes on Earth, and the St. Lawrence River is the second largest river on the planet. Millions of people benefit from these water resources. Should the lakes and the St. Lawrence become highly contaminated with West Valley nuclear wastes, the economic and social impacts would be considerable and possibly irreversible.

503-1 **503-1** DOE and NYSERDA acknowledge the commentor's concern about the protection of water resources. Please see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response. The potential human health impacts of the alternatives evaluated in this EIS are presented in Chapter 4, Section 4.1.9 (short-term) and Section 4.1.10 (long-term). Chapter 4, Section 4.1.6, of this EIS also presents the results of an ecological risk assessment showing the projected long-term ecological impacts of the alternatives. The results of the human health and ecological impacts analysis imply that any economic impacts on the Great Lakes and St. Lawrence River region would be negligible.

I have seen photographs of waste being dumped into the West Valley trenches. These trenches are huge, long and deep. I recall several photos of the trenches partially filled with water and with boxes and barrels of wastes. The waste began poisoning the ground water the day they were dumped or placed into the trenches. The drinking water supply of western New York residents is already at risk. The cost of providing safe water to hundreds and thousands of people for long periods of time would be huge, and it is an expense that is best avoided. Delaying a cleanup considerably enhances the likelihood of severe, widespread and long-lasting radioactive pollution.

I strongly recommend that the decision makers adopt the statewide removal alternative. I recognize that excavating massive quantities of radioactive waste is a huge and dangerous undertaking. Finding a place where the long-lasting waste can be taken to will not be easy either. In disposing of the waste in a manner that

19

503-1 cont'd

503-2

503-2 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F.

Comments from the Albany, New York, Public Hearing (March 30, 2009)

prevents a repeat of what occurred at West Valley will be a Herculean, technical challenge, but it is best if the waste can be placed in a geologically stable and dry place, wherever that may be. And West Valley is neither geologically stable nor dry.

I also believe that excavating the radioactive waste in the near future and managing them correctly will have a lower impact on human health over the long run than leaving the waste in the soggy ground, taking some mitigation steps and hoping for the best.

And, finally, the phased decision-making alternative is unacceptable because it would allow 99 percent of the radioactivity in West Valley to remain for several additional decades. The high level of radioactive waste tanks with 300,000 curies are at the end of their life span and should be remediated now. Thank you.

MODERATOR ROBINSON: Thank you, sir.

That was Tom Ellis. Now we have Roger Downs followed by Jim Travers.

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503-2 cont'd

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503-3 It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

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503-4 DOE recognizes and has been managing the hazard associated with the underground tanks in the Waste Tank Farm. Following removal and solidification of the majority of the Waste Tank Farm inventory, DOE has developed and is implementing actions to reduce the potential for a leak from the underground tanks. Specifically, it is working to install a tank and vault drying system designed to dry the liquid heel remaining in the waste tanks. The installation of this system and the drying of the tank inventories is part of the Interim End State, or EIS starting point. In addition to drying the tanks to reduce the potential for a leak, DOE operates the groundwater pumping system that reduces groundwater seepage into the tank vaults while still maintaining a hydraulic gradient so that any liquid flow is into, rather than out of, the vault system. DOE also maintains the tank leak detection equipment located in the tank pans and vaults and regularly samples the monitoring wells surrounding the tank vaults to ensure no leakage into the

groundwater. Mitigation measures would be taken if any leakage were detected. It should be noted that none of the high-level waste tanks has ever leaked. While there is no quantitative estimate of risk from the tanks while the contents are being dried, it is clear that the risks are being further reduced by tank drying.

Additionally, much of the residual contamination in the tanks is attached (i.e., "fixed") to metal surfaces and is not readily mobile. Chapter 2, Section 2.3.1, of this EIS, as well as text in the *Phase 1 Decommissioning Plan for the West Valley Demonstration Project (Phase 1 Decommissioning Plan)*, have been clarified to acknowledge that the liquids remaining in the tanks will be dried as a result of installation and operation of the tank and vault drying system and that this drying will be complete before any Waste Tank Farm decommissioning actions are initiated.

Comments from the Albany, New York, Public Hearing (March 30, 2009)

MR. DOWNS: My name is Roger Downs. I'm the acting Conservation Director for the Sierra Club Atlantic Chapter. We are a volunteer led environmental organization with 40,000 members statewide, committed to the preservation and protection of our lands and air and water.

We have reviewed the Department of Energy and NYSERDA's Draft Environmental Impact Statement focused on the cleanup of the West Valley Nuclear Waste Site. In consideration of all available and analyzed options, we find that a complete site wide removal of this historic radioactive waste deposit is far superior to the preferred alternative, which is for the one percent option, which essentially is to wait 30 years on a final cleanup decision while the plume of waste continues its subsurface migration.

Clearly, the site wide removal option provides us the benefit of a complete and comprehensive cleanup from a site with serious erosion problems, earthquake hazards, all above a sole source aquifer.

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504-1

504-2

504-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

Note that during the implementation of Phase 1 of the Phased Decisionmaking Alternative, the source area of the North Plateau Groundwater Plume would be removed. As described in Chapter 2, Section 2.4.3, of this EIS, a permeable treatment wall would be constructed to mitigate the impacts of the non-source area of the plume.

Ultimately, we would like to remove any possibility of a catastrophic release into community drinking water supplies, including the Great Lakes, potentially costing billions in human and ecological losses.

The Sierra Club Atlantic Chapter has also reviewed the document that Barbara spoke of, "The Real Costs of Cleaning Up Nuclear Waste," and we are compelled by the findings. Essentially leaving buried waste at the site has more adverse environmental outcomes and at a greater cost, whereas a complete site wide cleanup presents the least risk to the broader population and is the least expensive long-term option, and the figures they use are, as Barbara cited, which is about 9.9 billion for the on-site cleanup. The site wide cleanup, if we do it rapidly, whereas the on-site burial will be 13 billion, and I don't know exactly how we can account for, you know, the exact costs of contamination or contamination in the Great Lakes, but it would be in the tens of billions certainly.

While it is difficult to think in

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504-2 cont'd

504-3

504-2 cont'd

504-2 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. In addition to the previously cited Issue Summaries, please see "Questions about Long-term Erosion Modeling" for further discussion of this issue and DOE's and NYSERDA's response.

DOE and NYSERDA acknowledge the commentor's concern about the protection of water resources. Please see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response. The potential human health impacts of the alternatives evaluated in this EIS are presented in Chapter 4, Section 4.1.9 (short-term) and Section 4.1.10 (long-term). Chapter 4, Section 4.1.6, of this EIS also presents the results of an ecological risk assessment showing the projected long-term ecological impacts of the alternatives.

504-3 DOE and NYSERDA are aware of the report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., including the three appendices, and it has been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for a discussion of the report's issues and DOE's and NYSERDA's response.

Comments from the Albany, New York, Public Hearing (March 30, 2009)

geologic time, we are convinced that the West Valley site is fatally vulnerable to erosion, and that a long-time storage strategy of radioactive waste is certain to result in the Great Lakes contamination over the centuries. The responsibility of maintaining this site in perpetuity over hundreds if not thousands of years cannot be remotely guaranteed. New York State and the Department of Energy have control over the present, and in spite of the staggering cost, full comprehensive cleanup now will be the bargain of the millennium.

We are appreciative of NYSERDA's separate and critical analysis of the DEIS and the findings that they claimed were unscientific and hope that moving forward meaningful changes will be made to the document to include clarification on public disclosure, monitoring protocols and future obligations under SEQRA. Looking at the Phase 1, one percent, Phase 2, potentially 99 percent for another 30 years of one percent, we feel that that constitutes segmentation under SEQRA. The public is

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504-2 cont'd

504-1 cont'd

504-4

504-5

504-4 DOE disagrees with many of the points raised in NYSERDA's View, which is included as the Foreword to this EIS. At the core, differences between DOE and NYSERDA center on different views about the nature of analysis required for an EIS and the attendant level of acceptable risk associated with any uncertainties in that analysis as it relates to decisionmaking. DOE believes the analysis in this EIS meets the requirements of NEPA and SEQR in that, when there is incomplete or unavailable information relevant to reasonably foreseeable significant adverse environmental impacts, this EIS (1) acknowledges the information limitation and its relevance to environmental consequence, (2) summarizes existing credible scientific evidence, and (3) presents an analysis using a theoretical approach that is generally accepted by the scientific community involved in such analyses. This Final EIS contains text boxes in the relevant subject matter areas that acknowledge the differences of opinion between DOE and NYSERDA. In general, DOE's position is that the Agency spent much time and effort engaging highly qualified and respected experts in hydrology and hydrological transport, landscape evolution (erosion), human health and environmental risk analysis, and other technical fields, and stands behind the analyses performed for this EIS.

504-5 DOE and NYSERDA believe the commentor is referring to the fact that the decision to clean up the site will occur in separate phases (Phased Decisionmaking). DOE has not segmented, but instead, has prepared a single, comprehensive EIS for the decommissioning and long-term stewardship of WNYNSC. This EIS adequately analyzes the totality of environmental impacts, including costs, of a broad spectrum of reasonable alternatives that meet the respective purposes and needs of DOE and NYSERDA (Sitewide Close-In-Place, Phased Decisionmaking, and Sitewide Removal), as well as the No Action Alternative.

While the Phased Decisionmaking Alternative temporarily defers a final decision on the disposition of the Waste Tank Farm, the NDA, and the Construction and Demolition Debris Landfill, DOE believes that the impacts of this deferred decision are adequately analyzed within this current EIS. Of course, as with all tiered decisions, DOE would continue to assess the results of any site-specific studies along with any emerging technologies to ascertain whether or not a Supplemental EIS is warranted prior to any Phase 2 decision. Based upon data available to date, however, DOE believes this EIS adequately evaluates the environmental impacts associated with the range of reasonable alternatives and the Agency has vigorously resisted all efforts to "segment" this single comprehensive decommissioning EIS into separate NEPA documents.

shut out essentially. Will the public have more options to comment? It is unclear, but we feel that it does not live up to the spirit of SEQRA or NEPA.

While we understand the complexity of this cleanup and the perceived need for a phased approach to allow for the best information to guide the process, we find the current preferred alternative deficient in its lack of commitment to public participation, expeditious cleanups and clarity as to who will eventually fund the vast majority of those cleanups.

Again, we urge the Department of Energy to take responsibility, while we still can, and fund the total cleanup of the West Valley Nuclear Waste Site.

Thank you.

MODERATOR ROBINSON: Thank you, sir.

We have Jim Travers, followed by Jim Amidon.

MR. TRAVERS: Hi. My name is Jim Travers. I live in Ravena, New York. I'm a member of Save the Pine Bush in Albany, New York, and a member of

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504-6

504-7

It is NYSERDA's position that segmentation refers to the improper division of one project into multiple smaller projects in an effort to circumvent NEPA (or SEQR) requirements. NYSERDA does not believe that improper segmentation has occurred in this case because the Phase 1 actions proposed under the Preferred Alternative are independent of and will not bias actions conducted in Phase 2. In other words, the actions proposed under Phase 1 will not automatically trigger certain actions to take place under Phase 2; to the contrary, NYSERDA can opt for any alternative or combination of alternatives during Phase 2. The test for improper segmentation is whether or not projects (in this case Phase 1 and Phase 2) are interdependent. In this case, they are clearly not.

With respect to the 30-year timeframe cited by the commentor, please see the response to Comment no. 504-1.

504-6 Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

504-7 DOE notes that its responsibility at WNYNSC is established and defined in the West Valley Demonstration Project Act. It is not within the scope of the EIS to address funding of the alternatives. The U.S. Congress and the President are responsible for establishing funding levels for various Federal Government programs, while the New York State Legislature and the Governor are responsible for establishing funding levels for state government programs. Implementation of the decision made in DOE's Record of Decision and NYSERDA's Findings Statement is contingent on the level of funding allocated.

Comments from the Albany, New York, Public Hearing (March 30, 2009)

Selkirk-Coeymans-Ravena Against Pollution.

I would have to agree with our last speakers. Quite frankly, we need this to be cleaned up immediately. We can't put off these decisions indefinitely. You've had 60 years to play with this stuff, and you still haven't gotten it right. You still don't know what you're doing, and it's poisoned for thousands and thousands of years. It's just not fair to the future to delay this by one iota.

It's not cost effective. You've seen the cost analysis. It's more cost effective to clean this up completely now to reduce the human risk and the great, great risk to the Great Lakes. I would urge that they be cleaned up now.

Mr. Downs mentioned segmentation. That's something to be considered here if you go with this two option plan. It might be a little binding by New York State environmental conservation law to segment this into more than one project.

It's unconscionable that we're talking about money and stimulating new energy

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505-1

505-2

505-3

505-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

505-2 DOE and NYSERDA assume that the commentor is referring to the report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc. Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of the issue and DOE's and NYSERDA's response.

505-3 The commentor is referring to the fact that the decision to clean up the site would occur in separate phases (Phased Decisionmaking). DOE has not segmented, but instead, has prepared a single, comprehensive EIS for the decommissioning and long-term stewardship of WNYNSC. This EIS adequately analyzes the totality of environmental impacts, including costs, of a broad spectrum of reasonable alternatives that meet the respective purposes and needs of DOE and NYSERDA (Sitewide Close-In-Place, Phased Decisionmaking, and Sitewide Removal), as well as the No Action Alternative.

While the Phased Decisionmaking Alternative temporarily defers a final decision on the disposition of the Waste Tank Farm, the NDA, and the Construction and Demolition Debris Landfill, DOE believes that the impacts of this deferred decision are adequately analyzed within this current EIS. Of course, as with all tiered decisions, DOE would continue to assess the results of any site-specific studies along with any emerging technologies to ascertain whether or not a Supplemental EIS is warranted prior to any Phase 2 decision. Based upon data available to date, however, DOE believes this EIS adequately evaluates the environmental impacts associated with the range of reasonable alternatives and the Agency has vigorously resisted all efforts to "segment" this single comprehensive decommissioning EIS into separate NEPA documents.

It is NYSERDA's position that segmentation refers to the improper division of one project into multiple smaller projects in an effort to circumvent NEPA (or SEQR) requirements. NYSERDA does not believe that improper segmentation has occurred in this case because the Phase 1 actions proposed under the Preferred

production of nuclear power plants. I mean, we have created such terrible messes wherever these sites are. There are many of them throughout the country. If you want to wait 30 years, get to work. Thirty years will pass. It's going to be here for a long time doing this, and whatever technology comes along in the future that's going to be useful, just pick it up and run with it from that point on. Let's not wait another 30 years. It's going to take you several years just to clean up the one percent. Let's get going. Thank you.

MODERATOR ROBINSON: Thank you, sir.

The next speaker is John Amidon, and I'll let you know that no one else has signed up. So after Mr. Amidon has finished, I will reopen this to additional speakers.

MR. AMIDON: Good evening. My name is John Amidon. I'm a citizen here in Albany, New York, and I'm a member of Veterans for Peace, and the Interfaith Alliance of New York State, and also the Nevada Desert Experience.

Alternative are independent of and would not bias actions conducted in Phase 2. In other words, the actions proposed under Phase 1 would not automatically trigger certain actions to take place under Phase 2; to the contrary, NYSERDA could opt for any alternative or combination of alternatives during Phase 2. The test for improper segmentation is whether or not projects (in this case Phase 1 and Phase 2) are interdependent. In this case, they are clearly not.

I think it's vitally important that the West Valley site be cleaned up immediately. There should be no hesitation whatsoever, per the remarks of the previous three gentlemen, Tom Ellis and the Sierra Club spokesperson.

We have a huge environmental catastrophe that can be prevented to some degree. We can't make a nuclear waste disappear, but certainly we can store it in an environmentally safer method. I don't know that there is any truly safe containment technology for the types of nuclear waste we've developed; however, there are short-term prevention scenarios which are vitally important for the well-being of our citizens here -- and I speak from living in the city of Albany where we had NL Industries where radioactive tailings from millings were thrown into ponds next door, buried on the electric company's land. It made it into the air and we have about three and a half miles down the road, four miles down the road a super fund cleanup site which has been designated

506-1

506-1 DOE and NYSERDA acknowledge the commentor's desire for prompt action to address site cleanup and preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

clean, but it's not really clean. A hundred eighty million dollars for eleven acres -- 11.1 acres here in our city -- and people sick, and not the type of environmental studies on our citizens that we needed.

So there is a very strong heartfelt interest because I know from my own experience living in this city here how irresponsible the nuclear industry has been as a whole and across the country.

Now, here is a chance for the Department of Energy working with citizens and New York State to be truly responsible, as much as might be after the fact because we have known that this waste has been there for a considerable amount of time and there has been litigation to get the Department of Energy to work on this cleanup, but we can't not do it. Our drinking water is at risk.

There are other factors, too, involved. We have, as one of the previous gentlemen mentioned, nuclear waste sites all over the country. I was reading about Hanford on the Columbia River. I'm sure you've heard of it. It is mind-boggling that the government

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506-2

506-2 DOE and NYSERDA acknowledge the commentor's concern about the protection of water resources. Please see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

and the Department of Energy and other responsible agencies could allow sites like these to happen. Where is the moral responsibility? Don't we as citizens and our own government care about our children and grandchildren?

So for all of the above-mentioned reasons, we absolutely have to do this cleanup, and it has to be started immediately. It's already past due. So many places in the country, and we're talking about one specific one.

So let's get going. Thank you.

MODERATOR ROBINSON: Thank you, sir.

Okay, we are in the luxury right now of having more time, and what we will do is I will first open this to anyone who didn't sign up to speak but would now like to.

Are there any such people in the room?

(No response).

MODERATOR ROBINSON: Okay. Then we'll open it up to anybody who already spoke who would like additional opportunity. I think since we are in such a luxury of time, we can allow more than five minutes. So you'll

506-1 cont'd

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know, the reason that we do is because we want to make all the different hearings equal to each other and not allow other people less time to talk. So I think if I probably find agreement here, we will allow you more time than five if you would like that, but before you proceed, though, are there others in the room who want to do it so I make sure we don't shut anybody out or short change anybody.

So you're it, ma'am. Tell me how long you would like to speak.

MS. WARREN: I don't have that much more to say.

MODERATOR ROBINSON: Ten minutes or 15 minutes?

MS. WARREN: I was in the midst -- if you can remember, I was in the midst of describing the problems with the Environmental Impact Statement, but particularly related to the phased decision-making. So I'm going to continue from where I left off.

Another objective of Phase 1 is supposedly to "not prejudice decisions for

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501-10

501-10 DOE and NYSERDA acknowledge the commentor's concerns that the removal of facilities under Phase I of the Phased Decisionmaking Alternative could affect a future decision on site cleanup.

The decision has already been made to remove many of the facilities and areas identified by the commentor down to their floor slabs or to grade prior to the start of any decommissioning actions (see Chapter 2, Section 2.3.1 of this EIS). These include the Administration Building and Expanded Environmental Laboratory in Waste Management Area 10, as well as most of the facilities in Waste Management Area 5. The decision regarding which facilities would be removed to achieve the interim end state (the EIS starting point) was developed by DOE and NYSERDA after careful consideration of all facilities and areas on WNYNSC. None of the facilities to be closed at the starting point of this EIS are expected, either individually or collectively, to be needed for any decommissioning alternative. None of them would be needed to safely monitor and maintain or support future removal of the vitrified high-level radioactive waste on the site or to assist in other aspects of site decommissioning. Leaving the unneeded facilities in place would require continued maintenance and monitoring, resulting in unnecessary expense. The only facility specifically identified by the commentor that will not have been removed prior to the EIS starting point is the New Warehouse in Waste Management Area 10. The New Warehouse and other facilities and storage areas that would be removed from the site during Phase 1 of the Phased Decommissioning Alternative, if that alternative is selected in DOE's Record of Decision and NYSERDA's Findings Statement, are addressed in Chapter 2, Section 2.4.3.1, of this EIS.

Facilities that would be required for full excavation and cleanup of all site facilities (Sitewide Removal) are described in the discussion in Chapter 2, Sections 2.4.1.1 and 2.4.1.3, and Appendix C, Section C.3.1, of this EIS.

Phase 2." I have no idea what that means; however, it is not clear to me why facilities that have not been impacted by radioactivity are a priority for removal under Phase 1 of the Preferred Alternative such as the new warehouse in Waste Management Area 10. We are concerned that eliminating this facility and others could hinder a full excavation and cleanup of the NDA and the SDA in the future. Also included in this area and slated for demolition are an administration building, an environmental laboratory and a waste management storage area. Where will you store equipment and materials for the planned activities at the site? Where will workers change their clothing and store protective equipment? Where will emergency medical supplies and equipment be stored? We have received none of the rationale for the choice of certain facilities for demolition and not others. There's no description of the future work that's going to be done and in what facilities you're going to need. Why is remote handling

501-10 cont'd

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equipment being removed? Will it be needed to remove the canisters of vitrified high level waste? At the same time, we don't have a work plan that describes fully what facilities will be needed for the work to be accomplished, including full excavation and cleanup of all site facilities containing 99 percent of the radioactivity. So we object to any buildings, facilities or equipment being removed in Phase 1 that pose no radioactive or hazardous material problem unless we're provided with some rationale, because we can see no benefit to prioritizing such facilities for removal, and we fear it will foreclose reasonable and cost-effective options for full cleanup later.

The Phased Decision-Making Alternative is an incomplete plan, with inadequate basic information available to the public, and, therefore, inadequate environmental analysis. The current public process fails the test for public involvement, and there is no plan laid out for future public involvement. In fact, under the State

501-10 cont'd

501-11

501-11 Regarding the adequacy of the environmental analysis performed for the Phased Decisionmaking Alternative, please see the response to Comment no. 501-9. Regarding continued public involvement in Phase 2 decisionmaking under the Phased Decisionmaking Alternative, please see the response to Comment no. 501-8.

Concerning the rest of this comment, DOE and NYSERDA believe the commentor is referring to the fact that the decision to clean up the site would occur in separate phases under the Phased Decisionmaking Alternative. DOE has not segmented, but, instead, has prepared a single, comprehensive EIS for the decommissioning and long-term stewardship of WNYNSC. This EIS adequately analyzes the totality of environmental impacts, including costs, of a broad spectrum of reasonable alternatives that meet the respective purposes and needs of DOE and NYSERDA (Sitewide Close-In-Place, Phased Decisionmaking, and Sitewide Removal), as well as the No Action Alternative.

While the Phased Decisionmaking Alternative temporarily defers a final decision on the disposition of the Waste Tank Farm, the NDA, and the Construction and Demolition Debris Landfill, DOE believes that the impacts of this deferred decision are adequately analyzed within this current EIS. Of course, as with all tiered decisions, DOE would continue to assess the results of any site-specific studies along with any emerging technologies to ascertain whether or not a Supplemental EIS is warranted prior to any Phase 2 decision. Based upon data available to date, however, DOE believes this EIS adequately evaluates the environmental impacts associated with the range of reasonable alternatives and the Agency has vigorously resisted all efforts to "segment" this single comprehensive decommissioning EIS into separate NEPA documents.

It is NYSERDA's position that segmentation refers to the improper division of one project into multiple smaller projects in an effort to circumvent NEPA (or SEQR) requirements. NYSERDA does not believe that improper segmentation has occurred in this case because the Phase 1 actions proposed under the Preferred Alternative are independent of and will not bias actions conducted in Phase 2. In other words, the actions proposed under Phase 1 will not automatically trigger certain actions to take place under Phase 2; to the contrary, NYSERDA can opt for any alternative or combination of alternatives during Phase 2. The test for improper segmentation is whether or not projects (in this case Phase 1 and Phase 2) are interdependent. In this case, they are clearly not.

Environmental Quality Review Act, a segmented plan rather than the complete plan is prohibited.

The Sitewide Removal Alternative -- full excavation and cleanup -- is the only alternative that constitutes a complete plan and that has been adequately described to the public. The only missing element we can identify is that RCRA hazardous waste was not dealt with, but that was not dealt with for this alternative or for any other alternative. So right now as it stands the Site Wide Removal Alternative is the most complete.

Thank you.

MODERATOR ROBINSON: Thank you, Barbara. Appreciate that.

MS. WARREN: I'll submit this to you.

MODERATOR ROBINSON: Yes.

Are there any other speakers? Any commentors?

(No response).

MODERATOR ROBINSON: Okay, then I thank you all for your participation tonight.

(Whereupon, the public comment portion

501-11 cont'd

501-12

501-12 DOE acknowledges the commentor's support for the Sitewide Removal Alternative. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD. Both the Revised Draft EIS and the Final EIS address management and disposal of RCRA hazardous waste. Chapter 1, Section 1.2, discusses the RCRA background of the site. Chapter 4, Section 4.1.11 and Table 4–46, address the disposition of hazardous waste under each of the alternatives. The long-term performance assessment in Appendix H analyzes the human health consequences of known hazardous constituents. Agency actions would comply with the applicable cleanup and decommissioning criteria for WNYNSC embodied in Federal and New York State environmental, safety, and health regulatory requirements promulgated under various statutory authorities (see Chapter 5 of this Final EIS). As summarized in Chapter 1, Section 1.3, of this Final EIS, these regulatory requirements include, in part, RCRA permitting and corrective actions under New York State and/or EPA requirements, decommissioning according to NRC requirements in its License Termination Rule, and EPA assessments of compliance with National Emission Standards for Hazardous Air Pollutants.

of the public hearing was concluded).

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C E R T I F I C A T I O N

I, MARLENE K. PRESSMAN, a Shorthand Reporter and Notary Public in and for the State of New York, do hereby CERTIFY that the foregoing record taken by me at the time and place as noted in the heading hereof is a true and an accurate transcript of the same, to the best of my ability and belief.

MARLENE K. PRESSMAN

DATED:

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

REVISED DRAFT
ENVIRONMENTAL IMPACT STATEMENT for
DECOMMISSIONING and/or
LONG-TERM STEWARDSHIP at the
WEST VALLEY DEMONSTRATION PROJECT and
WESTERN NEW YORK NUCLEAR SERVICE CENTER

Public Comment portion of the Public Hearing in the above-captioned proceeding held at the Seneca Nations of Indians, 12837 Route 438, Irving, New York 14081, on March 31, 2009, 7:00 p.m.

REPORTED BY:

DOREEN M. SHARICK, Court Reporter
EDITH E. FORBES COURT REPORTING SERVICE
21 Woodcrest Drive
Batavia, New York 14020

EDITH E. FORBES (585) 343-8612

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

APPEARANCES:

PAUL BEMBIA,
NYSERDA;
CATHERINE BOHAN,
U.S. Department of Energy;
BRYAN BOWER,
U.S. Department of Energy;
LINDA ROBINSON,
Moderator.

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I N D E X O F S P E A K E R S

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

(Presentation commenced and terminated.)

MS. ROBINSON: Okay. This is the formal period. We will now have the court reporter recording what is said and that will appear in the Comment Response Document of the Environmental Impact Statement, the final one.

Kathy Bohan, the representative of DOE, and Paul Bembia, the representative of NYSERDA, are here to receive and hear your comments. I would appreciate you addressing them as opposed to me.

The court reporter is Doreen Sharick. And her objective is to produce a complete and accurate transcript of the oral comments tonight and the verbatim transcript will be what her product is.

We have as our first speaker tonight from the public, Todd Gates, from the Seneca Nation of Indian Council.

MR. GATES: Todd Gates. I have a resolution here from the Seneca Nation of Indians Tribal Council at the regular session Council held at the Seneca Nation of Indians

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

March 14th, 2009, at the G.R. Plummer Building on the Allegany Territory, Salamanca, New York, to support the West Valley cleanup.

Motion by J. C. Conrad Seneca, seconded by Donald John, Tribal Council approves the following resolution:

Whereas, the Seneca Nation of Indians is a Sovereign Nation recognized by the United States as such pursuant to the Treaty of November 11th, 1794, occupying five territories in Western New York; and

Whereas, the West Valley nuclear waste site, located 17 miles upstream from the Nation's Cattaraugus Territory along the Cattaraugus Creek, is burdened with the vast amounts of toxic and radioactive wastes, many of which will remain radioactive for tens of thousands of years, some for millions, including plutonium, uranium, strontium-90, and iodine-129, which can cause leukemia and cancer at low doses; and

Whereas, the West Valley nuclear site is the United States' only venture into commercial reprocessing of irradiated nuclear

601-1

601-2

601-1 WNYNSC has inventories of radionuclides and hazardous chemical constituents in the facilities (buildings, lagoons, and waste disposal areas) as well as environmental contamination from past facility operations (e.g., in the North Plateau Groundwater Plume). A description of the facilities and inventories of the radionuclides and hazardous chemical constituents is included in Appendix C of this EIS. This EIS was prepared to evaluate the potential environmental impacts, including impacts from radiological and hazardous chemical constituents, of alternatives for decommissioning and/or long-term stewardship of the site.

The commentor is correct that scientific studies have not clearly demonstrated the existence of a threshold below which exposure to ionizing radiation conveys no risk of health effects. By assuming that the risk of health effects at low doses is proportional to the exposure (i.e., doubling the exposure also doubles the risk), regulatory agencies such as EPA and NRC have adopted a prudent approach to establishing standards to protect human health and the environment from the effects of ionizing radiation. EPA typically regulates radiation exposure based on a lifetime cancer risk of 1×10^{-6} to 1×10^{-4} (1 in a million to 1 in 10,000), consistent with its approach for chemical carcinogens. NRC's license termination dose criterion of 25 millirem per year total effective dose equivalent is consistent with the recommendations of advisory bodies such as the International Commission on Radiological Protection to limit exposures to members of the public from individual sources of radiation. Estimated exposures from the alternatives considered in this EIS are presented throughout this document in a manner that allows a comparison with these levels of protection.

601-2 Chapter 1 of this EIS summarizes the history of WNYNSC. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

fuel, which was operated by Nuclear Fuel Services and resulted in a complete failure in 1976 with the company leaving and passing on cleanup responsibilities to the United States Government; and

601-2 cont'd

Whereas, the West Valley site sits on top of a sole source aquifer that has been plaqued with problems, such as radioactive contaminated groundwater, radioactivity from the site has been found as far away as the shore at the juncture of the Niagara River and Lake Ontario demonstrating a potential for the leaking site to contaminate waters flowing through the Nation's Territories -- this is close to my heart. That river is our life blood. And demonstrating the potential for leaking into the contaminated water supplies through the Nation's Territories, affecting the lives of the Seneca people; and

601-3

Whereas, the Department of Energy and New York State Energy Research and Development Authority are proposing to leave buried waste onsite, including high level radioactive waste tanks when such tanks are at

601-4

601-3 Chapter 3, Section 3.6.2.1, of this EIS addresses groundwater at WNYNSC that was contaminated due to past activities (for example, the North Plateau Groundwater Plume). This EIS was prepared to evaluate the environmental impacts of alternatives for decommissioning and/or long-term stewardship of WNYNSC. Under all of the action alternatives, DOE would either remove contamination sources, mitigate their impacts to groundwater, or both. Under the Sitewide Removal and Phased Decisionmaking Alternatives, DOE would remove the source of the North Plateau Groundwater Plume. Potential groundwater impacts associated with the EIS alternatives are discussed in Chapter 4, Sections 4.1.4 and 4.1.10, and Appendix H of this Final EIS.

The contamination at the juncture of the Niagara River and Lake Ontario was the result of releases from the site when reprocessing operations were in progress. The environmental contamination from current operations is minimal (below established standards), as demonstrated by the results from the ongoing environmental monitoring program.

601-4 Some of the alternatives evaluated in this EIS, including the Preferred Alternative (Phased Decisionmaking), could result in some facilities and waste remaining on the site, including the high-level radioactive waste tanks. Under the Phased Decisionmaking Alternative, action would be undertaken during Phase 1 for all facilities except the Waste Tank Farm, NDA, SDA, and Construction and Demolition Debris Landfill. Options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close in place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. DOE is required by the West Valley Demonstration Project Act to decontaminate and decommission the waste storage tanks and facilities used to solidify high-level radioactive waste, as well as any material and hardware used in connection with the WVDP, in accordance with such requirements as NRC may prescribe.

DOE recognizes and has been managing the hazard associated with the underground tanks in the Waste Tank Farm. Following removal and solidification of the majority of the Waste Tank Farm inventory, DOE has developed and is implementing actions to reduce the potential for a leak from the underground tanks. Specifically, it is working to install a tank and vault drying system designed to dry the liquid heel remaining in the waste tanks. The installation of this

the end of their useful lives and could leak contamination at any time and delay final cleanup decisions for up to 30 years; and

Whereas, various economists and scientists recently released the first-ever study on the long-term cleanup costs, The Real Cost of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Site, funded by the New York State grant sponsored by Senator Catherine Young, representing Olean area, and conducted by the Synapse Energy Economics, experts from Tufts University, SUNY Fredonia and Radioactive Waste Management Associates; and

Whereas, the study investigated the cost of digging up radioactive waste versus leaving waste buried onsite for the next 1,000 years and found that a full waste excavation cleanup costs less, at 9.9 billion, and presents the least risk to the population that leaving buried waste onsite, at 13 billion, and which also carries high risks to human populations, including a potential cost of $27

601-4 cont'd

601-5

601-6

system and the drying of the tank inventories is part of the Interim End State or EIS starting point. In addition to drying the tanks to reduce the potential for a leak, DOE operates the groundwater pumping system that reduces groundwater seepage into the tank vaults while still maintaining a hydraulic gradient so that any liquid flows into, rather than out of, the vault system. DOE also maintains the tank leak detection equipment located in the tank pans and vaults and regularly samples the monitoring wells surrounding the tank vaults to ensure no leakage into the groundwater. Mitigation measures would be taken if any leakage were detected. It should be noted that none of the high-level waste tanks has ever leaked. While there is no quantitative estimate of risk from the tanks while the contents are being dried, it is clear that the risks are being further reduced by tank drying. Additionally, much of the residual contamination in the tanks is attached (i.e., "fixed") to metal surfaces and is not readily mobile.

601-5 Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed the Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making the Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that the Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement if the Phased Decisionmaking Alternative is selected.

601-6 DOE and NYSERDA are aware of the report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., including the three appendices, and it has been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for a discussion of the report's issues and DOE's and NYSERDA's response.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

billion or more if catastrophic release of radioactive waste contaminated drinking water supplies; and

Whereas, scientists have found that erosion was a powerful and fast moving force in the region, which means that leaving buried radioactive waste onsite poses a risk to the Nation and its people if controls fail and dangerous radioactive waste spills and pollutes the Cattaraugus Creek; and

Now, therefore, be it resolved, that the Council of the Seneca Nation of Indians hereby supports the full cleanup of the entire West Valley nuclear waste site through waste excavation and adoption of cleanup standards that are at least as protective as current New York State radiation standards and unrestricted use toxic standards, and they are fully protective of vulnerable population, including children, fish, wildlife and water; and

Further resolved, that the President is authorized and directed to distribute official copies of this resolution to

601-6 cont'd

601-7

601-8

601-7 DOE and NYSERDA recognize that erosion is a concern and have addressed it in detail in this EIS. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F. In addition to the previously cited Issue Summaries, please see the Issue Summary for "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

601-8 DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Agency actions will comply with the applicable cleanup and decommissioning criteria for WNYNSC embodied in Federal and New York State environmental, safety, and health regulatory requirements promulgated under various statutory authorities (see Chapter 5 of this Final EIS). As summarized in Chapter 1, Section 1.3, of this Final EIS, these regulatory requirements include RCRA permitting and corrective actions under New York State and/or EPA requirements, decommissioning according to NRC requirements in its License Termination Rule, and EPA assessments of compliance with National Emission Standards for Hazardous Air Pollutants.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

appropriate United States and New York State Energy officials, including the U.S. Department of Energy and its New York State Energy and Research Development Authority. Unanimously approved.

I also want to state that it's been a problem and it needs to be addressed. And like I said before, as a traditional believer, our responsibility to look out for the subsequent generations and the radioactive being in that water out there, there is a plume and it's affecting not only my family, but all these people sitting here. And it's about time we did something about it, and I just appreciate everyone's concern here because it is our responsibility to look after the earth. And there was no thinking that took place in the -- it was irresponsible for them to put it there. As the Seneca Nation, we have been here for time and memorial as responsible neighbors for a whole community of not only Western New York but the whole Turtle Island, I feel it is the responsibility for the officials to cleanup that entire site in

601-3 cont'd

601-8 cont'd

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

its entirety.

MS. ROBINSON: Thank you, sir. Okay. Now, I'm going to name two people at a time so that the second person can realize their time just about there to come up. And I'm going to call people in the order that they registered. When it's your time, come to the microphone please and you may give your full name and any organization that you represent if do you represent one so that the court reporter can hear it clearly please. She needs to take it down. You may speak as long as five minutes and at the end of four minutes I will signal with a red card and I will speak into the microphone that you have one minute left and then I ask that you wrap it up and cease speaking at the end of five minutes. I will say that if everyone finishes who has registered and we still have time in the evening, we will open it back up again to people who didn't sign up to speak and you may have an opportunity then.

So if you have a written copy of your comments, you are welcome to turn them

601-8 cont'd

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

into the desk outside and they will be taken as your written comments, also. They might vary some from it. Let's start. The first and second people to come would be Tony Memmo, first, followed by Alan Kettle.

MR. MEMMO: Hi, I'm Tony Memmo. I'm with the Seneca Nation of Indians Environmental Protection Department and I'm a member of the Citizens Task Force at the West Valley site. I have a prepared statement to read from the West Valley Citizen Task Force.

The Citizens Task Force was formed in 1997 to assist in the development of a Preferred Alternative for the completion of the West Valley Demonstration Project and cleanup, closure and/or long-term management of the facilities at the site. The group has 18 members with representatives from the affected communities. After its formation, the CTF met for 18 months and studied the issues before releasing a report in July, 1998. The report details the CTF's expectations with respect to Policies, Priorities and Guidelines for a Preferred

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

Alternative and report considerable information about our work and the site may be found at www.westvalleyctf.org.

For more than a decade since the report was issued, the CTF has been meeting regularly with DOE and NYSERDA. We've also received numerous presentations from the regulatory agencies and advocated with elected officials on behalf of cleanup at the site. We believe that our ongoing active involvement has been essential to a number of cleanup activities underway or planned at the West Valley Demonstration Project.

The CTF appreciates the project to date and the work of the Core Team agencies in arriving at a Preferred Alternative, something that was missing in the 1996 Draft EIS. The Core Team agencies are to be commended for overcoming significant differences and for working together to arrive at a Preferred Alternative.

The CTF also appreciates the DOE and NYSERDA are planning to accomplish cleanup work at the site that the CTF deems essential,

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including removal of the source area of the North Plateau Groundwater Plume and a significant number of contaminated facilities.

We're actively working on written comments to be submitted later this spring. Based on our review to date of the Draft EIS, we would like DOE and NYSERDA and the public to understand in broad terms what we anticipate will be essential views expressed in those comments.

First, the proposed Preferred Alternative Phase 1 work meets the Policies and Priorities articulated in the CTF 1998 Final Report. The CTF strongly encourages that this work be completed without further delay and in a manner that enhances future decisions regarding cleanup on the site. The CTF desires that performance measurements for this work be clearly articulated and adhered to. *602-1*

Second, the CTF stands by the Policies and Priorities articulated in its 1998 Final Report. Including, among other things: *602-2*

602-1 DOE and NYSERDA note the comment. If the Phased Decisionmaking Alternative were selected, during Phase 1, DOE would conduct additional studies and evaluations to clarify and possibly reduce technical uncertainties related to the decision on final decommissioning and long-term management of the site. During Phase 1 and prior to implementation of Phase 2, DOE and NYSERDA would seek information about improved technologies for in-place containment and for exhumation of the tanks and burial areas that may become available. DOE and NYSERDA would continue to assess the results of any site-specific studies along with any emerging technologies to support a Phase 2 decision. DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement.

602-2 DOE and NYSERDA acknowledge the commentor's opinion on the unsuitability of the WNYNSC site for long-term storage or disposal of wastes. This EIS analyzes the impacts of the alternatives on the environment including human health and safety during the decommissioning timeframe and during the post-decommissioning timeframe if waste and contamination remains on site.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. This EIS addresses potential impacts of climate change through sensitivity analyses, but does not attempt to address extreme global-scale climate change. The analysis of doses due to unmitigated erosion uses a gully advance rate associated with a climate that is wetter than current site conditions. Please see the Issue Summary, "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for additional discussion.

This information will be considered by the agencies when they make their decisions which will be reported in DOE's Record of Decision and NYSERDA's Findings Statement.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

The protection of human health and safety of the environment is paramount.

Our 1998 Report states that the CTF does not believe that the geological, hydrologic and climate conditions of the site are suitable for long-term, permanent storage or disposal of long-lived radionuclides. After 11 years of continued education on the characteristics of the site, we are more convinced of this and we feel that the level of the risk from exposure is such that reliance on institutional controls over a prolonged period, hundreds or thousands of years, is not feasible. ***602-2 cont'd***

Third, decisions and studies should be performed during Phase 1 that assess and support the eventual goal of a full cleanup of the site and reassesses the technologies and volume of waste disposal associated with exhumation which may alter estimates of safety risks and costs. ***602-3***

Finally, if the Preferred Alternative and its phased decisionmaking approach is selected, we feel that the views ***602-4***

602-3 Studies would be performed during Phase 1 of the Phased Decisionmaking Alternative for the purpose of further characterizing the site and evaluating technology developments and engineering to aid consensus decisionmaking for Phase 2 if the Phased Decisionmaking Alternative is selected. Please see the response to Comment no. 602-1.

602-4 Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input. . Regulatory bodies involved in permitting and licensing activities at WNYNSC would be responsible for defining the review and public involvement process for their activities.

of the public should be considered on an ongoing basis. The public should be allowed full opportunity for review and comment on later subsequent proposals that might lead to anything --

MS. ROBINSON: One minute. Keep going. One minute.

MR. MEMO: Oh, I'm sorry. Anything less than unrestricted release. If an ongoing assessment period occurs, there will be many interim decisions and site work that will have far reaching impacts on human health and the environment. The decision and planning for the work should also be subject to regular ongoing public consultation to ensure that viable options are not precluded. Regulatory reviews, permitting and licensing should contain commitments from the appropriate agencies, beyond minimal legal requirements, to seek and incorporate the views of the community in making decisions regarding the future of the site.

Over the coming months the CTF will be developing more detailed written comments

602-4 cont'd

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on the Draft EIS. We encourage everyone to take the time to clearly read and comment on this DEIS and submit written comments. Thank you for the opportunity to comment.

MS. ROBINSON: Thank you, sir. Okay. Allen Kettle, Anne Rabe. Did I misprounce?

MR. KETTLE: Did you call my name?

MS. ROBINSON: Alan Kettle.

MR. KETTLE: That's me. (Spoke in native tongue.) I'm not a Seneca, but I'm Cayuga. If you know, our ancestors were all one. And I speak for the Creator when I say this, that if this site is not cleaned up, we could consider this another act of chemical warfare against our people. So I urge you to clean this site up properly. We hold America and their citizens responsible if any of our children are harmed in any way or any of the fish or anything that's near that river. I hope you will take these words to wherever you have to. Thank you.

MS. ROBINSON: Thank you, sir.

603-1

603-1 DOE and NYSERDA note the commentor's preference for cleanup of the WNYNSC site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

This EIS analyzes the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. These projected impacts are presented in Chapter 4, Section 4.1.10, and Appendix H of this EIS. Chapter 4, Section 4.1.6, of this EIS also presents the results of an ecological risk assessment showing the projected long-term ecological impacts of the alternatives. Please also see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

Next is Anne Rabe. Did I pronounce that correctly?

MS. RABE: No.

MS. ROBINSON: Say it for me, please?

MS. RABE: Sure. I'm Anne Rabe. I'm with the national organization, the Center for Health Environment and Justice.

MS. ROBINSON: Excuse me. I didn't name the next person so they can be prepared. Next will be a group, will be Don Longfellow and Pat Shelly. Sorry to interrupt you.

MS. RABE: I first want to start out by saying our organization as well as a number of other environmental organizations has sent a number of requests to the Department of Energy and NYSERDA requesting that the hearing format be one that supports the tenance of public participation and we're deeply disappointed that the Department of Energy stopped any effort to have a more flexible public participation oriented public hearing where people can come and speak for

604-1

604-1 DOE and NYSERDA note the comment. The public meetings on the Revised Draft EIS followed the standard format used in similar meetings for other EISs. The presentations provided by DOE and NYSERDA representatives were intended to provide necessary information regarding the proposed action to those who were less familiar with the project. Questions were allowed to help clarify the technical points of the presentations. The 5-minute time limit allotted to commentors afterward was intended to provide an opportunity for a maximum number of attendees to comment on the Revised Draft EIS. Commentors with more extensive comments that would exceed the 5-minute limit were encouraged to submit their views via paper comment sheets provided at the meeting, the EIS Internet website, U.S. mail, or a toll-free fax number. It should be noted that time was available at the end of all the public meetings for commentors with lengthier comments to speak a second time. This ensured that all speakers were able to complete their comments after everyone wishing to speak had been afforded an initial opportunity. DOE and NYSERDA have responded to all comments received on the Revised Draft EIS in this CRD.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

more than five minutes after waiting 14 years to comment on this proposal and they can speak early in the evening as opposed to being talked at, having to go an open house for the first hour and a half of the event so just another formal complaint that this is an unacceptable public participation, public hearing.

Our organization started around the Love Canal toxic waste site in Niagara Falls. Our director, Lois Gibbs, was a community leader there. I've been working on the West Valley issue with New York State Assembly and then with environmental organizations since the mid eighties and I'm deeply, deeply disappointed to see NYSERDA's support of this Department of Energy lead Preferred Alternative for a phase decisionmaking. Our organization calls this phase decisionmaking the one percent punt and the reason we call it that is because what they didn't tell you in the presentation earlier today is that all the new cleanup they are talking about doing in Phase 1 addresses one percent of the new

604-1 cont'd

604-2

604-2 Implementation of the Phased Decisionmaking Alternative would make an important advance in the decommissioning of WNYNSC within the initial 8 years. The cleanup that would take place during Phase 1 of the Preferred Alternative, as explained in Chapter 2, Section 2.4.3, of this EIS, would reduce or eliminate potential health or environmental impacts by removing major facilities (such as the Main Plant Process Building and lagoons). In addition, the source area for the North Plateau Groundwater Plume would be removed, thereby reducing the source of radionuclides that are potential contributors to human health or environmental impacts. If the Phased Decisionmaking Alternative is selected, the agencies intend to make the Phase 2 decision as soon as possible.

It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

DOE and NYSERDA assume that the commentor is referring to the report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

cleanup, one percent of the site's radioactivity. It leaves remaining -- it punts the question of how to cleanup the remaining 99 percent of the radioactivity at the site. We feel that's unacceptable. We feel that we have the evidence now that shows exhumation is the only cost effective, environmentally sound, public health protective approach to protect the Great Lakes Region, to protect the Seneca Nation's land. It's the only acceptable approach and to punt the question yet again for up to three decades of whether we're going to dig up the waste at West Valley, while we watch high level tanks nearing the end of their life, their 50 year design life, and wait and wait and wait and watch contamination continuing to leak potentially, it's just -- it's just kind of mind boggling that our state agency, NYSERDA, would support the federal Department of Energy's Preferred Phase decisionmaking approach.

We will be submitting more detailed comments and we will also be testifying at the

604-2 cont'd

NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

other hearings later this week. So I won't go into a lot of detail. I'm just sort of giving the highlights. We obviously oppose leaving buried waste on the site because as scientists and economists discovered in their three year investigation into low cost accounting report. It was discussed earlier, the erosion at West Valley is a powerful and fast moving force. It sits on a geologic young landscape which is undergoing a relatively rapid rate of erosion.

604-3

There's just no good reason why you'd even consider a No Action Alternative or a Closed-In Place Alternative. There is also no good reason why you'd consider waiting for three decades to decide whether or not to dig it up. It's clear that we need to figure out how to dig it up. If we have uncertainties, that needs to be the subject of the DEIS and we don't need a state agency signing on to the DEIS that says in the same breath in the forward of the DEIS that the Department of Energy's performance assessment for In-Place Closure is seriously flawed and scientifically indefensible. It's just -- you know, there's

604-4

604-3 DOE and NYSERDA acknowledge the commentor's opposition to leaving waste on site. DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. Please see the Issue Summaries, "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

604-4 DOE Response: DOE began the Core Team process in November 2006, with the agencies involved in the EIS, to work toward resolution of technical issues that were impeding progress of the document. NYSERDA agreed to join this process in March 2007. Since that time, DOE and NYSERDA have worked cooperatively to advance the NEPA process for the West Valley Site. In parallel, DOE and NYSERDA have engaged in settlement discussions, limited to issues of cost allocation, related to the December 18, 2006 legal action filed by NYSERDA.

NYSERDA Response: As explained in the Foreword to the Draft Environmental Impact Statement (DEIS), NYSERDA's view is that a defensible long-term performance assessment does not exist today for West Valley. Absent such an assessment, important decisions regarding the closure of facilities cannot be made.

NYSERDA supports the Preferred Alternative, which allows for removal of significant contamination, while further studies can be undertaken to improve our long-term analyses in support of a Phase 2 decision.

a big disconnect there having our state agency support a document and a Preferred Alternative that's based on scientifically indefensible data and assessment.

So clearly, there is a war going on between the DOE and NYSERDA and we're, again, the victims of it. We're going to have to wait up to 30 years until the agencies finally figure out how and when they can exhume the waste at the site. It's unacceptable and I think there's going to be growing public outrage when people start to realize this. One percent punt is not good enough and it's unacceptable. Thank you.

MS. ROBINSON: Thank you, Anne. The next person is -- there's two people and there is Don Longfellow and Pat Shelly followed by Diane D'Arrigo.

MR. LONGFELLOW: Hi, I'm number one. She is DD number two and if you listen to us, you'll know what to do.

MS. ROBINSON: I'll just suggest so they can hear you if you move it, they don't hear you very well. It sputters.

604-4 cont'd

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

MR. LONGFELLOW: Okay. West Valley is a real hot potato.

MS. SHELLY: I know, a 30 year old hot potato. And in fact, even earlier. In 1963, they began burying nuclear waste on the West Valley site.

MR. LONGFELLOW: Yeah, and who's responsible for cleaning it up? Is it New York State or is it the feds?

MS. SHELLY: Well, that is the latest hot potato. The Environmental Impact Statement draft says that the feds, the Department of Energy, will be involved, but then could toss the potato to the State of New York and leave us in New York with 99 percent of the radioactive junk that's still on the site, and then, not make a decision for what to do with it for up to another 30 years.

MR. LONGFELLOW: Oh, so, what does that mean for us, and for all of those that are still living in the radioactivity in our waters. Heck, I live 40 miles from here in Buffalo. And it's reaching our water supply and it even reaches Lake Ontario. So

605-1

605-2

605-1 Chapter 1 of this EIS summarizes the history of WNYNSC. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles.

It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement if the Phased Decisionmaking Alternative is selected (see below).

The Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

DOE will remain on site until it completes its responsibilities as assigned under the West Valley Demonstration Project Act. DOE would not be leaving the site after completion of the Phase 1 actions because it would not have completed the actions required under the Act. The description of the Phased Decisionmaking Alternative in Chapter 2 of the EIS has been revised to clarify this.

605-2 The contamination at the juncture of the Niagara River and Lake Ontario was the result of releases from the site when reprocessing operations were in progress. The environmental contamination from current operations is minimal

what do we want to see happen?

MS. SHELLY: It really makes the most sense and is safer for us, our children, our grand and great grand and great great grandchildren, and all who come after us to clean it up now or this potato is just going to get hotter. So, what's the plan?

MR. LONGFELLOW: Well, well, we don't have any -- we don't want any plan that ignores the progressive erosion at the West Valley site. The gullies that may breach the buried waste and the increased radiation will enter our land, waters, animals and fish and all the humans, too. So, what is the best option?

MS. SHELLY: Don't wait 30 years to go through this process again to decide what needs to be done. If we cleanup West Valley now, we can avoid having radioactivity as a threat not to mention that the cost in 30 years will be that much more expensive. So, sitewide removal, it's the way to go.

MR. LONGFELLOW: You bet.

MS. SHELLY: And it should

605-3

605-1 cont'd

(below established standards), as demonstrated by the results from the ongoing environmental monitoring program. Please see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

605-3 DOE and NYSERDA note the commentors' preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F. Chapter 4, Section 4.1.6, of this EIS also presents the results of an ecological risk assessment showing the projected long-term ecological impacts of the alternatives.

In addition to the Issue Summary for "Concerns about Potential Contamination in Water," please see the Issue Summary for "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

include all site cleanup of the already leaked radioactive junk.

MR. LONGFELLOW: Right, again. And that makes for a permanent and safe solution for those before the site erodes further and leaks more.

605-3 cont'd

MS. SHELLY: So, to protect our health and the health of future generations we cannot leave the waste buried at West Valley.

MR. LONGFELLOW: Or the people downstream will need more than oven mitts to handle this hot potato.

605-1 cont'd

MS. SHELLY: Let's put an end to it and dig it up.

MR. LONGFELLOW: Dig it up and ship it home. Ship it out. Ship it home wherever that would be. Thank you.

MS. SHELLY: Thank you. And we do live in Buffalo and we have been concerned about West Valley since 1980. We're not part of an organized group. We're a group of two, Downstream Denizens and we are really concerned about the waterways and we are really concerned about the impact as been

605-3 cont'd

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spoken of before for the land and all its peoples, and the animals, and the fish and the birds and I really hope that you consider that that we feel that this is urgent. That this cannot go on. And that the Phase 1 and Phase 2 idea is a bad idea. I thank you for the opportunity to testify, comment.

MS. ROBINSON: Thank you, Denizen Downstreams. Next speakers will be Diane D'Arrigo and followed by Barbara Warren.

MS. D'ARRIGO: My name is Diane D'Arrigo. I'm with Nuclear Information and Resource Service, which is a national organization part of the growing West Valley Action Network made up of dozens of organizations locally here, Western New York, New York State, nationally and internationally. Got groups in Canada as well.

I am a native Western New York resident and grew up and have been tracking this site since 1979, part of the coalition on West Valley nuclear waste. The thing I think what is most important is that the waste

605-3 cont'd

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

that's buried at the site not only in the plume that's migrating but also in the tanks, in the buildings, in the trenches and in the burial holes, includes radioactivity that is hazardous into the very long long time frames. It's hazardous now. It will be hazardous into thousands and millions of years.

We also have geological information which even the Department of Energy indicated in its 1996 EIS that this area is going to erode into the Great Lakes in the next 1,200 years. The independent geologists for NYSERDA and then the independent geologists from SUNY Fredonia, who is part of the full cost accounting study, have confirmed that and, in fact, Mike Wilson has said that it could even happen as soon as 150 to 300 years. There could be serious erosion and movement of that waste into the surrounding streams and into potentially the water supplies through the Cattaraugus and into Erie.

The fact that this could happen now or that it could happen in the long-term future, says to me that we don't wait to dig

606-1

606-1 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. Please see the Issue Summaries for "Concerns about Potential Contamination of Water," "Questions about Long-term Erosion Modeling," and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

up the material. We make the decision now. We prevent more of these plumes from happening. We are told that the plume is from the Process Building. The Process Building is near the tanks. How do we know the tanks aren't part of the source. It may be a bad precedent for DOE to dig up our few tanks when they have got hundreds elsewhere, but that shouldn't be the excuse to not protect our area.

So our organization supports the full removal, full sitewide removal option. We do have concerns about the destination places where wastes would go, but we, also, believe that the lesson needs to be learned that the radioactive material from nuclear power and from nuclear weapons does not have a solution because on one hand DOE is saying we can't deal with the waste. If we dig it up, there's nowhere for us to send it. We can't, you know, get rid of it fast enough so maybe we should just leave it in the ground and decide over the next 30 years. On the other hand, DOE is promoting new reprocessing

606-2

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606-2 The information about the integrity of both the Main Plant Process Building and the Waste Tank Farm, as well as the information about local hydrology and the characterization of the plume composition, are all consistent with the finding that the Main Plant Process Building is the source of the North Plateau Groundwater Plume. In addition, the extensive WNYNSC environmental monitoring program, which is designed to detect possible movement of contamination on the site, as well as specialized studies, have concluded that the source of the North Plateau Groundwater Plume is the Main Plant Process Building. The plume is discussed in Chapter 3, Section 3.6.2.1, and Appendix C, Section C.2.13, of this EIS.

Regarding the amount of radioactivity addressed under the Phased Decisionmaking Alternative, it is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

606-3 Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

DOE and NYSERDA note the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

facilities around the country under GNAP or AFCI or various different acronyms and also, giving taxpayer money to utilities to build new nuclear plants including potentially one here in New York State, which would generate the exact waste that we are plaqued with at this site. So the lesson needs to be brought home to the other parts of the Department of Energy and to New York State on its decisions on future energy.

I think that the phased alternative as was said earlier, one percent of the radioactivity leaving 99 percent there, of course, we support the work that's being proposed in Phase 1, but that ought to be just done as part of the full cleanup and the whole plan enacted immediately. We don't need more information to determine how to dig it up or when to dig it up. If we make the decision to dig it up, then we proceed with how it's going to be managed and we manage it responsibly from there.

MS. ROBINSON: Thank you. Next will be Barbara Warren followed by Sam Miller.

606-3 cont'd

will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

MS. WARREN: Good evening, my name is Barbara Warren. I'm the executive director of Citizens Environmental Coalition. It's a statewide coalition for environmental groups.

Tonight, I want to focus a little bit more on the EIS, the Environmental Impact Statement, particularly, the Preferred Alternative or the one percent solution that we are calling it. Phase one will handle just 1.2 percent of radioactivity on this site and the other 99 percent would be left and we know almost nothing about what would happen in Phase 2.

I want to emphasize that when the agencies presented a slide here tonight about December, 2009, they would issue a ROD, a Record of Decision. That's it. That's it. That's the end. They've made the decision. This is our opportunity. It ends June 8th. We submit comments. That's the last they hear from us. They issue their decision and we know nothing about what's going to happen in Phase 2. We weren't involved in Phase 1

607-1

607-1 It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement if the Phased Decisionmaking Alternative is selected (see below).

The Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

Chapter 2, Section 2.4.3, of this EIS describes decommissioning activities under the Phased Decisionmaking Alternative and provides a discussion of the data collection, studies, and monitoring to be performed during implementation of Phase 1 and the purpose of each of these activities. The overall intent of these Phase 1 activities is to further characterize the site and to research technology developments and engineering to aid consensus decisionmaking for Phase 2. Section 2.4.3.3 explains how the additional data and studies would be used in making decisions for potential future activities. The intent of this EIS is to provide a description of the environmental impacts of each of the alternatives to inform the agency decisionmakers.

Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

because they didn't tell us anything about the data collection phase. They haven't told us what they are going to do with that whole data collection phase.

607-1 cont'd

I want to emphasize the whole point of an Environmental Impact Statement is to develop a complete plan or a project to give full public disclosure of what an agency is going to do so that the public can participate. Once they have identified all the elements of their project, then they have to look at each and every Environmental Impact Statement and study it and tell you about it. Well, they can't tell you about it when they haven't told you what they are going to do in Phase 2. They can't even tell you what data they are going to collect in Phase 1 that's going to help them make that decision. They are going to make decisions after they leave here, after they get their comments June 8th, they are going to make decisions to collect data.

607-2

607-1 cont'd

They are going to go to their offices and they're going to make decisions

607-2 cont'd

Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

607-2 The purpose of an EIS under NEPA and its implementing regulations is to ensure that (1) Federal agencies consider the potential environmental impacts of proposed actions in their decisionmaking processes, (2) the potentially affected public has the opportunity to review and comment on those actions, and (3) the opinions of the public are also considered in preparing the EIS, and thus, by the decisionmakers. DOE has more than met its obligations under NEPA, both in the letter and the spirit of the law. DOE has been transparent in its conduct of NEPA activities at WNYNSC, including ensuring timely notification of proposed NEPA documents and opportunities for public participation. In addition, an 18-member Citizen Task Force sponsored by both DOE and NYSERDA was formed in 1997 and has met regularly since 1998 to discuss issues regarding facility closure and long-term management, including future site use, long-term stewardship, and regulatory issues. Further, DOE holds quarterly public meetings to discuss activities at WNYNSC and progress on decommissioning the site, including the NEPA process to further those activities.

As acknowledged in this EIS, long-term monitoring and maintenance would be required for alternatives that would leave waste on site. This EIS provides a summary description of current and potential future environmental monitoring programs. Long-term monitoring and maintenance are described in Chapter 2, Sections 2.4.2.6 and 2.4.3.8. Long-term monitoring and institutional controls are also discussed in Chapter 6. Additional information about current and proposed monitoring and institutional controls is provided in Appendices C, H, and I.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

without us. We are not there because we weren't part of the process. They kept us in the dark. They treated us like mushrooms. And then they are going to be making the decisions for this entire site. Now, that's a problem. There is no legitimate public process here. We've been left out. The phase decisionmaking alternative fundamentally leaves the public out and that is not a legitimate Environmental Impact Statement. You don't meet the fundamental criteria for it.

The other piece of this is we can't even talk about long-term stewardship when we haven't decontaminated and decommissioned this site. I want to mention that about some of the history here. That about 50 years ago the Federal government embarked on a plan to reprocess the nation's nuclear waste using private entities. The government was very enthusiastic and optimistic that its plan would work successfully and as a result, sold the public and the State on the plan. 50 years later, it's pretty clear that the plan

607-2 cont'd

607-3

Chapter 2, Table 2–4, includes estimates of the environmental consequences if (1) monitoring and maintenance are successful (institutional controls remain in place) and (2) monitoring and maintenance programs fail (institutional controls are lost).

Detailed information regarding long-term monitoring and maintenance programs and institutional controls under alternatives that would leave waste on site has not been specifically defined at this time. Such definition would occur after an alternative is selected for implementation and would include consultation with appropriate regulatory authorities. An element of the long-term programs would be the development of plans and procedures for responding to emergencies. These plans and procedures would include coordination and agreements with local police and fire departments and medical facilities.

Public involvement in the Phase 2 decisionmaking process is addressed in the response to Comment no. 607-1 above.

607-3 Chapter 1 of this EIS summarizes the history of WNYNSC. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

was a stupendous failure. The private operator walked away from the project. A long list of accidents and spills have left the site extensively contaminated. These are not my words. These are the DOE and NYSERDA words, extensively contaminated.

The government now has the responsibility for the site. The perpetual care fund, that was supposed to be a fund with enough money to adequately fund and deal with the massive amount of radioactive material that has to be isolated and contained for thousands of years. The risks to groundwater, to surface water, the Great Lakes and public health are enormous.

Well, this same agency, these same agencies that were involved in all this, mind you the site has been actively managed since at least 1966 with multiple agencies as well as the private operator. Now, they want to go to a lower level of management and that process that I just described for you for the phased alternatives where we haven't been told anything where they are going to make all the

607-3 cont'd

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decisions on their own, these are the same people that have effectively contaminated all this site and created all the problems. So the public has to question, we may have been fooled once by the optimism and the salesmanship regarding reprocessing, but it really is unlikely that we are going to be fooled again.

MS. ROBINSON: One minute.

MS. WARREN: 50 years of experience went beyond the (inaudible) that undermined that trust and increased our skepticism. It is like you're trying to sell us a car right now by showing us two tires. It's just not enough. Thank you.

MS. ROBINSON: Thank you, ma'am. Our next speaker will be Sam Miller followed by Ray Vaughan.

MR. MILLER: Thanks. I live in East Aurora. I drink Lake Erie water. It's my main reason for being here is the risk to the drinking water that is there for most Western New Yorkers from Lake Erie.

I picked up some new information

608-1

608-1 DOE and NYSERDA acknowledge the commentor's concern about risks to drinking water. Please see the Issue Summaries for "Concerns about Potential Contamination of Water" and "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

DOE and NYSERDA would like to emphasize that there are differences between the Sitewide Removal and Phased Decisionmaking Alternatives. If the Phased Decisionmaking Alternative is selected, during Phase 1, DOE would conduct additional studies and evaluations to clarify and possibly reduce technical uncertainties related to the decision on final decommissioning and long-term management of the site. A variety of studies would be implemented to further characterize the site and to research technology developments. The information gathering conducted during Phase 1 is expected to provide data to aid consensus decisionmaking for Phase 2 activities. Phase 2 activities could include sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements.

DOE will remain on site until it completes its responsibilities as assigned under the West Valley Demonstration Project Act. DOE would not leave the site after completion of the Phase 1 actions because it would not have completed the actions required under the Act. The description of the Phased Decisionmaking Alternative in Chapter 2 of the EIS has been revised to clarify this, and the wording in the *Phase 1 Decommissioning Plan for the West Valley Demonstration Project* has been revised to avoid any implication that DOE would leave the site at the end of Phase 1.

DOE disagrees with many of the points raised in NYSERDA's View, which is included as the Foreword to this EIS. At the core, differences between DOE and NYSERDA center on different views about the nature of analysis required for an EIS and the attendant level of acceptable risk associated with any uncertainties in that analysis as it relates to decisionmaking. DOE believes the analysis in this EIS meets the requirements of NEPA and SEQR in that, when there is incomplete or unavailable information relevant to reasonably foreseeable significant adverse environmental impacts, this EIS (1) acknowledges the information limitation and its relevance to environmental consequence, (2) summarizes existing credible

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

tonight on NYSERDA's view of the Draft EIS and I agree fully with all comments in there, but NYSERDA favors the phased approach and yet I see very little difference between the phased approach and the sitewide removal upfront. Sitewide removal is going to require phases to that project, planning, and several years to work the project details out as to where you're going to go. That's the -- only difference between the phased approach is that the phased approach has a little caveat in there that in Phase 2, that the low level waste in some of the site could remain there untouched and I think that's just maybe some sort of a legal excuse that in 30 years you can walk away from the site and that really concerns me.

I'd like to see that Phase 2 decision Close-In Place removed from the Draft EIS because it hasn't been -- there is no difference between it and the sitewide removal. That's the only difference. I said that poorly. I'm going to submit it in writing. Thanks.

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608-1 cont'd

scientific evidence, and (3) presents an analysis using a theoretical approach that is generally accepted by the scientific community involved in such analyses. This Final EIS contains text boxes in the relevant subject matter areas that acknowledge the differences of opinion between DOE and NYSERDA. In general, DOE's position is that the Agency spent much time and effort engaging highly qualified and respected experts in hydrology and hydrological transport, landscape evolution (erosion), human health and environmental risk analysis, and other technical fields, and stands behind the analyses performed for this EIS.

MS. ROBINSON: Thank you, sir. Our next speaker is Ray Vaughan followed by Kathy McGoldrick.

MR. VAUGHAN: Good evening. I'm Ray Vaughan. I'm a resident of Hamburg. I'm been involved as a citizen in looking at the West Valley site issues since 1978. I'm also like Tony Memo a member of the West Valley Citizen Task Force.

I expect to submit extensive written comments. My only comment for tonight is I think it would be appropriate for at least tomorrow night's and the next night's meetings to use up less time up front with allowing people to talk to the people at the bulletin boards and easels, less time with the presentations and not put this five minute time limit on. Most people have not gone on and on. I don't think you need to impose a time limit. I would suggest giving more time to people who have something to say. Thank you.

MS. ROBINSON: Thank you, sir. Kathy McGoldrick and Maria Maybee following.

609-1

609-1 DOE and NYSERDA note the comment. The public meetings on the Revised Draft EIS followed the standard format used in similar meetings for other EISs. The presentations provided by DOE and NYSERDA representatives were intended to provide necessary information regarding the proposed action to those who were less familiar with the project. Questions were allowed to help clarify the technical points of the presentations. The 5-minute time limit allotted to commentors afterward was intended to provide an opportunity for a maximum number of attendees to comment on the Revised Draft EIS. Commentors with more extensive comments that would exceed the 5-minute limit were encouraged to submit their views via paper comment sheets provided at the meeting, the EIS Internet website, U.S. mail, or a toll-free fax number. It should be noted that time was available at the end of all the public meetings for commentors with lengthier comments to speak a second time. This ensured that all speakers were able to complete their comments after everyone wishing to speak had been afforded an initial opportunity. DOE and NYSERDA have responded to all comments received on the Revised Draft EIS in this CRD.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

MS. McGOLDRICK: Hi, I'm Kathy McGoldrick with the West Valley Coalition on Nuclear Wastes.

Historically, the Coalition on West Valley Nuclear Wastes has taken the position that there should be a full cleanup of the West Valley nuclear site, ultimately, leaving the site available for unrestricted use. This, then, includes the complete exhumation of the burial grounds and the high level waste tanks.

We have concerns regarding the Department of Energy's Preferred Alternative, which calls for up to 30 years before a final cleanup decision is made. We would like to believe that this hesitation is truly to buy the wisdom of time. However, some of us find that hard to believe. Some of us have been here since 1980 when Westinghouse and the DOE came to West Valley to deal with the mess left after only six years of reprocessing; and although we have undoubtedly seen some progress, we have seen little in the way of final resolution for that once beautiful site.

610-1

610-1 DOE and NYSERDA note the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

610-2

610-2 DOE and NYSERDA note the comment. Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

We, the people, need to be involved in the final decisionmaking for West Valley because the ramifications of the wrong choices will affect our Great Lakes, our environment, and the lives of our progeny. The DEIS provides no methods whereby the public can be involved in the processes which will provide a Phase 2 alternative, despite the fact that 98 to 99 percent of the waste at the site will still need to be dealt with at that time. This is not acceptable.

The public needs to be secure in knowing that there is every intent to cleanup the entire West Valley site, and that at the end of Phase 1, there will not be a 30 year coma after which the DOE comes to and determines to leave in-situ the high level waste tanks and the burial grounds. There must be a continuous decisionmaking process involving the public, the end result of which is removal of all the waste from West Valley. It is critical that the DOE confirm that it will continue its responsibility and commitment to fully remediate the site. There

610-3

610-3 Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (please see the response to Comment no. 610-2).

It should be noted that the decision for implementation of Phase 2 could be sitewide removal of remaining facilities and contamination (Sitewide Removal Alternative), in-place closure of remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements.

DOE will remain on site until it completes its responsibilities as assigned under the West Valley Demonstration Project Act. DOE would not leave the site after

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

must be no lapse in the process which helps us determine how to best meet the decommissioning requirements prescribed by the NRC under the West Valley Demonstration Project Act and set forth in the NRC's license termination rule.

After Phase 1, the West Valley site will still suffer the SDA and NDA burial grounds, the North Plateau Groundwater Plume, the Waste Tank Farm, and more likely than not, streambed sediment contamination and the Cesium Prong of Surface Soil. We are concerned that the ultimate decisions made regarding these wastes will be subject to DEIS erosion analysis which is questionable. Even NYSERDA raises serious issues with the DOE's erosion study processes. It is quite likely by other analyses that the West Valley site will be subject to erosion that could allow these wastes to enter the waterways which feed into Lakes Erie and Ontario far sooner than the DEIS suggests.

The DEIS soil erosion analysis is not scientifically defensible over the long-term and should not be used for long-term

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610-4

completion of the Phase 1 actions because it would not have completed the actions required under the Act. The description of the Phased Decisionmaking Alternative in Chapter 2 of this EIS has been revised to clarify this, and the wording in the *Phase 1 Decommissioning Plan for the West Valley Demonstration Project* has been revised to avoid any implication that DOE would leave the site at the end of Phase 1.

610-4 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. The erosion analysis that is presented in Appendix F of this EIS is considered to be scientifically defensible and, consistent with NEPA requirements, uses a theoretical approach that is accepted in the scientific community for evaluating long-term erosion.

DOE disagrees with many of the points raised in NYSERDA's View, which is included as the Foreword to this EIS. At the core, differences between DOE and NYSERDA center on different views about the nature of analysis required for an EIS and the attendant level of acceptable risk associated with any uncertainties in that analysis as it relates to decisionmaking. DOE believes the analysis in this EIS meets the requirements of NEPA and SEQR in that, when there is incomplete or unavailable information relevant to reasonably foreseeable significant adverse environmental impacts, this EIS (1) acknowledges the information limitation and its relevance to environmental consequence, (2) summarizes existing credible scientific evidence, and (3) presents an analysis using a theoretical approach that is generally accepted by the scientific community involved in such analyses. This Final EIS contains text boxes in the relevant subject matter areas that acknowledge the differences of opinion between DOE and NYSERDA. In general, DOE's position is that the agency spent much time and effort engaging highly qualified and respected experts in hydrology and hydrological transport, landscape evolution (erosion), human health and environmental risk analysis, and other technical fields, and stands behind the analyses performed for this EIS.

Please see the Issue Summaries for "Concerns about Potential Contamination of Water" and "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of these issues.

decisionmaking. The groundwater contaminate transport analysis and modeling used in the DEIS cannot be relied on to predict public radiation doses and long-term cleanup decisions. Erosion and waste transport burial performance has not been substantiated and may be overly optimistic. Especially for these reasons, we cannot accept a study process which leaves open the potential for the DOE to walk away from the site after 30 years, or to choose the Sitewide Close-In Place Alternative or any variable thereof.

Anything less than ultimate cleanup of the site is unreasonable and unethical.

Yes, we have seen some of the highest level waste made into glass logs, but they still rest on this once beautiful site because there is nowhere for them to go. And although I recognize that it is superfluous to this DEIS, it is not superfluous for us to ask, why then, would we ever consider increasing nuclear capacity when there is nowhere for the nuclear waste to go? And what would the cost of a killowatt of nuclear

610-4 cont'd

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

energy really be if we included the cost of appropriately dealing with the associated nuclear waste? If the push toward new nuclear is, as I suspect, about ultimate corporate control of our energy resources, then I am reminded of where unbridled control of our nation's resources by the few has gotten us today.

West Valley waste is a reminder of how the citizen pays the price of unreasonable and unethical business actions once sanctioned by government, perhaps with machiavellian best interests for the public, but West Valley and the West Valley Demonstration Project Act are also testaments to the strength of the citizenry in moving government to do the right thing. Let us continue in that process of doing the right thing and let us involve our people in the process of learning how to do the right thing, now, in this new era. Thank you.

MS. ROBINSON: Thank you. Our next speaker is Maria Maybee followed by Adrian Stevens.

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MS. MAYBEE: My name is Maria Maybee. And I am a member of the Seneca Nation of Indians and I'm born into the Heron Clan and I'd like to offer you a gift from the Cattaraugus Creek. It's really good. I had some last night.

I was born in 1961. And was sitting around this afternoon having dinner with other people coming to the hearing. I understand that's when the trenches were being built '61 to '63. And I grew up on this reservation near the creek. I come from a family that fishes alot. My cousin, Todd, holds the trophy for one of the best spearers here half the time. As a kid, you know, summer times and after school when it was nice out, we were allowed to walk from our home down to the end of the reservation woods near Gowanda to the creek. And we ate a lot of the things along the way. You know, we knew where the rhubarb was. We knew where the wild onions were. Dig 'Em up and bring 'em home. We'd eat the berries. We knew how to fish. And we even knew how to cook them by the creek, you know.

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

I was buried in the sand along the side of the creek many times by my older brothers and sisters while they snuck off to have a cigarette. We used to sleep in the rocks in the middle of the creek. And my parents I don't think would have ever let me do that if they realized what I was really playing in.

Shortly after that, I can't remember the year, and I haven't heard anybody mention it here is that it was an Act of Congress to clean that up for the citizens of this region and further said, please clean this up and Congress said, yeah. And I don't know to what level. I don't know if Congress -- I haven't read anything in quite a while, but is that being followed or is this just another way of putting it off for another 30 years. I am not happy with that.

I suffered different illnesses that I understand can be contributed to the West Valley site as well as the Peter Cooper site. So the combination is not very good at all. Where I live now as an adult is at the mouth of the Cattaraugus Creek. 25 feet from my

611-1

611-1 As discussed in Chapter 1, Section 1.1, of this EIS, the West Valley Demonstration Project Act was passed by Congress in 1980. The Act called for DOE to perform the following five actions: (1) Solidify, in a form suitable for transportation and disposal, the high-level radioactive waste at WNYNSC; (2) develop containers suitable for the permanent disposal of the high-level radioactive waste solidified at WNYNSC; (3) transport as soon as feasible, in accordance with applicable provisions of law, the waste solidified at WNYNSC to an appropriate Federal repository for permanent disposal; (4) dispose of low-level radioactive waste and transuranic waste produced under the project by the solidification of the high-level radioactive waste in accordance with applicable licensing requirements; and (5) decontaminate and decommission the tanks, facilities, material, and hardware used in the solidification of the high-level radioactive waste and in connection with WVDP in accordance with such requirements as NRC may prescribe.

At this time, DOE has completed the first two actions. As stated in the Purpose and Need for Agency Action (Chapter 1, Section 1.3, of this EIS), the Act requires DOE to decontaminate and decommission the waste storage tanks and facilities used in the solidification of high-level radioactive waste, as well as any material and hardware used in connection with WVDP, in accordance with such requirements as NRC may prescribe. This EIS evaluates alternatives by which DOE would complete its responsibilities under the West Valley Demonstration Project Act.

porch is the river. My nieces and nephews put a big rope from the tree so they could swing out into there. When they swing out into there, they go into muck, you know, many inches deep. It's fun for them, but I wonder should I tell them not to.

You know, there's so many different levels I've heard people speak of here. You know, from the drinking water, my territory gets their water from Erie County. And Erie County gets their water from Lake Erie and Cattaraugus Creek flows right into Lake Erie not far from where the intakes are. When I read the water report, I'm not clear that it's even tested for any of the waste that comes from the site that you're responsible for. So are you responsible for the waste as well as the site or just the site?

You know, on a health factor, I understand that, you know, some of the diseases that, you know, are a big trigger are lung disease and bone cancer. I don't know if you've ever helped somebody die from that, but I have. You know, I rubbed my cousin's back

611-2

611-2 Chapter 3, Section 3.6.1, of this EIS provides detailed information on surface water flow from WNYNSC to Cattaraugus Creek and Lake Erie, as well as the New York State water classification and state pollutant discharge elimination permit for WNYNSC. Figures 3–20 and 3–22 present the onsite and offsite surface water and soil/sediment sampling station locations, which are part of the WNYNSC environmental monitoring program. These locations are periodically monitored for radionuclide content. The monitoring results can be found in the annual site environmental monitoring reports.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

and broken ribs and she still enjoyed the back rub, you know, shortly before she died.

I have nieces and nephews that have to go to special classes, you know, because they are mentally -- or disabled. You know, they have developmental problems. Is that from us eating that fish, my sister's eating that fish? I think there could be some correlation.

This is really personal to me. You know, I have probably close to a hundred nieces and nephews at this point. And they are going to be responsible to stand up and do this in 30 years. And if it's the preferred decision that's taken, they are going to drive by there and they are not going to think it's a problem because it's going to look really pretty. You won't get to see those black tarps from the road. You won't be able to see any of the buildings or any of the equipment. It will be gone. So it will appear as though it's fine and appearances we all know make a difference on what people do and don't do.

I hope that I'm not wasting my time

611-3

611-3 Implementation of the Preferred Alternative (Phased Decisionmaking) would make an important advance in the decommissioning of the WNYNSC within the initial 8 years. If the Phased Decisionmaking Alternative is selected, the cleanup that would take place during Phase 1 of the Preferred Alternative, as explained in Chapter 2, Section 2.4.3, of this EIS, would reduce or eliminate potential health or environmental impacts by removing major facilities (such as the Main Plant Process Building and lagoons). In addition, the source area for the North Plateau Groundwater Plume would be removed, thereby reducing the source of radionuclides that are potential contributors to human health or environmental impacts. The nonsource area would be contained by the permeable treatment wall. Other buildings and the geomembrane covers would remain until a Phase 2 decision is made and implemented.

Regarding the 30 years cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected. Please see the Issue Summary "Modified Phased Decisionmaking Alternative" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

as well as all these other people making these public comments that we don't want this because that's been the majority of comments that I've heard. We don't want this decision, that we want it all cleaned up because the preferred decision leaves waste and it leaves it too long. I'm not comfortable with who makes that decision. So I asked that question earlier.

So we've walked for the water from the mouth of the creek all the way to West Valley and were heckled when we got to the door for they asked us why we were there. And we told them we were here for the water. We were on a spiritual journey to, you know, let the water know that we care. You know, the guards were like, oh, that's all cleaned up. It's no problem. I'm not a scientist, but I know a lot scientists and they tell me it's not a good thing. She keeps flashing her red thing at me.

I will provide more written comment and come for the rest of the days. I emplore upon you to look at this from a human point.

611-4

611-4 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

You guys have children, too. Do you want them to be healthy? And I really believe that this site will set a precedence across the nation of taking better care of our waste, so that when it does have a leak, we can take care of it and not have to worry about plumes getting out into the creek and et cetera. So thank you.

MS. ROBINSON: Thank you. Next speaker is Adrian Stevens, followed by our final speaker, who signed up at least, Lawrence Behan.

MR. STEVENS: I had originally signed up not knowing that Todd was going to be here to read the resolution that Tribal Council had submitted. So I defer.

MS. ROBINSON: I thought that might happen. Okay.

MR. STEVENS: Thank you.

MS. ROBINSON: Thank you. Next we have Lawrence Behan.

MR. BEHAN: My name is Larry Behan. And I wanted to speak to uncertainty. I'm here representing the Sierra Club and the

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Adirondack Mountain Club. In Western New York these two clubs have about 3,000 members and both organizations have been following this West Valley issue for a long time. And we are of the opinion that all of that nuclear waste has to come out of West Valley and go some place else.

The Adirondack Mountain Club people and the Sierra Club people do a lot of outdoor stuff. My wife, Lynn, and I and our kids, we come down to the Boston Hills and Cattaraugus Creek and Zoar Valley and the Lakeshore here to play. We live in Buffalo, but we come down to this area for fun. We climb all over the Boston Hills. We canoe in them. We ski in them.

And the one thing that is obvious about them, the one thing that is certain, the least uncertainty is that they are gradually eroding. I mean anybody that spends any time there will tell you of the roaring brooks in the spring time of the mud slides of the muddy water that's running down Cattaraugus Creek. It's a well known -- it's a geological fact

612-1

612-2

612-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

612-2 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F.

Please see the Issue Summaries for "Concerns about Potential Contamination of Water" and "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

that that area once was a plain, the bottom of a lake. And it is now riddled with beautiful streams, gorges and that plateau, that area that West Valley Nuclear Center is on is gradually eroding. The whole darn thing is eventually going to go down Cattaraugus Creek and out into Lake Erie and down the Saint Lawrence and along with it, that nuclear waste is going to ride along until we get it out of there. That nuclear waste is going to last hundreds of thousands of years.

Lynn and I took a drive down to West Valley just recently as the snow pack was melting. Cattaraugus Creek was roaring. Buttermilk Creek was roaring. We took a drive down Coby Hill Road into Cattaraugus Creek where the 219 has just been started in. And where everybody has known for a long time the soil is unstable. You drive down in there. 219 has slid part way into Zoar Valley and part way into Cattaraugus Creek. You look up the hill, there's a house that's off of its foundation. The trees are turning sideways. The whole area is subject to erosion. There

612-2 cont'd

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is no uncertainty about that at all. We need to get that nuclear waste out of there before it comes down and is dissolved into Lake Erie. Thank you.

MS. ROBINSON: Thank you, sir. Okay. According to my list, that's everybody who signed up. Did I miss anybody who did sign up? Okay. Then we now have time if there is somebody who didn't sign up and would like to speak now, you may do that. Ma'am, when do you come up, please identify yourself since we don't have your name written down so that the court reporter can get it.

MS. HAMEISTER: My name is Joanne Hameister, H-A-M-E-I-S-T-E-R. I am chairman of the West Valley Coalition, but tonight, I'd like to speak for myself. I've been involved with this issue for a long time. I'll be offering the coalition's comments tomorrow night.

A lot has bubbled up and it happens an awful lot in my mind. I've been involved with first the legal women voters. I've been involved with the coalition since 1977.

612-1 cont'd

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Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

The fuel reprocessing plant operated for only six years, was supposed to cost $28.5 million to build. Westinghouse and DOE came on site in 1980 to begin to deal with the West Valley situation. That was 29 years ago and two billion dollars later. You've done some good things, but you had to do something to justify two billion dollars of taxpayer monies. And a great deal of those dollars were band-aides, to wit:

Dealing with leaky and bathtubbing burial grounds, monitoring wells to follow the progress of the plume and trying to intercept it, $2.5 million to exhume eight tanks and the NDA leaking kerosene laden with plutonium, and we still don't know where the plutonium went.

This escalation of time, of money, talent, research, more questions than answers, more studies than solutions, convinces me that we have to promote more responsibility in the nuclear industry and other industries as well, that we have to have a solution for these legacy wastes and future wastes of so-called progress before we start producing them.

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The West Valley site has its very own Act of Congress, the West Valley Demonstrate Project Act, which charges you with demonstrating that the wastes at West Valley can be cleaned up, decommissioned and decontaminated. I charge you to do it. Let's get on with it.

I continue to worry also about seriousness with which all these comments are considered in your decision process, which by the way is afforded to us under NEPA and SEQRA.

In point of fact, you are required only to receive these comments but not necessarily to listen to us. In preparing for them today, I did return to a prior EIS comments made by the Coalition and relived my disappointment and depression. There continues to be a cavalier attitude in many cases and mainly, we get the ever present trust me type of bureaucratic answer.

Please listen to us. Whether or not we are lawyers, mathmaticians or scientists, our concerns are real and we are entitled by

613-1

613-1 DOE and NYSERDA seriously considered the concerns expressed in all comments received on the Revised Draft EIS. DOE and NYSERDA view public involvement as an essential component in the decisionmaking process. Each comment received was reviewed by a team that included policy experts, subject matter experts, and NEPA specialists. Comments were reviewed throughout the course of the response process as new information became available or as aspects of this EIS changed. Responses to all of the comments are provided in Section 3 of this CRD.

DOE and NYSERDA point out that NEPA and SEQR are processes for providing agency decisionmakers with an assessment of reasonably foreseeable environmental consequences of alternative actions along with public comments on the EIS and agency responses to those comments. Agencies make their decisions based on a consideration of many factors beyond the environmental analysis presented in an EIS and the number and nature of public comments on an EIS. A Federal agency decision and its supporting rationale is documented in a Record of Decision published in the *Federal Register*. New York State agency decisions and supporting rationale are documented in a Findings Statement published in an New York State *Environmental Notice Bulletin.*

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

virtue of birth and life and a very simple act of being to have an effect on and validation of your decision process. Thank you.

MS. ROBINSON: Thank you, ma'am. Is there anyone else who didn't sign up who would like to? Ma'am, would you also please identify yourself?

MS. HERNANDEZ: My name is Hilda Hernandez and I own a property in Woodlawn, New York, which is adjacent to Woodlawn Beach State Park. I don't want to express a lot of the concerns that have already been mentioned here. Obviously, living on the lakeshore, and Woodlawn Beach hearing on the news all the time the beaches are closed for swimming because of the runoff if it rains more than two inches for the day before, the beaches are closed because all the sediment has, you know, gone down the creeks and emptied out into the lake. That's one of my big concerns that the sediment, you know, that's coming down and also finds its way down to the gorge and into Lake Ontario.

Another concern is even if it

614-1

614-1 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F.

The potential human health impacts of the alternatives evaluated in this EIS are presented in Chapter 4, Section 4.1.9 (short-term) and Section 4.1.10 (long-term). Chapter 4, Section 4.1.6, of this EIS also presents the results of an ecological risk assessment showing the projected long-term ecological impacts of the alternatives. The results of the human health and ecological impacts analysis imply that any impacts on wildlife would be negligible.

Please see the Issue Summaries for "Concerns about Potential Contamination of Water" and "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

As acknowledged in this EIS, long-term monitoring and maintenance would be required for alternatives that would leave waste on site. This EIS provides a summary description of current and potential future environmental monitoring programs. Long-term monitoring and maintenance are described in Chapter 2, Sections 2.4.2.6 and 2.4.3.8. Long-term monitoring and institutional controls are also discussed in Chapter 6. Additional information about current and proposed monitoring and institutional controls is provided in Appendices C, H, and I. Chapter 2, Table 2–4, includes estimates of the environmental consequences if (1) monitoring and maintenance are successful (institutional controls remain in place) and (2) monitoring and maintenance programs fail (institutional controls are lost).

doesn't rain, if there's a lot of wave action from high winds, a lot of wave action that also stirs up the sediment. I was looking at the photo in the booklet and you can see where the line of the sediment is going down. So that even though it's away from the actual lakeshore, it's coming in.

So my concerns are obviously for myself and for my children and I walk the beach. It's a beautiful beach area. I enjoy birding. I see the shore birds there as was mentioned before. You know, that's my concern for nature.

I feel fortunate that at Woodlawn Beach at least they test the water every day so we know. You know, it's made public, but up in Hamburg Beach, which is only a couple miles up the road, they don't test as often so people are swimming over there and they are swimming unaware of what kind of contamination is in there. So I just wanted to express those concerns.

I feel that there should be no other choice except to have full removal. And the

614-1 cont'd

614-2

614-2 DOE acknowledges the commentor's support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

In the Final EIS, the duration of implementation of the Sitewide Removal Alternative was estimated to be 60 years. The 30 years referred to in the comment relates to the Phased Decisionmaking Alternative (see below).

The Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

Phase 2 would complete decommissioning and would have a duration of several years to several decades. DOE will remain on site until it completes its responsibilities as assigned under the West Valley Demonstration Project Act. DOE would not leave the site after completion of the Phase 1 actions because it would not have completed the actions required under the Act.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

other concern was, you know, the 30 years? What happens if it's a 64 year project? What happens to the other 34 years? Who's going to monitor that? Thank you.

MS. ROBINSON: Thank you, ma'am. Anyone else who did not sign up to speak who would like to? Okay. Is there anybody who already spoke who would like to? Ma'am?

MS. D'ARRIGO: I forgot to repeat, Diane D'Arrigo. We want more time to comment. Yes, we had a longer public comment period on this than most EIS's, Environmental Impact Statements, but we need more time to make sure that the rest of the residents in this area know what's being decided and can give some input. So we are asking -- I mean basically, it's just a reiteration of a request that numerous of our organizations have made to the Department of Energy and NYSERDA for an extension of the comment period until October 30th and that request has been denied, but we are re-requesting it and saying that there are quite a few people here, there were a few people in Albany last night, but

614-2 cont'd

606-4

606-4 In response to requests from the public, DOE and NYSERDA extended the original 6-month comment period (required by the 1987 Stipulation of Compromise Settlement between the Coalition on West Valley Nuclear Wastes and Radioactive Waste Campaign and DOE) for an additional 90 days, through September 8, 2009.

this is an issue that affects New York taxpayers, Western New York residents, Canadian residents and we have every right to take this time. We waited 13, 14, however many years for this round of the EIS to come out. We just got $74 million in stimulus money that should keep us going long enough to extend the Record of Decision a little longer so we can make a full and informed public participation and involved decision.

606-4 cont'd

MS. ROBINSON: Thank you, ma'am. Anybody else like to speak? Yes. Remind her who you are, please?

MS. RABE: I'm Anne Rabe with the Center for Health Environment and Justice. I'd like to echo what Diane D'Arrigo said. We both represent national organizations. We both worked on West Valley for over 25 years. We both watched lots of DEIS processes, lots of superfund clean up site processes over the country. And I have to say this is a huge complex site that, you know, we have been waiting a decade and a half for this Draft Environmental Impact Statement and yet we are

604-4 cont'd

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

seeing an agency that unlike any other time I've seen in New York State with any other agency where you have a six month comment period and you collapse into that a public availability session open house with a public hearing and you deny people without any good reason, having an extension of the public comment period on a highly technical Draft Environmental Impact Statement and the NYSERDA's report, which raises alot of serious issues with the Draft Environmental Impact Statement and the NRC's, Nuclear Regulatory Commission's decommissioning plan, so there is three documents to delve into. And we were just given quickly a no from both NYSERDA and DOE when we asked for an extension in the comment period. We need extra time. We don't have any technical assistance grant, like the super fund sites to hire economists to look at the cost evaluations, to hire scientists. We have to go find volunteers like the wonderful Professor Mike Wilson from SUNY Fredonia, who really knows what this is about, the erosion problems, who says in previous EIS's and I

604-1 cont'd

604-5

604-5 DOE and NYSERDA acknowledge the commentor's opposition to the Sitewide Close-In-Place Alternative. DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F. As stated in the Issue Summary on "Conclusions of the *Synapse Report*," the erosion analysis in this Final EIS is considered to be consistent with state-of-the-art analytical capabilities. The uncertainties in the erosion analysis are acknowledged in the discussions on erosion in Section 2.4 of this CRD and Appendix F of this EIS.

would suspect this one as well, we'll have to wait for his opinion on that, but you know, basically, the DOE is yet, again, denying the serious erosion problems at West Valley inevitable. We can't even look at a Close-In Place Alternative. We shouldn't be looking at a Close-In Place decision. We really need an extension of the public comment period. We're going to go to Governor Paterson. We have a letter at the table back there that people who would like to sign, we are going to be delivering to Governor Paterson next week. And basically, urges the Governor to reverse NYSERDA's support of the phased decisionmaking approach, and also, to request an extension of the comment period because it's untenable. It's anti-Great Lakes protection approach to have a phase decisionmaking and to punt this issue of when and how we are going to cleanup West Valley for another three decades. We don't have to do that. We have all the evidence now. We need to dig up the waste. And we need our state agency and our Governor to support digging up the waste and we need to

604-5 cont'd

604-6

604-6 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be provided in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Regarding the 30 years cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected. Please see the Issue Summary "Modified Phased Decisionmaking Alternative " in Section 2 of this CRD.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

put lots of pressure on the Federal Department of Energy through our Congress members, through our Senators, to get them to reverse this misguided approach to walk away from this site and study, study, study for another 30 years. It's unacceptable. Thank you.

MS. ROBINSON: Thank you, ma'am. Sir, you have to remind her, again, who you are, please?

MR. KETTLE: What's that?

MS. ROBINSON: Remind her again who you are again, please, the court reporter?

MR. KETTLE: (Spoke in Native Tongue.) Alan Kettle. I just wanted to say that when I speak for the Creator that we have a great relationship to everything that he made, the earth, the water, the wind, everything. And you know, when you people first came here, you called us savages, dirty filthy savages. And it seems the only thing America has done in this world is to destroy or try to destroy everything that the Creator has made. And you're very irresponsible for what you guys do.

604-6 cont'd

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And it's just a warning from the Creator that if you continue this path, and we have warned you guys before not to do this. Live here in a good way. Beside everything, the earth, use it in a good way. Don't destroy it. We all have to live here together now. So tell America or whoever you got to talk to, to cleanup all of America, everything that the Creator made. You guys are very irresponsible.

I speak for my children. I speak for all the Seneca people, all the Cayuga people, all the Onondaga people, all the Mohawk people and the Oneida people, the Lakota people, wherever our people are from here, that you tried to wipe out up and put us on this little refugee camp or whatever you want to call it. They steal all our land and then open up West Valley. You dig these holes and put this chemical waste inside of our Mother. Do you understand that? This is our Mother here. You have no respect for whatever they do. They put this chemical in our Mother. And then it leaks into the

603-2

603-2 DOE and NYSERDA acknowledge the commentor's position regarding impacts to the earth and water. This EIS analyzes the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. These projected impacts are presented in Chapter 4, Section 4.1.10, and Appendix H of this EIS. Chapter 4, Section 4.1.6, of this EIS also presents the results of an ecological risk assessment showing the projected long-term ecological impacts of the alternatives. Please also see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Comments from the Seneca Nation of Indians, Irving, New York, Public Hearing (March 31, 2009)

water, the spirit of the water, and then it leaks into the spirit of our people, our fish, our animals. Everything has a spirit. And you're destroying that spirit. You're making us weak. You're making everything weak.

So it's time to -- I've already turned my back on America. I look at the Creator. He's the only one that I pledge allegiance to and ever will. That flag means nothing to me, that red, white and blue flag up there. They have a flag up there. You see a symbol on the board up there. That's wampum bill, represents the people that I just talked about, our nations.

So I'm just telling you right now that all these people that spoke up here today against this, this West Valley, there's thousands and thousands of West Valleys in this country. Why all the reservations are all the sovereign nations of this land, you're just destroying Americas, destroying everything. I think that's their job. That is their job. That's why they are sent here

603-2 cont'd

Response side of this page intentionally left blank.

to do. Go into all the world and destroy everything that the Creator made. So we can do it again. Do it as soon as possible. Thank you.

MS. ROBINSON: Thank you, sir. Ma'am, would you please repeat who you are for the court reporter?

MS. WARREN: Barbara Warren, the Citizen Environmental Coalition. I just wanted to mention also another reason for the extension for the need for the extension is that we found significant differences in the Environmental Impact Statement and the Decommissioning Plan. And that, of course, being that they are both such big documents, it requires an extraordinary amount of review. And one of those things that we found that is different and causes us a lot of concern is the apparent intention of DOE, Department of Energy, to leave the site at the beginning of Phase 2. We don't really understand why that is in the document, why that's the direction DOE is going in, and causes us a lot of concern about whether that means that New York

607-4

607-4 DOE will remain on site until it completes its responsibilities as assigned under the West Valley Demonstration Project Act. DOE would not leave the site after completion of the Phase 1 actions because it would not have completed the actions required under the Act. The description of the Phased Decisionmaking Alternative in Chapter 2 of the EIS has been revised to clarify this, and the wording in the *Phase 1 Decommissioning Plan for the West Valley Demonstration Project* has been revised to avoid any implication that DOE would leave the site at the end of Phase 1.

State is going to be left with the responsibility for this entire site, the cleanup, you know, financially and the responsibility for it. So we'd like to understand why that is in the decommissioning plan in that way. Thank you. We would like the extension.

MS. ROBINSON: Thank you, ma'am. Is there anyone else who would like to make a comment? Ma'am, please identify yourself for the court reporter.

MS. KETTLE: Hi, my name is Lisa Kettle. And I'm going to speak to you as a Seneca woman. I'm a mother and a wife. And I've lived here all my life. And I'm not a scientist or, you know, a nuclear expert on anything. But you know, like what was mentioned earlier about the erosion, my grandfather has a place up on Seneca Road. It's up towards the Lotens area. And I see -- I seen what that erosion has done over the past 30 years. And it does move fast. I've seen it take out his orchard and half his grape fields he had up there. So I know how

607-3 cont'd

615-1

615-1 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F.

fast it moves.

One of the things that I have a question about is this entire cleanup is going to take 64 years. I know a number of people looking around here that aren't going to see 64 years and, you know, there's four kids -- four little kids running around here. They will probably be here. Hopefully, they will still be here.

My question is, you know, I'll be honest when I see people like yourself sitting there, there is an element of distrust. You say that this would take 64 years for an entire cleanup. What's to say after you're long gone and someone's sitting in your spot filling those same shoes that that plan is going to change.

My daughters and the other two kids that were here, they are Seneca. I have three daughters and that tells me that the Seneca people are going to live on. They are going to inherit this. I'm probably just repeating what's already been said.

Something really needs to happen. I

615-2

615-2 cont'd

615-2 The estimated duration of the Sitewide Removal Alternative of approximately 60 years is based on assumed funding levels and task sequencing that could change in the future.

The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. This decision will be an agency decision and will not be dependent on specific individuals employed by the agencies. DOE will remain on site until it completes its responsibilities as assigned under the West Valley Demonstration Project Act. This Act requires DOE to decontaminate and decommission the waste storage tanks and facilities used in the solidification of high-level waste, and any material and hardware used in connection with WVDP, in accordance with such requirements as NRC may prescribe.

really have -- was unaware, I mean I knew West Valley was there. I knew that there was stuff going on. But my cousin, Maria, asked me and my husband to come here tonight. We weren't going to stick around because we didn't know if the girls were going to sit still. They are doing a pretty good job. One is asleep back there. I'm glad I stayed. I learned a lot. And one thing I learned is that you guys really need to mean what you say.

My husband -- we are really firm on our beliefs. You know, there is a word that gets thrown around, genicide. You know, he's right. You know, a lot of people in this room if they want, they can relocate, Arizona, Wyoming, Montana. I can't. This is where I live. I've had chances to relocate and I won't. For one thing the Longhouse is here and this is where I'm going to stay.

I know that my friend, Leslie, was here with her two kids. You know, there is a good chance they are going to be around in 64 years. I don't know, 40 years down the road, is it, oh, we did the study back in 2006 and

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we were in this very room telling you, ramming down your throats that we were going to do this, hoping you would believe us. But guess what, we did another study, and it's going to take another 64 years to cleanup that 99 percent we didn't even touch.

Honestly, as me, my own opinion, I think you guys got a lot of nerve. The Seneca Nation welcomed you here. So you need to think about what you're saying. And I hate to see a grown man cry. When I heard Todd Gates breakdown, that got to me. It's not just his family. That Cattaraugus Creek goes right through the territory. I know this woman over here she lives right on the creek. I know Mark. He grew up on Bush Road. That's right up the road from her. Those are just two examples. There's a lot of people in this community that depend on that creek.

There's a spiritual side to that creek. There's a spiritual side to that water spirit. We use -- without going into detail, we use it in ceremony and if this doesn't go through, you're really affecting us. It would

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be like me marching into your house on December 25th and telling you to get out, get out of your house, get out, get away from the table, from your Christmas dinner. That's what you would be doing to me and my family.

I wasn't going to say anything, but sometimes I don't know how keep my mouth shut, but I'm speaking on behalf of my kids. You guys really need to think about it and act.

MS. ROBINSON: Thank you, ma'am. Is there anyone else who would like to make a comment? Okay.

All right. Given that, I'd like to thank all of you for your respectful participation tonight. It was a broadening experience for everyone and I'd like to thank you all for your hospitality and refreshments, too. And now, Ms. Kathy Bohan would like to make a closing remark.

MS. BOHAN: I want to thank everyone for coming this evening and voicing your comments and taking the time to talk with us about the document. We are planning to, as I mentioned before, review all the comments

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that have been received either in writing or orally at these hearings and consider them in development of the Final Environmental Impact Statement and if you would like to get more information about the document, I know some of you are just learning about these issues and the decisions that need to be made, you can sign up on to be on our mailing list. You can receive a copy of the document out at the registration table in the hallway and we would be happy to get you any information in that regard.

The comments can be submitted through via any of the methods that are shown here, toll free fax, U.S. mail, electronically through the web site or at the two remaining public hearings. Thank you.

(Proceedings concluded.)

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C E R T I F I C A T E

I, DOREEN M. SHARICK, do hereby certify that I have reported in stenotype shorthand the proceedings in the public hearing of the Revised Draft Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western New York Nuclear Service Center, at the Seneca Nations of Indians, 12837 Route 438, Irving, New York 14081, on Tuesday, March 31, 2009.

That the transcript herewith is a true, accurate and complete record of my stenotype notes.

_____

DOREEN M. SHARICK

Notary Public.

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Comments from the West Valley, New York, Public Hearing (April 1, 2009)

PUBLIC HEARING

STATE OF NEW YORK

_____/

REVISED DRAFT
ENVIRONMENTAL IMPACT STATEMENT for
DECOMMISSIONING and/or
LONG-TERM STEWARDSHIP at the
WEST VALLEY DEMONSTRATION PROJECT and
WESTERN NEW YORK NUCLEAR SERVICE CENTER

_____/

Public Comment portion of the Public Hearing in the above-captioned proceeding held at Ashford Office Complex, 9030 Route 219, West Valley, New York, on April 1, 2009, at a time of 7:30 p.m.

REPORTED BY: SUSAN M. RYCKMAN, CP,
Court Reporter,
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APPEARANCES:

PAUL BEMBIA,
NYSERDA;
CATHERINE BOHAN,
U.S. Department of Energy;
BRYAN BOWER,
U.S. Department of Energy;
LINDA ROBINSON,
Moderator.

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INDEX OF SPEAKERS

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MS. ROBINSON: Keep in mind that comments given during this segment will not be responded to tonight, but will be addressed, taken into account, in the Final Environmental Impact Statement in its comment response document.

Cathy Bohan, the DOE's representative, and Paul Bembia of NYSERDA, are here to listen to and accept your comments. So I would appreciate you addressing them to them, except of course, you need to keep one eye over here so you can see your timeline.

The court reporter today is Sue Ryckman, and her objective is to produce a complete and accurate transcript of the oral comments. She will take them verbatim tonight, and they will be included in the comment response document of the Final Environmental Impact Statement.

I will now call commenters in the order in which they will register. I will name two people at a time, so you will have a little warning as to when you will be called on. When it's your turn, please come to the

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microphone to speak. You may give your full name and the organization you represent, if there is one, so that the court reporter can get it down.

If you speak as long as four minutes, I will signal with this red card, and I will also say, one minute, if you have not noticed the red card. And I will ask you to wrap yourself -- your talk up in the next minute, so you reach the five minutes.

And when we finish with everybody who has signed up, I will give opportunities for those who did not sign up to speak at that time. So, the first speaker tonight and your second speaker tonight will be Warren Schmidt coming first, followed by Seth Wochensky. And I will have a timer, of course.

WARREN SCHMIDT: Good evening, and thank you for this opportunity to comment on the Revised Draft Environmental Impact Statement. I am Warren Schmidt, and I comment on behalf of the West Valley Citizen Task Force.

The Citizen Task Force was formed in 1997 to assist in the development of the

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preferred alternative for the completion of the West Valley Demonstration Project and clean-up, closure and/or long-term management of the facilities at the site. The group has 18 members, with representatives from the affected communities. After its formation, the CTF met for 18 months and studied the issues before releasing a report in July of 1998. That report details the CTF's expectations with respect to policies and priorities and guidelines for a preferred alternative. Our report and considerable information about our work and the site may be found at www.westvalleyctf.org.

For more than a decade since the report was issued, the CTF has been meeting regularly with DOE and NYSERDA. We have also received numerous presentations from regulatory agencies, and advocated with elected officials on behalf of clean-up at the site. We believe that our ongoing active involvement has been essential to a number of the clean-up activities underway or planned at the West Valley Demonstration Project.

The CTF appreciates the progress to

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date, and the work of the Core Team agencies in arriving at a preferred alternative, something that was missing from the 1996 Draft EIS. The Core Team agencies are to be commended for overcoming significant differences and for working together to arrive at a preferred alternative.

The CTF also appreciates that DOE and NYSERDA are planning to accomplish clean-up work at the site that the CTF deems essential, including the removal of the source area of the North Plateau Groundwater Plume and a significant number of the contaminated facilities.

We are actively working on written comments to be submitted later this spring. Based on our review to date of the Draft EIS, we would like DOE, NYSERDA, and the public to understand in broad terms what we anticipate will be the essential views expressed in those comments.

First, the proposed Preferred Alternative Phase 1 work meets the Policies and Priorities articulated in the CTF 1998 Final Report. The CTF strongly encourages

701-1

701-1 DOE and NYSERDA note the comment. If the Phased Decisionmaking Alternative were selected, during Phase 1, DOE would conduct additional studies and evaluations to clarify and possibly reduce technical uncertainties related to the decision on final decommissioning and long-term management of the site. During Phase 1 and prior to implementation of Phase 2, DOE and NYSERDA would seek information about improved technologies for in-place containment and for exhumation of the tanks and burial areas that may become available. DOE and NYSERDA would continue to assess the results of any site-specific studies along with any emerging technologies to support Phase 2 decisions. DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement.

that this work be completed without further delay, and in a manner that enhances future decisions regarding clean-up of the site. The CTF desires that performance measures for this work be clearly articulated and adhered to.

Second, the CTF stands by the Policies and Priorities articulated in its Final Report, including, among others:

The protection of human health and safety and of the environment is paramount.

Our 1998 reports states that the CTF does not believe that the geologic, hydrologic, and climate conditions of the site are suitable for long-term, permanent storage or disposal of long-lived radionuclides. After 11 years of continued education on the characteristics of the site since then, we are more convinced of this, and that the level of risk from exposure is such that reliance on institutional controls over a prolonged period, hundreds or thousands of years, is not feasible.

Third, decisions and studies should be performed during Phase 1 that assess and support the eventual goal of a full clean-up

701-1 cont'd

701-2

701-3

701-2 DOE and NYSERDA acknowledge the commentor's opinion on the unsuitability of the WNYNSC site for long-term storage or disposal of wastes. This EIS analyzes the impacts of the alternatives on the environment, including human health and safety during the decommissioning and post-decommissioning timeframes if waste and contamination were to remain on site.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. This EIS addresses potential impacts of climate change through sensitivity analyses, but does not attempt to address extreme global-scale climate change. The analysis of doses due to unmitigated erosion uses a gully advance rate associated with a climate that is wetter than current site conditions. Please see the Issue Summary, "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for additional discussion of this issue and DOE's and NYSERDA's response.

This information will be considered by the agencies when they make their decision, which will be documented in DOE's Record of Decision and NYSERDA's Findings Statement.

701-3 Studies will be performed during Phase 1 of the Phased Decisionmaking Alternative for the purpose of better informing the agencies in preparation for the Phase 2 decision. Please see the response to Comment no. 701-1.

of the site and reassess the technologies and volume of waste disposal associated with exhumation, which may alter estimates of safety risks and costs.

Finally, if the Preferred Alternative and its phased decision-making approach is selected, we feel that the views of the public should be considered on an ongoing basis. The public should be allowed full opportunity for review and comment on later subsequent proposals that might lead to anything less than unrestricted release of the site. If an ongoing assessment period occurs, there will be many interim decisions and site work which will have far reaching impacts on human health and the environment. These decisions and the planning for the work should also be subject to regular, ongoing public consultation to ensure that viable options are not precluded.

Regulatory reviews, permitting, and licensing should contain commitments from the appropriate agencies, beyond the minimum legal requirements, to seek and incorporate the views of the community in making decisions

701-3 cont'd

701-4

701-4 Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input. Regulatory bodies involved in permitting and licensing activities at WNYNSC would be responsible for defining the review and public involvement process for their activities.

regarding the future of the site.

Over the coming months, the CTF will be developing more detailed written comments on the Draft EIS. We encourage everyone to take the time to carefully read and comment on this DEIS and submit written comments. Thanks again for the opportunity to comment at this time.

MS. ROBINSON: Thank you, sir. Now we will have Seth Wochensky, followed by Barry Miller.

SETH WOCHENSKY: Good evening. My name is Seth Wochensky, and I'm a member of the Coalition on West Valley. I am just giving my own personal comments. The Coalition has its own official statement coming later, I guess. And I'm a resident of the Village of Springville, I guess I should say.

Forty-five years ago men in suits came from out of town to this community promising a brighter future, jobs, an airport in Springville, all that kind of stuff. But they didn't know quite what to do with "the stuff." We'll figure that out later, they

701-4 cont'd

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said. They took a myopic view, and in the end we were all left holding the bag. That was before I was born.

The suggested path today is similar in its myopic view and its attitude towards the waste. Let's work on this stuff over here, but that much bigger mess, we'll figure that out later. On your proposal and given your track record over the past decades, I will most likely be dead before the work gets done.

I believe the Preferred Alternative is a joke. The DOE has made a decision to avoid making a decision. Avoiding decisions is the biggest management crime one can make. Unfortunately, for the people who actually care about this area, this management blunder could have serious and deadly impacts. *702-1*

The phased alternative makes a mockery of the EIS process. The Department of Energy took charge of this site roughly 30 years ago. It took nine years to get the first DEIS, the legitimate DEIS, in my view. That projected a 24-year timeline for clean-up. It was evident that it was going to *702-2*

702-1 DOE and NYSERDA acknowledge the commentor's opinion of the Preferred Alternative. This EIS presents the Preferred Alternative, Phased Decisionmaking, along with two other action alternatives. The decision on the selected course of action and supporting rationale will be announced in DOE's Record of Decision and NYSERDA's Findings Statement after consideration of the environmental analysis in the EIS, public comments on the Revised Draft EIS, and other programmatic considerations.

If DOE and NYSERDA select the Preferred Alternative (Phased Decisionmaking Alternative), cleanup during Phase I would reduce or eliminate potential health or environmental impacts by removing major facilities (such as the Main Plant Process Building and lagoons). In addition, the source area for the North Plateau Groundwater Plume would be removed, thereby reducing a source of radionuclides that are potential contributors to human health or environmental impacts. During Phase 1, DOE would conduct additional studies and evaluations to clarify and possibly reduce technical uncertainties related to the decision on final decommissioning and long-term management of the site. A variety of studies would be implemented to further characterize the site and to research technology developments. The information gathering conducted during Phase 1 is expected to provide data to aid consensus decisionmaking for Phase 2 activities. Phase 2 activities could include sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements.

702-2 Chapter 1 of this EIS summarizes the history of WNYNSC. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles. Section 1.2 discusses the history of the development of this EIS.

be costly and difficult. Comments were received, just as they are being received today. Then the process was, essentially abandoned, and here we are today 13 years later.

We have the longest running EIS process in history. And just to ensure that the DOE holds onto that title, the DOE has the nerve to suggest a plan which calls for putting off planning to the future.

I think I understand the longevity of radioactivity, but I am struggling hard to understand the longevity of this process. I am wondering what the half life of a DOE clean-up is.

Several years ago at a CTF meeting, a question was asked about radioactive mouse prints coming from the process building, across the parking lot, or outside of the building. A site official reluctantly confirmed the rodent problem. Nature marches on whether a decision is made or not. If the Department of Energy had an old house, they would suggest painting the trim work while the roof was failing and the termites were chewing

702-2 cont'd

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away at the studs. We'll figure that out later.

There have been independent studies, and DOE's own studies, which show the problems with the site. Combine these with a good dose of morality, and I believe they all point towards a fairly clear path, a lot of details to be worked out. I will put the path the simplest way I know possible: Dig it up.

When JFK gave his man on the moon speech in 1961, he stated that we'd put a man on the moon by the end of the decade -- or we would have a man on the moon and have him back safely by the end of the decade. That was the goal. They had no idea how to do it.

I believe you set a goal and you work towards it. Vitrification was done. There was a goal set, and through the hard work of the people at this site, it was successful.

I don't expect DOE to have the answers on how to get this done, but with that goal -- I'm sorry, without that goal to work towards, there is no drive to ever find the answers. The DOE will continue to argue with

702-3

702-3 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

NYSERDA. I know it seems rosy today, but the DOE will continue to argue with NYSERDA, and vice versa. The CTF will argue. My son will argue with your sons, and we'll pass the potato back and forth through the eons, never doing what we all know is right. Dig it up. Thank you.

MS. ROBINSON: Thank you, sir. The next commenter will be Barry Miller, followed by Joanne Hameister.

BARRY MILLER: I'm Barry Miller, and I represent the Concerned Citizens of Cattaraugus County. Points on how to handle the waste at West Valley.

One, sitewide removal. A recent state-funded cost accounting reveals that leaving the waste buried is both high risk and highest cost. Excavation is less cost and least risk to a large population. ***703-1***

Two, leaving buried waste is not acceptable. Erosion, and we are talking about 1,000 years of control and monitoring, unacceptable. ***703-2***

Three, no phased decision making. There is no evidence that the strontium plume ***703-3***

703-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative and objection to the Phased Decisionmaking Alternative (see Comment no. 703-3). The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement.

The report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., has been addressed in this CRD consistent with the Council on Environmental Quality's NEPA regulations. Please see the Issue Summaries for "Support for the Sitewide Removal of All Radioactive and Hazardous Wastes" and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

703-2 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F.

As acknowledged in this EIS, long-term monitoring and maintenance would be required for alternatives that would leave waste on site. This EIS provides a summary description of current and potential future environmental monitoring programs. The descriptions of the alternatives were revised to further describe the use of engineered barriers and long-term monitoring and maintenance. Long-term monitoring and maintenance are described in Chapter 2, Sections 2.4.2.6 and 2.4.3.8, of this EIS. Long-term monitoring and institutional controls are also discussed in Chapter 6. Additional information about current and proposed monitoring and institutional controls is provided in Appendices C, H, and I. Chapter 2, Table 2–4, includes estimates of the environmental consequences if (1) monitoring and maintenance are successful (institutional controls remain in place) and (2) monitoring and maintenance programs fail (institutional controls are lost). Chapter 4, Section 4.2, of this EIS includes monitoring and maintenance costs for the alternatives that would leave waste on the site.

Detailed information regarding long-term monitoring and maintenance programs and institutional controls under alternatives that would leave radioactive waste

is from leaking tanks. Besides, this is a very small portion of the radioactive waste. There is no explanation concerning public participation in Phase 2. A two-phased approach over 30 years is not responsible.

Four, revisions are needed on the flawed DEIS. It includes clean-up options where long-lasting radioactive waste is left buried on site, yet there is a serious lack of information on the monitoring and maintenance of engineering and institutional controls to insure radioactive material is safely contained.

Funds and procedures should also be described that will be in place to respond immediately to any toxic releases. The decommissioning plan appears to describe a situation where the DOE could leave the site and any responsibility at the end of Phase 1 in around 30 years, which would leave New York State the responsibility of cleaning up 99 percent of the radioactivity. It is imperative that the DOE confirm that they will continue their responsibility and commitment to fully remediate the site.

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703-3 cont'd

703-4

stored on site has not been specifically defined at this time. Such definition would occur after an alternative is selected for implementation and would include consultation with appropriate regulatory authorities. An element of the long-term programs would be the development of plans and procedures for responding to emergencies. These plans and procedures would include coordination and agreements with local police and fire departments and medical facilities.

703-3 DOE and NYSERDA concur that there is no evidence that the strontium plume is from the underground tanks in the Waste Tank Farm. The extensive WNYNSC environmental monitoring program, which is designed to detect possible movement of contamination on the site, as well as specialized studies, have concluded that the source of the North Plateau Groundwater Plume is the Main Plant Process Building.

Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and

NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

703-4 Regarding long-term monitoring and maintenance requirements, please see the response to Comment no. 703-2.

It is not within the scope of the EIS to address funding of the alternatives. The U.S. Congress and the President are responsible for establishing funding levels for various Federal Government programs, while the New York State Legislature and the Governor are responsible for establishing funding levels for state government programs. Implementation of the decision made in DOE's Record of Decision and NYSERDA's Findings Statement is contingent on the level of funding allocated.

DOE and NYSERDA acknowledge the commentor's concern about continued DOE participation in the cleanup of the WNYNSC site. DOE will remain on site until it completes its responsibilities as assigned under the West Valley Demonstration Project Act. DOE would not leave the site after completion of the Phase 1 actions because it would not have completed the actions required under the Act. The description of the Phased Decisionmaking Alternative in Chapter 2 of the EIS has been revised to clarify this, and the wording in the *Phase 1 Decommissioning Plan for the West Valley Demonstration Project* has been revised to avoid the implication that DOE would leave the site at the end of Phase 1.

And five, use 0 in the discount rate. There must not be an economic discount rate in an analysis of the cost of clean-up in 1,000 years, the time the waste will be radioactive. Any substantial discount rate implies that the health and well-being of future generations have no present value or no worth to us today. Dig it up.

MS. ROBINSON: Thank you, sir. The next speaker will be Barry Miller -- I mean that was Barry Miller -- Joanne Hameister, followed by Anne Rabe.

JOANNE HAMEISTER: One thing I might suggest ahead of time, is that for the quarterly meeting, which is coming up in May, you might want to add the people who are speaking at these public hearings to the mailing list, might be a good idea. We'll have time.

The Coalition on West Valley Nuclear Waste has had a long-standing position of a full clean-up of the West Valley, which includes the exhumation of the Cesium Prong, the strontium plume, both the Federal licensed and the State licensed burial areas and the

703-5 **703-5** DOE and NYSERDA acknowledge the commentor's objection to cost discounting in the cost-benefit analysis included in the Revised Draft EIS. Please see the Issue Summary for "Questions about Cost-Benefit Analysis" in Section 2 of this CRD for further discussion of this issue and DOE and NYSERDA's response.

The cost-benefit analysis presented in Chapter 4, Section 4.2, of the Revised Draft EIS was performed to support NRC's request for cost-benefit information consistent with its as low as is reasonably achievable (ALARA) analysis guidelines. This cost-benefit analysis follows the principles in the NRC ALARA guidance presented in NUREG-1757, "NRC Consolidated Decommissioning Guidance." The analysis in Section 4.2 has been revised for this Final EIS and uses several relatively low discount rates (1, 3, and 5 percent) to investigate the sensitivity of the results to lower discount rates. The use of a single discount rate of zero for the ALARA analysis is not considered to be consistent with the NRC guidance.

704-1 **704-1** DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

tanks.

The Coalition believes that the legally required process, including this DEIS, has been manipulated and does not reflect the full scope of issues that an appropriate review should entail. This includes requirements of the West Valley Demonstration Project Act, the National Environmental Policy Act, and the State Environmental Quality Review Act. *704-2*

Our position always has been as advocates for monitored and retrievable storage. The Federal government has to develop an environmentally sound isolation and modeling technologies for West Valley's reprocessing waste and other radioactive waste from mine tailings to fuel rods. We do not support irreversible technologies.

The West Valley site has its very own act of Congress, which charges you with demonstrating that wastes at West Valley can be cleaned up, decommissioned, and decontaminated. I further charge you to just do it. Let's get on with it.

I continue to worry about the *704-3*

704-2 DOE and NYSERDA believe that this EIS meets the requirements of NEPA and SEQR. The principal purpose and need for this EIS is to evaluate the environmental impacts of decommissioning and/or long-term stewardship of WNYNSC, and thus meet the requirements of the West Valley Demonstration Project Act.

Offsite authorized disposal capacity is available for most of the waste that could be generated from any of the EIS alternatives. The shift to a national policy of storage rather than disposal of this waste is outside the scope of this EIS. Consistent with existing practice, any waste generated from any of the EIS alternatives that does not currently have offsite disposal capacity (referred to as orphan waste) would be safely and retrievably stored on site until such disposal capacity is available.

704-3 DOE and NYSERDA seriously considered all of the comments received on the Revised Draft EIS. The formal comment period was originally scheduled for 6 months (required by the 1987 Stipulation of Compromise Settlement between the Coalition on West Valley Nuclear Wastes and Radioactive Waste Campaign and DOE), but was expanded to 9 months, beginning on December 8, 2008, and ending on September 8, 2009. During this comment period, public hearings were held in Albany, Irving, Ashford, and Buffalo, New York. In addition, Federal agencies, state and local governmental agencies; Native American Tribal Governments, and the general public were encouraged to submit comments via the U.S. mail, e-mail, a toll-free fax line, and a DOE Internet website (http://www.westvalleyeis.com). DOE and NYSERDA considered all comments, including those received after the comment period ended, in evaluating the accuracy and adequacy of the Revised Draft EIS to determine whether its text needed to be corrected, clarified, or otherwise revised. Responses to each of the comments received are provided in Section 3 of this CRD.

seriousness with which all comments are considered in this decision process afforded to us by NEPA and by SEQR. Please listen to every one. Whether or not we're lawyers, scientists, or mathematicians, our concerns are very real. We are entitled, by virtue of our birth and life, and the simple act of being, to have an affect on and a validation of your decision making.

And the statement I've made at town board meetings also: Our tax money is paying your salaries. We therefore are, essentially, your boss. We are also consumers, in this case specifically of water, and the customer is always right.

I want to show you my nightmare propagator, is this picture. This is how the waste is buried at West Valley. Unlined, unengineered trenches. It was simple then. In my mind, it's illegal now. We know better. And we also know it's morally objectionable and reprehensible to leave it there in that state, in an unimagined, unknown condition. And that borders on being criminal. Thank you.

704-3 cont'd

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MS. ROBINSON: Thank you, ma'am. Next speaker will be Anne Rabe, followed by Diane D'Arrigo. You will have to help me with that, Anne.

ANNE RABE: I'm Anne Rabe with the national group called the Center for Health, Environment, and Justice, CHEJ, and I'm here tonight representing hundreds of our members in the Great Lakes region. We've worked on toxic dump clean-ups ever since our director, Lois Gibbs, worked on the Love Canal Niagara Falls toxic waste dump in 1980. And CHEJ and a large coalition of groups are in what we call the West Valley Action Network.

And we are here tonight, and at all the hearings, to strongly urge the Department of Energy and NYSERDA to revise this DEIS to, number one, decide this year on a sitewide removal clean-up, and number two, to reverse the phased decision-making option and any buried waste approach being considered.

Why sitewide removal? Well, Senator Catherine Young provided us with funds to be able to hire scientists, economists, and nuclear physicists to look into the long-term,

705-1

705-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The purpose this EIS is to evaluate the environmental impacts of decommissioning and/or long-term stewardship of WNYNSC. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

over a thousand years, impact of the West Valley site in terms of a buried waste approach and in terms of waste excavation, of sitewide removal.

Sitewide removal, they found, provides a permanent safe solution that removes waste from the site with serious erosion problems, earthquake hazards, and sole-source aquifer. It also prevents any catastrophic releases which could pollute the community's drinking water supplies, Lakes Erie and Ontario, and it significantly lowers health risks to the nearby communities with all wastes removed after an estimated 60 plus years. It also is the most cost effective approach over the long-term. It also protects the precious Great Lakes region and Cattaraugus County forevermore, as opposed to the high-risk approach with buried waste.

705-2

Why are we opposing phased decision-making? Well, number 1, I call it the 1 percent punt. And basically it's -- we're not number 1, it's number 1 and delay. It deals with 1 percent of the radioactivity on the site, for approximately $1 billion, and

705-3

705-2 The report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., has been addressed in this CRD consistent with the Council on Environmental Quality's NEPA regulations. Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of the report's issues and DOE's and NYSERDA's response.

705-3 The environmental impacts of implementing Phase 1 of the Phased Decisionmaking Alterative are described for each resource area in Chapter 4 of this EIS. If this alternative is selected, the options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. For each resource area, Chapter 4 discusses the impacts that would occur if either removal or close-in-place is selected for Phase 2. The chapter also discusses which alternative(s) bound the impacts in the event that continued active management is selected for the SDA. The short-term impacts of a Phase 2 decision that involves continued active management of the SDA are bounded by either the removal or close-in-place impacts. The post-decommissioning impacts of a continued active management decision for the SDA, which include staffing, occupational exposure, and waste generation related to SDA monitoring and maintenance, as well as long-term impacts on public health and safety, would be similar to the no action impacts for the SDA.

It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Comments from the West Valley, New York, Public Hearing (April 1, 2009)

then punts the whole question of the final clean-up plan for up to 30 years.

The DEIS did not look at the potential environmental health impacts of leaving 99 percent of the radioactivity on site for another 30 years. And given the past record of decades of delays, the previous speakers have noted, this two-phased approach with a lengthy 30-year timetable, is not responsive, it's not responsible, and it's actually incredibly insulting, and does not address dangerous contamination of the site in large part.

What's really disturbing and perplexing about this Draft Environmental Impact Statement, is that it really isn't one. And I've been working for over 30 years on Superfund site contamination problems and radioactive site contamination problems. Under Superfund, and under other Department of Energy sites, such as Albany's uranium site, here's what is done to properly address a site from the environmental, public health, engineering, and public participation viewpoint.

705-3 cont'd

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Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

Please also see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

705-4 In accordance with the requirements of NEPA and SEQR, this EIS analyzes the totality of the environmental impacts of a spectrum of reasonable alternatives that meet the respective purposes and needs of DOE and NYSERDA (Sitewide Removal, Sitewide Close-In-Place, and Phased Decisionmaking), as well as the impacts of a No Action Alternative. In addition, this EIS presents a discussion of the costs associated with each alternative.

The requirements for an interim remedial action apply to sites under CERCLA. WNYNSC is not a Federal CERCLA site.

In accordance with the West Valley Demonstration Act, DOE is to decontaminate and decommission the waste storage tanks and facilities used in the solidification of high-level radioactive waste, as well as any material and hardware used in connection with WVDP, in accordance with such requirements as NRC may prescribe. NRC issued its "Decommissioning Criteria for WVDP at the West Valley Site; Final Policy Statement" (67 FR 5003). In this notice, NRC announced its decision to apply its License Termination Rule (10 CFR 20, Subpart E) as the decommissioning goal for the entire NRC-licensed site. This EIS evaluates alternatives for meeting those decommissioning criteria for the NRC-licensed property, as well as decommissioning and management options for the SDA.

First, you test a site. On and off site, you fully characterize the site's pollution. The remedial investigation. Then you have the public comment on it. Did you test everywhere that you should, did you test for the right chemicals? You get public input on it.

Then you move into the feasibility study. You evaluate the different clean-up options. Then the public comments on it. Are you looking seriously at all the clean-up options that will best protect our community? And you move forward.

Then the agency does a proposed remedial action plan with recommended clean-up option. And the public weighs in on that as well.

Then you finalize a clean-up plan. Then you do the engineering design to develop the technical plan on how you're going to implement that clean-up option. Typically a clean-up Draft Environmental Impact Statement includes the pollution summary, the feasibility study on the clean-up options, and the proposed clean-up goal.

705-4 cont'd

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This is not a DEIS. This is basically a tiny, tiny clean-up plan for 1 percent of the site's radioactivity. I mean, personally, I think this is an illegal DEIS.

We would ask that you go back to the drawing board, respect the public's input and concern that has been expressed for decades, and redo this DEIS to provide us a full clean-up plan recommendation this year for sitewide removal, and protect the Great Lakes now. Thank you.

MS. ROBINSON: Thank you. All right. The next speaker will be Diane D'Arrigo. Would you please say it when you come up for me, and Barbara Warren will follow her.

DIANE D'ARRIGO: It's Diane D'Arrigo; I am with the Nuclear Information Resource Service, which is part of the West Valley Action Network. And I'm also -- my family is in this area, so I am concerned as a somewhat local person.

Reading the Buffalo News editorial that came out in the paper today, April 1st,

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2009, into the record.

Remove nuclear waste. Complete clean-up of West Valley site is the only real solution for Western New York. A thousand years from now there may not be a State of New York, a United States of America, or anyone who could even read all the paperwork dealing with the Western New York Nuclear Services Center in West Valley. What probably will be here is Lake Erie, a number of rivers that feed into it, people who depend on water from that lake and those rivers, and unless Federal officials decide to do the right thing now, a large collection of highly toxic nuclear waste buried in or leaking from a 1,030-year-old dump site south of Buffalo.

Federal and State officials say they are leaning toward keeping the bulk of the nuclear waste buried where it is, promising to keep a careful eye on it, of course. But that's an option that ignores the mind-boggling long time that some of the West Valley waste will remain toxic. A better idea, and in the really long-term, arguably a cheaper one, would be to dig up all of the

706-1

706-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Chapter 1 of this EIS summarizes the history of WNYNSC. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F.

Please see the Issue Summaries for "Concerns about Potential Contamination in Water," "Questions about Long-term Erosion Modeling," and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

nuclear waste now, find a proper place to keep it for the really long time, and remove a giant toxic land mine that could cause catastrophic damage to future generations and the entire Great Lakes ecosystem.

Of course, in the geologic time frames used to view such things, cleaning up the waste, quote, now, unquote, could mean a deliberate remediation process that could take 70 years and cost almost $10 billion. But according to some independent analyses brought to bear on the subject, keeping the waste in place could cost $27 billion over the long haul. Keeping the waste in place could cost $27 billion over the long haul. And the cost in money and in lives would be much greater if there are repeated catastrophic leaks of toxic material that would poison the water supplies relied on by millions of people in the Great Lakes watershed.

The West Valley site has not been -- the West Valley site has been a hot waste, hot potato for State and Federal officials for a long time. From 1966 to 1972, the site was the home of a nuclear reprocessing operation

706-1 cont'd

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that ingested some 640 tons of irradiated materials from other atomic operations. The operations stopped when upgrades in Federal standards proved too expensive for plant operators to meet, which left the Federal government holding the bag for the waste that was later solidified by stirring it into melted glass.

A 1996 draft report on cleaning up the site didn't come to a conclusion on the best way to do it, and the problem was left to fester for another decade.

Now, the US Department of Energy and New York State Energy Research and Development Authority are holding hearings and taking public comment on the matter.

According to the Notice in the Federal Register, the preferred approach of the Federal and State agencies is to remove some of the existing facilities and waste, while leaving more of the leavings under active management, while they continue to figure out what to do with all the poisons they have been left with.

But environmental activists

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reasonably argue the threat the waste poses to the surrounding areas, particularly its water supplies, already has begun and won't go away until the waste does. They point to the geologically unstable surroundings of the site as frighteningly demonstrated by the recent landslides that have been -- that have complicated the reconstruction of Route 219 in the area.

The more than 600 metric tons of solidified nuclear waste, plus toxic leaks that have already been detected in the surrounding water supplies, is no gift for us to leave future generations. It will be expensive, and it will take time, but the best approach to the West Valley waste site is to remove it completely once and for all.

MS. ROBINSON: Thank you, ma'am. A Barbara Warren is the last speaker, and after that we will move to people who didn't sign up.

BARBARA WARREN: Good evening. My name's Barbara Warren; I am with Citizens Environmental Coalition, a statewide organization.

706-1 cont'd

The recent debacle of the financial industry has resulted in lots of talk about toxic assets and what to do about them. Several trillion dollars have been allocated to restoring the soundness of financial institutions because of these so-called toxic assets.

We have the real deal at West Valley. We have real toxic assets that will be dangerous for thousands of years, and the government must find the money to dig them up and safely contain them. Whatever the cost, it is the government's responsibility to do so. Leaving the buried waste in the ground to leach into the sole-source aquifer or to be released catastrophically by forces of erosion and contaminating the Great Lakes is unacceptable.

Fully cleaning up the radioactive waste at West Valley sounds like a bargain at under $10 billion, when compared to over $100 billion for individual banks.

We want to remind you that prevention is usually a fraction of the costs of response remediation and clean-up.

707-1

707-1 DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Regarding funding of cleanup at WNYNSC, this EIS was prepared to evaluate the environmental impacts of the alternatives for decommissioning and/or long-term stewardship of WNYNSC, a legally required step to support a decision on a course of action. The U.S. Congress and the President are responsible for establishing funding levels for various Federal Government programs, while the New York State Legislature and the Governor are responsible for establishing funding levels for state government programs. Implementation of decisions made in DOE's Record of Decision and NYSERDA's Findings Statement is contingent on the level of funding allocated.

The preliminary cost-benefit analysis presented in Chapter 4, Section 4.2, of this EIS was prepared at NRC's request and in a manner consistent with NRC's as low as is reasonably achievable (ALARA) guidance. Section 4.2 has been revised to present the results of sensitivity analyses using different discount rates. If cost-benefit considerations are part of the basis for agency decisionmaking, this will be acknowledged and discussed in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the "Questions about Cost-Benefit Analysis" Issue Summary in Section 2 of this CRD for further discussion of this issue.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F. Please also see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Protecting New Orleans, for example, from storms and flooding would have prevented hundreds of billions of dollars in damages from Hurricane Katrina. And the choice of cost benefit analysis, often, usually, undervalues all prevention activities which prevent future harm.

Our organization is opposed to leaving any buried waste on site because of the problem of containing the waste and preventing the public from being exposed to this toxic material.

We're also very concerned about the phased alternative because it, essentially, leaves the public out of the process, and leaves too much undecided. Phase 2's undecided. Phase 1, we're not provided with the information for a large part of Phase 1. Like the studies, the data collection that will be done. So that's inadequate.

And the fact that Phase 1 handles just 1 percent of the problem. 1 percent of the problem, leaving another 99 percent. That 99 percent is the major facilities most of us are concerned about; the NRC disposal site,

707-1 cont'd

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707-2 Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until final decisions are made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate Phase 2 decisions for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

Chapter 2, Section 2.4.3, of this EIS describes decommissioning activities under the Phased Decisionmaking Alternative and provides a discussion of the data collection, studies, and monitoring to be performed during implementation of Phase 1 and the purpose of each of these activities. The overall intent of these Phase 1 activities is to further characterize the site and to research technology developments and engineering to aid consensus decisionmaking for Phase 2. Section 2.4.3.3 explains how the additional data and studies would be used in making the Phase 2 decision regarding potential future activities. The intent of this EIS is to provide a description of the environmental impacts of each of the alternatives to inform the Agency decisionmakers.

It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and

the State disposal site, and the high level waste tanks. Those are things that people want to know have been taken care of.

I just have a brief statement about the sitewide removal alternative. We support full clean-up. We support the sitewide removal alternative, because there's only one alternative that is a complete, comprehensive plan for the entire site. There's only one alternative which will excavate, package, and prepare all radioactive material on site for disposal, which will track off-site contamination for clean-up. The only one that tracks off-site contamination for clean-up and remediation. That provides a permanent and final solution to the comprehensive contamination on site. That does not require continued monitoring of leaks and spreading contamination. That eliminates the need to perfectly maintain all engineered structures and replace them at regular intervals for thousands of years. That eliminates the threat of a catastrophic release of radioactive material and the resultant monetary and public health costs. That is not

707-2 cont'd

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NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

The Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

Comments from the West Valley, New York, Public Hearing (April 1, 2009)

jeopardized by the powerful forces of erosion, weather, water, earthquakes, or human intruders. There is only one alternative that eliminates the worry for nearby residents and public officials. That does not require maintenance of emergency radiological services in nearby towns, and that does not require a financial set aside to guarantee care at the site for thousands of years. Which has also been adequately disclosed to the public so they can have some confidence in the outcome, and for which there is detailed information and a reasonable public participation process.

This alternative, not surprisingly, is the sitewide removal alternative, where complete excavation and clean-up of all facilities on the project premises, the State disposal area, both the source area and non-source area of the strontium plume, the cesium contamination, including any off-site contamination, are all taken care of.

As the recently completed independent full cost accounting study revealed, complete exhumation and clean-up poses the fewest risks to the environment and

707-1 cont'd

707-3

707-3 DOE and NYSERDA acknowledge the commentor's support for the conclusions of *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* and opposition to an EIS alternative that would leave buried waste on site. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

public health over the long-term, and also costs the least. In other words, a complete clean-up is in the interests of the public health and the environment, and also the most effective option.

MS. ROBINSON: One minute.

MR. BOWER: Just let Barbara finish, since she's the last speaker.

MS. ROBINSON: Sure.

BARBARA WARREN: This is what happens, things spread around like toxic radioactive waste. I am forgetting what I was going to say as an end.

In essence, we support the full clean-up. There are so many unanswered -- so many problems with the Environmental Impact Statement. Construction impacts aren't adequately evaluated. The high level waste tanks are right adjacent to where the major excavation is going to be occurring, and it's really not explored, the possible damage to those waste tanks, for example.

Climate change is not considered a real thing happening in this area. That's ignored.

707-3 cont'd

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707-4 Appendix C, Section C.3 and C.4, of this EIS describes the construction and demolition activities to be conducted under each of the action alternatives to the extent known and provides a basis for determining the impacts under each alternative. At the starting point of the time period analyzed in this EIS, the contents of the waste storage tanks would be in a dry form and would not readily migrate to groundwater should the tanks be breached. Appendix I, Section I.5, contains an evaluation of an accident scenario whereby the roof of the vault and the tank collapse, exposing the tank contents to the atmosphere. Because the contents are dry, the exposure route that is considered in the accident analysis is through the air. It should be noted that the tanks have never leaked and have not contributed to the source of groundwater contamination on the North Plateau. It should also be noted that, should an accident occur resulting in breaching of the tanks, mitigative measures would be immediately implemented to minimize environmental and worker impacts.

707-5 The analysis in this EIS recognizes the potential for climate change to influence the long-term consequences of waste management. Climate changes, whether natural or influenced by human actions, could change the nature and amount of precipitation. Appendix H, Section H.3.1, of both the Revised Draft EIS and the Final EIS discusses the sensitivity of groundwater flow to changes in annual precipitation. The revised erosion prediction used for the unmitigated erosion dose analysis is based on the assumption that storms could occur more frequently than indicated by current records. This prediction includes the effects of storms of greater severity than the one that occurred in the region in August 2009. The use of this higher erosion rate associated with an elevated precipitation rate is discussed in Appendix H, Section H.2.2.1. Chapter 4, Section 4.3.5, has been revised to include a discussion of how the uncertainties about future climate change are addressed in this EIS.

So there are a lot of deficiencies, and we hope people will make an effort to comment by June 8th, because it's incredibly important that we do this right. It's very important that we do it right. Thank you very much.

MS. ROBINSON: Thank you, ma'am. Okay. Are there any other people in the room who would like to make a comment who did not sign up?

(No response from the audience.)

MS. ROBINSON: Okay. Are there any other people who would like to comment, who did sign up, and would like to do it again?

(No response from the audience.)

MS. ROBINSON: Okay. Well, I remind you, that you may make your comments later. According to the list, everybody has done it, and everybody who has been given an option has done it.

So I thank you for your participation tonight, and I'd like to give -- end my portion of this and turn this back over to Cathy Bohan of the Department of Energy for closing remarks.

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(The public speaker portion then concluded at a time of 8:31 p.m.)

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STATE OF NEW YORK)
ss:
COUNTY OF GENESEE)

I DO HEREBY CERTIFY as a Notary Public in and for the State of New York, that I did attend and report the foregoing proceeding, which was taken down by me in a verbatim manner by means of machine shorthand.

Further, that the proceeding was then reduced to writing in my presence and under my direction. That the proceeding was taken to be used in the foregoing entitled action.

SUSAN M. RYCKMAN, C.P.,
Notary Public.

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PUBLIC HEARING

STATE OF NEW YORK

_____/

REVISED DRAFT

ENVIRONMENTAL IMPACT STATEMENT for

DECOMMISSIONING and/or

LONG-TERM STEWARDSHIP at the

WEST VALLEY DEMONSTRATION PROJECT and

WESTERN NEW YORK NUCLEAR SERVICE CENTER

_____/

Public Comment portion of the Public Hearing in the above-captioned proceeding held at Erie Community College, City Campus, 121 Ellicott Street, Buffalo, New York, on April 2, 2009, at a time of 7:30 p.m.

REPORTED BY: SUSAN M. RYCKMAN, CP,
Court Reporter,
EDITH FORBES COURT REPORTING SERVICE
21 Woodcrest Drive,
Batavia, NY 14020,
(585) 343-8612

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APPEARANCES:

PAUL BEMBIA,
NYSERDA;
CATHERINE BOHAN,
U.S. Department of Energy;
BRYAN BOWER,
U.S. Department of Energy;
LINDA ROBINSON,
Moderator.

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SPEAKER INDEX PAGE

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SPEAKER INDEX PAGE

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MS. ROBINSON: Keep in mind, during this segment the comments will be taken verbatim by the court reporter, and they will not be responded to tonight. They will be taken into account in a comment response document of the Final EIS statement.

Cathy Bohan and Paul Bembia will be the people to whom you should direct your comments. Though I need you to keep an eye over here, because I will, at the end of your time period or before the end of your time period, give you a notice of the end of your time period.

The court reporter is Sue Ryckman, and her objective is to produce a complete and accurate transcript of the oral comments tonight. And they will be included, as I said, in the EIS.

I will now call the commenters in the order that they register. I will tell you then at the four-minute period, I am going to tell you with this red card. And if you're not noticing my red card, I am going to say one minute, meaning you have one more minute to wrap up. So you have five minutes to talk.

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And that is out of fairness to everybody so those who sign up get a chance.

I am going to call two people at a time so that you have some time to get to the microphone and you will have some time to get yourself together to speak. I ask that you re-give your full name and organization, if you have one to represent, so that the court reporter can get that down.

All right. We have -- if you have written comments that you would like to turn in that is the same as what you are saying, we welcome you turn that in also. And again, I will give you this notice, and I have a stopwatch with which I will measure time.

Okay. Here we go. This is the commentors. The first one will be Bill Nowak on behalf of State Senator Thompson. The second will be Lee Lambert. Again -- sir, there is a question?

A SPEAKER: Clarify, will there be an opportunity to talk further at the end?

MS. ROBINSON: Yes. I said that before. We have so many commenters that we will say yes, and we still have the hall that

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long. Definitely, we will do that. If there is any opportunity we will. Sir.

BILL NOWAK: Thank you. I am Bill Nowak, Deputy Chief of Staff for Antoine Thompson. The Senator had committed to being here tonight, but as of an hour ago, he was still in Albany working on the budget. He asked me to give his statement for him.

The Senator is the Environmental Conservation Committee Chair in the New York State Senate, and his comments run as follows:

I appreciate the opportunity to speak tonight, and commend all who have taken the time to attend the hearing.

As Chair of the New York State Environmental Conservation Committee, I would like to state in no uncertain terms, that I support the sitewide removal option among the four options looked at in the Draft Environmental Impact Statement for the West Valley nuclear site.

It is clear to me that sitewide removal is, ultimately, the most logical and certain way to protect public health and natural resources far into the future. I

801-1

801-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F.

believe we should choose that path now.

It's my understanding that the Department of Energy's Preferred Alternative is different from mine. And first let me note some good news relative to both these alternatives. Under either the sitewide removal or the phased-decision option, positive steps will be taken over the next several years to protect public health. Either of these clean-up alternatives include the near term removal of very significant site facilities in areas of contamination. Stopping the flow of the plume of contaminated groundwater is certainly one of the most important immediate keys to protecting the health represented by the dangers on this site.

More good news came yesterday in the form of $74 million in Federal stimulus money that will allow this work to go forward, while creating 200 jobs.

Although it has been an incredibly busy time for the State Senate, I have taken some time to investigate this process. I understand that NYSERDA is taking a strategic

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position. They are wary of some of the DEIS analyses that can be taken to support leaving these dangerous wastes on site indefinitely. They support the phased-approach option because it would give time for more scientific study to further explore the balance between the consequences of available options. According to their official position on the Preferred Alternative, the consequences they are balancing include, quote, the very large costs associated with removing these facilities, and the potential for significant long-term risks from leaving them in place.

After having just gone through a grueling budget process, including intense criticism of State spending, no one appreciates the value of the taxpayers' dollar more than I do. As an elected official, though, I believe it is my responsibility to take the long view in protecting the public interest. I believe in the long run it will be far more expensive to keep these wastes in place while dealing with erosion and constantly monitoring for new contamination plumes.

801-1 cont'd

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Regarding health and safety, there may be a risk of an accident in the process of sitewide removal, but I believe that risk is minimal compared with leaving dangerous waste buried on the sole-source aquifer with serious erosion problems and the potential for earthquakes.

In the end, it is my opinion that the best long-term financial health and environmental interests of the citizens of New York State are served by complete sitewide removal of these nuclear wastes on an expedited but carefully executed time frame. Let's start that process now so there will be a time when our grandchildren look back and thank us for making their world a cleaner and safer place. Thank you.

MS. ROBINSON: Thank you. Next will be Lee Lambert for the organization, and then Lee Lambert for individual comments, followed by Vincent Agnello.

LEONORA LAMBERT: I'm speaking for the Coalition on West Valley Nuclear Waste, a citizens group that was formed almost 40 years ago, exclusively watching over the waste at

801-1 cont'd

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West Valley. My name is Leonora Lambert.

The Coalition on West Valley Nuclear Waste has had a long-standing position of a full clean-up of the West Valley nuclear site, which includes the exhumation of the cesium prong, the strontium plume, both the Federally licensed burial areas and the State disposal area, and the tanks.

The Coalition believes that the legally required process, including this DEIS, has been manipulated and does not reflect the full scope of issues that an appropriate review should entail. This includes requirements of the West Valley Demonstration Project Act, the National Environmental Protection Act, and the State Environmental Quality Review Act.

Our position always has been as advocates for monitored and retrievable storage. The Federal government has to develop an environmentally sound isolation and monitoring technologies for West Valley's reprocessing waste and other radioactive wastes from mine tailings to fuel rods. We do not support irreversible technology.

802-1

802-2

802-1 DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

802-2 DOE and NYSERDA believe that this EIS meets the requirements of NEPA and SEQR. The principal purpose and need for this EIS is to evaluate the environmental impacts of decommissioning and/or long-term stewardship of WNYNSC, and thus meet the requirements of the West Valley Demonstration Project Act.

Offsite authorized disposal capacity is available for most of the waste that could be generated from any of the EIS alternatives. The shift to a national policy of storage rather than disposal of this waste is outside the scope of this EIS. Consistent with existing practice, any waste generated from any of the EIS alternatives that does not currently have offsite disposal capacity (referred to as orphan waste) would be safely and retrievably stored on site until such disposal capacity is available.

Comments from the Buffalo, New York, Public Hearing (April 2, 2009)

The West Valley site has its very own act of Congress, which charges you with demonstrating that the wastes at West Valley can be cleaned up, decommissioned, and decontaminated.

I further charge you to just do it. Get on with it.

I continue to worry about the seriousness with which all these comments are considered in this decision process afforded to us under NEPA and SEQR. Please listen to all of us, whether or not we are lawyers, scientists, or mathematicians. Our concerns are very real, and we are entitled, by virtue of birth and life, and the simple act of being, to have an affect on and validation of your decision making.

Our tax money is paying your salaries. We are, in essence, your boss. We also are consumers, in this case, specifically of water, and the consumer/customer, is always right.

And now my personal statement. I thank you for this opportunity. My name is Leonora Lambert. For many years, as a member

802-3

802-3 DOE and NYSERDA seriously considered all of the comments received on the Revised Draft EIS. The formal comment period was originally scheduled for 6 months (required by the 1987 Stipulation of Compromise Settlement between the Coalition on West Valley Nuclear Wastes and Radioactive Waste Campaign and DOE), but was expanded to 9 months, beginning on December 8, 2008, and ending on September 8, 2009. During this comment period, public hearings were held in Albany, Irving, Ashford, and Buffalo, New York. In addition, Federal agencies, state and local governmental agencies; Native American Tribal Governments, and the general public were encouraged to submit comments via the U.S. mail, e-mail, a toll-free fax line, and a DOE Internet website (http://www.westvalleyeis.com). DOE and NYSERDA considered all comments, including those received after the comment period ended, in evaluating the accuracy and adequacy of the Revised Draft EIS to determine whether its text needed to be corrected, clarified, or otherwise revised. Responses to each of the comments received are provided in Section 3 of this CRD.

of the League of Women Voters of Buffalo Niagara, I have followed the issue of preservation of our natural resources, particularly problems related to disposal of radioactive waste. But I am not here to speak for the League.

More recently I've become a member of the Citizen Task Force for West Valley and of the Coalition on West Valley Nuclear Waste. Nor do I speak for either of these fine groups.

The League of Women Voters' primary focus is to encourage informative and active participation in government. We work to increase understanding of major public policy, and to influence public policy through education and advocacy.

Many of the laws that apply to meetings such as this, laws that guarantee the safety of the people and protection of the environment, were supported and promoted by the League of Women Voters.

In 1998, the League's Educational Foundation, in partnership with the Department of Energy, held two workshops to explore the

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issue of what to do with radioactive waste being stored at numerous locations around the country. I, and a few members of the Citizen Task Force of West Valley, attended a workshop in San Diego. We learned a lot about the magnitude of the problems, both from DOE and from other participants, especially representatives of several tribes of Native Americans whose land was threatened by the proximity of nuclear waste.

We also discovered that numerous environmental groups, made up almost entirely of volunteers, had boycotted the workshop because their experience in the past with the Department of Energy was so negative, they were sure it would be a waste of time.

In the end, at the conclusion of the workshop, all agreed on one thing; we need a dialogue in America to discuss the issue of radioactive waste and determine what is best for the country.

It didn't happen. Peoples' eyes glazed over about the third sentence when the subject comes up, usually after a press release headline boasts of clean-up. Most

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lawmakers who could make such a dialogue happen know little about it themselves.

There is also the possibility that no one wants to admit that we have a big problem that cries out for a real solution.

Coming home from that event, almost 11 years ago, and attending meetings of the task force, I concluded we need another Demonstration Project to demonstrate that we really clean-up a nuclear waste site.

Meanwhile, the big process was developed, and a great deal of the highly radioactive nuclear waste is out of the tanks, no longer a huge leaking threat. Still, highly radioactive sludge remains a threat, as long as the tanks remain in the ground.

About two years ago, representatives from the Environmental Protection Agency suggested a pilot demonstration project to take the tanks out of the ground. There are hundreds of tanks buried at DOE sites around the country, some of them leaking. As far as we know, there has been no attempt to unearth them. The technology that would need to be developed to do that could be helpful here and

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at those other sites.

Why couldn't this EIS have included an option to exhume a tank? One might object that we don't know how to do that. But we didn't know how to do it then, and the experts experimented until they got it done.

More importantly, why can't the Department of Energy commit right now to a full clean-up? Instead of phased decision making, why not phased clean-up? Then Phase 2 could hold some promise as opposed to the indecision that hovers over the present plan. Essentially, a plan not to decide.

We don't want a partial clean-up. We want the NDA and SDA burial removed, the strontium plume removed, not merely the source under the process removed, and the tanks out of the ground. We don't want a cosmetic effort that would take down buildings and plant grass, hiding what lurks beneath the beautiful rolling countryside. To coin a phrase heard a lot last fall, if you put lipstick on a pig, it's still a pig.

MS. ROBINSON: Thank you. Our next speaker is Vincent Agnello, and followed by

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802-4 This EIS was prepared to evaluate the environmental impacts of alternatives for the decommissioning and/or long-term stewardship of the WNYNSC site. Under the Sitewide Removal Alternative, DOE would remove the waste storage tanks from the site.

802-5 In accordance with NEPA and SEQR requirements, this EIS evaluates a reasonable range of alternatives for decommissioning and/or long-term stewardship of WNYNSC. Please see the response to Comment no. 802-1.

Judy Einach.

VINCENT AGNELLO: My name is Vincent Agnello, resident of Youngstown, New York.

I am the past president of Residents for Responsible Government, Inc., a community-based group fighting to clean the environment in Lewiston and Youngstown from further disposal of toxic wastes, and from the radioactive assault on the community from the government's LOOW site.

In a sense, our struggle and that of the residents impacted by West Valley are similar. The government's response, both Federal and State, are even more strikingly identical. No action to protect the health and welfare of the impacted citizens. And neither level of government has taken any action in our communities to protect our nation's greatest resource, the fresh waters of the Great Lakes.

I'm a professor at Niagara University, and I recently showed my class a video on the struggles of the residents of Love Canal. The video was entitled, "In Our Own Backyard: The First Love Canal," by

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Bull Dog Films. I would recommend that you view the film before making any decisions on West Valley. My students were shocked by the government's inaction. History does repeat itself. When asked what the role of government is, their response was uniform: Government's job is to protect the health and welfare of its citizens.

Your plan of action and the Environmental Impact Statement is faulty, in that it fails to address honestly, accurately, and fully the two major issues regarding West Valley.

First, your plan must protect the residents of the area from actual and potential harm. Secondly, and as important, your plan must remove any threat of contamination to the fresh drinking water of the Great Lakes. Complete removal is the only viable solution that addresses both issues.

We could spend months going over each line of your plan and impact statement, but that would not resolve the issue at hand. I implore you to go back to the planning stage and come up with a plan that will permanently

803-1

803-1 DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative. Please see Chapter 1, Section 1.2, for a discussion of the history of the development of this EIS. This EIS was prepared to evaluate the environmental impacts of alternatives for decommissioning and/or long-term stewardship of WNYNSC. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

remove the radioactive waste from West Valley, and to do so immediately.

What will our legacy be? What shall we say to our children, grandchildren, and generations to come as to why we have no drinking water? What shall we say to our children as to why our government continues to fail us? Thank you.

MS. ROBINSON: Thank you, sir. Judy Einach is next, and Nick Orlando will follow.

JUDY EINACH: My name is Judy Einach, and I am a member of the Steering Committee of the Coalition on West Valley Nuclear Wastes, and I also have a seat on the Citizen Task Force, which is what I speak for tonight. So I thank you for the opportunity to comment.

The Citizen Task Force was formed in 1997 to assist in the development of a Preferred Alternative for the completion of the West Valley Demonstration Project and clean-up, closure, and/or long-term management of the facilities at the site. The group has 18 members, with representatives from the affected communities.

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After its formation, the CTF met for 18 months and studied the issues before releasing a report in July 1998. That report details the CTF's expectations with respect to Policies and Priorities and guidelines for a Preferred Alternative. Our report and considerable information about our work and the site may be found at www.westvalleyctf.org.

For more than a decade since the report was issued, the CTF has been meeting regularly with DOE and NYSERDA. We have also received numerous presentations from regulatory agencies, and advocated with elected officials on behalf of clean-up at the site. We believe that our ongoing active involvement has been essential to a number of the clean-up activities underway or planned at the West Valley Demonstration Project.

The CTF appreciates the progress to date and the work of the Core Team agencies in arriving at a Preferred Alternative, something that was missing from the 1996 Draft EIS. The Core Team agencies are to be commended for overcoming significant differences and for

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working together to arrive at a Preferred Alternative.

The CTF also appreciates that DOE and NYSERDA are planning to accomplish clean-up work at the site that the CTF deems essential, including the removal of the source area of the North Plateau groundwater plume and a significant number of the contaminated facilities.

We are actively working on written comments to be submitted later this spring. Based on our review to date of the Draft EIS, we would like DOE, NYSERDA, and the public to understand in broad terms what we anticipate will be the essential views expressed in those comments.

First, the proposed Preferred Alternative Phase 1 work meets the Policies and Priorities articulated in the CTF 1998 final report. The CTF strongly encourages that this work be completed without further delay, and in a manner that enhances future decisions regarding clean-up of the site. The CTF desires that performance measurements for this work be clearly articulated and adhered

804-1

804-1 DOE and NYSERDA note the comment. If the Phased Decisionmaking Alternative were selected, during Phase 1, DOE would conduct additional studies and evaluations to clarify and possibly reduce technical uncertainties related to the decision on final decommissioning and long-term management of the site. During Phase 1 and prior to implementation of Phase 2, DOE and NYSERDA would seek information about improved technologies for in-place containment and for exhumation of the tanks and burial areas that may become available. DOE and NYSERDA would continue to assess the results of any site-specific studies along with any emerging technologies to support the Phase 2 decision. DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement.

to.

Second, the CTF stands by the Policies and Priorities articulated in the 1998 final report, including, among others:

The protection of human health and safety and of the environment is paramount.

Our 1998 report states that the CTF does not believe that the geologic, hydrologic, and climate conditions of the site are suitable for long-term permanent storage or disposal of long-lived radionuclides. After 11 years of continued education on the characteristics of the site, we are more convinced of this, and we feel that the level of risk from exposure is such that reliance on institutional controls over a prolonged period, hundreds of thousands of years, is not feasible. *804-2*

Third, decisions and studies should be performed during Phase 1 that assess and support the eventual goal of full clean-up of the site, and reassess the technologies and volume of waste disposal associated with exhumation, which may alter estimates of safety risks and costs. *804-3*

804-2 DOE and NYSERDA acknowledge the commentor's opinion on the unsuitability of the WNYNSC site for long-term storage or disposal of wastes. This EIS analyzes the impacts of the alternatives on the environment, including human health and safety during the decommissioning and post-decommissioning timeframes if waste and contamination were to remain on site.

DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies and long-term erosion modeling are discussed in Appendix F. This EIS addresses potential impacts of climate change through sensitivity analyses, but does not attempt to address extreme global-scale climate change. The analysis of doses due to unmitigated erosion uses a gully advance rate associated with a climate that is wetter than current site conditions. Please see the Issue Summary, "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for additional discussion of this issue and DOE's and NYSERDA's response.

This information will be considered by the agencies when they make their decision, which will be reported in DOE's Record of Decision and NYSERDA's Findings Statement.

804-3 Studies will be performed during Phase 1 of the Phased Decisionmaking Alternative for the purpose of further characterizing the site and evaluating technology developments and engineering to aid consensus decisionmaking for Phase 2 if the Phased Decisionmaking Alternative is selected. Please see the response to Comment no. 804-1.

Finally, if the Preferred Alternative and its phased decision making approach is selected, we feel the views of the public should be considered on an ongoing basis. The public should be allowed full opportunity for review and comment on later subsequent proposals that might lead to anything less than unrestricted release at the site. If an ongoing assessment period occurs, there will be many interim decisions and site work which will have far reaching impacts on human health and the environment.

MS. ROBINSON: One minute.

JUDY EINACH: These decisions and the planning for the work should also be subject to regular ongoing public consultation to ensure that viable options are not precluded. Regulatory reviews, permitting, and licensing should contain commitments from the appropriate agencies, beyond the minimum legal requirements, to seek and incorporate the views of the community in making decisions regarding the future of the site.

Over the coming months, the CTF will be developing more detailed written comments

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804-4 Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

Regulatory bodies involved in permitting and licensing activities at WNYNSC would be responsible for defining the review and public involvement process for their activities.

on the Draft EIS. We encourage everyone to take the time to carefully read and comment on the DEIS and submit written comments. Thank you for the opportunity to comment at this time.

MS. ROBINSON: Thank you, ma'am. Next will be Nick Orlando, followed by Diane D'Arrigo.

NICK ORLANDO: Good evening. My name is Nicholas Orlando, and I have direct concerns with what is happening here as I own a farm and an organic farm down plume from this project.

I've, basically, like to know two things: How safe are my interests, since I use deep artesian wells to water my crops and drinking water for my animals, and water for my family and for friends of mine who also use my water.

Secondly -- I am going to be very short with this. Can we expect a more aggressive cleanup with our current administration's commitment to the environment? That's the end of my statement.

MS. ROBINSON: Thank you.

805-1 **805-1** DOE maintains an onsite and offsite groundwater environmental monitoring program at WNYNSC. Well samples are periodically analyzed for the presence of any radionuclide contamination to ensure that water used by members of the public for consumption, agriculture, and animal husbandry is safe. This system and the results of monitoring are presented in Chapter 3, Section 3.6.2, of this EIS. DOE acknowledges the commentor's support for a more aggressive cleanup. The decision on the selected course of action and supporting rationale will be provided in DOE's Record of Decision and NYSERDA's Findings Statement.

NICK ORLANDO: Can we expect an answer soon?

MS. ROBINSON: For the comments that are given here during the comment period, they would be addressed in the EIS itself, the Final EIS. What you may want to do is stay afterwards and talk some more.

NICK ORLANDO: Okay. Thank you very much.

MS. ROBINSON: Yes. We have Diane D'Arrigo followed by Victoria Ross.

DIANE D'ARRIGO: I'm Diane D'Arrigo with Nuclear Information and Resource Service. It's a national group, although I am a -- grown up in Western New York, and family's still here, I am part of a national group that's part of a growing local, state, and international coalition of groups that are pushing for the full clean-up -- the full clean-up decision to be made now on the West Valley site. It's the West Valley Action Network, and many other people who are here are a part of it. And there are others.

I think it's important to say, and I think probably everyone here knows, but I want

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to be clear, that what's in every part of this site is some long, long-lasting radioactive materials. We heard mentioned earlier that, maybe, some parts of the site have shorter lasting materials. One of the so-called low level radioactive waste trenches are at least 14 pounds of plutonium, with a 24,000 year half-life, so hazardous for 240- to 480,000 years. I would also like to point out that strontium 90 and cesium 137, the so-called short-lasting elements, are hazardous for 300 to 600 years, if you use the 10 to 20 half-life equation. So short lasting is still long enough to leak into our water supply and destroy it.

The independent study that was done with New York State funding, that was got through Senator Young, concludes that it's very likely -- or it's very possible that there could be a serious erosion event -- that there will be many erosion events and gullying, and that the -- that there could be a release, a significant release of radioactivity in 150 to, maybe it wouldn't be to 1500 years, but that it could be soon.

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806-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

DOE and NYSERDA recognize that erosion must be considered in analyzing the impacts of each of the alternatives. The EIS analyzes the consequences of unmitigated erosion at the site on existing Lake Erie and Niagara River water users as well as postulated water users that are closer to the site. The erosion analysis that is presented in Appendix F of the EIS is considered to be scientifically defensible and, consistent with NEPA requirements, uses a theoretical approach that is accepted in the scientific community that evaluates long-term erosion. Please see the Issue Summary for "Questions about Long-term Erosion Modeling" in Section 2 of this CRD, which presents a discussion of the erosion model and addresses the uncertainties in the erosion predictions.

And I find it frustrating that our relatively -- that this relatively inexpensive study was able to show that there's strong need to remove this waste from land that will eventually erode into Cattaraugus Creek and the Great Lakes, yet the State and Federal agencies, in 13 years of preparing this updated Revised Draft Environmental Impact Statement, don't seem to have enough information to justify digging it up.

I don't know what it's really going to take. You know, do it. Figure it out and revise the EIS, and do it before the end of this round of EIS. We are not willing to wait 30 more years, or up to 30 more years, to decide.

I'd like to know what you think. Let's just think for a minute about the radioactive wastes that were buried in the ground in 1963. And they were, at that time, they could be in cardboard boxes. In 1982 the rules got stricter, so you can't do cardboard boxes anymore. But let's just think about radioactive sludges and other radioactive materials both high and low level that are in

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the ground, either in containers or in boxes. What do you think the condition of the boxes are? Has this material -- yes, it's gotten wet. The reason the burial ground closed in '74 is water filled the trenches, burst through the trench caps, gushed into Lake Erie through Cattaraugus Creek. So it's probably not still in those neat little boxes and barrels.

And in 30 more years, how much more water is going to get in? Yes, there are garbage bags on the top, you've got special liners on the top of the trenches to keep the waste from getting in, and sometimes they rip, and they can get fixed, like they just did this week. But radioactive material is going to be there for a long time, even in the so-called low-level part, not to mention the damaged fuel that's in the NRC licensed disposal area.

And so I want to know, I want people to envision the logic. I know you've got a lot of different legal steps that you have to go through being NYSERDA and being DOE and having your -- your various requirements to

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make contracts, et cetera. But the point is, we've got waste that is oozing under the ground right now.

I have a couple of more questions. One is, when is the last time and what was the level of radioactivity in Buttermilk Creek, which runs next to the site? How much radioactivity was there? Who's watching it? And how is that being reported to us?

And I'd like to know how many other plumes there are. We've seen talk about the plume they're going to partially remove in Phase 1. Yippee. We don't even know if there are other plumes on the site. I'd like to know what other evidence we have that that site isn't oozing all over the place right now. *806-2*

And I will conclude with just repeating that we're calling for a full clean-up, and we still are calling for an extension on the comment period. Because you need to hear from more people that are potentially affected. And we need more time than June 8th to alert our elected officials, alert our water districts, that you've even *806-3*

806-2 DOE maintains a monitoring program at WNYNSC that measures radiological and nonradiological samples both on and off the site. Sampling locations include upstream background locations and downstream locations on both Buttermilk Creek and Cattaraugus Creek. A description of the monitoring program, sampling locations, and results is provided in the annual site environmental reports, which are available through the WVDP website (http://www.wv.doe.gov). The description of the site in Chapter 3 of this Final EIS is based on the results from the most recent site environmental report.

As described in this Final EIS (see Chapter 3, Section 3.6, and Appendix E), a comprehensive understanding of the geological and hydrological properties of WNYNSC has been developed through decades of study, as has an understanding of the nature and extent of soil, groundwater, and surface water contamination. The most significant area of groundwater contamination at WNYNSC is recognized to be the North Plateau Groundwater Plume (see Section 3.6.2.1).

806-3 DOE and NYSERDA note the commentor's support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in the DOE's Record of Decision and NYSERDA's Findings Statement.

In response to requests from the public, DOE and NYSERDA extended the original 6-month comment period (required by the 1987 Stipulation of Compromise Settlement between the Coalition on West Valley Nuclear Wastes and Radioactive Waste Campaign and DOE) for an additional 90 days, through September 8, 2009.

got these documents out. Thanks.

MS. ROBINSON: Thank you. Our next speaker is Victoria Ross, followed by Eric Hahn.

VICTORIA ROSS: I'm Victoria Ross with the Western New York Peace Center. And if I start talking about depleted uranium and cluster bombs and everything, you can get the hook or something. I'll try to restrain myself, but those are big problems, too. And you have, and we all have a big problem here. So I want to really sympathize with your difficult chairs that you're sitting in right over there, because there are -- this is a difficult issue, and I can sympathize with trying to take nuclear waste, hazardous nuclear waste on the roadways or moving it at all, or where do you put it when you find it.

But one thing, so let's keep it simple. Simple, but not easy. Simple is keeping it in the ground, keeping it where it is, keeping it where it's leaching into the drinking water in a public area is not an option. It's not. It's irresponsible.

But even more so, it is the height

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807-1 DOE and NYSERDA acknowledge the commentor's opposition to an EIS alternative that would leave buried waste on site. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

of irresponsibility for us to be using nuclear power. We have no business using nuclear power in this country, or any other country, because it's an easy out. But it's no easy out because then we're faced with a problem like we have right now, because we have no solution. We don't have a good solution. That's why we're all here now. That's why you're in such difficult seats right there, because it's not a responsible -- it is the height of irresponsibility to be using nuclear power in this country or any country.

We need other solutions, and there are other solutions, sustainable solutions. It's research and development that -- and energy that we're talking about. We need to put our efforts into those sustainable solutions so we're not faced with this insanity. Thank you.

MS. ROBINSON: Thank you. Next speaker will be Eric Hahn, followed by Maria Maybee. Eric Hahn is actually a pair.

ERIC HAHN: And now we pause for a station identification. This body was killed by low level radioactive waste from the West

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Valley reprocessing plant. This body was killed by waste from another leaking plant. We're here on the street to ask a typical representative of NYSERDA, which body he thinks is whiter and brighter? Why, here comes one now. Excuse me, sir, could I ask you a question?

CHARLES HAHN: Why, certainly.

ERIC HAHN: Which body do you think is whiter and brighter?

CHARLES HAHN: Oh, my goodness, that one is much worse.

ERIC HAHN: There you have it, folks, proof positive that radioactive waste from West Valley, with the miracle ingredient uranium 235, will get your bodies whiter and brighter. Now we return to our regularly scheduled program.

CHARLES HAHN: Hello, everyone, and welcome to the local folk interview segment of our show. I am your reporter, Bob Raymond, interviewing a representative from the DOE, Lyon Sackowitz, who would like to set the record straight on the issue of nuclear waste at the West Valley site here in Western New

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York. Welcome to our show, Mr. Sackowitz.
ERIC HAHN: Lyon, Lyon, please.
CHARLES HAHN: All right, Lyon-Lyon.
ERIC HAHN: No, no, just Lyon.
CHARLES HAHN: All right, just Lyon. I am sure you want to reassure people about the situation out at the site?
ERIC HAHN: That's right, Bob. We've decided to keep an eye on things, and we'll also revisit it after 30 years. Frankly, Bob, I don't see what people are so fussed about.
CHARLES HAHN: They're concerned about the high level of radioactive waste buried in West Valley.
ERIC HAHN: What do they want me to do about it?
CHARLES HAHN: According to my notes, they would like you to dig it up.
ERIC HAHN: Why?
CHARLES HAHN: Because of erosion. Look, it says here the site is on a geologically young landscape, which is undergoing a rapid rate of erosion.
ERIC HAHN: Exactly. So if they

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808-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

808-2 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F.

just leave it for 30 years like I suggested, erosion will uncover it for them. Problem solved. For free.

CHARLES HAHN: I wonder if you could speak to the issue of the waste being radioactive for tens of thousands of years?

ERIC HAHN: Well, I'm afraid that's just an old wives' tale, Bob. Besides, we have plenty of backup systems.

CHARLES HAHN: Backup systems?

ERIC HAHN: That's right. Anything goes wrong, we say back up, back up, back up. Everybody back up.

CHARLES HAHN: What do you say to people who complain that the Draft Environmental Impact Statement has taken 30 years to complete?

ERIC HAHN: Everybody's a critic. Preparation of good documents takes time. But if anybody thinks you can write a better one, I would be more than happy to personally read it, and just to be fair, I will give them 30 years, too. Don't worry. Don't worry. We won't do anything until we hear from you in 30 years. I don't see how I can be much more

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fair than that.

CHARLES HAHN: And lastly, I wanted to get your views on the radioactive material that is leaking off site.

ERIC HAHN: Some people are never satisfied, Bob. When I had radioactive material at the site, people complained about that. Now it's going away, and they're complaining again. Some people.

CHARLES HAHN: Well, there you have it, straight from the horse's mouth. Thanks for just Lyon, coming -- er, thanks for coming, Just Lyon.

ERIC HAHN: My pleasure, Bob. Thank you. Thank you.

MS. ROBINSON: Thank you, sirs. The next will be Maria Maybee, and followed -- and the one after Maria would be Gladys Gifford. Maria Maybee? Maria Maybee? Okay. Is Gladys Gifford willing to do it now, and we will come back to Maria Maybee if she shows up.

GLADYS GIFFORD: Good evening. My name is Gladys Gifford; I live in Eggertsville, and I have been monitoring the West Valley site for over ten years.

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During those ten years, I have been sharing my understanding of the West Valley site with Presbyterians in Western New York. I have traveled many times to the meetings held at the Ashford Office Complex, despite the 90-mile round trip, because I am convinced that the clean-up of West Valley is not just a problem for the residents of Cattaraugus County, but rather a grave problem for all of Western New York.

I am thankful that the meeting tonight is in Buffalo, available to the larger population whose health and future well-being is impacted by the decisions the DOE is considering in this Draft Environmental Impact Statement.

Western New York is suffering the strain of several nuclear waste sites, especially the West Valley Demonstration Project. This site is leaking terrible nuclear poisons into the groundwater already.

This plume of radioactivity is bound for Buttermilk Creek, thence to Cattaraugus Creek, thence to Lake Erie, and on and on. Lake Erie is one of the Great Lakes, the

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809-1 Chapter 3, Section 3.6.2.1, of this EIS addresses groundwater at WNYNSC that was contaminated due to past activities (for example, the North Plateau Groundwater Plume). This EIS was prepared to evaluate the environmental impacts of alternatives for decommissioning and/or long-term stewardship of WNYNSC. Under all of the action alternatives, DOE would either remove contamination sources, mitigate their impacts to groundwater, or both. Under the Sitewide Removal and Phased Decisionmaking Alternatives, DOE would remove the source of the North Plateau Groundwater Plume. Potential groundwater impacts associated with the EIS alternatives are discussed in Chapter 4, Sections 4.1.4 and 4.1.10, and Appendix H of this Final EIS.

This EIS also analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. The environmental contamination from current operations is minimal (below established standards), as demonstrated by the results from the ongoing environmental monitoring program. Please see the Issue Summary for "Concerns about Potential Contamination in Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Chapter 1 of this EIS summarizes the history of WNYNSC. Section 1.1 provides an accurate history of the development of the site and how DOE and NYSERDA became responsible for their respective roles.

repository of 20 percent of the sweet freshwater for the whole planet.

West Valley Demonstration Project has already put in place one barrier to try and stop that plume -- then they added another barrier. This is such foolishness. We know that water will have its way. How could we stop groundwater from moving?

I understand that the West Valley site is the creature of the Federal Department of Energy. The Department of Energy continues to minimize the dangers and expense of cleaning up nuclear waste in order to promote and subsidize nuclear power.

Has anyone searched out the people who have been accidentally exposed to the wastes while working at the West Valley site? Does anyone care that there is a child living in the area who has no hands?

Why do we tolerate this? How much longer shall we endure this nuclear poison for the sake of the nuclear power industry?

Along with the 64 Presbyterian congregations in Western New York, I support the sitewide removal alternative.

EDITH E. FORBES (585)343-8612

809-1 cont'd

809-2

809-2 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Let us face up to the reality that the land in West Valley cannot hold these nuclear wastes much longer.

Let us do the right thing for ourselves and our descendants.

In the name of your constituents in Western New York who are already suffering the ill-effects of nuclear waste, make the right decision -- the sitewide removal alternative.

Dig up all the nuclear waste, put it in impermeable containers ready for shipment to a dry and safe place, and forever remove this nuclear waste threat from the beautiful land and waters of West Valley in Cattaraugus County, New York, and the watershed of the Great Lakes. Thank you.

MS. ROBINSON: Thank you, ma'am. Is Marie Maybee in the room? If not, let's move on to Dennis Scott, to be followed by Agnes William.

DENNIS SCOTT: Well, folks, you already heard my first part about alternatives. You've already heard my first part about the alternatives. I will tell you what, I've served in the military for 23

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years. And what you laid out here is everything I've learned in the Army -- hurry up and wait. Now if I had to tell that to my children, and we filled this place up with kids, you're not going to be here in 30 years, she may not be here in 30 years, and I don't know about you Paul, but you probably could retire somewhere soon. Okay. So every decision you make here is not really affecting just us, it is affecting our children and their children.

There is alternatives. You brought up some great ideas, good points, and so did you, your points about transportation. The alternatives out there are, again, sitting right in front of us.

China -- not China. Japan, even the United States and Europe are talkin' 'bout plasma technology because it can handle the type of waste you're talking about. To be honest with you, ma'am, to store this stuff above ground, serving for my country, I understand how many bad people really are out there. It's not just a thing about what all the environmental would do to you there. You

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have enough crack pots out there who would take a chance at something like that. It's a sad scenario, but believe me, if something, after we learned in 9/11, that how safe are we really, and what can they get their hands on, and do you want to take the chance of all these people here, the risk at that time. Let alone if you do, move your house next to there. I want to see you live by there, I want to see you monitor there. If you can't do that, then you know, what -- make a quick decision, clean-up these grounds. Do the responsible thing.

As a business owner here, I am going towards green energy. As another part of a business owner I am part of a group called the Core, and one of our good leaders is Al Gore. He's challenged us as business owners to take the responsibility for what we do today, because there is no more tomorrow to keep playing around with. I challenge you with the same thing.

Thirty years from now and your $1 billion, or whatever it will be, is probably today's cost. Knowing how politics

810-1 **810-1** The human health impacts of postulated intentional destructive acts are analyzed in Appendix N, which also addresses DOE's strategy for emergency planning, response, security, and recovery.

and government works, it will be inflated to something that we will never be able to afford, let alone who knows what that paid for.

But take the proper responsibilities, and if any of that can be used back towards energy or that for us, that's another concern. We've already found what happens with dependencies that we sit on today. Didn't get us too far, did we? We heard the same story back in the '70s. We'll get away from dependencies, we'll do all the right things, and we'll never have to worry that we'll ever be at risk. Well, guess what? 2000 came around, 9/11 came around, then it happened.

So stop stalling and doing bureaucratic stuff. You're telling us you took six months to do -- you will take six months to make a decision.

A gentleman over here asked the attorney a very simple question, will you consider another draft. That was really the simple part of the summary. You didn't have to go around in circles. A military guy can

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Comments from the Buffalo, New York, Public Hearing (April 2, 2009)

understand that. It was simple. Can you make a decision that there may be an alternative, sir? I'm asking you for that man and everyone else here. Really think about that, because we don't need the long legal jargon. Just a simple decision. Is there the opportunity for another alternative to do something better?

Don't rush the decision that you will make that will affect us. And 30 years is way too long. Love Canal, most of us at least in this room probably do remember that. Thank you.

MS. ROBINSON: Thank you, sir. Are you Maria Maybee? No.

MS. BOHAN: If he still has time remaining --

MS. ROBINSON: He does.

MS. BOHAN: Mr. Scott, you referenced at the beginning of your statement that we already heard what you said on alternatives, but that was not recorded. So if you would like it to be part of the transcription, I would encourage you to repeat it.

DENNIS SCOTT: The alternative to

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810-2 DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement. Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

the board and to these folks, is there is a thing called arc plasma technology and gas fixation. Japan has been using this for years to handle their waste. Not just nuclear and bio waste, to handle their every day waste. They turn it into fuel. They turn it into electricity, and they turn it into natural gas. They did this because it was a better, cleaner alternative than putting it into the ground.

National Grid's got a plant in Boston, Massachusetts, that's being converted. They tried to sell us coal again, but they are going to plasma.

There is a plant in Pennsylvania being done. There is a plant in Chicago being done to handle tires, and Florida now has put one in in Jacksonville.

There is a reason why they put it in there. It's clean, it's new electricity, it's produced by every bit of waste that we produce, which we have a lot of it, believe me. I've been around the world, I see that our country just doesn't care about how much waste we produce. We're pretty good at it.

810-3 **810-3** DOE is aware of and has worked with arc-plasma technology. This particular technology is more suitable for waste with high organic content or nonvolatile inorganic constituents. It is not well suited to the waste at WNYNSC.

But it gives you an alternative, because if it is good enough for the military to say, we'll take a few of our nukes, put it in there, because we know when we're done with this, it's gonna break the atoms up to be exactly what they used to be, prior to one of our great scientists creating something that can kill people. Why can't you guys look at something as an alternative?

It will save you the decision of what this poor man just brought up, was transportation of that product and what would happen if there was a spill. It will save you on a decision possibly of what do we do when we take this out of the ground? Do we store it up above. Why store it? Destroy it. And then move it wherever you want to.

MS. ROBINSON: Thank you, sir. Now Maria Maybee. Okay. I will leave her name to the very end instead of calling her again and again. You are Agnes Williams. You will be followed by Andrew Goldstein.

AGNES WILLIAMS: I know we all look alike, but I am a different person from Maria Maybee.

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My name is Agnes Williams; I'm a Seneca, and I was born and raised on the Cattaraugus Indian Reservation, Versailles, New York, on the Cattaraugus side of the Creek.

And I know I've heard a lot about Cattaraugus County, but this creek is also in -- where the waste comes through there is also in Erie County. So Erie County is really affected, too.

I'm speaking tonight for a group called the Indigenous Women's Initiative, and we have a peace institute. And one of our mantras since the '60s has been the fact that women are the first environment. Everybody starts in the womb, and as women we are like our mother the earth, and our health is reflected by the health of our mother the earth.

And as we continue to contaminate and affect our mother the earth, and these contaminations that human beings continue to put into the earth, we continue to see the affects on women's health. And you don't really have to -- I'm sure each one of us is

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Comments from the Buffalo, New York, Public Hearing (April 2, 2009)

touched by ovarian cancer or breast cancer or anything like that.

Beyond that, my mother is the last sole survivor of the Snow family, which is at the mouth of the Cattaraugus Creek. They've had, for over 60 years, docks and cottages there. And probably in our fourth generation of non-Indian people that come to our reservation, spend ten months of the year there. And out of those four generations, many, many of those people -- because the Cattaraugus Creek floods every year down there, at least a couple times. And the people go down there in the summer and they stay there, and many, many of those peoples have died of cancer, you know, a lot of cancer. We see that.

We started to do, in the Seneca Nation, some epidemiology studies, only to be told because we didn't have a significant population in numbers, that anything that was found in terms of rates of cancer and that was not -- didn't matter because there wasn't enough of us.

Our population was actually removed

811-1 **811-1** Comment noted. In 2009, *The Journal of Rural Health* published the results of a study that evaluated the incidence of cancer among the Seneca Nation of Indians as compared to the rest of New York State (except New York City) for two 15-year periods (1955 through 1969 and 1990 through 2004). The study concluded that "[d]espite marked changes over time, deficits [lower rates compared to those in the rest of the State] in overall cancer incidence have persisted between the time intervals studied" (Mahoney et al. 2009).

to the Cattaraugus Indian Reservation because we were originally in the Buffalo Creek area here. And when the City -- industrial society built the City here, we were forcibly removed and put onto the reservation, thinking that the reservation where we were, we were out of -- out of the way of you all, and put on the Cattaraugus Reservation, thinking that it wasn't -- it really wasn't a valuable place because nobody else wanted that land at that time.

And this scenario's repeated all the way across the country. Native American people are on the beginning and the end of the nuclear chain. It is a nuclear chain, it is not a cycle. With uranium mining that was in the southwest, many of us worked very hard in the '60s and the '70s to close down those uranium mines in the southwest.

The Indigenous Women's Network, which I'm a founding mother of as well, supports a project called Honor the Earth with Wynonna LaDuke, who worked very, very hard and got a lot of those uranium plants to be shutdown in the southwest.

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Yet the Navahos, they have a Special Olympics every year because of all the birth defects. They have so many kids that have birth defects now. And children would play in these uranium tail minings.

And what this has really amounted to is environmental racism. Because the affects of the nuclear chain is always kind of stumbled on indigenous peoples all over the world. You know, primarily out west, including Yucca Mountain. When people look for a site to put this waste, Yucca Mountain is a sacred site to the Native people in the west.

In the '70s, we had 19 -- well, actually in the '60s, the governors would get together and do governors' meetings to declare national sacrifice areas. And they always pick Native lands to do that. And they had picked the Bad Lands in South Dakota.

Then in 1973 when the Indian Nation declared the independent Oglala Nation, the United States Government came in and shot and killed people and wounded, and that was a 71-day occupation. For two years it was a

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civil war. And in 1975 there was a shoot-out. Two FBI agents came in and shot up a camp of Indian people, and they were killed as a result. And Leonard Pelletier is serving two life prison sentences for that today.

In the '80s we found out that the same day the FBI agents came into this encampment of Indian people, that the president of the Pine Woods Reservation was signing away one-eighth of the Bad Land in Washington, DC. So we are the old Indians, and you are all the new Indians.

MS. ROBINSON: Thank you, ma'am. All right. Our next speaker will be Andrew Goldstein, followed by Anne Rabe.

ANDREW GOLDSTEIN: Good evening. Good evening, everyone. My name is Andy Goldstein, and 25 years ago after returning to Buffalo from out west, an old ex-girlfriend of mine, who I was still slightly attracted to, asked me to attend a meeting of a neat group, and the group was the Sierra Club Radioactive Waste Campaign. And I attended, and there I met Dee, and I met Lisa Finaldi and many others, and I haven't been

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the same since.

You know, I heard today that NYSERDA is committed to making decisions now and in the future. Yet I heard today from -- from you and from your presentation and from the written material, that it -- that comments like, it depends on this, it depends on public participation, it depends on this study, it depends on that. We don't know this or that. Comments like, in your written statement, if Phase 2 calls for this, we'll do that. If Phase 2 calls for that, we'll do this. I've heard lawyers without answers and scientists without other answers. Let me say, this is no way to write an Environmental Impact Study.

You know, I was at the gates of West Valley 28 years ago calling for decisions to be made. Ten years later I, with several others in attendance, camped out on the shores of Buttermilk Creek and Cattaraugus Creek, again calling for brave decisions to be made.

And today all of us, I and all of us here today, are making the same call.

Your reply of please wait again, make it perfectly clear to me that you are the

812-1

812-1 This EIS evaluates the environmental impacts of a range of alternatives for the decommissioning and/or long-term stewardship of WNYNSC. It is assumed that the comment refers to the Preferred Alternative, the Phased Decisionmaking Alternative. If this alternative is selected, the options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. For each resource area, Chapter 4 discusses the impacts that would occur if either removal or close-in-place is selected for Phase 2. The chapter also discusses which alternative(s) bound the impacts in the event that continued active management is selected for the SDA. The short-term impacts of a Phase 2 decision that involves continued active management of the SDA are bounded by either the removal or close-in-place impacts. The post-decommissioning impacts of a continued active management decision for the SDA, which include staffing, occupational exposure, and waste generation related to SDA monitoring and maintenance, as well as long-term impacts on public health and safety, would be similar to the no action impacts for the SDA.

same please just wait cowards that we had faced before.

And in the words that I learned 28 years ago today -- 28 years ago, you can run, but you can't hide. Thank you.

MS. ROBINSON: Thank you, sir. Next commenter is Anne Rabe, followed by Arthur Klein.

ANNE RABE: Thank you. Good evening. I'm with the Center For Health Environment and Justice, CHEJ, and our group has been working on toxic site cleanup since the infamous Love Canal toxic site in Niagara Falls, led by our executive director, Lois Gibbs.

I've testified earlier this week, and I wanted to focus tonight on a couple key problems of the DEIS.

There are many, many problems with this Draft Environmental Impact Statement, but one of the ones I wanted to highlight, thanks to Barbara Warren of CEC who delved through this entire document, we were able to uncover, it is pretty disturbing.

And that is that the DEIS, in terms

813-1

813-1 The analysis in this EIS recognizes the potential for climate change to influence the long-term consequences of waste management. Climate changes, whether natural or influenced by human actions, could change the nature and amount of precipitation. Appendix H, Section H.3.1, of both the Revised Draft EIS and the Final EIS discusses the sensitivity of groundwater flow to changes in annual precipitation. The revised erosion prediction used for the unmitigated erosion dose analysis is based on the assumption that storms could occur more frequently than indicated by current records. This prediction includes the effects of storms of greater severity than the one that occurred in the region on August 2009. The use of this higher erosion rate associated with an elevated precipitation rate is discussed in Appendix H, Section H.2.2.1. Chapter 4, Section 4.3.5, has been revised to include a discussion of how the uncertainties about future climate change are addressed in this EIS.

The 2008 draft of the SDA Quantitative Risk Analysis (QRA) did not formally address the issue of climate change.

The QRA supporting meteorological data are derived from more than 80 years of historical records from three regional weather stations and 17 years of records from the West Valley meteorological tower. The QRA exceedance frequencies for severe storms explicitly quantify uncertainties that account for variability in localized storms throughout the region and variations in weather patterns over nearly a century of historical data.

The QRA models explicitly account for releases that are caused directly by severe storm damage at the site (e.g., from episodic high winds, tornadoes, extreme rainfall, etc.). The analyses also account for storm-related damage that may leave the site vulnerable to the effects from additional subsequent storms (e.g., during the time required to repair wind damage to the geomembranes).

The 2009 updated QRA contains a sensitivity study that examines the potential risk impacts from postulated dramatic climate changes during the 30-year SDA operating period. The sensitivity analyses account for increased frequencies of severe high winds, tornadoes, and precipitation. In particular, the analyses evaluate the effects from postulated conditions that would apply at the site if all meteorological parameters were assumed to persist at the 95th percentiles of their current uncertainty ranges throughout the next 30 years. In other words, based on the historical data, we are 95 percent confident that the actual meteorological conditions at the site will be less severe than those used in the sensitivity analyses.

of looking at the environmental impact in the future, assumes that there is no climate change.

And it just so happens that our organization just last month did a national report on the impact of climate change on Superfund sites around the country, called Superfund, In the Eye of the Storm.

And in our investigation, we've, you know, looked at the scientific research, and we found that International Panel on Climate Change, a scientific research group comprised of the world's leading scientists, issued reports on the increase of climate change related weather events, and concluded that, quote, warming of the climate is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea levels. Their reports join many others in demonstrating there is scientific consensus that the earth is warming, which will lead to serious potentially catastrophic impacts, including increased flooding, drought, and

813-1 cont'd

The QRA team does not believe that the extreme meteorological conditions that are evaluated by these analyses will evolve over the next 30 years. However, even if these conditions were to apply throughout the 30-year study period beginning in 2010, the mean total SDA risk may increase by a factor of only approximately 2.3, compared to the baseline risk assessment. Approximately 75 percent of the risk increase is attributed to trench overflow (Scenario 3-4), which is particularly sensitive to moderate- to high-precipitation conditions. Groundwater release Scenario 1-2 accounts for essentially all of the remaining difference, due primarily to the increased probability that trench water levels are at the weathered Lavery till/unweathered Lavery till interface. Even if these extreme conditions were to develop very rapidly during the next few years, the sensitivity study confirms that a release resulting in a dose of 100 millirem in 1 year, or more, to an offsite receptor remains very unlikely during the next 30 years of SDA operation.

See Section 15.3 of the updated QRA report (summarized in Appendix P) for details of the sensitivity analyses and results.

hurricane intensity, end quote.

So our report found that over the last five years, there have been extreme weather conditions that have greatly impacted Superfund sites, including Hurricanes Ike in 2008, Katrina and Rita in 2005, tornados in Oklahoma and Iowa in 2008, flooding in Iowa, Kansas, and Missouri 2008. And from 2004 to 2008 alone, 56 Federal Superfund sites were impacted by hurricanes in the Gulf Coast Region alone.

Our science director, Steven Lester, found that the strong winds of hurricanes and tornados can cause significant damage, such as disrupting contaminated soils, moving waste barrels long distances, and flooding can dislodge buried waste and spread contamination of soil. Basically, spreading toxic waste from Superfund sites. Clearly the same would hold for nuclear waste sites.

And yet on page 5-14 of the Draft Environmental Impact Statement, it states that, it assumes no climate change over the next 10,000 years. So my question to DOE and NYSERDA is: What were you thinking?

813-1 cont'd

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Comments from the Buffalo, New York, Public Hearing (April 2, 2009)

But we have a much bigger problem with this. You can't do an Environmental Impact Statement on a Phase 2, haven't yet decided on the clean-up goal plan. You can't have that. It's not an Environmental Impact Statement.

You can have an interim remedial action, which is done at Superfund sites, on the Phase 1 waste removal action dealing with that 1 percent of the site's radioactivity. So you can do what we call an IRM, Interim Removal Action, and get out there and do it.

Or you could make a case for a tiny EIS on the Phase 1 action. But you can't have an Environmental Impact Statement on a remedial action yet to be determined. How can you adequately evaluate the environmental impacts of a clean-up decision you haven't made?

It's an illegal EIS. That's what it is. That's the bottom line. And if the DEC came to a public meeting and gave us a Draft Environmental Impact Statement on a no-decision plan, they'd be laughed out of the room. They'd be laughed out of the room.

813-2

813-2 In accordance with NEPA and SEQR requirements, this EIS adequately analyzes the totality of environmental impacts, including costs, of a broad spectrum of reasonable alternatives that meet the respective purposes and needs of DOE and NYSERDA (Sitewide Close-In-Place, Phased Decisionmaking, and Sitewide Removal), as well as the No Action Alternative. The uncertainty about the nature of the Phase 2 decision is addressed by analyzing two cases. The first case assumes Phase 2 is removal of the remaining facilities, while the second case assumes Phase 2 is in-place closure of the remaining facilities.

The requirements for an interim remedial action apply to sites under CERCLA. WNYNSC is not a Federal CERCLA site. In accordance with the West Valley Demonstration Act, DOE is to decontaminate and decommission the waste storage tanks and facilities used in the solidification of high-level radioactive waste, as well as any material and hardware used in connection with WVDP, in accordance with such requirements as NRC may prescribe. NRC issued its "Decommissioning Criteria for the WVDP at the West Valley Site; Final Policy Statement" (67 *Federal Register* 5003). In this notice, NRC announced its decision to apply its License Termination Rule (10 CFR 20, Subpart E) as the decommissioning goal for the entire NRC-licensed site. This EIS evaluates alternatives for meeting those decommissioning criteria for the NRC-licensed property, as well as decommissioning and management options for the SDA.

So we appreciate Phase 1. We appreciate that. Do it as an interim remedial action. Do it as, quick, let's get going corrective action. You've got some stimulus money, move forward, yes. But don't wrap it in an illegal Draft Environmental Impact Statement.

So I would request that the Department of Energy and NYSERDA extend the comment period to October 30th. We've been waiting over 14 years for this plan. It's not a plan. It's a piecemeal Phase 1, and it's not a plan Phase 2.

813-3

Do the Interim Remedial Action on Phase 1, move on that contract action. Take the money and go with it. Revise this Draft Environmental Impact Statement with a full, sitewide removal action decision, and do a proper EIS that protects our Great Lakes and acknowledges clear impacts like climate change. Thank you.

813-2 cont'd

MS. ROBINSON: The next speaker is Arthur Klein, followed by Amy Witryol.

ARTHUR KLEIN: I'm Art Klein; I am vice chairman of the Niagara Sierra Group, but

813-3 In response to requests from the public, DOE and NYSERDA extended the original 6-month comment period (required by the 1987 Stipulation of Compromise Settlement between the Coalition on West Valley Nuclear Wastes and Radioactive Waste Campaign and DOE) for an additional 90 days, through September 8, 2009.

I am not here representing the Niagara Group tonight. I'm here representing myself. These are my words.

I worked for 40 years for the Corps of Engineers on marine construction in the Great Lakes, and the last 17 years of which I worked with the regulatory affairs. I'm very familiar with the public interest review process.

I thought this public interest review, I see it's supposedly three months old now, and I just became aware of it about a month ago. And I think most of the public that would be affected by a cataclysmic occurrence at West Valley, for example the people live along the shores of Lake Ontario, including Toronto, Canada, would be very interested in the possibility of failure at the West Valley site and how it could affect the water that reaches their shoreline.

Now, from my own background, I worked in shoreline erosion for a good part of that 17 years. I was an investigator, and I investigated and inspected hundreds and hundreds of shoreline erosion control devices.

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And I'll tell you, erosion control devices are an oxymoron. They don't occur. You might slow it down a little bit. You might affect it a little bit. You're not gonna -- slurry walls and things like that, if it's not the dynamic surface water will overcome your best efforts, it will be the subsurface water. It's going to be changes in climate that will affect it.

You could have -- in Buffalo, New York, we have an example of two 100-year storms within 2 years of each other, 1977 and 1979. These sort of things could occur down here. And over any one of your possible models for erosion control, are pretty invalid because you don't account for the possibility of cataclysmic weather, the possibility of different substrata beneath the surface strata, the difference of the subsurface water affecting the site at the same time surface water could be affecting the site.

I have one person who addressed the issue, the possibility of you could possibly put culverts in the creeks, Buttermilk Creek and the Erdman Creek that are on the site.

814-1

814-1 The erosion analysis presented in this EIS is considered to be a “state-of-the-art” analysis. The uncertainty of the erosion predictions are discussed in Appendix F of this EIS. Appendix H includes an analysis that recognizes the uncertainty in the long-term unmitigated erosion predictions. The analysis in this EIS addresses the issue of changes in weather patterns. The groundwater dose analysis investigates the sensitivity of wetter or drier climates on the estimates of human health impacts because there are no reliable predictions of future climate changes in the WNYNSC region. The methodology and results are presented in Appendix H, Section H.3.1. In addition, the analysis of doses due to unmitigated erosion uses a gully advance rate associated with a climate that is wetter than current site conditions.

The analysis in this EIS evaluates the potential impacts of erosion control structures that would be built to implement the alternatives. Chapter 4, Sections 4.1.1, 4.1.4, and 4.1.6, of this EIS presents the impacts on land use, water resources, and ecological resources, respectively. As previously noted, the impacts of erosion and wetter or drier conditions have been accounted for in the evaluation of human health impacts.

Comments from the Buffalo, New York, Public Hearing (April 2, 2009)

That would be fine, except you would, of course, be killing the creeks. And who says what's going to happen to the surface water in those circumstances.

So I think in all, the models we have so far are probably not very valid. I -- I don't think that you're going to come up with some good conclusions.

I don't think anyone in his right mind would have selected, in today's world, would have selected West Valley as a site for that type of plant. I mean, it's glacial till, it's on a highly erodible plateau and there's another highly erodible plateau right next to it there. The whole site is really not a very good place to build a facility like that.

814-1 cont'd

So I would urge two things: I would hope that you will expand the comment period back to October. We have many, many people in our areas that would like to have more information about this. They don't even know about the comment period. They don't know anything about the DEIS yet. We just started to educate them. Now, I dare say by June, we

814-2

814-2 In response to requests from the public, DOE and NYSERDA extended the original 6-month comment period (required by the 1987 Stipulation of Compromise Settlement between the Coalition on West Valley Nuclear Wastes and Radioactive Waste Campaign and DOE) for an additional 90 days, through September 8, 2009.

will not have all those people fully informed. And that's what the citizens of this nation really deserve, to have a government that makes sure that they're fully informed about the entire problem, rather than little bits and pieces here and there. That's our job in the Sierra Club. We go forth and educate the people and try to stress the idea that they use that education to derive a public benefit. And we hope that you will put that back.

And we really, I -- I really think there's no way that much should remain on that site. I mean, the 64-year scenario, there is really -- you have the site right now. I think everybody should makeup their mind that stuff doesn't deserve to -- to remain there. I think it should be, in the absence of another repository, it's silly. We can build one. We can find a place to build one, put it in there. Make it a temple to our folly.

We've had -- the last eight years we've had examples of unintended consequences. I think we're getting a little tired of unintended consequences. West Valley is the product of unintended consequences. Let's get

814-3

814-3 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

that stuff out of there. Let's get it to someplace where it will be free from -- from plaguing humanity, and clean-up that site. Thank you. **814-3 cont'd**

MS. ROBINSON: Thank you, sir. Amy Witryol, followed by Roger Cook.

AMY WITRYOL: If any of you that have been seated all night would like to stand up and stretch while I speak, I really won't be offended.

My name is Amy Witryol, and I live in the Town of Lewiston in Niagara County. Two weeks ago the Niagara County Legislature unanimously passed a resolution calling for the sitewide removal option. And we will see a copy of that resolution.

Also, please know that yesterday's Buffalo News editorial reflects the view of many Western New Yorkers, like me, whose drinking water supply is affected by what happens at West Valley. **815-1**

I agree with NYSERDA that the Draft EIS erosion, groundwater transport, contaminant barriers, and uncertainty is technically indefensible. **815-2**

815-1 DOE and NYSERDA acknowledge the commentor's concern about affects on drinking water supplies. Please see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

815-2 DOE disagrees with many of the points raised in NYSERDA's View, which is included as the Foreword to this EIS. At the core, differences between DOE and NYSERDA center on different views about the nature of analysis required for an EIS and the attendant level of acceptable risk associated with any uncertainties in that analysis as it relates to decisionmaking. DOE believes the analysis in this EIS meets the requirements of NEPA and SEQR in that, when there is incomplete or unavailable information relevant to reasonably foreseeable significant adverse environmental impacts, this EIS (1) acknowledges the information limitation and its relevance to environmental consequence, (2) summarizes existing credible scientific evidence, and (3) presents an analysis using a theoretical approach that is generally accepted by the scientific community involved in such analyses. This Final EIS contains text boxes in the relevant subject matter areas that acknowledge the differences of opinion between DOE and NYSERDA. In general, DOE's position is that the Agency spent much time and effort engaging highly qualified and respected experts in hydrology and hydrological transport, landscape evolution (erosion), human health and environmental risk analysis, and other technical fields, and stands behind the analyses performed for this EIS.

I also endorse the testimony submitted by CHEJ, CEC, and the Nuclear Information and Resource Service.

The phased approach attempts to triage the condition of the very ill West Valley patient you seek to stabilize. However, in most cases when we see a phased plan, there is a final phase. That's not the case here. *815-3*

I would respectfully request that a sitewide plan for full clean-up be adopted with measurements and milestones to ensure that at the very least, there would be a change of plan as opposed to no plan for how to completely remediate the area, which has an unstable geology we cannot change. *815-4*

Adopting an approach which delays a full decision by 30 years, provides government little incentive to act. However, a commitment to act will appropriately place the burden on government to revise the plan, if warranted, in the future, instead of placing the burden on the public to insist on one. *815-5*

The financial costs are higher no matter which road you choose. Now is cheaper *815-6*

815-3 This EIS presents the impacts of Phase 1 and Phase 2 of the Phased Decisionmaking Alternative. The environmental impacts of implementing Phase 1 of the Phased Decisionmaking Alterative are described for each resource area in Chapter 4 of this EIS. If this alternative is selected, the options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. For each resource area, Chapter 4 discusses the impacts that would occur if either removal or close-in-place is selected for Phase 2. The chapter also discusses which alternative(s) bound the impacts in the event that continued active management is selected for the SDA. The short-term impacts of a Phase 2 decision that involves continued active management of the SDA are bounded by either the removal or close-in-place impacts. The post-decommissioning impacts of a continued active management decision for the SDA, which include staffing, occupational exposure, and waste generation related to SDA monitoring and maintenance, as well as long-term impacts on public health and safety, would be similar to the no action impacts for the SDA. See the response to Comment no. 815-5 regarding the timing of the Phase 2 decision.

815-4 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

815-5 Regarding the 30 years cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the

than later, as the independent full cost accounting shows. We understand the funding triage government faces for problems across the State and across the country. But the time for planning is now. It seems only fair that government make a commitment to remove the entire problem, not just some of it.

As everyone has noted, over the next 30 years a portion of contamination may diminish with the half-life of some contaminants. However, there are substantial volumes of radioisotopes which will remain acutely dangerous for thousands of years. The resulting risk is unacceptable to this region and the Great Lakes, especially when we consider other problems contributing to the risk profile to our drinking water supply.

Leaving high activity waste here forever is not an option given the current limitations of science to truly secure it.

As a resident of Niagara County, I know there is no such thing as a secure landfill or secure storage of hazardous materials. Government has the responsibility to find the safest storage possible, not the

815-6 cont'd

815-1 cont'd

Phased Decisionmaking Alternative is selected. Please see the Issue Summary for "Modified Phased Decisionmaking Alternative" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

815-6 DOE and NYSERDA are aware of the report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site* (*Synapse Report*) by Synapse Energy Economics, Inc., including the three appendices, and it has been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for a discussion of the report's issues and DOE's and NYSERDA's response.

most convenient.

So while you work on eliminating the suspected sources of contaminant plumes, we want you to work on removal of all waste. The periodic assessments should be to update the removal strategy, not to see how long we can wait until the problem increases.

I urge you to adopt the sitewide removal option. Thank you.

MS. ROBINSON: Thank you, ma'am. Next is Roger Cook, followed by Jim Rauch.

ROGER COOK: I am Roger Cook; I am a resident of Grand Island, and live on the Niagara River. So personally I'm impacted by whatever radioactive waste comes down that river. My drinking water, my recreational waters, and so forth.

But I am testifying tonight on behalf of the organization where I serve as executive director, the Western New York Council on Occupational Safety and Health. The Board of Directors, Shirley Hamilton, one of my board members, is here tonight. And our affiliated 80 union locals. I will be submitting written testimony, and I will ask

815-1 cont'd

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Comments from the Buffalo, New York, Public Hearing (April 2, 2009)

for the signatures of all the delegates from those different unions, and send that in. They represent roughly 100,000 members here in Western New York.

Our organization supports sitewide removal of radioactive waste at this site. It's not the -- it's certainly the perfect solution, but of all the options, it's the best solution.

I had the opportunity to hear a presentation of the options and the advantages and disadvantages of each by the independent consultants whose study was funded by New York State Senator Catherine Young. Their report convinces me, and my organization, that removal is the best solution, because, one, it's the safest way of protecting our ecosystems and human health in the long run;

Two, is ultimately the most cost-effective approach;

Three, it is consistent with what we know about the fragile geology of the area;

And fourth, it's consistent with what we know about the ability of our scientists and engineers to deal with very

816-1

816-2

816-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

816-2 The report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site* (*Synapse Report*) by Synapse Energy Economics, Inc., has been addressed in this CRD consistent with the Council on Environmental Quality's NEPA regulations. Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of this report's issues and DOE's and NYSERDA's response.

complex variables where we have very little information and knowledge. And you've heard of that tonight. Anne Rabe mentioned a variable I didn't even think of, climate change. But you've got the geology, you've got the little we know really about behavior of highly radioactive materials.

And so that's -- when highway engineers working on Route 219, with a very simple set of variables, but sound and proven technology, can't predict that the land is going to slide as they're putting the highway in, how in the heck can you, within 30 years dealing with this complexity of variables, give us much information to really, sincerely deal with that solution in a very technologically sound way. I don't believe it can happen.

And Andy Goldstein, my friend said, 28 years ago he was out there at the site. I think I was there in 1971 with a group of people. We were picketing, and we were considered cuckoos. And we were told we didn't know what we were talking about because we weren't technologically sophisticated.

816-2 cont'd

816-3

816-3 The erosion analysis presented in the EIS is considered to be a "state-of-the-art" analysis. The uncertainty in the erosion predictions are discussed in Appendix F of this EIS.

Comments from the Buffalo, New York, Public Hearing (April 2, 2009)

And here we are 40 some years later, and we've, you know, all your technology, getting promised that they were going to be able to build a viable recycling plant. Then it was, well, okay, it wasn't really safe. So then, well, we know how to clean it up, and so here we are.

I think we're really just playing games to say that in another 30 years you're going to come up with a real sound solution to this. It just -- it makes no sense to me.

And finally, in listening to the independent study report, it's clear that our human institutions, our political and economic institutions, are going to have to be dealing with this situation for thousands of years. It is unrealistic to think that even in the next 30 years, you're going to have the political and economic will to be able to deal with this.

I've been dealing with some of the victims of the legacy of the cold war radioactive exposures at Bethlehem Steel. In 2000 they were promised by the US Congress they would get compensated. And NIOSH,

816-4

816-4 Regarding the 30 years cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected. Please see the Issue Summary for "Modified Phased Decisionmaking Alternative" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

National Institution of Occupational Safety and Health, said that it would use its best scientific methods to make judgments. Quite honestly, NIOSH was making political judgments because we were living under the Bush administration. They did not want to spend the money.

And so that's exactly what's going to happen to you guys. You're going to get -- right now is the time to act. We have the political -- I suspect, the political will in Washington to fund this kind of stuff. You've got the stimulus package. Let's take advantage of it, because down the road you're going to get a conservative administration in there, and we will not have the opportunity to do what we need to do now.

Get the damn stuff out of there. Thank you. I also had an opportunity to camp on Buttermilk Creek with my good friend Andy.

MS. ROBINSON: Now we have Jim Rauch, followed by Brian Smith.

JAMES RAUCH: Hi, everybody. My name is James Rauch; I'm secretary and technical advisor to FACTS, For a Clean

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Tonawanda Site. This is the group union -- union people at Linde Air Products now Praxair, that organized around the -- I hate to call it a clean-up because it's so deficient -- the Manhattan Project facility there, the Linde Air Products plant that refined uranium for the Hiroshima Bomb. A lot of people in Buffalo don't even know that.

But I'm here tonight also as a member of the West Valley Coalition. And I've been active at Lewiston, the Niagara Falls storage site, since the outset in the '80s. I'm a retired pharmacist.

In the mid '90s, several years after the Coalition on West Valley Nuclear Wastes 1987 court settlement with DOE, the public was promised that the legally required National Environmental Policy Act and State Environmental Quality Review Act impact statements for closure of the West Valley nuclear site would be sitewide in scope, covering all the facilities and land contaminated by both Nuclear Fuel Service's reprocessing operations and the Federal West Valley Demonstration Project, as well as the

817-1

817-1 This EIS does present sitewide analysis and considers impacts beyond 10,000 years for the Sitewide Close-In-Place and No Action Alternatives, as was done in the 1996 *Draft Environmental Impact Statement for Completion of the West Valley Demonstration Project and Closure or Long-Term Management of Facilities at the Western New York Nuclear Service Center*.

DOE believes that this EIS meets the requirements of NEPA. While the Phased Decisionmaking Alternative would temporarily defer a final decision on the disposition of the Waste Tank Farm, the NDA, and the Construction and Demolition Debris Landfill, DOE believes that the impacts of this deferred decision are adequately analyzed within this current EIS. The environmental impacts of implementing Phase 1 of the Phased Decisionmaking Alterative are described for each resource area in Chapter 4 of this EIS. If this alternative is selected, the options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. For each resource area, Chapter 4 discusses the impacts that would occur if either removal or close-in-place is selected for Phase 2. The chapter also discusses which alternative(s) bound the impacts in the event that continued active management is selected for the SDA. The short-term impacts of a Phase 2 decision that involves continued active management of the SDA are bounded by either the removal or close-in-place impacts. The post-decommissioning impacts of a continued active management decision for the SDA, which include staffing, occupational exposure, and waste generation related to SDA monitoring and maintenance, as well as long-term impacts on public health and safety, would be similar to the no action impacts for the SDA.

The status of the Yucca Mountain project is acknowledged in this EIS, and the plan to store the vitrified high-level radioactive waste at WNYNSC is consistent with DOE's August 1999 ROD for the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200-F). The implications of the potential for orphan waste are discussed in this EIS.

It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now

two burial grounds, the State licensed disposal area, and the NRC licensed disposal area.

At that time the Coalition was also promised by the DEIS contractor, SAIC, who's here organizing this event tonight, that the impact study would address impacts out 10,000 years from the present as best they could. The resulting 1996 DEIS was released and commented upon by the public. It was sitewide in scope. It showed some radiation dose impacts peaking well beyond 1,000 years in the future.

The current DEIS fails to make the legally required NEPA sitewide decision. In fact, it only resolves 2 percent of the wastes on the site. And it puts off the decision on the remaining 98 percent of waste for another 30 years. Fifty years -- we're talking now 22 years ago, the Coalition sued to prevent waste from being buried on site. Fifty years to reach a decision on waste management of this leaking physically most unsuitable site is not acceptable.

We often hear from both the State

817-1 cont'd

contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

and the DOE that the sitewide decision needs to be delayed because, quote, there is currently no place for some of the waste, i.e., the orphan waste. At West Valley we're talking vitrified high level waste, the logs, and we're talking greater than class C waste.

This myth is a common ploy that DOE has used here and at other sites around the country. For example, while Yucca Mountain may never open for West Valley's high level waste logs, in earlier discussion with the Coalition, DOE said that interim storage of these logs at their Idaho facility would be a possibility. Now they're acting as if they need to build a whole new facility here at West Valley, in the most unsuitable physical location.

It's clear to me that when DOE wants to, it can make this no-place-to-go problem vanish. In the case of its Federal Fernald uranium refineries, the Cold War facility that produced most of the uranium that was refined in this country for all the Cold War atomic weapons. After Linde and the other Manhattan Project refineries closed, Mallinckrodt in

817-1 cont'd

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St. Louis, the Federal government established Fernald, outside Cincinnati.

In the case of Fernald, when DOE's contractor, Fluor Daniel was anxious to collect a large work acceleration bonus, DOE soon found a place for Fernald's high level K-65 residues. These are highly concentrated radium-bearing ores, residues from Belgian Congo uranium ores, that are actually rated a class C waste --

MS. ROBINSON: One minute.

JAMES RAUCH: -- if you want to look at it that way. DOE soon found a place for these wastes.

When Utah wouldn't take them, they are well-organized in Utah, DOE moved these wastes to a private facility, Waste Control Specialists in Texas, that did not even have a disposal license for these dangerous radium-bearing materials, only a storage license. Since I have more to go, I will just wait.

MS. ROBINSON: Thank you, sir. Brian Smith followed by Robert Ciesielski.

BRIAN SMITH: Thank you for the opportunity to comment again. My name's

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Brian Smith, and I am Western New York Program Director for Citizens Campaign For the Environment, representing 80,000 members in New York City.

The site contains vast amounts of nuclear and hazardous wastes which threaten public health, our environment, the economy, and quality of life. The safest, most responsible, and cost-effective solution presented in the DEIS is the sitewide removal option, which will comprehensively clean up and excavate the entire site as soon as possible, leaving a safer site in 64 years. *818-1*

We strongly oppose a DOE and NYSERDA Preferred Alternative of phased decision making, which will clean-up only about 1 percent of the radioactivity now, and wait up to 30 years to decide what to do with the remaining 99 percent of the dangerous radioactivity on site. *818-2*

Erosion is a powerful and fast-moving force at the West Valley site, as it sits on a geologically young and continuously changing landscape. Scientists estimate that erosion could cause the disposal *818-3*

818-1 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

818-2 DOE and NYSERDA note the commentor's opposition to the Phased Decisionmaking Alternative. It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

Regarding the 30-year timeframe cited by the commentor, the Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

818-3 DOE and NYSERDA recognize that erosion is a concern and have addressed it in detail in Appendix F of this EIS. This EIS analyzes the long-term (multi-century) consequences of erosion for local as well as Lake Erie and Niagara River water users. Please see the "Concerns about Potential Contamination of Water" Issue Summary for a discussion of potential long-term radiological impacts on the Great Lakes.

areas to be breached in less than a thousand years, and as quickly as 150 years. Leaving nuclear waste buried on site is dangerous, threatens our Great Lakes, and passes on even greater costs to future generations.

The Great Lakes contain 20 percent of the world's freshwater, over 90 percent of the United States supply, and provide drinking water to over 40 million people. They hold the key to our economy, recreational opportunities, and irreplaceable family experiences. The Lakes generate more than $50 billion a year in economic activity to the regional economy annually from fishing, wildlife viewing, and tourism.

The West Valley nuclear waste site sits in the Great Lakes watershed, with tributaries running adjacent to the site. A breach of the site would be a catastrophic failure, leaking high concentrations of radioactive waste into the watershed and then quickly into Lake Erie. Currently there is a large plume of contaminated groundwater moving towards Buttermilk Creek, adjacent to the site. Top scientists agree that the lakes are

818-3 cont'd

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currently on the tipping point of ecological collapse, and further toxic contaminations would be extremely detrimental to the ecosystem.

The New York State Ocean and Great Lakes Conservation Council, which is composed of several State agencies, is working to implement ecosystem-based management, or EBM, to protect our coastal resources in New York State. EBM is a cutting-edge program that looks at managing our coastal resources from a holistic approach.

A recent council report highlighted that a critical component of protecting our treasured coastal resources is to virtually eliminate persistent toxic substances from entering the lakes. Leaving waste on site and risking a breach is not consistent with the goals of the EBM plan.

Leaving radioactive waste on site is expensive. The sitewide removal option provides the most cost-effective approach over the long-term, according to a recent study. An independent, state-funded study, The Real Costs of Cleaning Up Nuclear Wastes, revealed

818-4

818-4 The report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., has been addressed in this CRD consistent with the Council on Environmental Quality's NEPA regulations. Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of the report's issues and DOE's and NYSERDA's response.

leaving buried waste at the site is both high risk and expensive, while a waste excavation clean up presents the least risk to a large population at the lowest cost. Over 1,000 years, waste excavation costs $9.9 billion, while on site buried waste costs $13 billion, and $27 billion if a catastrophic release occurred.

Protection and restoration of the Great Lakes is paramount to our region's economy. A recent report by the Brookings Institution indicated that an investment in Great Lakes restoration would yield $80- to $100 billion in short- and long-term economic gains, including $1.1 billion to the City of Buffalo alone. Radioactive contamination of the lakes from a breach at West Valley would not only cost billion of dollars to clean up, it would also thwart economic recovery and development from ongoing and future restoration efforts.

Leaving waste on site is very dangerous. There is no safe level of exposure to radioactive waste. Every exposure increases the risk of serious, adverse health

818-4 cont'd

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818-5 The commentor is correct that scientific studies have not clearly demonstrated the existence of a threshold below which exposure to ionizing radiation conveys no risk of health effects. By assuming that the risk of health effects at low doses is proportional to the exposure (i.e., doubling the exposure also doubles the risk), regulatory agencies such as EPA and NRC have adopted a prudent approach to establishing standards to protect human health and the environment from the effects of ionizing radiation. EPA typically regulates radiation exposure based on a lifetime cancer risk of 1×10^{-6} to 1×10^{-4} (1 in a million to 1 in 10,000), consistent with its approach for chemical carcinogens. NRC's license termination dose criterion of 25 millirem per year total effective dose equivalent is consistent with the recommendations of advisory bodies such as the International Commission on Radiological Protection to limit exposures to members of the public from individual sources of radiation. Estimated exposures from the alternatives considered in this EIS are presented throughout this document in a manner that allows a comparison with these levels of protection.

Comments from the Buffalo, New York, Public Hearing (April 2, 2009)

impacts, including cancer, reproductive disorders, and neurological effects. We must not pass along this burden to future generations. It is irresponsible, immoral, and costly. *818-5 cont'd*

Every day that we wait, the risk of human and environmental exposure increases, and the solutions become much more costly. CCE strongly supports the safest, most cost-effective solution to the West Valley Nuclear Waste site -- the sitewide removal option, which will ensure comprehensive clean-up and excavation of the entire site as soon as possible. Thank you.

MS. ROBINSON: Thank you. Next is Robert Ciesielski, followed by Barbara Warren.

ROBERT CIESIELSKI: Good evening, Ladies and Gentlemen. I'm Robert Ciesielski, Chairman of the Sierra Club's Niagara Group situated in Western New York. The Sierra Club nationally has 750,000 members, and there are about 2,500 members in Western New York.

I'm here to speak on behalf of immediate and total clean-up and removal of the radioactive waste from the West Valley *819-1*

819-1 DOE and NYSERDA note the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. DOE and NYSERDA are prepared to begin implementation of the decommissioning decision immediately after it is determined and documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

nuclear site. We ask the Department of Energy and NYSERDA not to forego immediate clean-up.

The mentality of the United States has always been that our wealth, intelligence, technology will be able to handle any clean-up or environmental problem when it arises in the future. But the current economic circumstances and meltdown shows that we cannot always depend on sufficient resources to handle massive cleanups. Even if they seriously threaten the public health. The problems of global warming question our use of technology, and the meltdown of General Motors and AIG question our intelligence.

As a Synapse study shows, the West Valley site is built on a plateau of loose soil, which is subject to erosion. Substantial erosion has already sent significant amounts of earth near the waste site towards Buttermilk Creek and the tributaries which lead into Cattaraugus Creek.

The migration of radioactive materials underground has also been detected. A leak of radioactive materials in the Cattaraugus Creek will affect drinking waters

819-1 cont'd

819-2

819-2 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F. Please see the Issue Summary for "Concerns about Potential Contamination in Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Chapter 4, Section 4.1.6, of this EIS also presents the results of an ecological risk assessment showing the projected long-term ecological impacts of the alternatives. The results of the human health and ecological impacts analysis imply that any impacts on wildlife and recreational aspects of the region would be negligible.

DOE and NYSERDA are aware of the report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., including the three appendices, and it has been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for a discussion of the report's issues and DOE's and NYSERDA's response.

of Cattaraugus, Chautauqua, Erie, and Niagara Counties and all of Western New York.

The counties and the City of Buffalo will have to spend massive amounts of money just to provide safe drinking water to their citizens. This does not take into account the effect on fish, bird life, and plant life throughout the area, nor on the ability to use the lake for swimming and recreational purposes. Even the waters drawn from Lake Erie and Lake Ontario for industrial purposes will subject the workers and the general population to threats of radiation.

Yesterday's Buffalo News mentioned that $74 million will be made available for the clean-up from the Federal stimulus package. Whether this available money is serendipity or a message from heaven, it comes at a time when you are determining the course of the clean-up of the West Valley site. I believe the available money is telling you that we should do the clean-up immediately.

We cannot leave this clean-up for future generations. They've already been burdened with too many of our problems, from

819-2 cont'd

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global warming to debts incurred by military to financial bailouts. At least in this instance, we should care for creation, we should give our children in future generations the opportunity to live a life in the area without the threat of nuclear contamination of their water supply and the source of all life. Thank you.

MS. ROBINSON: Thank you, sir. Next is Barbara Warren, followed by Phil Dibble.

BARBARA WARREN: Good evening. My name's Barbara Warren; I'm representing Citizens Environmental Coalition, a statewide Coalition.

I want to mention that we are subject to a lot of advertising on television, and one of the things that's advertised is a credit card, and we go through what you can buy with that credit card. At the end they say certain moments are priceless.

Well, what we're talking about in this hearing are a lot of priceless things. And one of them is the Great Lakes, priceless. Drinking water, priceless. The public health, the future, our children and grandchildren,

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priceless. All priceless things. And those priceless things are really jeopardized by the West Valley site.

I want to follow-up on my earlier question, which was regarding the rationale on the 1 percent of the waste that's being handled. And the answer was, essentially, that they were choosing the most dangerous waste. And I really would like to have that analysis that demonstrates that. If the agencies could provide that to me. So maybe I guess I won't see it till you come out with the Final EIS, but anyway, I'm asking for that.

And I want to talk about tonight -- I've tried to vary my comments at every hearing from Monday on. This is my last chance, so I'm going to talk to you about the NDA, the NRC disposal area. Radioactive -- radionuclides removed from the -- this is out of the vitrifying activity of the high level waste. Radionuclides were removed from water, they were combined in sludge, and that sludge was packaged in drums and disposed of as radioactive waste. Much of this sludge was

820-1

820-1 It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

The Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

buried in the NRC licensed disposal area, mostly after closure of the SDA in 1975.

Okay. Now I will move to another page. Also buried in the NDA are 42 ruptured spent fuel elements from the Hanford nuclear reactor.

Okay. Among the elements in the NDA that are long lived, plutonium, not just cesium, but plutonium and strontium, quite a bit of that. So that gives you some idea of how long the stuff is hazardous.

I want to describe some of the description of this site, the NDA. About 6,600 cubic feet of leached cladding from reprocessed fuels, also known as hulls, are buried in approximately 100 deep holes located in the eastern portion of the U-shaped site. Most of those holes are 2.7 feet by 6.5 feet by 50- to 70-feet deep. Well, 70-feet deep goes down into the Kent Recessional Sequence, you know, one of the layers under the site.

Approximately 230 special holes that were Nuclear Fuel Service's holes, are located in the northern and western portions of the NFS burial area. These holes are about

820-2 **820-2** The NDA with its inventory that includes the ruptured N-reactor fuel elements and its leached hulls is addressed in the analysis of each EIS alternative.

DOE and NYSERDA acknowledge the commentor's objection to the Phased Decisionmaking Alternative.

20-feet deep with various lengths and widths, which most are about 12-feet wide and 20- to 30-feet long.

So essentially, what we're being told here, is that we've got a huge amount of waste that's in the site that is not going to be handled. The NDA is not being handled in Phase 1, and essentially it's got a lot of very, very hazardous and very dangerous material. Some of the material that was put in there was exceeding 200 millirems per hour that was buried there.

So essentially, we're objecting to this plan.

The other piece of this, of course, is the flood plain. Your influence of flooding on the site could affect the NDA.

So obviously, you know, as we've said, the EIS is inadequate. There's a lot of radioactivity that is not really being handled, not being dealt with in this Phase 1, 1 percent, and we would like the justification and rationale for not dealing with the whole site.

And we fully support the sitewide

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820-3 The impacts of alternatives on local flood plains are analyzed in this EIS.

820-4 DOE has prepared this single, comprehensive EIS for decommissioning and long-term stewardship of WNYNSC. This EIS adequately analyzes the totality of environmental impacts, including costs, of a broad spectrum of reasonable alternatives that meet the respective purposes and needs of DOE and NYSERDA (Sitewide Close-In-Place, Phased Decisionmaking, and Sitewide Removal), as well as a No Action Alternative.

This EIS presents the impacts of Phase 1 and Phase 2 of the Phased Decisionmaking Alternative. The environmental impacts of implementing Phase 1 of the Phased Decisionmaking Alterative are described for each resource area in Chapter 4 of this EIS. If this alternative is selected, the options for Phase 2 (exclusive of the SDA) are sitewide removal of the remaining facilities and contamination (Sitewide Removal Alternative), close-in-place of the remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives. For the SDA only, NYSERDA is also considering continued active management consistent with permit and license requirements. For each resource area, Chapter 4 discusses the impacts that would occur if either removal or close-in-place is selected for Phase 2. The chapter also discusses which alternative(s) bound the impacts in the event that continued active management is selected for the SDA. The short-term impacts of a Phase 2 decision that involves continued active management of the SDA are bounded by either the removal or close-in-place impacts. The post-decommissioning impacts of a continued active management decision for the SDA, which include staffing, occupational exposure, and waste generation related to SDA monitoring and maintenance, as well as long-term impacts on public health and safety, would be similar to the no action impacts for the SDA. See the response to Comment no. 819-1 regarding the timing of the Phase 2 decision.

820-5 DOE and NYSERDA acknowledge the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

removal, as we said every other night of this week. Thank you.

MS. ROBINSON: Thank you. The next speaker will be Bill Dibble, followed by Russell Brown.

BILL DIBBLE: Evening. Bill Dibble from Allegheny County. A couple comments.

First, I'm in favor of the sitewide complete removal. We as a nation have a socioeconomic thing we should do. A few years ago we had treatied with the Seneca Nation of Indians, and we violated that treaty and built Kinzua Dam. And that was the wrong thing to do. There were other alternatives.

Now we are suggesting that we don't take the lifestyle generation of Senecas to exposure. As a separate nation was also Province of Ontario and Toronto.

Looking at the site itself, the high level tanks should not be filled full of grout. In a few years, look at the erosion studies that will be exposed. It should be exhumed and out of there.

As far as the burial grounds, they will also be eroded. The high level defense

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821-1 cont'd

821-2

821-1 DOE and NYSERDA note the commentor's preference for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response. Evaluation of the alternatives considers the effects of erosion. Erosion studies are discussed in Appendix F.

821-2 This Final EIS presents an analysis of potential impacts of erosion for alternatives that would leave waste on site. Please see the response to Comment no. 821-2 and refer to the Issue Summary for "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for a discussion of the results of the analysis.

NYSERDA is responsible for management of the SDA.

Comments from the Buffalo, New York, Public Hearing (April 2, 2009)

waste state burial ground, who owns that waste, is responsible for it. Asked many times at the CTF meeting. I still don't know, but somebody is responsible for the defense waste on the State burial grounds.

A couple years ago at the CTF meeting, a fellow spoke from DOE, said the site could be cleaned up within 10 years. There is a letter in the file from me to him, and the CTF records. And I will spend much stimulus money -- how much would it cost to do it in ten years? Let's clean the thing up and get rid of the waste. Because we all know the problems if we don't do that.

If it gets cleaned up, then what? Well, suppose we take within the fence 200 acres, and have an Atomic Age Museum? Think of the potential to bring people in to the Falls to come down to the project area to see what's happened here. We all are getting tourists defectors coming in, great exposure.

The 3,000 acres outside the fence, well we have Niagara Falls and the park system. I don't know of any national park close by in the east. The State can sell the

821-2 cont'd

821-3

821-3 Comment noted. Under the Sitewide Removal Alternative, the WNYNSC would be available for release for unrestricted use. The future use of the site has not been determined.

3,000 acres to the State for a Federal park. I've walked the streams and the gorge. It's a truly beautiful place to go tent camping, things like that. A couple things to do after we clean it up. Use it for good. Thank you.

MS. ROBINSON: Thank you, sir. Next speaker is Russell Brown followed by our last signed-up speaker, Pat Shelly.

RUSSELL BROWN: My name's Russell Brown; I am with the DOCS Resistance. The reason why I was speaking is because I came here tonight because someone told me about this yesterday. And I'm very unfamiliar with the whole West Valley thing. This is a learning experience to me. And I have learned a lot. But -- and I didn't plan on speaking, that's why my name's on the end of the list there. But what bothered me was -- two things that set me off.

One, is that two people since I've asked have said that 98 percent of the waste is going to be there on the site in 30 years from now. And all I got was an evasive, double-talk answer that, you know, if you're not sophisticated about nuclear waste, you

822-1

822-1 It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Finding Statement, if the Phased Decisionmaking Alternative is selected (see below).

The Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

know, I don't know what to make of it.

And the other thing is that when someone asked about, you know, when they're gonna have another hearing. You know, the beauty of this thing, the reason why there is a hearing happening tonight, is someone had a foresight to make it a law that you were required to do it before you do the next action. And so it seems strange to me that there is no way we may never have another hearing for this. This could be it, according to the answer that I understood from you people there.

And the guy that was talking about plasma. He was talking about all these kooks that are out there, because he was in the military, you know. Well, I think there's a lot of kooks that are inside the government, you know.

Like, seriously, Bush, Cheney, Rumsfeld, all those people. And they went about, and they started a war, they lied about it. They destroyed the antiquities of Iraq, they destroyed people from even before that, 500,000 people is what the United Nations --

822-1 cont'd

822-2

822-2 Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

500,000 children were killed because of our policies from the Gulf War to the current war. And because we starved the kids and cause them to have all kinds of diseases. The facts are all there.

The point is, I don't trust the government. And so if -- I wouldn't want to look ahead to 30 years. We don't know who's going to be in there and what kind of things can happen down the road. You should know that yourself.

The other thing that's disappointing is that, how can these incredible people here, with all this information that matters in a really humane way know all this stuff, and you people who are the experts, didn't share any of that. I mean, it doesn't make sense to me, you know, at all.

So I think you ought to get the stuff out of there as quick as you can. And I had no opinion when I came here. I didn't even know what it was. But I think you ought to get the stuff out as quickly as you can, based on the information I heard tonight from the speakers and from the people up here, and

822-3

822-3 DOE acknowledges the commentor's support for the Sitewide Removal Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

the presentation. I went around and listened and talked to the people in the beginning. Thank you.

MS. ROBINSON: Thank you, sir. Our last speaker is Pat Shelly.

PAT SHELLY: Pat Shelly; I'm from Buffalo, and I'm a Downstream Denison. And I want to follow-up on comments made by Agnes Williams on the nuclear chain. Agnes is from the Indigenous Women's Initiative.

And first to the Department of Energy. The waste from West Valley is from nuclear power plants and processing from around the country. DOE is promoting new nuclear power and new reprocessing facilities, and I'll note that these plans include our sister states on the Great Lakes, Pennsylvania and Ohio.

Yet here at West Valley, where nuclear power reprocessing waste is buried and stored and leaking, the DOE says it cannot, you know, it does not have a clear vision of how to clean it up. And yet there is a support by the Department involved in cleaning up this nuclear waste reprocessing site. And

823-1 **823-1** This EIS evaluates the environmental impacts of a range of alternatives for the decommissioning and/or long-term stewardship of WNYNSC.

it seems illogical. And I just wish to point that out to the representative from the Department of Energy.

To NYSERDA, New York State has no business even considering a new nuclear reactor and adding onto this poisonous nuclear chain that West Valley is -- that West Valley represents but one link in this deadly manufacture, this creation of humans.

And finally, to just situate the proposed new nuclear power plant, it will be at 9 Mile Point in Oswego, north of Syracuse, on the shores of Lake Ontario. So I hope that this does not become a new link that is even closer to the St. Lawrence River, even closer to the oceans and continues the deadly aftermath of the creation of -- of nuclear waste.

And I hope that all here will avail themselves of signing a giant letter to Governor Paterson, where these sentiments are expressed. And I thank you.

MS. ROBINSON: Thank you. That is the end of our signed-up speakers. Did I miss anyone who already signed up?

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(No response from the audience.)
MS. ROBINSON: Okay. We did get permission to stay a little longer in the building, so if there is anyone who would like to speak, who did not sign up, I would be glad to call on you now. Sir, there in the red, were you waving?
A SPEAKER: No. I'm sorry.
MS. ROBINSON: Is there anyone else who would like to speak who did not sign up?
(No response from the audience.)
MS. ROBINSON: Okay. Anybody who would like to speak who did sign up already and didn't finish? Sir. Same time limits.
JAMES RAUCH: You know, after 14 years I have to laugh at this whole circus of time limits.
MS. ROBINSON: Actually, sir, I will say never mind about that because I didn't see anybody else here. So speak as long as you'd like.
JAMES RAUCH: That's very good, thank you. Appreciate it. We had the same thing happen in Tonawanda, folks. You know, this kind of nonsense, politicians get up,

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talk for half an hour, go on and on at the mouth, and the public just sits and waits and winds up filtering out the back.

Excuse me, but I just have, you know, at this point of the game after being at this 30 years, I don't have a lot of tolerance for nonsense. I will continue where I left off.

New York's record on radioactive waste management at its larger sites is quite poor and doesn't inspire confidence for the future.

The two agencies in charge, DEC and DOH, are nine years overdue on promulgating radioactive site clean-up regulations corresponding to the Nuclear Regulatory Commission's 1997 Federal license termination rulemaking. This is the set of regulations that is being employed on the decommissioning aspect side of West Valley.

I put an aside on the LTR. Prior to 1997, you know, and I have a lot of experience with this in pharmacy, in nuclear pharmacies, there's industrial generators of radioactive materials. Prior to this LTR, any site had to

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meet the strict AEA, Atomic Energy Act, regulatory regime. And a decommission of the site meant for unrestricted use. That meant it had to be cleaned up for unrestricted use, including someone that wanted to farm on that land, someone that wanted to sink a well in the ground and drink water from that land, someone that would breathe dust blowing on the land, 24 hours a day, seven days a week, 365 days a year that was the standard we had prior to 1997.

Well, we've got all these huge problems that everybody's heard about tonight. These huge problems from this nuclear fiasco, Atoms For Peace. Well, it's joined at the hip to the bomb project. It's joined at the hip, and it always will be.

This LTR, it allows all this performance assessment risk-based nonsense. You will not get to an unrestricted use. You have these huge sites that are leaking, that have been poorly managed from day one.

Tonawanda is a classic example. The effort was to get the bombs made, and the environment be damned, the workers be damned.

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Why do you think we have the Energy Employees Compensation Act? Because workers were exposed. They didn't want to give them masks, because they wouldn't work if they thought it was hazardous. This is the legacy we've got in this country. And it's high time the public woke up and held their government accountable.

The Tonawanda deal, you know, yeah, we started spending a lot of money. They spent 6 million dollars on an environmental impact package there. They were going to go forward with a clean-up that really wasn't stringent enough in that area, that's subject to intensive reuse, you know. I mean, it's an area that's very favorable.

You know, originally when it was settled, it was a very favorable location, it's along the Niagara River. It's a great place to live, you can grow -- you've got good soils, you know, you can earn a living there, people are going to build houses there. In fact, the Town Fathers, appreciating full well, they didn't want a tumulus in that area because that's valuable land. They want

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condominiums and apartments.

You can't put condominiums on uranium mill tailings. They're hazardous for 500,000 years and more. People, you know, will be getting radon out of their basements. And they will be getting lung cancer.

So, you know, it's -- it's a gradual erosion of standards we're facing here. The problems have gotten so big, that government has thrown up its hands and said, well, we'll do risk analyses for it. We won't do standards, you know, we won't clean up for unrestricted use.

What happened to Tonawanda, DOE went ahead and started doing some clean-up. Congress decided they were spending too much money, so they switched the program to Army Corps of Engineers. And by the way, do it under CERCLA, the Superfund Law, and do it on risk assessments based on, you know, parkland, where the average exposed person is, according to the scenario, is there for a few hours a week. Well, yeah, you can walk across it and it's safe for a few hours a week, but you can't use the property.

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Or industrial use, light industrial use. Well, yeah, it's zoned light industrial now, but what about 100 years from now? No, you know, that's not the answer.

The answer is to stop making the stuff, and to clean up the stuff you've got, and put it in the best physical storage location.

That ultimately will cost money. That should have been thought of at the outset, but it wasn't. People were too intent on building bombs. Congress was too intent on handing its industry buddies liability protection under Price Anderson. So they went ahead and built 100 reactors in this country. The wastes are all externalized to future generations. That's where we're sitting right now here today.

I digress. I was saying that the State, the State record is poor. New York State is in an agreement state, which means they've been given authority by the Federal government to operate radiation programs, corresponding to the Federal programs. Some states aren't rich enough to have their own

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programs, they rely on the Federal government. New York's lucky enough to have its radiation program.

Well, DEC and DOH are nine years overdue on promulgating radioactive site clean-up regulations corresponding to the Federal LTR. I wonder why that is?

The State regulations could be more stringent than the Federal regulations. They can be more stringent. They can protect the citizens in New York State. Why haven't they been done?

In fact, NRC has placed the State's agreement state radiation programs on heightened oversight for failing to meet this deadline. Well, NRC will keep them on heightened oversight forever, because the Feds don't really care. Maybe we'll see a change with the Obama administration, or I don't know. I'm not that hopeful. I've been at this too long. I'm too cynical.

Why do I bring this up? Because had the State promulgated these regulations in a timely fashion, it might have prevented deficient clean-up decisions made by the Army

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Corp. at the Tonawanda Manhattan Project properties. In fact, the State did not enforce its own existing AEA authorized radiation regulations applicable to those Tonawanda properties.

Truth be known, folks, Linde had a State license on it. It was issued by the State Department of Labor, which was then one of the State program operators. The license covered the Manhattan Project uranium residue which contaminated the whole facility. The license amendment was put on in 1978, prior to the passage of UMTRCA, the Federal law that Congress was forced to pass because of horrendous health affects of the western mill tailing sites.

And so why did they put the amendment on? Well, that prevented Tonawanda from going into the title 1 category of sites that had to be cleaned up right away. It was title 1 UMTRCA, and title 2 the Uranium Mill Tailings Radiation Control Act.

So Tonawanda escaped title 1 clean-up, and it fell into a Federal liability called FUSRAP, Formerly Utilized Sites

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Remedial Action Program. FUSRAP is not an act of Congress. FUSRAP is an annual appropriation to address liabilities, Federal liabilities, at sites that were contaminated and then left contaminated when the Feds pulled out. Contamination that exceeded guidelines at the time when the Feds pulled out. So they're liabilities, they're legal liabilities. People can sue the Feds because they violated the law. They violated Atomic Energy Act standards. They left behind source -- way above source material concentrations. Source material is raw uranium that goes into the refinery. Uranium ore. In those days it also included the tailings.

And so here we are, because the State didn't promulgate those and didn't enforce its own. You know, we had a license, the State terminated the license in 1996. DOL -- FACTS organization wrote a letter to the Commissioner Sweeney and informed him that they violated the law. Because the New York State law is all -- any -- any law for governing radioactive materials license, requires for a license termination, that the

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site be cleaned up. In those days it was unrestricted use.

The State illegally terminated that license, and nobody was paying attention, and the DOE comes in and basically says, well, we're only going to clean-up to this level. Well, then Congress says they spent too much money, and Army Corp. comes in, and Army Corp. sets a clean-up standard for the uranium at the Linde site 3,000 picocuries per gram. The NRC clean-up level is 10 picocuries per gram. This is the site that's going to be used, presumably, intensively, forever.

The weak clean-up levels selected for the Linde property has attracted national attention.

In Lewiston, the State sat by in the 1980s while DOE made a mockery of the National Environmental Policy Act impact process. NEPA requires a Record of Decision before Federal resources -- scarce Federal resources, and I will talk about that at the end. NEPA requires a Record of Decision before scarce Federal resources are committed to a Federal project.

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What does that mean? That means that West Valley, that before you put caps on burial grounds, before you put slurry walls in the ground to prevent migration, the interim measures, which is what -- all they are is interim measures, you have to have some kind of -- some kind of analysis that looks at the whole range of impacts and costs. We don't have that. And we're going to wait another 30 years, unless the public stands up and holds these people accountable.

At the DOE-owned Niagara Falls storage site, which is in Towns of Lewiston and Porter, the State allowed DOE to perform a number of interim actions. The most egregious being the slurrying of the high-level K-65 residues.

These are residues that the National Academy of Science and National Research Council in 1995, after all these actions had been completed by DOE, stigmatizes no different than hazards from high-level waste, and recommended they be exhumed and either vitrified or solidified in some other treatment method.

817-2

817-2 DOE and NYSERDA believe that this EIS adequately analyzes the totality of environmental impacts, including costs, of a broad spectrum of reasonable alternatives that meet the respective purposes and needs of DOE and NYSERDA (Sitewide Close-In-Place, Phased Decisionmaking, and Sitewide Removal), as well as the No Action Alternative. The uncertainty about the nature of the Phase 2 decision is addressed by analyzing two cases. The first case assumes Phase 2 is removal of the remaining facilities, while the second case assumes Phase 2 is in-place closure of the remaining facilities. See the response to Comment no. 816-1 regarding the 30-year timeframe.

So the State sat by and allowed the Feds, who own the 190-acre Niagara Falls storage site, to slurry these wastes from a silo into building basements -- these are, this was model City TNT operation -- building basements on that site to basements containing water. Picture this, before they place the waste, there is the water standing in the basement foundations. It's an unengineered bottom. It's made of soil, it's gonna leak. It's gonna contaminate Lake Ontario. No two ways about it. That's 2,000 curies radium-226, uranium. That's enough to contaminate all of Lake Erie's volume above the 5 picocurie per liter Federal drinking water standard.

So after all these interim actions were done, and neither of them made a mockery of -- the final decision to be made in the impact statement -- it still hasn't been made by the way -- and the interim actions were completed in the mid '80s. So we're talking 20, 25 years beyond.

The final decision to be made is simply whether to put a final, thicker,

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engineered clay cap on the tumulus, the landfill. So they scraped up all these wastes that they let weather down the creek system to drain the site. They scraped up the R-10 pile, and these were concentrated residues that were allowed to weather, contaminated huge volumes of environmental media, they scraped them up, and they called them wastes. Well they're no longer residues, we don't have to worry about it. Now, you know, they're not hot enough to be within K-65 category. This is just miserable waste management.

So we're still waiting for the decision at Niagara Falls. At the time in the '80s, there was criticism within the New York State Department of Health about this DOE subterfuge, as DOH's John Matuszek called it.

John Matuszek was the same fellow in the radiological services laboratory of DOH that became notorious at the time for the fiesta dinnerware incident. People probably can remember that. If you Google it, you can read up on it.

But the department heads and Governor Cuomo did nothing about it. And so

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here we are, the same problem. We're facing the same type of situation, the same scenario here tonight at West Valley.

At West Valley, both the DOE and the State have let the north plateau strontium 90 plume spread to contaminate 1 million cubic yards of soil rather than effectively dealing with it decades ago, when it was first discovered. In fact, it was known about when NFS was operating, because it occurred during operations.

A major spill occurred inside the building, soaked into the concrete, and now it has just been leaching out like a sponge into the groundwater. But, hey, you know, as someone said, you do the sexy stuff, you get the Federal project in, you solidify the high-level tank waste, and then you just let the rest of the site unravel.

And that's really -- that's really why I have been so critical of the State. Because the State corporation, NYSERDA, in my view is failing the public miserably here. And I think it's time that people really seriously consider this obligation being

817-3

817-3 The history of the North Plateau Groundwater Plume is discussed in Chapter 3, Section 3.6.2.1, of this EIS. The plume was first discovered in the early 1990s. This EIS was prepared to evaluate the environmental impacts of alternatives for the decommissioning and/or long-term stewardship of WNYNSC, including the North Plateau Groundwater Plume and its source. Under the Sitewide Removal and Phased Decisionmaking Alternatives, DOE would remove the source of the plume. Under any of the action alternatives, DOE would take actions to remove or mitigate the impacts of the plume. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement.

Comments from the Buffalo, New York, Public Hearing (April 2, 2009)

transferred directly to the State government. This kind of public corporation isn't working here, it's not working in other public corporations.

The cost to clean it up on discovery would have been probably a million or a couple million dollars. The estimated cost to properly clean-up this million cubic yards of contamination now is between $1.5 and $2 billion, depending on how much longer we wait.

If we follow DOE's plan, it will be $2 billion, because they want to wait 47 years. According to the full cost accounting study, if you want to get at it right away, you know, you can -- you can save 500 million.

Clearly, both the State and Federal approach here is to allow that to dissipate away by dilution. And I would point out to anyone that isn't aware of this, that that is actually the Federal NRC position now. That is what it has become.

As if they can gradually dilute this stuff out -- this used to be a fundamental principle that dilution is not the solution. Now it has become the solution. The idea

817-4

817-4 DOE and NYSERDA have expressed a preference for the Phased Decisionmaking Alternative, but the agencies have not made their decision. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement.

DOE and NYSERDA are aware of the report, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site (Synapse Report)* by Synapse Energy Economics, Inc., including the three appendices, and it has been entered into the public comment record for this EIS. The substance of the *Synapse Report* has been addressed in this CRD consistent with Council on Environmental Quality NEPA regulations (40 CFR 1503.4). Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for a discussion of the report's issues and DOE's and NYSERDA's response.

being, that if you can trickle it out slow enough and it's a short enough half-life material, that you won't have -- you won't have substantial impacts. You know, there's something to be said for it. But it -- but it doesn't -- but it doesn't answer the fundamental point I'm making here. And that is, there's a failure in management here, and that plume represents a miserable failure in waste management. And I see that being repeated in the future if this plan goes forward.

It's the scarce resources thing. You know, I just have to make a comment. After all these bailouts and all this bank, you know, there's this huge bubble of investments that really have no value, that the banks created, and all the -- and all these people that made these things, got their commissions, and they're long gone. Now the administration wants to make all these people whole that unwittingly or otherwise bought these investments. Well, that's hugely inflationary, number one. Number 2, it's highly unfair because it's going to destroy

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our currency, and you know, we have people that have worked hard and been responsible in dire straits to bail out people that were irresponsible and didn't -- you know, investors that didn't do due diligence.

So you know, this is in relation to scarce resources. Scarce resources. How does that compute now when we're throwing trillions of dollars out there? It doesn't for me.

You know, in 1996 the DEIS, the estimated total green field clean-up of West Valley was $8 billion. 8 billion is pocket change, what you hear on the radio today. I mean, every day there's another program out. We need to seriously address these problems, not throw, you know, money at bad banks.

So I will just close, you know, everybody's tired. I'm tired. You know, it's high time that the public holds the governments accountable. It's high time we get a sitewide decision. And it's high time to get on with the job of clean-up of West Valley. Thank you.

MS. ROBINSON: Thank you, sir. And now we will have some closing remarks from

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Cathy Bohan.

(Public speaking portion of the hearing concluded at a time of 10:17 p.m.)

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STATE OF NEW YORK)
ss:
COUNTY OF GENESEE)

I DO HEREBY CERTIFY as a Notary Public in and for the State of New York, that I did attend and report the foregoing proceeding, which was taken down by me in a manner by means of machine shorthand.

Further, that the proceeding was then reduced to writing in my presence and under my direction. That the proceeding was taken to be used in the foregoing entitled action.

SUSAN M. RYCKMAN, C.P.,
Notary Public.

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

VIDEO TELECONFERENCE
PROCEEDINGS

COMMENT SESSION REGARDING:

The Revised Draft Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western New York Nuclear Service Center (Decommissioning and/or Long-Term Stewardship EIS)

Proceedings held at the Ashford Office Complex, 9030 Route 219, West Valley, New York, on September 4, 2009, commencing at 12:36 p.m., before ANNE T. BARONE, RPR, Notary Public.

JACK W. HUNT & ASSOCIATES, INC.

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

PRESENT IN WEST VALLEY:

LINDA ROBINSON, The Facilitator

BRYAN BOWER, Department of Energy

VIA VIDEO TELECONFERENCE FROM WASHINGTON, D.C.:

DR. INÉS TRIAY, Assistant Secretary for Environmental Management

DIANE D'ARRIGO, Nuclear Information and Resource Service

VIA VIDEO TELECONFERENCE FROM ALBANY:

FRANK MURRAY, NYSERDA President and CEO

HAL BRODIE, NYSERDA General Counsel

VIA AUDIO FROM BUFFALO:

LAURA KROLCZYK and KENDRA HARRIS, on behalf of SENATOR KIRSTEN GILLIBRAND

SPEAKERS: JOANNE HAMEISTER - in West Valley

RAYMOND VAUGHAN - via video teleconference from Buffalo

LEONORE LAMBERT - in West Valley

SISTER SHARON GOODREMOTE - via video teleconference from Buffalo

BRIAN SMITH - via video teleconference from Buffalo

ROBERT CIESIELSKI - via video teleconference from Buffalo

JIM RAUCH - in West Valley

12:36:52

JACK W. HUNT & ASSOCIATES, INC.
1420 Liberty Building
Buffalo, New York 14202 - (716) 853-5600

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12:36:52 **MR. BOWER:** If we're ready to go ahead and
12:37:12 get started, first, I'd like to introduce myself.
12:37:14 I'm Bryan Bower, the Department of Energy director
12:37:16 at the West Valley Demonstration Project.
12:37:20 On the phone we have individuals from the
12:37:22 Department of Energy headquarters, including
12:37:24 Assistant Secretary Dr. Inés Triay, and the NYSERDA
12:37:28 president, Frank Murray, is joining us from Albany,
12:37:32 New York.
12:37:34 I'm going to go ahead and introduce our
12:37:36 facilitator for today, Linda Robinson, and she's
12:37:40 going to tell us how all this technology is going
12:37:42 to work and help us through this meeting so we can
12:37:44 make sure that all concerns are heard.
12:37:46 And then Dr. Triay and Mr. Murray, if you
12:37:50 would like to make some brief comments after we
12:37:52 explain how the technology works, then we'll be
12:37:56 ready to listen to the concerns and comments from
12:37:58 our members of the public. So, Linda.
12:38:02 **THE FACILITATOR:** Thank you. Welcome. I am
12:38:04 Linda Robinson, your facilitator for this comment
12:38:08 session. We are in four geographic locations
12:38:10 visually: Washington, D.C.; here at West Valley;

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

12:38:14 Buffalo; and Albany. And in addition, there are
12:38:18 some audio-only participants on the line, and I'll
12:38:20 determine who they are shortly.
12:38:22 Dr. Inés Triay, assistant secretary for
12:38:26 environmental management at DOE, and Mr. Frank
12:38:28 Murray, president of NYSERDA, are both interested
12:38:32 in hearing the concerns of people about West
12:38:34 Valley, and so they have made themselves available
12:38:38 today to listen.
12:38:40 Like yours, their schedules are very busy,
12:38:44 and they need to leave at 2 o'clock, so those who
12:38:46 choose to speak today, I ask that you keep your
12:38:48 comments as direct and concise as possible so that
12:38:54 everyone has an opportunity to speak.
12:38:56 There is a court reporter right here, Anne
12:38:58 Barone, making a record of the comments so they can
12:39:02 be included in the DEIS comment control system.
12:39:08 In case you've never used televideo before,
12:39:10 here's how this is going to work. Those of you who
12:39:12 are in visual contact, we should be seeing four
12:39:16 locations on the screen. I certainly see four.
12:39:18 And the phone only picks up, however, a
12:39:24 voice from one location at a time, so that makes it

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

12:39:28 1 important that you not interrupt other people or
12:39:30 2 there becomes a garbling of the two voices for a
12:39:34 3 moment; there's a little skip in the audio. So
12:39:36 4 it's really very respectful if you would wait for
12:39:40 5 someone to finish a sentence or something and not
12:39:42 6 interrupt so we can all hear what everyone says.
12:39:44 7 We will take comments from each location and
12:39:48 8 from the audio people alternately going in
12:39:52 9 round-robin fashion. So once I determine who else
12:39:54 10 is on the line besides the four visuals, I will
12:39:58 11 then have a list of people so we can go around and
12:40:00 12 go place to place and get your comments.
12:40:04 13 Those of you at each location can decide the
12:40:08 14 order in which people will speak. We haven't
12:40:12 15 predetermined that because we don't know, of
12:40:14 16 course, how many people will be at each location.
12:40:16 17 To help the transcriptionist here, I ask
12:40:18 18 that everyone who makes comments speak clearly and
12:40:22 19 say your name and your organization before
12:40:26 20 commenting and, if needed, spell your name. And
12:40:28 21 then if not, please don't criticize us for
12:40:32 22 misspellings. She'll do her very best trying to
12:40:34 23 hear everybody.

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

12:40:36 Written comments may also be submitted today
12:40:40 at West Valley using the comment form. This is the
12:40:44 one -- the same one that was used in all of the
12:40:44 public meetings that were held before.
12:40:46 And anybody elsewhere can use the mailing
12:40:50 and faxing in the same system, that was e-mailing
12:40:56 also, that was used previously. And those
12:40:58 addresses are all available in the EIS materials
12:41:00 and on Web sites.
12:41:02 I thank you all in advance for your
12:41:04 cooperation working with technology. We're doing
12:41:08 something new to a lot of people here. I
12:41:12 appreciate your helping to make this a productive
12:41:14 and a respectful meeting.
12:41:16 So, Dr. Triay, I ask that you begin.
12:41:18 **DR. TRIAY:** Thank you very much. And I
12:41:22 would like to thank all of you who have taken time
12:41:26 from a Friday afternoon before Labor Day, you know,
12:41:28 to work with the Department of Energy and NYSERDA,
12:41:34 so thank you very much for being here.
12:41:36 Just wanted to make sure that you have
12:41:42 notice about our commitment to the cleanup of
12:41:46 West Valley and also to listen to your input and

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make sure that we understand the reasons for you to provide that input to us.

I understand that some individuals couldn't be here today, and we intend to have another video this coming week for those who couldn't make it today to also have the opportunity to interact with the Department of Energy and NYSERDA so that we can understand the feedback, the input that you're providing, as well as the facts behind that input.

With that, I turn the floor back to you.

THE FACILITATOR: Thank you. I would like to find out now who's on the line in an audio-only way. If you would please speak up, and I'm going to identify -- oh, I'm sorry. Frank Murray, did you wish to speak?

MR. MURRAY: Yes. Thank you very much.

THE FACILITATOR: Sorry, Frank.

MR. MURRAY: No problem. No problem.

Again, for those of you who don't know me, I'm Frank Murray. I'm the president and CEO of NYSERDA.

For those of you who have been engaged in this issue for a considerable period of time, you

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may recall that this is my second time around at NYSERDA. I joined -- rejoined NYSERDA in February in my current role.

15 years ago I served as the chairman of NYSERDA back in the days when New York State had a state energy office. I was the state energy commissioner, and by statute, the state energy commissioner also served as the chair of NYSERDA.

But my involvement with West Valley goes back considerably further than just that. In fact, when I joined the state in 1977, under then Governor Hugh Carey, virtually the very first issue I was engaged in was West Valley.

I helped write the initial federal legislation that became the West Valley Demonstration Project. It's an issue that I followed closely for many years.

I wanted to echo Dr. Triay's comments to the members of the public. Thank you very much for taking the time out of your very busy schedules, especially on a Friday afternoon just before a holiday.

I'm sure Dr. Triay shares my feelings that

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12:44:12 we wish we could have made this at a more
12:44:16 convenient time for you, but everybody's schedules
12:44:18 being what they are at this time of year, we both
12:44:22 concluded that even at this time it would be better
12:44:24 to get together than to not get together at all.
12:44:26 I just want to emphasize from NYSERDA's
12:44:30 point of view how important we consider your
12:44:32 involvement in this process. I've been following
12:44:34 closely the events out in Western New York over the
12:44:38 last few months.
12:44:38 From my point of view, I've found the
12:44:42 citizen and environmental community involvement in
12:44:44 this to be both responsible and respectful. I
12:44:48 assume that will characterize our discussions going
12:44:50 forward.
12:44:50 I certainly look forward to hearing from you
12:44:52 directly as your concerns regarding the DEIS. And
12:44:56 with that, I turn it back to you.
12:44:58 **DR. TRIAY:** Thank you, Mr. Murray. And I'm
12:45:00 going to start with your location. Are there
12:45:02 others at your location who are expecting to speak
12:45:04 and give comments?
12:45:08 **MR. MURRAY:** No. I am accompanied -- the

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

12:45:10 good-looking gentleman right here is Hal Brodie. As many of you know, Hal is the general counsel at NYSERDA and has been engaged as well in the West Valley matter for far longer than I think he wishes to remember. But Hal will not be speaking.

THE FACILITATOR: Okay. Thank you. So when we go round-robin, I won't need to include Buffalo then in the round-robin.

MR. MURRAY: Albany.

THE FACILITATOR: I mean Albany. I'm sorry. I don't need to call on you to speak. Okay.

All right. Then let me hear then from Buffalo. Would one person at Buffalo please speak up.

UNIDENTIFIED SPEAKER: We're here.

THE FACILITATOR: Okay. Somebody wave a hand so I can tell which one it is we're seeing.

Okay. Got you. Thank you. Thank you. All right. So when we do go round-robin to Buffalo, there will be several people there who will wish to speak, correct?

UNIDENTIFIED SPEAKER: Yes, that's correct.

THE FACILITATOR: Okay. Thank you. You'll

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12:46:08 1 be included in the round-robin.
12:46:10 2 All right. Now I'd like to hear who else is
12:46:12 3 on the line. If anyone is on the line as an audio
12:46:16 4 who does anticipate wanting to speak, would you
12:46:18 5 please identify yourself.
12:46:18 6 **MS. KROLCZYK:** Yes. This Laura Krolczyk and
12:46:22 7 Kendra Harris in Buffalo, New York, for the office
12:46:24 8 of Senator Kirsten Gillibrand.
12:46:28 9 **THE FACILITATOR:** Okay. So I'm going to
12:46:28 10 call you the senator's office when I go
12:46:32 11 round-robin?
12:46:32 12 **MS. KROLCZYK:** Right.
12:46:34 13 **THE FACILITATOR:** Okay. Because there are
12:46:36 14 multiple people. Okay. Senator's office will be
12:46:36 15 one.
12:46:36 16 Is there anybody else on audio who would
12:46:40 17 like to speak?
12:46:40 18 Okay then. I guess that's it.
12:46:50 19 At DOE headquarters are there any people who
12:46:52 20 would wish to be identified or speak?
12:46:56 21 **DR. TRIAY:** Yes. We have one person.
12:46:58 22 **THE FACILITATOR:** Okay. Who will speak?
12:47:02 23 **MS. D'ARRIGO:** Diane D'Arrigo, Nuclear

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Information and Resource Service.

THE FACILITATOR: And it's one person, so I'll just call on you as Diane. Okay?

MS. D'ARRIGO: Okay.

THE FACILITATOR: Okay. When we do the round-robin. Okay.

So we have to go around to -- and we have here in West Valley, by the way, a room full of people, so we'll have -- probably when we do the round-robin, we'll exhaust some of the sites who have smaller numbers, and we'll just then pick up here and let people go on and on at this location.

And I'd like your help in deciding order here.

MR. BOWER: Okay.

THE FACILITATOR: Thank you.

I guess since we have the largest number of people here, let's go ahead and start with the West Valley location as the first one.

The idea here is for the person who's going to speak, in our case, to come up to the seat next to me because we have a speaker that can make it audio for everybody else.

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In each of your other locations, would you all please make sure that you sit near wherever the speaker is -- I mean, the microphone is. I didn't mean speaker. I meant microphone. So that everyone can hear.

And if we can't hear early on, you'll please excuse me, I'll interrupt you. I'll wave my hand or something to tell you, because it means we can't hear you, and I'm going to ask you to maybe start again or repeat something.

Okay. So the first person -- and I'm going to ask in each case, I'll repeat, that you please give your name and your organization, if you choose to, for the court reporter.

MS. HAMEISTER: I'm Joanne Hameister. Last name H-A-M-E-I-S-T-E-R.

I am here as an individual, and I want to make that very clear. I happen to be chairman of the steering committee for the Coalition on West Valley Nuclear Waste.

THE FACILITATOR: Let me stop. Can you all hear her?

UNIDENTIFIED SPEAKERS: Yes.

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

12:48:54 **THE FACILITATOR:** Good. Okay. Go ahead.

12:48:54 **MS. HAMEISTER:** Thank you. I want to make sure that everybody understands that no comments, concerns, answers, or questions from any person associated with the coalition is official today.

We are a coalition of individuals and organizations, and I think in this context, without having any -- any way to understand where everybody is coming from, that the coalition cannot take responsibility for any of these. And this applies to my statements, questions, answers, and concerns. I am speaking for myself.

I have three questions basically. And perhaps Mr. Murray can answer one of them is: Where is the NYSERDA suit, and is NYSERDA going to require the Department of Energy to take responsibility for DOD wastes in the state licensed burial ground?

Number 3: With the -- number 2 -- I'm sorry -- with the DEIS, there is no long-term commitment or site-wide solution offered and no guarantee of public participation. This is a very big concern of a lot of people that I have dealt

901-1

901-1 This EIS analyzes three decommissioning alternatives that address WNYNSC. These alternatives are the Sitewide Removal Alternative, which would remove the waste and facilities from the site; the Sitewide Close-In-Place Alternative, which would provide for in-place closure and long-term stewardship (management) of the site; and the (Preferred) Phased Decisionmaking Alternative. If the Phased Decisionmaking Alternative is selected, Phase 1 activities would further characterize the site and research technology developments and engineering to aid consensus decisionmaking for Phase 2. The decision for implementation of Phase 2 could be sitewide removal of remaining facilities and contamination (Sitewide Removal Alternative), in-place closure of remaining facilities and contamination (Sitewide Close-In-Place Alternative), or a combination of activities from these two alternatives.

Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

with on this issue.

And then for the Department of Energy, we're concerned about the stimulus recovery money, the funding, and we'd like to know how it's currently being used and what the plans are for it.

I think, you know, I might want to revise and extend my remarks later on as everybody else has had a chance to speak.

THE FACILITATOR: Thank you very much. I'll go on to Buffalo at this point, unless anybody needs to say something.

DR. TRIAY: Excuse me, but let me ask you a question. Were we going to have an interaction here, you know, so we can answer or at least try to understand the issues that have been presented, or are we going to go through and do that at the end?

THE FACILITATOR: That would be fine if you do that.

DR. TRIAY: Okay. With respect to this particular question, I was just going to ask, with respect to the recovery project, you know, what we have asked in the Department of Energy every field office to do is to work closely with not only the

901-1 cont'd

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regulators but with the stakeholders to explain what is it that we have in the recovery project portfolio.

And we want to hear from the stakeholders their opinions of what we have in that recovery project portfolio.

So in addition to that, we have a DOE-wide conference call that Cynthia Anderson, the recovery project lead for headquarters, conducts in addition to the interactions -- the detailed interactions that go on at the different field sites.

So what we're going to do is make sure that Bryan Bower closes with you as to when his next recovery project interaction is to go through the detail of the scope associated with recovery.

And then in addition to that, we're going to make sure that we have your name and your number so that we can add you to the list of individuals that participate in the DOE-wide monthly recovery project stakeholder interaction. Thanks.

MR. BOWER: Joanne, we just did a presentation at our -- I'm sorry. This is Bryan Bower with the Department of Energy.

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

12:52:56 We did a presentation on August 4th at our
12:52:58 quarterly public meeting. We have another
12:53:02 presentation scheduled at our next citizens task
12:53:04 force meeting on September 23rd. And we will also
12:53:10 be briefing recovery act at every one of our
12:53:12 quarterly public meetings. I believe the next one
12:53:14 is scheduled for November 10th.
12:53:20 Thank you, Joanne.
12:53:22 **DR. TRIAY:** And, Joanne, we really want to
12:53:24 hear, you know, your opinions and those of your
12:53:26 colleagues on the scope.
12:53:28 It so happens that Cynthia Anderson has just
12:53:32 walked into the room, who's the head of the
12:53:34 recovery act at the headquarters.
12:53:36 Wave, Cynthia.
12:53:40 **MS. ANDERSON:** Hi.
12:53:40 **DR. TRIAY:** And she holds the DOE-wide. And
12:53:44 we are going to be -- and anybody else who wants
12:53:46 to, please make sure that you have Bryan have a
12:53:54 sign-up sheet for the stakeholders who want to be
12:53:56 invited to that conference call that Cynthia has
12:53:58 DOE-wide.
12:54:00 **MS. ANDERSON:** Yes.

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12:54:02 **DR. TRIAY:** Back to you.

12:54:02 **THE FACILITATOR:** Thank you. Okay. I think we've completed --

12:54:04 **MR. MURRAY:** May I respond to Joanne's questions, please?

12:54:08 **THE FACILITATOR:** Please do.

12:54:10 **MR. MURRAY:** Okay. Joanne, I think you raised two questions. One was the status of the lawsuit. I'm going to defer, as any good administrator does, to his lawyer, Hal Brodie here, to fill you in on that.

12:54:12 12:54:14 12:54:18 12:54:20

With respect to the public participation, again, let me echo Dr. Triay, we welcome and encourage as much public involvement and participation in the decision-making process as possible.

12:54:22 12:54:24 12:54:28 12:54:30 12:54:32

I will certainly look closely at the comments you may have already filed as part of the EIS. But if there are ways you think we should be improving our public participation, you certainly can reach out to my office or Paul Bembia, who I believe is probably right there in the room with you at West Valley.

12:54:32 12:54:34 12:54:38 12:54:42 12:54:44 12:54:48 12:54:48

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12:54:50 And Paul speaks with me regularly, so he's
12:54:54 probably your most immediate and best conduit to
12:54:56 express any concerns about where we may not be
12:55:00 involving the public adequately in the
12:55:02 decision-making process.
12:55:04 With respect to the lawsuit, I'm going to
12:55:06 let Hal just kind of bring you up-to-date on where
12:55:08 that is.
12:55:10 **MR. BRODIE:** As most of you know, NYSERDA
12:55:12 brought a lawsuit approximately three years ago now
12:55:14 to clarify the financial responsibilities for all
12:55:20 aspects of the cleanup at West Valley.
12:55:22 Soon after we brought that lawsuit, we
12:55:28 entered into facilitated negotiations with the
12:55:30 Department of Energy. And I think most of you know
12:55:34 that we've -- we've been successful in those
12:55:40 negotiations to the extent that there is a draft
12:55:44 settlement agreement that is circulated among the
12:55:50 parties.
12:55:50 And we hope to be able to make an
12:55:54 announcement in the very near future about that and
12:55:56 be able to advise all of you about the specific
12:56:00 content of the settlement agreement, which at this

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point, is still confidential.

THE FACILITATOR: Okay. And so now that we've set a pattern, after any speaker, if you, Mr. Murray, or Secretary Inés, if you would want to say something, please speak right afterwards so that -- and I'll try to pause and then -- before I call on the next person so I'll know that you do wish to say something. Thank you.

DR. TRIAY: Thank you.

MR. MURRAY: Thank you.

THE FACILITATOR: Okay. Buffalo, let's hear from Buffalo.

MR. VAUGHAN: Yes. This is Raymond Vaughan. V-A-U-G-H-A-N. First letter of that is V as in Victor. I'm a resident of Hamburg, New York, between West Valley and Buffalo.

I'm a long-time member of the West Valley Citizen Task Force, and I'm speaking here today on behalf of myself.

I have just submitted extensive comments on the draft EIS that is now under consideration. I won't go over those in detail. My comments total dozens of pages with many attachments, totaling

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over 400 pages in all. So I hope that the both agencies will look very closely at some of the comments I make, especially about the erosion problems at the site.

It's well-known that the site is particularly susceptible to -- is built on an eroding platform that simply will not last for the length of time that some of these wastes will remain hazardous in a radioactive sense.

And when I talk about erosion, I hope that you have had the opportunity to actually see the site. I know that Frank Murray has. But we're not talking about erosion on a small scale but valley-wide erosion or geomorphological evolution, basically. The development of a relatively young valley system in steep terrain.

The terrain is steep enough to have very high gradients and thus stream velocities whenever you get a lot of rainfall, as we did during the past month. We had an exceptional storm that served, I think, as a real reminder of how susceptible the site is to erosion.

So in making decisions about how to clean

902-1

902-1 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F.

DOE and NYSERDA do not believe that the occurrence of the August 2009 storm changes the estimate of long-term impacts for the WNYNSC decommissioning alternatives. The long-term hydrologic transport analysis includes the investigation of the effect of wetter and drier climates, as noted in Appendix H, Section H.3.1. The long-term erosion analysis includes investigation of the effect of wetter climates, as noted in Appendix F, Section F.3.1.6.4, of this EIS.

Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

12:58:32 the site up, I think it's important to recognize
12:58:36 that any proposals to leave waste in place, whether
12:58:40 temporarily in phased decision-making, or even
12:58:44 worse, if there were to be a permanent decision to
12:58:46 close waste in place, I think that that simply puts
12:58:52 the site at risk of coming apart at the seams, as
12:58:56 any protective measures are undercut by erosion and
12:59:00 dissolved and suspended wastes simply move down the
12:59:04 creek system into Lake Erie.
12:59:06 So for protection of the Great Lakes, I
12:59:08 think it's crucial that the site be cleaned up
12:59:10 sooner is better. I think it is extremely
12:59:12 important for this decision-making cycle to
12:59:16 consider full cleanup as the best option.
12:59:20 There are a number of errors in the draft
12:59:22 environment impact statement that would argue
12:59:26 against that. In other words, statements that are
12:59:26 made in the draft environmental impact statement
12:59:30 that suggest that closure in place is both safe and
12:59:36 affordable.
12:59:36 My comments deal in some detail with why
12:59:38 those comments or those statements in the draft EIS
12:59:42 are largely incorrect. But in any case, this is an

902-1 cont'd

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902-2 DOE and NYSERDA acknowledge the commentor's opposition to an EIS alternative that would leave buried waste on site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" and "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

902-3 DOE considers the information in this EIS to be accurate and defensible. Please see Comment no. 110 for responses to comments and responses raised by this commentor.

important decision point.

I think that's enough I need to say for now, and I thank you for this opportunity.

DR. TRIAY: Thank you very much. I am aware of the erosion issues at West Valley, and we can assure you that we're going to look at your comments very carefully.

MR. VAUGHAN: Thank you.

MR. MURRAY: Ray, thank you very much. It's been a while since I last saw you.

MR. VAUGHAN: Hi, Frank.

MR. MURRAY: I do appreciate your comments. I think it's fair to say that the staff of NYSERDA out there in West Valley has expressed some similar concerns regarding the updated EIS model and results with respect to erosion. And we do concur certainly to the extent that this is an issue that warrants additional investigation.

MR. VAUGHAN: Thank you.

THE FACILITATOR: Okay. Now let's move to the senator's office. One of the two people there.

MS. KROLCZYK: We're just here to observe today. As you know, the senator's called for

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cleanup of the West Valley site. We just want to, you know, make sure that people's questions are being answered and see where we can be helpful in that process.

THE FACILITATOR: Thank you. So I guess I won't call on your office next time in the round-robin?

MS. KROLCZYK: Right. I think we're just here to observe right now.

THE FACILITATOR: Okay. Now we go to Diane.

MS. D'ARRIGO: Yes. I'm a native Buffalo resident, Western New Yorker, and work here in Washington now with Nuclear Information Resource Service.

I'm part of a collaboration of groups both locally and state-wide and here that are very concerned about the West Valley site.

My organization is concerned about all of the problems around the country at the weapons facilities. But in particular, this one, as Ray pointed out, is highly subject to erosion. So I had -- oh, is that guy here who's doing the slides? Yeah.

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13:02:20 **DR. TRIAY:** Why don't you go find him so
13:02:24 that he can help her.
13:02:26 **MS. D'ARRIGO:** We actually have four main
13:02:28 points. I was going to present one of them, Brian,
13:02:32 Sister Sharon, and Bob Ciesielski were going to
13:02:36 make the other points.
13:02:38 My points on the EIS are that the
13:02:40 information needed on monitoring and institutional
13:02:44 controls, that there's information that's needed,
13:02:44 that -- if there's not enough information in the
13:02:48 EIS to make a decision to leave the waste.
13:02:52 We oppose the phased decision making. We
13:02:56 believe the decision should be made now and that
13:02:58 research in the future should be done toward how to
13:03:02 clean up the site fully, not on whether to clean it
13:03:02 up. And we're concerned about the recent flooding
13:03:06 that took place.
13:03:08 So the first slide that I wanted to show is
13:03:12 in -- these pictures are in the -- the map that was
13:03:16 just up is the one that I wanted to show first.
13:03:18 It's the overview of the site from the full
13:03:22 cost accounting study that was done with New York
13:03:26 State senate funding. It shows simply that creeks

903-1

903-2

903-1 As acknowledged in this EIS, long-term monitoring and maintenance would be required for alternatives that would leave waste on site. This EIS provides a summary description of current and potential future environmental monitoring programs. The descriptions of the alternatives were revised to further describe the use of engineered barriers and long-term monitoring and maintenance. Long-term monitoring and maintenance are described in Chapter 2, Sections 2.4.2.6 and 2.4.3.8. Long-term monitoring and institutional controls are also discussed in Chapter 6. Additional information about current and proposed monitoring and institutional controls is provided in Appendices C, H, and I. Chapter 2, Table 2–4, includes estimates of the environmental consequences if (1) monitoring and maintenance are successful (institutional controls remain in place) and (2) monitoring and maintenance programs fail (institutional controls are lost). Chapter 4, Section 4.2, of this EIS includes monitoring and maintenance costs for the alternatives that would leave waste on the site.

Detailed information regarding long-term monitoring and maintenance programs and institutional controls under alternatives that would leave radioactive waste stored on site has not been specifically defined at this time. Such definition would occur after an alternative is selected for implementation and would include consultation with appropriate regulatory authorities. An element of the long-term programs would be the development of plans and procedures for responding to emergencies. These plans and procedures would include coordination and agreements with local police and fire departments and medical facilities.

903-2 DOE and NYSERDA acknowledge the commentor's opposition to the Phased Decisionmaking Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

13:03:28 are cutting the site and draining down toward the
13:03:32 Cattaraugus and Lake Erie, and there have been
13:03:34 losses of material.
13:03:36 Radioactive activity in 1974 burst through
13:03:40 the trench caps, drained into the creeks and into
13:03:42 the lakes, and that was what led to shutting the
13:03:44 burial ground at that time.
13:03:46 What just happened in August was a big
13:03:50 flood. You'll see here in this photo that Frank's
13:03:54 Creek hugs the trenches. And next to that is a
13:03:56 high-level waste burial area, NRC licensed. There
13:03:58 are tanks, process building, and a plume of
13:04:04 radioactivity migrating toward the creeks up here.
13:04:06 So along Buttermilk Creek, which is, as I
13:04:10 understand, about a third of a mile away, in
13:04:12 August 8th, 9th, 10th, there was a major event with
13:04:14 five inches of rain in just an hour and a half.
13:04:18 And the erosion went from -- backed up --
13:04:22 the erosion eroded toward the trenches at least
13:04:26 15 feet, so that's the next slide that I wanted to
13:04:28 show. The pictures. Yes.
13:04:34 That picture that's up right now, that's a
13:04:36 picture that was taken by Jim Rock in 2008. That's

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

13:04:40 1 before the flooding. And then the next picture,
13:04:44 2 with the material all eroded, that's taken by Paul
13:04:48 3 Bembia -- thanks, Paul -- from NYSERDA. And it
13:04:52 4 shows just in one day what the erosion was.
13:04:58 5 And it's my understanding that that's about
13:05:00 6 15 or 20 feet closer to the trenches. And that's
13:05:04 7 just in one day.
13:05:04 8 And then there's a close-up one taken of the
13:05:08 9 landslide area. And you can see -- I think that's
13:05:12 10 Joanne standing up there -- the dimensions of the
13:05:16 11 erosion and how steep it is.
13:05:18 12 So, and also this was a devastating flood
13:05:24 13 for the people downstream. And we don't know
13:05:28 14 really how much radioactivity, if any, got out in
13:05:32 15 this instance, but in years to come, we're
13:05:34 16 concerned that this is what our geologists -- the
13:05:36 17 geologists for the independent full cost accounting
13:05:40 18 study indicated that within 150 to 1500 years, this
13:05:44 19 whole valley is going to erode.
13:05:44 20 And much of the waste -- there's 14 pounds
13:05:46 21 of plutonium in those trenches at least, and so
13:05:50 22 we're looking at trying to isolate that against the
13:05:52 23 forces of nature.

903-3

903-3 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F.

Regarding the report mentioned by the commentor, please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of this report's issues and DOE's and NYSERDA's response.

Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

13:05:54 So in the EIS, the information -- we need
13:05:58 more information on monitoring and institutional
13:06:00 controls. We don't feel that the information even
13:06:02 on this flooding situation was adequate, that
13:06:06 public disclosure is adequate, that there appears
13:06:10 to be a discrepancy in the DEIS and the
13:06:16 decommissioning plan.
13:06:16 We're concerned that the EIS process is
13:06:20 still under way. We've got options for full
13:06:22 cleanup. Clean up 1 percent of the radioactivity
13:06:26 now and then wait -- you know, during the next
13:06:30 30 years decide whether or not to clean up the
13:06:30 rest.
13:06:30 So we're going to spend a billion dollars
13:06:32 now to clean up one leak and then wait to see
13:06:36 whether or not to clean up the rest of the site,
13:06:38 which is projected now to cost in the $9.7 billion
13:06:42 range to clean up the whole site now, and we're
13:06:44 going to spend 1 billion on cleaning up
13:06:48 one migration. How many more migrations will take
13:06:50 place?
13:06:50 So the disclosure of -- well, the
13:06:54 decommissioning plan that's being reviewed by the

903-4

903-5

903-6

903-4 Please refer to the response to Comment no. 903-1 regarding monitoring and maintenance and institutional controls, as well as the response to Comment no. 903-3 regarding erosion concerns. The effects of erosion are analyzed in this EIS. The erosion predictions are based on an erosion model that was calibrated by considering the effects of storms of the magnitude that occurred in August 2009.

Every effort has been made to ensure consistency, as appropriate, between this EIS and the *Phase 1 Decommissioning Plan for the West Valley Demonstration Project (Phase 1 Decommissioning Plan).*

903-5 It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

The Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the DOE Record of Decision, if that alternative were selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making the Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that the Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected

903-6 Consistent with an agreement between NRC and DOE, DOE is preparing the *Phase 1 Decommissioning Plan* simultaneously with the preparation of this EIS. The proposed decommissioning approach described in the *Phase 1*

13:06:56 nuclear regulatory commission is for this phased
13:07:00 decision making to just clean up that plume and
13:07:02 what they think is the source area -- we have
13:07:06 questions on that -- rather than waiting for the
13:07:10 full decision. And if the full decision is, as
13:07:12 we're encouraging, the full cleanup, the
13:07:14 decommissioning plan must be much more expanded,
13:07:16 and we don't want to lose it.
13:07:18 So we're concerned that both DOE and NRC are
13:07:22 going to leave the site after this period and that
13:07:24 public opportunity for input is going to be lost
13:07:26 after this time. So there's the public disclosure
13:07:28 discrepancies between the decommissioning plan and
13:07:32 the EIS.
13:07:32 There's the -- and also for Mr. Murray, the
13:07:40 state law requires a complete cleanup plan in the
13:07:44 DEIS. And SEQRA requires that the DEIS have a
13:07:48 complete plan and that all the potential impacts be
13:07:50 examined in detail.
13:07:52 It does not allow for segmentation of the
13:07:54 action and an incomplete plan as with a phased
13:07:56 decision making would provide.
13:07:58 So those are some of my comments, and we'll

903-6 cont'd

903-7

903-8

Decommissioning Plan is consistent with the Preferred Alternative in this EIS. NRC recognizes that the use of the Preferred Alternative in the *Phase 1 Decommissioning Plan* before completion of this EIS is preliminary and subject to change based on the content of this Final EIS and DOE's Record of Decision. If DOE selects an action other than the current Preferred Alternative, the *Phase 1 Decommissioning Plan* would be revised to reflect the Record of Decision. While DOE is conducting the NEPA EIS and *Phase 1 Decommissioning Plan* preparation and review processes in parallel, the Agency has not yet made its final decision on its actions for completion of the WVDP.

903-7 DOE will remain on site until it completes its responsibilities as assigned under the West Valley Demonstration Project Act. DOE would not leave the site after completion of the Phase 1 actions because it would not have completed the actions required under the Act. The description of the Phased Decisionmaking Alternative in Chapter 2 of the EIS has been revised to clarify this, and the wording in the *Phase 1 Decommissioning Plan* has been revised to avoid the implication that DOE would leave the site at the end of Phase 1.

903-8 The commentor is referring to the fact that the decision to clean up the site would occur in separate phases (Phased Decisionmaking). It is NYSERDA's position that segmentation under SEQR refers to the improper division of one project into multiple smaller projects to circumvent NEPA (or SEQR) requirements. NYSERDA does not believe that improper segmentation would be involved under the Phased Decisionmaking Alternative because the Phase 1 actions proposed would be independent of and would not bias actions conducted in Phase 2. In other words, the actions proposed under Phase 1 would not automatically trigger certain actions under Phase 2; to the contrary, DOE and NYSERDA could opt for any alternative or combination of alternatives during Phase 2. The test for improper segmentation is whether or not projects (in this case Phase 1 and Phase 2) are interdependent. In this case, they are clearly not.

split them up, so others will share the rest. And I'll leave you with these photos.

DR. TRIAY: Very good. Yes. That would be excellent. Thank you.

MS. D'ARRIGO: There's a copy of the independent report that was done on full cost accounting. The disc in the back has all the appendices.

DR. TRIAY: Very good. Thank you very much.

MS. D'ARRIGO: And, Frank, you've got that independent full cost accounting report, right?

MR. MURRAY: Yes, Diane. Good to see you again.

MS. D'ARRIGO: Good to see you.

MR. MURRAY: It's been a while.

MS. D'ARRIGO: I'm glad that someone with the knowledge of West Valley is in your position.

MR. MURRAY: Thank you.

MS. D'ARRIGO: We're hoping you'll reverse that preference for the phased decision making.

THE FACILITATOR: Okay. This is Linda, the moderator. And when I come on round-robin, is that the end of your location then as far as being

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called on? I don't need to call on you again?

DR. TRIAY: Yes. She was the only one here, yes.

THE FACILITATOR: Okay. Thank you.

Then that takes us back, then, to West Valley, and Lee Lambert is our next person.

MS. LAMBERT: My name is Lee Lambert. Actually Leonore, L-E-O-N-O-R-E, L-A-M-B-E-R-T.

I'm a member of the League of Women Voters and have been monitoring this situation for many years for the league, and I've been on the Citizen Task Force for ten of its 12 years, I believe. Ten or 11 of its 12 years.

The league has already submitted comments and also a press release. And speaking for them, I would just quickly reiterate some of those points they made.

We are asking for full exhumation of the radioactive and chemical contaminants at the West Valley nuclear waste site, and we oppose the phased decision making because one source of contaminants would be removed immediately, while other sources, including the radioactive plume, the underground

904-1

904-1 DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative and opposition to the Phased Decisionmaking Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

13:10:32 1 tanks, and two unlined burial sites would be
13:10:34 2 monitored with decisions regarding potential future
13:10:38 3 cleanup deferred for up to 30 years. This we are
13:10:44 4 opposed to for three reasons.
13:10:46 5 It's an unacceptable risk for a precious and
13:10:48 6 scarce resource: The area's future water supply.
13:10:52 7 It ignores the most economically sensible
13:10:54 8 option, which I will speak of in a minute, and it
13:10:58 9 removes cleanup from public scrutiny that the EIS
13:11:02 10 process was enacted to promote.
13:11:04 11 The DOE approach is appropriate neither from
13:11:08 12 scientific nor an economic standpoint. And it
13:11:12 13 removes from public scrutiny future decisions
13:11:14 14 regarding waste that will remain radioactive for
13:11:18 15 many, many years.
13:11:22 16 The site was subject to high -- which we all
13:11:26 17 know, high precipitation and aggressive erosion and
13:11:28 18 is unsuitable for storage of hazardous chemical or
13:11:32 19 any other radioactive waste underground because --
13:11:36 20 primarily because of potential for contamination of
13:11:40 21 the water system for millions of people in New York
13:11:42 22 State, Eastern Canada, and the St. Lawrence region.
13:11:44 23 The league's position is supported, of

904-1 cont'd

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904-3

904-2 cont'd

904-4

904-2 Please see the Issue Summaries for "Concerns about Potential Contamination of Water" and "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

904-3 Because of the interest in public participation expressed in the comments received on the Revised Draft EIS, DOE has decided that, should the Phased Decisionmaking Alternative be selected, DOE would seek additional public input prior to the Phase 2 decision regardless of the exact NEPA process utilized. Specifically, public involvement would continue until a final decision is made and implemented. Public meetings would continue to be held on at least a quarterly basis, and additional meetings would be held as necessary to assure timely communication with the public. DOE and NYSERDA would continue to support the West Valley Citizen Task Force, which is expected to remain in place during this time.

NYSERDA would assess results of site-specific studies and other information during Phase 1. NYSERDA expects to prepare an EIS, or to supplement the existing EIS, to evaluate the Phase 2 decision for the SDA and balance of WNYNSC. In accordance with SEQR requirements, a public comment period would be held by NYSERDA along with public meetings to further solicit stakeholder input.

904-4 DOE and NYSERDA have reviewed *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Site (Synapse Report)* by Synapse Energy Economics, Inc., and have addressed this report in this CRD consistent with the Council on Environmental Quality's NEPA regulations. Please see the Issue Summary for "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of the report's issues and DOE's and NYSERDA's response.

course, by that study that Diane mentioned. The Real Costs of Cleaning Up Nuclear Waste, which concluded that in the long term, leaving buried waste on site is high risk and expensive, while full cleanup presents both decreased risk and decreased cost.

In filing its opposition, the league asserted two basic beliefs of the organization: That public participation of citizens in governmental decision making is a vital part of democracy, and that the protection of public health and safety and of the environment is paramount in a civilized society.

As for my own comments, I think if you talk to anyone about this, the first thing they'll say is: What is taking so long? This site goes way back to the late '60s, early '70s. It's been known as a danger from those years.

And through the years, and especially on being on the task force, I've heard a lot about the different parts of the site and what was being done and was disturbed somewhat by NRC monitoring the plume, just monitoring the plume, monitoring the

904-4 cont'd

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904-5

904-5 The history of the North Plateau Groundwater Plume is discussed in Chapter 3, Section 3.6.2.1, and Appendix C, Section C.2.13, of this EIS. The North Plateau is the only portion of the site where groundwater moves at a relatively rapid rate; therefore the North Plateau Groundwater Plume is the most mobile contamination on the site. Groundwater movement on the South Plateau is relatively slow because of the natural and engineered barriers that limit water infiltration and lateral flow. The extensive site characterization and monitoring data do not indicate the presence of any other plumes whose position would noticeably change over the next few decades. DOE and NYSERDA are adequately managing the North Plateau Groundwater Plume waste and contamination in its current configuration and releases are minimal, as demonstrated by the results from the ongoing environmental monitoring program that are reported in the annual site environmental reports.

All of the proposed decommissioning alternatives addressed in this EIS include provisions to remove or control the spread of the North Plateau Groundwater Plume. This EIS analyzes both the short- and long-term environmental consequences of these decommissioning alternatives, including the consequences to offsite and potential onsite individuals as a result of erosion across the site and movement of the North Plateau Groundwater Plume, as well as the consequences of various management strategies for the plume.

Implementation of the Phased Decisionmaking Alternative (the Preferred Alternative) would make an important advance in the decommissioning of WNYNSC within the initial 8 years. The cleanup that would take place during Phase 1, as explained in Chapter 2, Section 2.4.3, of this EIS, would reduce or eliminate potential health or environmental impacts by removing major facilities (such as the Main Plant Process Building and lagoons). In addition, the source area for the North Plateau Groundwater Plume would be removed, thereby reducing the source of radionuclides that are potential contributors to human health or environmental impacts.

Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

13:13:04 plume, monitoring the plume for years and years as
13:13:06 the plume spread, and then disagreement between
13:13:10 New York State and DOE over who's going to pay for
13:13:12 stopping that or for removing it.
13:13:16 And now the decision to clean up underneath
13:13:20 the -- take down the building and eliminate that
13:13:24 part of the plume, the source of the plume, the
13:13:28 plume still remains and is moving at this time.
13:13:32 Also was disturbed by the split in the EIS
13:13:36 and the -- then the subject of disagreements
13:13:40 between New York State and the DOE and now by both
13:13:48 entities agreeing to defer decision-making, which
13:13:52 would give us another 30 years to decide if we are
13:13:56 even going to clean it up. And I find that very
13:13:58 disturbing.
13:14:00 Thank you.
13:14:02 **THE FACILITATOR:** Thank you, Lee.
13:14:04 Okay. Let's go --
13:14:06 **MR. MURRAY:** Lee, may I ask you a question?
13:14:06 **MS. LAMBERT:** Sure.
13:14:08 **MR. MURRAY:** I wanted to ask Lee a question,
13:14:10 if she wouldn't mind.
13:14:10 **MS. LAMBERT:** Yeah.

904-5 cont'd

904-6

904-6 Chapter 1, Section 1.2, of this EIS provides an explanation of the development of this EIS, including why the 1996 *Draft Environmental Impact Statement for Completion of the West Valley Demonstration Project and Closure or Long-Term Management of Facilities at the Western New York Nuclear Service Center (Cleanup and Closure Draft EIS)* (DOE/EIS-0226-D) was split into two EISs. This EIS analyzes three decommissioning alternatives, all of which include DOE's completion of the WVDP as required under the West Valley Demonstration Project Act. The alternatives range from the Sitewide Removal Alternative, which would remove the waste and facilities from the site, to the Sitewide Close-In-Place Alternative, which would provide for closure and long-term stewardship (management) of the site. The Sitewide Removal and Sitewide Close-In-Place Alternatives are very similar to those analyzed in the 1996 *Cleanup and Closure Draft EIS*, but there have been changes in inventory, preliminary engineering designs, and analytical methods. DOE and NYSERDA believe that this EIS presents an accurate analysis of the impacts of the decommissioning alternatives, as well as the No Action Alternative, which is required by NEPA and SEQR but would not meet DOE's purpose and need to decontaminate and decommission the high-level radioactive waste tanks and facilities used under WVDP. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement.

Concerning disagreements between DOE and NYSERDA, in November 1996, DOE began the Core Team process with the agencies involved in this EIS to work toward resolution of technical issues that were impeding progress of the document. NYSERDA agreed to join this process in March 2007. Since that time, DOE and NYSERDA have worked cooperatively to advance the NEPA process for WNYNSC. In parallel, DOE and NYSERDA have engaged in settlement discussions, limited to issues of cost allocation, related to the December 18, 2006, legal action filed by NYSERDA.

DOE disagrees with many of the points raised in NYSERDA's View, which is included as the Foreword to this EIS. At the core, differences between DOE and NYSERDA center on different views about the nature of analysis required for an EIS and the attendant level of acceptable risk associated with any uncertainties in that analysis as it relates to decisionmaking. DOE believes the analysis in this EIS meets the requirements of NEPA and SEQR in that, when there is incomplete or unavailable information relevant to reasonably foreseeable significant adverse environmental impacts, this EIS (1) acknowledges the information limitation and its relevance to environmental consequence, (2) summarizes existing credible

13:14:12 **MR. MURRAY:** Lee, you mentioned that you had three reasons why you oppose the phased decontamination option, and the third one was that you said that that option would remove cleanup from public scrutiny. Could you explain that to me a little bit? What does that statement mean?

13:14:34 **MS. LAMBERT:** Primarily because there's no guarantee of a proper EIS and public participation.

13:14:54 **MS. D'ARRIGO:** This could end the EIS process.

13:15:00 **MR. MURRAY:** Thank you.

13:15:04 **THE FACILITATOR:** All right. Let us move on to Buffalo again.

13:15:12 **SISTER GOODREMOTE:** Hello. This is Sister Sharon Goodremote, and I represent Catholic Charities of Buffalo, the Catholic Diocese Care for Creation Committee, and this issue is very important to the faith community.

13:15:24 And that is why besides Catholic Charities and the Care for Creation Committee of the diocese and other sister groups, parish peace and justice committees and the presbytery have also added on to support the site removal -- the immediate site

905-1

scientific evidence, and (3) presents an analysis using a theoretical approach that is generally accepted by the scientific community involved in such analyses. This Final EIS contains text boxes in the relevant subject matter areas that acknowledge the differences of opinion between DOE and NYSERDA. In general, DOE's position is that the Agency spent much time and effort engaging highly qualified and respected experts in hydrology and hydrological transport, landscape evolution (erosion), human health and environmental risk analysis, and other technical fields and stands behind the analyses performed for this EIS.

905-1 DOE and NYSERDA acknowledge the commentor's support for the Sitewide Removal Alternative and opposition to the Phased Decisionmaking Alternative. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summaries for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes," "Concerns about Potential Contamination of Water," and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

removal alternative.

Cleaning up West Valley nuclear site now and completely is the only response to good stewardship and the only moral decision that can be made. The reasons the faith community believes the site-wide removal alternative is the correct decision and shows good stewardship are, it doesn't have to be proven that nuclear waste is toxic, radioactive, and harmful to humans and all of creation.

Therefore, keeping nuclear waste in an area that is unstable, as shown by the recent flooding, and it was covered by Diane, is not only an immoral decision, it doesn't make sense.

The possible health risks are obvious. With creeks all around the nuclear site which eventually flow into Lake Erie, it is unthinkable that we would wait to remove the waste or leave some behind for another time.

Water is one of God's great gifts, and how can we humans, who are called to be stewards of creation, make choices that will contaminate the greatest source of fresh water in the United States?

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13:16:56 The site-wide removal alternative will give
13:17:00 New York citizens peace of mind, healthy
13:17:04 environment, and gratitude to their government
13:17:06 leaders for making the right decision.
13:17:10 Secondly, the use of taxpayer dollars also
13:17:12 show the need for good stewardship. In this time
13:17:18 of a weak economy, how each dollar is spent is
13:17:22 important.
13:17:24 According to the independent state-funded
13:17:26 study, The Real Cost of Cleaning Up Nuclear Waste,
13:17:30 the full cost accounting of cleanup options for the
13:17:34 West Valley nuclear site, it may cost $9 million to
13:17:38 do on-site removal now, and, in the future,
13:17:40 especially if there's any problem with the area and
13:17:46 any terrible weather there, it could cost
13:17:50 27 billion.
13:17:50 And, of course, all these numbers can change
13:17:52 according to the ups and downs of the economy, but
13:17:54 either way, definitely cleaning it up now --
13:17:58 cleaning the waste site up now will be cheaper than
13:18:00 cleaning it up in the future when there's more
13:18:04 problems.
13:18:06 So I believe that the faith community of

905-1 cont'd

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Buffalo and of Western New York, because Catholic Charities goes throughout the eight counties, agree that God created the earth and said that it was good, and we are dedicated and committed to helping everyone and to helping this decision be made that we clean the site as soon and as quickly as possible.

Thank you.

MR. MURRAY: Thank you, Sister.

SISTER GOODREMOTE: You're welcome.

THE FACILITATOR: Okay. I know of Jim still in Buffalo -- I mean, in West Valley. Is there anybody else in the West Valley room who would wish to speak who has not already identified themselves?

Okay. Is there anyone else still at Buffalo? Let me go back to Buffalo. Are there more speakers in Buffalo?

MR. SMITH: Yes.

THE FACILITATOR: Okay. Proceed.

MR. SMITH: My name is Brian Smith, and I am Western New York program director for Citizens Campaign for the Environment, and I'm here today on behalf of our 80,000 members. Thank you for the

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opportunity to speak today.

We support the full site-wide removal option for a number of reasons. I'm going to focus today on one particular point that the plan -- or the DEIS does not have a plan to fully clean up the entire site, and we have some deep concerns about the threats of leaving waste on site, and that's what I'm going to focus my comments on today because it is going to be more costly, and it poses serious threats to public health and the environment.

West Valley is simply not an appropriate place for long-term storage of nuclear waste. As several speakers have mentioned, erosion is a powerful and fast-moving force at the site, which was particularly hastened by recent storms.

And with global climate change, people are accepting this as a reality. We're expecting more frequent and intense storms. This will not be the last of those types of storms, and we really don't know how quickly radioactive waste will be exposed and contaminate our waterways and our Great Lakes.

The modeling we have is not reliable, and

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906-2

906-1 DOE and NYSERDA acknowledge the commentor's opposition to an EIS alternative that would leave buried waste on site. The decision on the selected course of action and supporting rationale will be documented in DOE's Record of Decision and NYSERDA's Findings Statement. Please see the Issue Summary for "Support for Sitewide Removal of All Radioactive and Hazardous Wastes" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

906-2 DOE and NYSERDA recognize that erosion is a concern at WNYNSC. This EIS analyzes erosion and the long-term (multi-century) consequences on local as well as Lake Erie and Niagara River water users. The erosion predictions are based on an erosion model that was calibrated by considering the effects of storms of the magnitude that occurred in August 2009. This EIS also evaluates the potential human health impacts of a scenario whereby institutional controls are assumed to be lost and unmitigated erosion is assumed to occur over hundreds of years. These projected impacts are presented in Chapter 4, Section 4.1.10.3.3, and Appendix H of this EIS. Erosion studies are discussed in Appendix F. Please also see the Issue Summary for "Questions about Long-term Erosion Modeling" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

The EIS analysis of long-term performance addresses the impacts of climate and extreme weather events. See Appendix D, Section D.3.1.1, of this EIS for a discussion of how climate change was considered in developing the site conceptual model. Because there are no reliable projections of future specific climate changes in the WNYNSC region, the groundwater dose analysis uses sensitivity analysis to investigate the impacts of wetter or drier climates on the estimates of human health impacts. The methodology and results are presented in Appendix H, Section H.3.1. In addition, the analysis of doses due to unmitigated erosion uses a gully advance rate associated with a climate that is wetter than current site conditions.

As acknowledged in this EIS, long-term monitoring and maintenance would be required for alternatives that would leave waste on site. This EIS provides a summary description of current and potential future environmental monitoring programs. The descriptions of the alternatives were revised to further describe the use of engineered barriers and long-term monitoring and maintenance. Long-term monitoring and maintenance are described in Chapter 2, Sections 2.4.2.6, and 2.4.3.8. Long-term monitoring and institutional controls are also discussed

13:21:06 this was even recognized by NYSERDA in the forward
13:21:10 of the DEIS. When waste on site is a problem, the
13:21:16 DEIS -- a problem there is it fails to recognize
13:21:20 the site will have to be maintained and monitored
13:21:24 into perpetuity if waste is left on site.
13:21:28 Of course, the waste will be dangerous for
13:21:30 tens of thousands of years or longer, however, the
13:21:36 DEIS does not even look at monitoring or
13:21:40 maintaining a site for even a thousand years.
13:21:44 In the FCA study alluded to earlier,
13:21:50 scientists have estimated that radioactive wastes
13:21:54 could be exposed dangerously in as soon as 150
13:21:56 years. The full cleanup, if started today, would
13:22:00 take 65 years. To wait an additional 30 years
13:22:04 before even making a decision on what to do is
13:22:06 putting our communities and our water bodies of the
13:22:10 Great Lakes at an unacceptable risk.
13:22:14 Of course, this poses a serious -- if
13:22:18 catastrophic contamination were allowed to leak out
13:22:22 of the site, if it was left on site, it would pose
13:22:24 serious public health risks in the area.
13:22:26 In the FCA study it said that if a release
13:22:30 of just 1 percent of the radioactivity made its way

906-2 cont'd

906-3

in Chapter 6. Additional information about current and proposed monitoring and institutional controls is provided in Appendices C, H, and I. Chapter 2, Table 2–4, includes estimates of the environmental consequences if (1) monitoring and maintenance are successful (institutional controls remain in place) and (2) monitoring and maintenance programs fail (institutional controls are lost). Chapter 4, Section 4.2, of this EIS includes monitoring and maintenance costs for the alternatives that would leave waste on the site.

Detailed information regarding long-term monitoring and maintenance programs and institutional controls under alternatives that would leave radioactive waste stored on site has not been specifically defined at this time. Such definition would occur after an alternative is selected for implementation and would include consultation with appropriate regulatory authorities. An element of the long-term programs would be the development of plans and procedures for responding to emergencies. These plans and procedures would include coordination and agreements with local police and fire departments and medical facilities.

DOE disagrees with many of the points raised in NYSERDA's View, which is included as the Foreword to this EIS. At the core, differences between DOE and NYSERDA center on different views about the nature of analysis required for an EIS and the attendant level of acceptable risk associated with any uncertainties in that analysis as it relates to decisionmaking. DOE believes the analysis in this EIS meets the requirements of NEPA and SEQR in that, when there is incomplete or unavailable information relevant to reasonably foreseeable significant adverse environmental impacts, this EIS (1) acknowledges the information limitation and its relevance to environmental consequence, (2) summarizes existing credible scientific evidence, and (3) presents an analysis using a theoretical approach that is generally accepted by the scientific community involved in such analyses. This Final EIS contains text boxes in the relevant subject matter areas that acknowledge the differences of opinion between DOE and NYSERDA. In general, DOE's position is that the Agency spent much time and effort engaging highly qualified and respected experts in hydrology and hydrological transport, landscape evolution (erosion), human health and environmental risk analysis, and other technical fields and stands behind the analyses performed for this EIS.

906-3 DOE and NYSERDA have reviewed *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Site (Synapse Report)* by Synapse Energy Economics, Inc., and have addressed this report in this CRD consistent with the Council on Environmental Quality's

13:22:34 into local creeks and streams of the Great Lakes,
13:22:36 there could be hundreds of cancer deaths and would
13:22:38 cost hundreds of millions of dollars to supply
13:22:44 replacement water to the millions of people that
13:22:46 drink water from Lake Erie.
13:22:50 It is more expensive to leave waste on site.
13:22:52 The FCA study showed this. If we clean it up
13:22:56 quickly -- quickly clean it up now, we'll be paying
13:23:00 around $9 billion. If we wait to -- and we have to
13:23:04 maintain and monitor in the long term, with leakage
13:23:08 into the Great Lakes, we'll be paying anywhere from
13:23:12 13 to $27 billion.
13:23:16 Leaving waste on site is a tremendous threat
13:23:18 to the health of our Great Lakes. The Great Lakes
13:23:20 are the backbone really of our quality of life in
13:23:24 the region and to our economy. They supply over
13:23:26 40 million people with drinking water and support
13:23:30 billion-dollar industries such as fishing and
13:23:32 tourism.
13:23:32 In fact, site-seeing, tourism, recreation
13:23:36 supply over $50 billion to the regional economy of
13:23:40 the Great Lakes annually.
13:23:42 Recognizing this, there are a number of

906-3 cont'd

906-4

NEPA regulations. Please see the Issue Summaries for "Questions about Cost-Benefit Analysis" and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

906-4 Please see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

13:23:44 1 efforts under way and have been for years to
13:23:48 2 protect and restore this important water body. All
13:23:50 3 of these efforts, including the Great Lakes Water
13:23:54 4 Quality Agreement, the Great Lakes Regional
13:23:56 5 Collaboration Strategy, even more recently, the New
13:24:00 6 York State's Ecosystem-Based Management Report, all
13:24:04 7 of these stress as a priority the need to eliminate
13:24:10 8 the introduction of toxic substances into the Great
13:24:12 9 Lakes as a critical component of protecting and
13:24:14 10 restoring our lakes for future generations.
13:24:18 11 By leaving waste on site and risking
13:24:20 12 catastrophic contamination really flies in the face
13:24:24 13 and contradicts all of these efforts.
13:24:26 14 More recently, the Obama administration has
13:24:30 15 made unprecedented commitment to protecting the
13:24:34 16 lakes, including a $475 million Great Lakes
13:24:38 17 restoration initiative, will, among other things,
13:24:42 18 work to clean up legacy contamination.
13:24:46 19 If we leave waste on site, risk leaking
13:24:50 20 radioactive waste into the Great Lakes, again, we
13:24:52 21 contradict this important effort, and we threaten
13:24:56 22 the billions and billions of dollars that local,
13:24:58 23 state, and federal governments are investing in

906-4 cont'd

Response side of this page intentionally left blank.

protecting and restoring this precious resource.

It's critical for public health and for the future of the Great Lakes to clean these up -- clean this up as soon as possible.

Thank you.

MR. MURRAY: Thank you, Brian.

DR. TRIAY: Thank you.

THE FACILITATOR: Okay. Is there anyone else at Buffalo who would like to speak?

MR. CIESIELSKI: One more, unless Paul is going to speak.

My name is Robert Ciesielski. C-I-E-S-I-E-L-S-K-I. I'm chairman of the Sierra Club Niagara Group. Nationally, the Sierra Club has over 750,000 members with some 40,000 in New York State.

We're here to ask for the immediate cleanup of the West Valley nuclear site. We're opposed to a phased decision-making process concerning the site.

As we see the phased cleanup proposal, the major action of Phase I would be to demolish the process building and to remove the plume of

906-4 cont'd

907-1

907-1 DOE and NYSERDA acknowledge the commentor's support for immediate cleanup of the site and opposition to the Phased Decisionmaking Alternative. The decision on the selected course of action and supporting rationale will be documented in the DOE's Record of Decision and NYSERDA's Findings Statement.

radioactive strontium 90, which has developed nearby. There's additionally some talk of placing groundwater barriers to prevent groundwater contaminations.

The balance of the phased program will wait up to 30 years for further action. The Phase I cleanup would address only 1.2 percent of the total radioactive material on the site.

The other 99 percent of the radioactivity is to be addressed in Phase II, which includes the high-level waste tanks at both radioactive burial sites, the northern disposal and southern disposal area. All of these areas currently contain more than 600,000 Curies of radioactivity.

There are several serious issues with the phased cleanup. The first is that the site itself was located by a private enterprise in an area totally unsuitable for the storage of radioactive material.

The site is located on a peninsula between two creeks that flow into Cattaraugus Creek and then into Lake Erie, Niagara River, and Lake Ontario. Millions of people reside along the

907-2

907-3

907-2 It is estimated that DOE vitrified almost 70 percent of the long-lived radionuclides at WNYNSC during previous WVDP operations. These radionuclides are now contained in the vitrified high-level radioactive waste canisters currently in storage at WNYNSC and will be removed consistent with recommendations from the blue ribbon commission convened to address management and ultimate disposition of high-level radioactive waste and spent nuclear fuel. About another 1 percent of the remaining long-lived radionuclides would be removed during Phase 1 of the Phased Decisionmaking Alternative. A decision on the remaining approximately 30 percent of these radionuclides would be decided as soon as practicable, but no later than 10 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected (see below).

The Phased Decisionmaking Alternative included in the November 2008 Revised Draft EIS allowed for a Phase 2 decision to be made anytime after the Phase 1 decision, but no later than 30 years from issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative were to be selected. In response to public comments expressing concern about the length of time that could elapse between the Phase 1 and Phase 2 decisions, DOE and NYSERDA have reconsidered this timeframe for making a Phase 2 decision. As a result, the Phased Decisionmaking Alternative presented in this Final EIS specifies that a Phase 2 decision would be made no later than 10 years after issuance of the initial DOE Record of Decision and NYSERDA Findings Statement, if the Phased Decisionmaking Alternative is selected.

13:27:50 shores of these waters and depend on them for their
13:27:52 drinking water.
13:27:52 The site is built on soft, gravelly, porous
13:27:56 soil. It's not on bedrock. The problem with the
13:28:04 plume is that it's developed in an area of soft
13:28:06 soil, so it's migrating quite quickly.
13:28:10 Underneath the site is a sole-source
13:28:16 aquifer. We're aware of the strontium 90 plume.
13:28:20 There's already been substantial erosion of the
13:28:24 banks of the peninsula into Buttermilk Creek, one
13:28:30 of the tributaries of Cattaraugus Creek. The
13:28:32 recent floods have been addressed.
13:28:36 Of course, we must clean up the strontium 90
13:28:38 plume, which is part of Phase I; however, looking
13:28:42 at the age, the manner of construction, and the
13:28:46 location of the West Valley nuclear site waste
13:28:50 dump, the development of another plume is almost
13:28:54 guaranteed.
13:28:56 The original processing plant was built in
13:28:58 the 1960s. We've already waited 50 years for
13:29:04 removal of radioactive waste from this site.
13:29:06 Another 30 years is unconscionable.
13:29:10 Additionally, the high-level waste tanks on

907-3 cont'd

907-4

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907-3 Please see the Issue Summary for "Concerns about Potential Contamination of Water" in Section 2 of this CRD for further discussion of this issue and DOE's and NYSERDA's response.

907-4 Chapter 3, Section 3.6.2, of this EIS was revised to add additional information regarding the effectiveness of the North Plateau Groundwater Remediation System in reducing strontium-90. The history of the North Plateau Groundwater Plume is discussed in Chapter 3, Section 3.6.2.1, and Appendix C, Section C.2.13, of this EIS. The North Plateau is the only portion of the site where groundwater moves at a relatively rapid rate; therefore the North Plateau Groundwater Plume is the most mobile contamination on the site. Groundwater movement on the South Plateau is relatively slow because of the natural and engineered barriers that limit water infiltration and lateral flow. The extensive site characterization and monitoring data do not indicate the presence of any other plumes whose position would noticeably change over the next few decades. DOE and NYSERDA are adequately managing the North Plateau Groundwater Plume waste and contamination in its current configuration and releases are minimal, as demonstrated by the results from the ongoing environmental monitoring program that are reported in the annual site environmental reports.

All of the proposed decommissioning alternatives addressed in this EIS include provisions to remove or control the spread of the North Plateau Groundwater Plume. This EIS analyzes both the short- and long-term environmental consequences of these decommissioning alternatives, including the consequences to offsite and potential onsite individuals as a result of erosion across the site and movement of the North Plateau Groundwater Plume, as well as the consequences of various management strategies for the plume.

Implementation of the Phased Decisionmaking Alternative (the Preferred Alternative) would make an important advance in the decommissioning of WNYNSC within the initial 8 years. The cleanup that would take place during Phase 1, as explained in Chapter 2, Section 2.4.3, of this EIS, would reduce or eliminate potential health or environmental impacts by removing major facilities (such as the Main Plant Process Building and lagoons). In addition, the source area for the North Plateau Groundwater Plume would be removed, thereby

Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

13:29:14 1 the facility are nearing 50 years of age, which is
13:29:16 2 their usual lifespan. All of the storage
13:29:20 3 facilities and retention areas are aging, and as
13:29:22 4 any engineer will attest, they will be breaking
13:29:26 5 down in the relatively harsh winters of the West
13:29:32 6 Valley area, which is located in the Lake Erie
13:29:34 7 snowbelt.
13:29:34 8 The problem is -- with waiting to clean up
13:29:38 9 one plume at a time is that the expense increases
13:29:44 10 astronomically. As I understand the economic
13:29:46 11 estimate of the cost of the phased cleanup, the
13:29:52 12 Phase I would cost between 1.5 and $2 billion. To
13:29:56 13 clean up the entire site at this time would cost
13:30:00 14 somewhat less than $10 billion. The cleanup of one
13:30:04 15 or two additional plumes would cost as much as the
13:30:08 16 full cleanup completed now.
13:30:12 17 If the radioactivity does contaminate the
13:30:16 18 waterways and lakes, just attempting to provide
13:30:18 19 clean water for the populations which draw their
13:30:24 20 waters from Cattaraugus Creek and the watershed
13:30:26 21 would be three times the cost of a current cleanup.
13:30:30 22 The drinking water is only a portion of the
13:30:34 23 problem. You also have the effects on recreation,

907-6

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907-8

reducing the source of radionuclides that are potential contributors to human health or environmental impacts.

907-5 Please see the response to Comment no. 907-2.

907-6 DOE recognizes and has been managing the hazard associated with the underground tanks in the Waste Tank Farm. Following removal and solidification of the majority of the Waste Tank Farm inventory, DOE has developed and is implementing actions to reduce the potential for a leak from the underground tanks. Specifically, it is working to install a tank and vault drying system designed to dry the liquid heel remaining in the waste tanks. The installation of this system and the drying of the tank inventories is part of the Interim End State or EIS starting point. In addition to drying the tanks to reduce the potential for a leak, DOE operates the groundwater pumping system that reduces groundwater seepage into the tank vaults while still maintaining a hydraulic gradient so that any liquid flow is into, rather than out of, the vault system. DOE also maintains the tank leak detection equipment located in the tank pans and vaults and regularly samples the monitoring wells surrounding the tank vaults to ensure no leakage into the groundwater. Mitigation measures would be taken if any leakage were detected. It should be noted that none of the high-level waste tanks has ever leaked. While there is no quantitative estimate of risk from the tanks while the contents are being dried, it is clear that the risks are being further reduced by tank drying.

Additionally, much of the residual contamination in the tanks is attached (i.e., "fixed") to metal surfaces and is not readily mobile. Chapter 2, Section 2.3.1, of this EIS, as well as text in the *Phase 1 Decommissioning Plan for the West Valley Demonstration Project (Phase 1 Decommissioning Plan)*, have been clarified to acknowledge that the liquids remaining in the tanks will be dried as a result of installation and operation of the tank and vault drying system and that this drying will be complete before any Waste Tank Farm decommissioning actions are initiated.

DOE and NYSERDA actively maintain all facilities in a safe configuration and would continue to do so under the Phased Decisionmaking Alternative, if it is selected.

907-7 Chapter 4, Section 4.2, of this EIS presents an evaluation of cost-benefit considerations related to the alternatives. Section 4.2.1 compares costs; Section 4.2.2 summarizes the population doses for different work elements from each alternative; and Section 4.2.3 discusses the cost-effectiveness of each

13:30:36 fish, birds, and wildlife.
13:30:40 There are other reasons for a full cleanup
13:30:42 now. While Phase I presumes that the source of the
13:30:46 current plume is from the process building in its
13:30:50 vicinity, compared to the other possible sources of
13:30:56 the plume and, of course, the cost of cleaning a
13:30:58 second plume, whether from an error in detecting
13:31:02 the source of the present strontium 90 or another
13:31:04 plume developing within five years, would be at
13:31:08 least another $2 billion.
13:31:10 And what happens if another plume would
13:31:12 develop from the radioactive waste buried some
13:31:16 70 feet deep below the soil, that much closer to
13:31:22 the aquifer?
13:31:22 So the common-sense solution both
13:31:24 economically and from many viewpoints is for the
13:31:28 complete cleanup versus a Band-Aid put on a plume
13:31:32 that's now proven to be in effect.
13:31:36 We realize that the Department of Energy is
13:31:40 monitoring a number of radioactive sites throughout
13:31:42 the United States. West Valley may appear to be
13:31:46 just one more problem to leave as is, but it is the
13:31:52 unique location and potential to affect millions of

907-9

decommissioning alternative. The costs stated in the comment appear to be taken from the *Synapse Report.* Please refer to the Issue Summary on "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of costs and DOE's and NYSERDA's response.

907-8 The potential human health impacts of the alternatives evaluated in this EIS are presented in Chapter 4, Section 4.1.9 (short-term), Section 4.1.10 (long-term), and 4.1.12 (transportation). Chapter 2, Section 2.6, presents a summary to facilitate a comparison of these potential impacts on public health and safety across the alternatives. Chapter 4, Section 4.1.6, of this EIS also presents the results of an ecological risk assessment showing the projected long-term ecological impacts of the alternatives. The results of the human health and ecological impacts analysis imply that any impacts on recreation or fishing would be negligible. The Issue Summary on "Concerns about Potential Contamination of Water" discusses potential impacts on offsite and Great Lakes water users.

907-9 The extensive WNYNSC environmental monitoring program, which is designed to detect possible movement of contamination on the site, as well as specialized studies, have concluded that the source of the North Plateau Groundwater Plume is the Main Plant Process Building.

Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

people with radioactive waste stored here that is very much greater than other sites, for the control of contamination may be made easier by climate and distance from freshwater drinking supplies.

One other issue I'd like to address. A number of legislators and elected officials from Western New York and throughout New York State had requested a full cleanup at this time. The legislators of Cattaraugus County, where the site is located, Erie County and Niagara County have all passed referendums requesting full cleanups.

Along the shores of Lake Erie, resolutions have been passed by the Town of Evans, the City of Lackawanna, the City of Buffalo, which is a population of some 300,000 people, the Town of Tonawanda, the City of Tonawanda, and the Town of Amherst.

Both United States senators from New York, Charles Schumer and Kirsten Gillibrand, and over half the state congressional representatives contacted you and requested a full and immediate cleanup.

Additionally, some three dozen state

907-10 **907-10** DOE and NYSERDA note the comment.

13:33:06 senators and assembly persons have made a similar
13:33:10 request.
13:33:10 So we're asking the New York State
13:33:12 Department of Research & Development Agency to
13:33:16 please reassess its position about a phased
13:33:20 removal.
13:33:20 We're making a plea to Mr. Murray, sir, to
13:33:26 consider the will of the people of the State of
13:33:28 New York. The health of millions of people is at
13:33:32 stake. The health of the economy of Eastern Lake
13:33:36 Erie, the Niagara River, and Lake Ontario are at
13:33:40 stake, including fish, bird life, wildlife, and
13:33:42 plant life.
13:33:42 The economic health of the areas, including
13:33:46 industries which use water from the Great Lakes and
13:33:48 the tourist industry, are all at stake.
13:33:52 You may be concerned now about funding at
13:33:56 this time of financial hardship, but by the time
13:33:58 the monies become acquired for the cleanup, which
13:34:04 as Brian mentioned, will take years, the New York
13:34:06 State economy will have rebounded and the monies
13:34:08 will be available for the project. This is a
13:34:10 project which must be accomplished in full.

907-10 cont'd

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

13:34:12 Thank you.
13:34:14 **MR. MURRAY:** Thank you, Robert.
13:34:20 **THE FACILITATOR:** All right. Is there
13:34:22 anyone else in Buffalo who would wish to speak?
13:34:30 **UNIDENTIFIED SPEAKER:** No.
13:34:32 **THE FACILITATOR:** That was a no?
13:34:36 **MS. D'ARRIGO:** Linda?
13:34:36 **THE FACILITATOR:** Yes.
13:34:36 **MS. D'ARRIGO:** This is Diane. I have just
13:34:38 two more points I wanted to make after everyone
13:34:42 else has had a chance.
13:34:44 **THE FACILITATOR:** Well, someone else also
13:34:46 wants to make the last points.
13:34:48 **MS. D'ARRIGO:** They don't have to be last.
13:34:50 **THE FACILITATOR:** Okay. Then go right
13:34:50 ahead.
13:34:52 **MS. D'ARRIGO:** Oh, okay. I wanted to say
13:35:00 that the discount rate -- in the environmental
13:35:02 impact statement, there is an assumption about an
13:35:04 economic discount rate, and the full cost
13:35:08 accounting study, The Real Costs of Cleaning Up
13:35:10 Nuclear Wastes at West Valley makes a very strong
13:35:14 case.

903-9

903-9 DOE and NYSERDA have reviewed *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Site (Synapse Report)* by Synapse Energy Economics, Inc., and have addressed this report in this CRD consistent with the Council on Environmental Quality's NEPA regulations. Please see the Issue Summaries for "Questions about Cost-Benefit Analysis" and "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of these issues and DOE's and NYSERDA's responses.

The cost-benefit analysis presented in Chapter 4, Section 4.2, of the Revised Draft EIS was performed to support NRC's request for cost-benefit information consistent with its as low as is reasonably achievable (ALARA) analysis guidelines. This cost-benefit analysis follows the principles in the NRC ALARA guidance presented in NUREG-1757, "NRC Consolidated Decommissioning Guidance." The analysis in Section 4.2 has been revised for this Final EIS and uses several discount rates (1, 3, and 5 percent) to investigate the sensitivity of the results to a range of discount rates. The use of a single discount rate of zero for the ALARA analysis is not consistent with the NRC guidance.

13:35:14 There's a whole chapter on the immorality
13:35:18 and the problems with using a discount rate, and so
13:35:22 we are asking that a discount rate not be used in
13:35:26 making the economic calculations for the site
13:35:28 cleanup.
13:35:30 Also, there were unfair -- there were not
13:35:36 the same assumptions used in all of the different
13:35:38 options so that when you're looking at it
13:35:40 economically, it looks like it's more expensive to
13:35:42 do the full cleanup than it really might be.
13:35:46 Secondly, global warming was not considered,
13:35:50 was not included in the evaluations in the EIS.
13:35:52 And, obviously, with global warming, what we're
13:35:54 seeing is a chance for more storms like the one
13:35:58 that took place the weekend of August 9th in
13:36:02 Western New York.
13:36:02 And, finally, I had thought that there would
13:36:06 be someone from the Seneca Nation of Indians
13:36:08 speaking, and I wanted to just convey that the
13:36:12 Seneca Nation of Indians has a very strong position
13:36:14 for the full cleanup of the site, as they testified
13:36:18 at the hearing in Irving, New York, as it was
13:36:20 presented at the press conference Tuesday in

903-9 cont'd

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903-11

903-10 The analysis in this EIS recognizes the potential for climate change to influence the long-term consequences of waste management. Climate changes, whether natural or influenced by human actions, could change the nature and amount of precipitation. Appendix H, Section H.3.1, of both the Revised Draft EIS and the Final EIS discusses the sensitivity of groundwater flow to changes in annual precipitation. The revised erosion prediction used for the unmitigated erosion dose analysis is based on the assumption that storms could occur more frequently than indicated by current records. This prediction includes the effects of storms of greater severity than the one that occurred in the region in August 2009. The use of this higher erosion rate associated with an elevated precipitation rate is discussed in Appendix H, Section H.2.2.1. Chapter 4, Section 4.3.5, has been revised to include a discussion of how the uncertainties about future climate change are addressed in this EIS.

903-11 DOE and NYSERDA note the comment.

13:36:24 Buffalo in front of the NYSERDA offices and their
13:36:28 ongoing position. And I believe that they have
13:36:32 also done additional comments.
13:36:34 So I just wanted to make those three points,
13:36:36 and then also put it in the perspective that the
13:36:40 Department of Energy, just as I was walking down
13:36:42 the hall to come to this office, has many offices
13:36:46 promoting new nuclear power, new reprocessing. And
13:36:48 that's the waste that we're dealing with here, just
13:36:50 from six years of reprocessing and from about
13:36:56 12 years of burial.
13:36:56 And I think that it should be a condition of
13:37:00 producing any more of this waste that this
13:37:02 particular site be cleaned up because it is the
13:37:06 waste that resulted from those practices. And we
13:37:10 need to not pretend that that waste can be dealt
13:37:14 with if, in fact, we really can't deal with this
13:37:16 waste.
13:37:18 Thanks.
13:37:20 **THE FACILITATOR:** All right. We have one
13:37:22 more speaker here. That would be Jim Rauch.
13:37:26 Is that true, Jim?
13:37:28 **MR. RAUCH:** Yes. I'm just wondering if Tony

Response side of this page intentionally left blank.

13:37:30 wanted to make a comment. I guess not.
13:37:32 **THE FACILITATOR:** He previously did not.
13:37:34 **MR. RAUCH:** Okay. My name is Jim Rauch,
13:37:38 R-A-U-C-H. I've been involved in a number of
13:37:44 nuclear waste sites over the years, dating back to
13:37:46 the early '80s, and so I'm hoping to bring to
13:37:52 Mr. Murray and Ms. -- Dr. Triay the perspective of
13:37:58 a number of years and experience at other sites as
13:38:00 well.
13:38:06 I'd like to just maybe open my comments with
13:38:08 some of that experience and ask Frank Murray if
13:38:14 he's aware that at the Manhattan Project,
13:38:22 Tonawanda, New York, site, a citizen lawsuit was
13:38:28 basically taken out of court by an act of Congress
13:38:34 that took the site from DOE and gave it to Army
13:38:40 Corps of Engineers to implement.
13:38:46 **MR. MURRAY:** No, I was not aware.
13:38:50 **MR. RAUCH:** That happened, that transfer of
13:38:54 implementation but not responsibility for the
13:39:00 so-called FUSRAP site, Formerly Utilized Site
13:39:04 Remedial Action Program sites, which are actually
13:39:10 federal liabilities from sites that were improperly
13:39:12 abandoned following the Manhattan Project and early

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13:39:16 Atomic Energy Act, energy commission activities.
13:39:22 Problems at these sites has prompted the
13:39:24 federal Department of Energy to come back and
13:39:28 address issues.
13:39:30 For example, at Tonawanda, concentrations
13:39:32 way in excess of source material licensed
13:39:36 concentrations were left at that site in the '50s.
13:39:42 An oil refinery was built where the waste residues
13:39:46 were disposed of south of the -- east of the South
13:39:50 Grand Island Bridge, and it's become a massive
13:39:52 remediation.
13:39:54 The Linde Air Products Company, division of
13:40:00 Union Carbide, was the principal contractor in the
13:40:02 '40s for the Manhattan Project in this area. They
13:40:06 did refining of uranium ores, including very high
13:40:10 radium content ores from the Belgian Congo up to
13:40:14 65 percent uranium. Very high radium-bearing ores.
13:40:22 And these were refined in Tonawanda, now the
13:40:24 Praxair facility. It was, at that point, Union
13:40:28 Carbide's Linde division.
13:40:30 The refining of these ores produced some of
13:40:36 the U-235 that went into the Hiroshima bomb. Many
13:40:40 people in Buffalo aren't even aware of that. Or in

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13:40:44 1 New York State, for that matter.
13:40:46 2 And, yet, we have a multi -- it's going to
13:40:48 3 be hundreds of millions of dollars eventually to
13:40:50 4 clean this site up properly.
13:40:52 5 In any case, DOE did a $6 million
13:40:58 6 environmental impact study. SAIC was involved, as
13:41:00 7 it is here at West Valley. That study came up with
13:41:06 8 cleanup criteria on the order of 60 picoCuries per
13:41:10 9 gram for uranium.
13:41:16 10 The Army Corps, after Congress transferred
13:41:18 11 the implementation of FUSRAP, but once again, not
13:41:24 12 the legal responsibility, which remains with DOE,
13:41:28 13 to Army Corps -- basically what that did, Frank,
13:41:32 14 was it took the AEA regulatory regime out of the
13:41:36 15 picture.
13:41:38 16 Congress first just transferred the program
13:41:40 17 in the first fiscal year, which was 1997, if my
13:41:46 18 memory's correct. And then in the following year,
13:41:50 19 they gave the further direction to use CERCLA for
13:41:56 20 the decision process -- the cleanup decision
13:41:58 21 process.
13:42:00 22 The use of CERCLA basically took our court
13:42:04 23 case out of court, because under CERCLA, the SARA

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13:42:08 Amendments of 1986, citizens can't sue until a
13:42:14 cleanup is implemented and completed.
13:42:16 So we had sued for the Atomic Energy Act --
13:42:18 when I say we, I'm talking about a group of Praxair
13:42:22 employees and local citizens called F.A.C.T.S., For
13:42:26 A Clean Tonawanda Sites.
13:42:28 I'm curious if you ever heard of this
13:42:30 organization.
13:42:32 **MR. MURRAY:** No.
13:42:36 **MR. RAUCH:** We had a pro bono attorney who
13:42:40 came to us from the Mid-Atlantic States Legal
13:42:42 Foundation, and he brought the case. And he also
13:42:44 worked for Westlaw as an editor. A very thorough
13:42:50 researcher. He had a lot of research capabilities.
13:42:54 He brought what I thought was quite a good
13:42:56 case, calling for NRC regulation to be applicable
13:43:02 under UMTRCA Title II at Tonawanda because
13:43:08 Tonawanda had a state license for this material.
13:43:14 The amendment was put on prior to the
13:43:16 enactment of UMTRCA, the Uranium Mill Tailing
13:43:20 Radiation Control Act, in 1980. The license
13:43:24 amendment for Linde, who had other radioactive
13:43:30 materials on site, for testing of wells, et cetera,

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13:43:34 sources.
13:43:34 That the uranium material had contaminated
13:43:36 the site and was illegally left at high
13:43:40 concentrations following ADC's accessing and
13:43:44 withdrawal from the property in the early '50s,
13:43:50 that those concentrations were subject to
13:43:54 regulation.
13:43:56 And so what happened was they were regulated
13:43:58 under the New York State agreement with NRC.
13:44:02 New York State was an agreement state in 1962, and
13:44:06 under that agreement, New York State was approached
13:44:10 by the DOE predecessor at that point -- or I guess
13:44:18 it was DOE -- 1974, right? It was DOE.
13:44:24 And they had a meeting at Linde, and the
13:44:28 state was involved, and the outcome of that meeting
13:44:32 was that they would put a license amendment
13:44:38 covering the uranium materials that were
13:44:40 contaminating that facility. It was placed, and
13:44:44 then it was removed illegally by DOL Commissioner
13:44:48 Sweeney in 1996.
13:44:52 Our organization wrote a letter to
13:44:54 Commissioner Sweeney protesting the removal. It
13:45:00 was Rita Aldrich was then in charge of that

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13:45:04 license, and she terminated it illegally.
13:45:06 State Code Rule 38 required that site to be
13:45:08 properly decontaminated under the state code rule.
13:45:12 It was not. The license was terminated, and DOE
13:45:16 was allowed basically to do what they wanted to do
13:45:18 with that site. The state totally abdicated its
13:45:22 responsibility at Tonawanda.
13:45:26 Are you aware of that?
13:45:28 **MR. MURRAY:** No, Jim.
13:45:34 **MR. RAUCH:** Do you think you should be?
13:45:38 **MR. MURRAY:** Well, I guess my own response,
13:45:40 Jim, is you're talking about events, as important
13:45:42 as they are, that go back 15, 20, and in some
13:45:46 cases, almost 40 years.
13:45:50 **MR. RAUCH:** I'm sorry. They go back to the
13:45:52 '90s. The lawsuit that our organization brought
13:45:56 was in 1998, two years after the initial West
13:46:02 Valley draft, 1996, we had a site-wide draft here
13:46:06 at West Valley.
13:46:10 I'm trying to shed a little experience here,
13:46:14 Mr. Murray. Sorry to call you Frank, but, you
13:46:18 know, Mr. Murray, it's --
13:46:18 **MR. MURRAY:** It's all right.

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13:46:20 **MR. RAUCH:** I'm trying to give you a little
13:46:22 bit of experience, where experienced citizens are
13:46:28 coming from here.
13:46:28 The state failed miserably at Tonawanda.
13:46:32 Army Corps implemented -- is implementing a ROD at
13:46:36 Tonawanda that was subject of national scrutiny.
13:46:40 3,000 picoCuries per gram surface -- I'm sorry --
13:46:46 600 picoCuries per gram surface, 3,000 picoCuries
13:46:52 per gram subsurface. That's their cleanup level.
13:46:56 The appropriate cleanup level for Tonawanda
13:46:58 is 10 picoCuries per gram as determined by the NRC
13:47:04 in a 1981 branch technical position paper that has
13:47:08 been applied at other sites referred to as surplus
13:47:12 SDMP sites.
13:47:16 Because Tonawanda was a big site and the
13:47:18 Department of Energy secretary at the time UMTRCA
13:47:22 was passed did not want the site included in
13:47:26 Title I, which were these western mill tailing
13:47:28 sites that were horribly contaminated where people
13:47:34 were getting lung cancer from residues being used
13:47:36 in building materials, the energy secretary didn't
13:47:42 think Tonawanda deserved to be in Title I, so it
13:47:44 wasn't addressed quickly.

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13:47:46 1 It, therefore, became subject to Title II,
13:47:48 2 which meant it's subject to NRC regulations,
13:47:52 3 including this branch technical position, which is
13:47:54 4 what we were arguing for, and which should be
13:47:56 5 appropriately applied at Tonawanda because the area
13:48:00 6 at Tonawanda is choice riverfront in the case of
13:48:04 7 the Ashland property.
13:48:06 8 In the case of Linde, it's prime -- it was
13:48:08 9 originally prime agricultural land, and over the
13:48:12 10 course of the hazard period for these wastes, well
13:48:16 11 over 500,000 years, the site's going to see
13:48:22 12 intensive reuse, and it's likely going to see
13:48:26 13 agriculture use again.
13:48:26 14 So NRC rightly says, for a resident farmer,
13:48:30 15 these uranium mill tailing sites need to be cleaned
13:48:34 16 up to 10 picoCuries per gram. We didn't get that.
13:48:36 17 The state failed us.
13:48:38 18 Enough said about Tonawanda.
13:48:38 19 We've got a similar problem at Lewiston.
13:48:42 20 We've got residues from Tonawanda and from
13:48:46 21 Mallinckrodt in St. Louis during the Manhattan
13:48:52 22 Project years. These same Belgian Congo K-65 ores
13:48:58 23 were processed in St. Louis. There's 2,000 Curies

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13:49:02 of radium 226 out at the Niagara Falls storage
13:49:06 site. This is a federally-owned property owned by
13:49:08 DOE.
13:49:08 Army Corps has been given the task to decide
13:49:12 what to do with it, but it's DOE's responsibility.
13:49:16 They've abdicated it. An MOU, basically, DOE
13:49:20 decided to let Army Corps go ahead and do their
13:49:22 thing, and then maybe afterwards, they'll try and
13:49:24 figure out if it's enough. Well, if it isn't
13:49:28 enough in Tonawanda, it's not likely to be enough
13:49:30 at Lewiston.
13:49:32 There's a tumulus there in the '80s. A
13:49:36 real -- to my way of thinking, it was the first
13:49:40 time I ever saw NEPA so thoroughly trashed.
13:49:46 A draft EIS was released while interim
13:49:50 actions were going on. These K-65 residues were in
13:49:54 a silo following their deposition there in the
13:49:58 '50s. They were slurried into the basement of a
13:50:00 building, and other wastes that had escaped down
13:50:02 the drainage-ways from the site that were just
13:50:06 littered and left on the surface were scraped back
13:50:08 up and put in this tumulus.
13:50:10 The tumulus with -- an interim cap was

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placed over this tumulus, and the object of the environmental impact statement was whether to put a final clay cap over the tumulus. This was all done under interim actions.

We're seeing the same type of thing at West Valley. Interim actions are occurring now that are geared toward putting the site into a long-term, onsite management mode. They're illegally being done, in my opinion.

So now we have, at Tonawanda, you know, this tumulus. There's a news report recently that, you know, there's leaks. Army Corps is denying that it's coming from the tumulus.

The bottom of this tumulus doesn't meet the NRC standards 10 CFR 40, Appendix A criteria, which call for the site must meet 200 years minimum that it doesn't contaminate environmental media, preferably a thousand years.

It's an unlined -- it's a native soil bottomed landfill. The sides are engineered clay, and the cap is engineered clay, but the bottom isn't. It's full of discontinuities. The local soils are. It's likely leaking.

908-1

908-1 Chapter 2, Section 2.3.1, of this EIS addresses the activities that would be completed before the starting point of the EIS, called the Interim End State. As stated in that section, these various closure, decontamination, removal, disposal, and other activities have been evaluated in prior NEPA reviews.

13:51:34 It's half a million dollars a year to
13:51:36 maintain that site, according to Bob Seay of DOE.
13:51:40 It would cost a couple hundred million to have
13:51:44 cleaned it up properly in the '80s. Do the math.
13:51:48 **MS. D'ARRIGO:** This is Diane in Washington.
13:51:50 I wanted to just -- I don't want to cut off
13:51:54 anything, but I really would like to hear from
13:51:58 Dr. Triay and Frank Murray at some point what it's
13:52:00 going to take to get a full cleanup decision at
13:52:04 West Valley. And we only have about 12 minutes, so
13:52:06 let's gauge that into how much more time we talk
13:52:10 about the other sites --
13:52:10 **MR. RAUCH:** Thank you.
13:52:12 **MS. D'ARRIGO:** -- which are very important
13:52:14 and instructive.
13:52:14 **MR. RAUCH:** Thank you, Diane, for orienting
13:52:18 me to the time. I wasn't really paying attention.
13:52:20 Because I would like to focus on West Valley in the
13:52:22 remaining time here.
13:52:24 **MS. D'ARRIGO:** But we also want to hear from
13:52:26 them too, so you don't get all 12.
13:52:28 **MR. RAUCH:** Well, they don't appear to have
13:52:30 much to say, Diane. In other words, they're not

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13:52:34 familiar with what's happened at other sites, and they should be, and that's why I give this background.

A lot of money is being spent at these other sites and has been spent, and it hasn't been spent effectively.

For example, at West Valley, this plume that people talk about, strontium plume, this occurred during operations when NFS, the operator, had a spill in one of the buildings, soaked into the concrete. Had it been addressed then properly by the state regulator or, you know, the NRC, that would have been remediated at less than a million dollars cost. But instead, it was left there, like a sponge, to soak out into the groundwater, that north plateau.

Now the draft impact statement, which delays implementation, is talking about $2 billion to clean up 200 Curies of strontium. It's ridiculous. It's a total failure of waste management.

The FCAS, full cost accounting study, says it will cost 1.5 billion if they start more quickly. So we're looking here at -- we're looking

908-2

908-2 The costs stated in the comment appear to be taken from the *Synapse Report.* Please refer to the Issue Summary on "Conclusions of the *Synapse Report*" in Section 2 of this CRD for further discussion of costs and DOE's and NYSERDA's response.

here at, you know, the more we delay, the more it's going to cost.

MR. CIESIELSKI: Excuse me, Ms. Robinson.

THE FACILITATOR: Yes.

MR. CIESIELSKI: Could we hear from Mr. Murray, perhaps? I appreciate this gentleman's comments also, but could we hear, as Diane mentioned, a little bit from Mr. Murray and some of the others, please?

THE FACILITATOR: Are you willing to --

MR. RAUCH: No, I'm not. I'd like to continue with what I have to say. I'd like to briefly talk about this recent August weather event.

MR. CIESIELSKI: Sir?

MR. RAUCH: Yes.

MR. CIESIELSKI: Sir, I appreciate your comments, but --

DR. TRIAY: Let's go ahead and continue, you know, for a moment. We will make it a point, you know, for Frank and I to have some time, you know, to discuss, you know, so let's let the speaker -- Frank, do you have a very hard deadline at 2 p.m.?

908-2 cont'd

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13:54:58 **MR. MURRAY:** No. I'm here, Secretary.
13:55:02 **DR. TRIAY:** Okay. Very good. So maybe --
13:55:06 maybe another five to ten minutes so that we can
13:55:10 understand, you know, the comments, and then Frank
13:55:12 and I will address the stakeholders.
13:55:20 **MR. RAUCH:** Thank you.
13:55:22 I'd like to address this August severe
13:55:26 storms event that happened on the 8th, 9th, and
13:55:28 10th of August that affected West Valley. It
13:55:30 affected the whole Cattaraugus Creek watershed,
13:55:34 basically.
13:55:34 My father was a weatherman in World War II,
13:55:36 stationed on Gander, Newfoundland, and so I have
13:55:40 great interest in weather.
13:55:40 The -- I'll just read a brief statement here
13:55:44 about what happened in this weather event.
13:55:48 The three-day August 8th to 10th
13:55:50 thunderstorm event in the Cattaraugus County
13:55:56 watershed was an excursionary rainfall event for
13:55:58 the local area. It created a new high flow record
13:56:00 for Cattaraugus Creek. It was preceded by
13:56:02 approximately two inches of rainfall on 8/5, the
13:56:08 prior Wednesday, which left area soils well-wetted,

908-3 **908-3** Storms of the magnitude of the August 2009 storm in Cattaraugus County have been accounted for in the erosion analysis in Appendix F of this EIS. The analysis in the EIS recognizes the potential for climate change to influence the long-term consequences of waste management. Climate changes, whether natural or influenced by human actions, could change the nature and amount of precipitation. Appendix H, Section H.3.1, of both the Revised Draft EIS and the Final EIS discusses the sensitivity of groundwater flow to changes in annual precipitation. The revised erosion prediction used for the unmitigated erosion dose analysis is based on the assumption that storms could occur more frequently than indicated by current records. This prediction includes the effects of storms of greater severity than the one that occurred in the region in August 2009. The use of this higher erosion rate associated with an elevated precipitation rate is discussed in Appendix H, Section H.2.2.1. Chapter 4, Section 4.3.5, has been revised to include a discussion of how the uncertainties about future climate change are addressed in this EIS.

13:56:10 1 if not saturated. A very important point that
13:56:12 2 shouldn't be ignored.
13:56:14 3 Doppler radar data collected by the NWS
13:56:18 4 service Buffalo office indicated that approximately
13:56:20 5 four inches of rain fell in the West Valley area
13:56:22 6 during the 8/9, Sunday, 24-hour period. This was
13:56:26 7 from an initial conversation with Steve McLaughlin
13:56:30 8 from Buffalo NWS.
13:56:32 9 Doppler radar rainfall estimates can be in
13:56:36 10 error by as much as 50 percent or more. This
13:56:40 11 according to Dave Zaff, NWS Buffalo.
13:56:42 12 Fortunately, a conscientious NWS spotter in
13:56:46 13 Perrysburg, 20 miles to the west of the western
13:56:48 14 Cattaraugus Creek corridor, an area where the
13:56:52 15 greatest rainfall intensity occurred during this
13:56:54 16 three-day event, using an NWS manual rain gauge,
13:56:58 17 determined that 5.9 inches of rain fell in a single
13:57:00 18 hour-and-a-half period Sunday evening, and a total
13:57:02 19 of 7.27 inches fell for the 24-hour period Sunday.
13:57:08 20 The maximum intensity was estimated by NWS
13:57:10 21 Buffalo to be approximately five inches per hour.
13:57:12 22 This rate was derived from the ground truth
13:57:16 23 measurements by the spotter in Perrysburg, which

908-3 cont'd

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

13:57:18 enabled the Buffalo NWS to adjust its radar image
13:57:22 rates and totals by approximately less one inch.
13:57:24 This is a direct quote from NWS: Over the
13:57:26 course of a couple of hours late Sunday evening,
13:57:30 roughly between 10:30 p.m. and 12:30 a.m., some of
13:57:32 the highest short-term rainfall totals ever
13:57:34 recorded in Western New York occurred, with as much
13:57:38 as five inches per hour near Perrysburg and
13:57:42 Silver Creek, end quote.
13:57:44 Buffalo office meteorologist Tom Niziol was
13:57:48 reported in the Buffalo News to say that such
13:57:50 intensity is more typical of hurricane areas in the
13:57:52 southern states. This was clearly an excursionary
13:57:56 rainfall event for this area, likely indicative of
13:57:58 climate change and worse events to come.
13:58:02 I have some images here that you probably
13:58:06 can't see, but this is the Buffalo office's storm
13:58:10 total, and it shows one gray rectangle, about five
13:58:18 miles west of the Perrysburg spotter's location,
13:58:24 where possibly just under nine inches fell.
13:58:28 This is using the spotter's ground truthing
13:58:32 with a plus one inch adjustment. This silver area
13:58:38 is up to eight inches. Anywhere between 6 and

908-3 cont'd

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13:58:42 8 inches. So that area centered on the Silver
13:58:46 Creek reservoir area is where the heaviest
13:58:48 precipitation in this event occurred.
13:58:52 **THE FACILITATOR:** Would you be willing to
13:58:56 have this offer that you have just been given to
13:58:58 speak at another time?
13:59:00 **MR. RAUCH:** Well, no. I'd just like to
13:59:02 finish this. It will be a couple more minutes.
13:59:04 **THE FACILITATOR:** Well, then she will need
13:59:06 to leave probably.
13:59:06 **MR. RAUCH:** Well, I just want to --
13:59:06 **DR. TRIAY:** It's all right. Give him a
13:59:08 couple more minutes.
13:59:08 Go ahead, sir. Please put the pictures on
13:59:12 the record, you know, so that my staff can PDF
13:59:16 those images to me and to Frank.
13:59:18 **MR. RAUCH:** Yes, I will.
13:59:18 **DR. TRIAY:** Go ahead.
13:59:20 **MR. RAUCH:** Thank you.
13:59:20 While this was not the maximum short-term
13:59:24 total event possible in the area -- for example, in
13:59:26 1947, 20 inches fell in nearby Erie, Pennsylvania,
13:59:32 in a 24-hour period. I don't have any intensity

908-3 cont'd

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Comments from the West Valley, New York, Video Teleconference (September 4, 2009)

13:59:36 data on that event. 24 -- 20 inches in 24 hours
13:59:42 could be less than an inch an hour.
13:59:44 Intensity is very important here because
13:59:46 once the ground is saturated, you know, virtually
13:59:50 all that falls runs off, and that's why we saw a
13:59:52 five-foot surge in Cattaraugus Creek. A five-foot
13:59:58 wall of water basically came down Cattaraugus Creek
14:00:00 and caused all that damage downstream in the low
14:00:04 land areas, Gowanda, et cetera.
14:00:08 The latest EIS for the West Valley site,
14:00:12 approved for release by both NYSERDA and DOE,
14:00:16 assumes continuation of previous climate conditions
14:00:20 and does not consider or attempt to evaluate
14:00:22 impacts resulting from such climate change. It is
14:00:26 simply foolish to ignore climate change, especially
14:00:30 its excursionary aspects.
14:00:32 It is precisely these excursionary storm
14:00:36 events that will hasten the inevitable breaching of
14:00:38 the burial grounds and other facilities at West
14:00:42 Valley. The 150- to 300-year worst-case breaching
14:00:48 predictions may turn out, in fact, to be
14:00:50 conservative if we see accelerating climate change.
14:00:54 I have another graphic here that I will

908-3 cont'd

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14:00:56 enter into the record. This was the Buffalo
14:01:00 weather service -- by the way, both Dr. Triay and
14:01:04 Mr. Murray, I refer you to the Buffalo Weather
14:01:08 Office Web site. There are two links there, two
14:01:12 summaries of the two events that occurred on
14:01:16 Sunday. There was an early storm event in the
14:01:18 afternoon and an evening storm event.
14:01:20 The early -- the early event included a term
14:01:28 I hadn't even been familiar with, derecho,
14:01:34 D-E-R-E-C-H-O, which is a bowed-front thunderstorm
14:01:38 line that has high winds. In fact, the area
14:01:40 experienced 70-plus miles an hour winds.
14:01:44 So this is, you know, much more damaging,
14:01:46 according to the NWS Buffalo, than a tornado, which
14:01:52 may affect a very limited swath. This was a wide
14:01:54 path of area that was affected by very high winds,
14:01:58 straight-line winds.
14:01:58 This image was an aerial satellite photo
14:02:00 taken three days after the floods.
14:02:04 And just to finish, there are two summaries
14:02:08 on the Buffalo Weather Office. One focused on the
14:02:12 flooding that resulted from the Sunday storms, and
14:02:14 the other focused on the whole event, or the

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14:02:16 afternoon event. You should look at both. Both of
14:02:18 you should look at those.
14:02:20 I ask you both to look at those and read
14:02:22 them thoroughly. It's an excellent job the Buffalo
14:02:24 Weather Office has done in summarizing what brought
14:02:28 these -- what brought these storms together and the
14:02:34 impacts.
14:02:36 This is an aerial photo that shows turbidity
14:02:38 plumes from the sediment load being carried out of
14:02:44 the mouth of Cattaraugus Creek, down the east shore
14:02:46 of Lake Erie, through the Niagara River, which is
14:02:50 really a strait, and out into Lake Erie. And they
14:02:54 are on the Buffalo Weather Office Web site. I ask
14:02:58 that you look carefully at these.
14:03:00 I also would just like to say that the
14:03:04 weather data was not collected at Buffalo -- I'm
14:03:08 sorry -- at West Valley on site because of power
14:03:12 outages and insufficient backup.
14:03:16 And I have here a $23 rain gauge that I'd
14:03:18 like to present to Paul Bembia of NYSERDA, because
14:03:24 ultimately, NYSERDA is responsible for the site.
14:03:28 The State of New York is ultimately responsible for
14:03:30 the site and for collecting the data necessary for

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14:03:34 a proper environmental assessment, an EIS.
14:03:38 So the Perrysburg spotter, using a CoCoRaHS
14:03:42 device very similar to this that's used by
14:03:46 volunteer spotters across the country -- the cost
14:03:48 of this is $23 -- she gathered the intensity data
14:03:52 that corrected the Doppler data and gave us a
14:03:56 better ground truthing of the actual event's
14:04:00 intensity.
14:04:00 Here is a $23 CoCoRaHS device. I ask that
14:04:04 NYSERDA deploy it and that NYSERDA have dedicated
14:04:10 personnel to take such readings.
14:04:12 The failure of the DOE contractor, WVES, to
14:04:18 collect storm data has happened in the past. This
14:04:22 isn't the first time. I have e-mail from the --
14:04:28 from a WVES person responsible for this complaining
14:04:32 about power outages killing -- quote, killing his
14:04:34 Met data.
14:04:38 This is inexcusable for a site that needs
14:04:40 this data to make the decision.
14:04:42 Thank you.
14:04:46 **DR. TRIAY:** Well, let me thank you and thank
14:04:52 all of the speakers for your excellent comments.
14:04:56 Frank, myself, and the rest of the

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14:04:58 Department of Energy staff and NYSERDA staff, as
14:05:02 well as the regulators, we will work very closely
14:05:06 to make sure that every single one of your comments
14:05:10 and the great points that you have expressed get
14:05:12 taken into account as we move forward.
14:05:18 For my part, some of the recommendations
14:05:20 that have been made, the information that I need to
14:05:24 personally be briefed on and understand, I assure
14:05:28 you, you know, that I will do so.
14:05:32 And in moving forward, as you know, we're in
14:05:34 the middle of a comment period, you know, for this
14:05:38 environmental impact statement, but we assure you
14:05:42 that we will --
14:05:42 **MR. RAUCH:** Doctor, I would --
14:05:44 **DR. TRIAY:** Yeah, go ahead.
14:05:46 **MR. RAUCH:** I would just like to clarify.
14:05:48 Sorry for the interruption. I apologize. If I
14:05:50 didn't make clear, I would like to just make clear
14:05:52 that these comments are made on behalf of myself
14:05:54 and the F.A.C.T.S. organization, not the West
14:05:58 Valley Coalition. Thank you.
14:06:02 **DR. TRIAY:** Very good. Thank you very much.
14:06:04 So anyhow, so in moving forward, we will

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take your comments extremely seriously. We will understand all this information that you have presented and have already put on the record. We will ask for clarification where we need it.

And you have our commitment, you know, that NYSERDA, the Department of Energy, and the other regulators involved will work very closely to address the issues that you have expressed here today.

Frank?

MR. MURRAY: Thank you, Secretary.

Again, I echo what the secretary said with respect to where we are in the decision-making process. I'm still learning what I can and cannot say at this stage of the process, but let me make the folks out in Western New York a couple of observations and the principles that will guide us in the decision-making process.

One, we as an institution and I personally believe very strongly that all cleanup decisions for West Valley must be scientifically based and supported by definitive environmental analysis.

It is no secret that we've identified, as

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14:07:20 1 the citizen groups have identified, a number of
14:07:22 2 issues in the current DEIS which we do not believe
14:07:26 3 are adequately addressed, and we'll continue to
14:07:28 4 engage in discussions with DOE with regard to that.
14:07:30 5 The second point -- and this came up in the
14:07:34 6 context of some of the comments made today -- we
14:07:36 7 believe, again, both institutionally and
14:07:40 8 personally, that public involvement in all phases
14:07:42 9 of this process cleanup going forward is essential.
14:07:46 10 And we would look with great scepticism on any sort
14:07:50 11 of arrangement that did not provide for full public
14:07:54 12 involvement in evaluating various cleanup
14:07:58 13 strategies. And I suspect that the folks at the
14:08:00 14 DOE feel exactly the same way.
14:08:04 15 I would make the observation that whether
14:08:06 16 one goes forward with the phased decontamination
14:08:12 17 cleanup process or the full cleanup process, as
14:08:12 18 many of you have advocated, it seems to me
14:08:18 19 essential that we move forward as quickly as
14:08:20 20 possible in addressing those problems that have
14:08:22 21 been identified, such as the MMP -- excuse me --
14:08:28 22 MPPB, the vitrification building, the five
14:08:30 23 contaminated waste treatment lagoons, and the

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14:08:32 source of the north plateau groundwater plume.
14:08:36 Whether we eventually embrace a full cleanup
14:08:40 or a phased approach to the cleanup, it seems to me
14:08:44 that's work we should try to move forward on as
14:08:48 quickly as possible.
14:08:50 I have heard a lot of comments about --
14:08:52 again, we heard today many references to phrases I
14:08:58 believe that are contained in the DEIS that suggest
14:09:00 that if we do a Doppler phase approach to the
14:09:04 cleanup, that the folks in Western New York would
14:09:06 have to wait up to 30 years to know what we would
14:09:08 do after the first stage of cleanup.
14:09:12 If I were living in Western New York, I
14:09:14 would not find that an acceptable alternative --
14:09:20 acceptable frame. I want to be careful here.
14:09:22 I would like to see us -- again, we share
14:09:26 this with the folks at DOE -- we would like to see
14:09:28 the decision timetable speeded up so that the folks
14:09:32 in Western New York, folks here in the state don't
14:09:36 have to wait up to 30 years to find out the fate of
14:09:40 the West Valley facility.
14:09:42 I hope I said that in such a way that I'm
14:09:44 not prejudging where we come out in the final

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analysis. I'm still learning a lot, and I'd characterize what I just said right now as observation at this point in the process.

However, the first two I would think are guiding principles, and we need to be guided here in the decision-making process by both sound science and defensible environmental analysis, and that public involvement in the process all the way through is not only integral but essential to sound decisions.

And, again, thank you all for taking time out of your busy schedules, particularly on a Friday afternoon before a holiday, to spend some time educating both myself and the secretary regarding your concerns.

THE FACILITATOR: Thank you.

DR. TRIAY: Thank you again to all. And I believe that the two guiding principles that NYSERDA has put forth are something that DOE not only can embrace but will embrace in moving forward.

So we don't have any -- please have no doubt that we want your input at every stage of this

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14:10:54 cleanup and that we want to -- especially, you
14:10:58 know, when it comes to erosion, when it comes to
14:11:02 these flooding situations that you have explained,
14:11:04 that we want the most sound science to be able to
14:11:08 make decisions moving forward.
14:11:10 **MS. D'ARRIGO:** Can I ask one more thing?
14:11:12 **DR. TRIAY:** Sure.
14:11:12 **MS. D'ARRIGO:** This is Diane. This is why I
14:11:16 wanted a little time after you spoke so that we
14:11:16 could perhaps respond.
14:11:18 I've heard Bryan Bower say that the full
14:11:22 cleanup option is not scientifically justified by
14:11:28 the existing EIS.
14:11:30 So if what I'm hearing from the two agency
14:11:34 heads is that we must make our decisions
14:11:36 scientifically based and there's a perception that
14:11:40 the full cleanup option is not scientifically
14:11:42 based, it sounds to me like a justification for
14:11:46 continuing with the phased decision. And it also
14:11:48 sounds like maybe you might want to shorten the
14:11:50 number of years from 30 to maybe 15 or ten and say,
14:11:56 we're being more reasonable.
14:11:56 But our response to that right off is that

903-12

903-12 DOE and NYSERDA believe that the impact analyses of a full range of alternatives in this EIS are reasonable and scientifically based. Please see the response to Comment no. 903-5 and the Issue Summary for the "Modified Phased Decisionmaking Alternative" in Section 2 of this CRD, which addresses the duration of Phase 1 of this alternative. The Issue Summary for "Conclusions of the *Synapse Report*" discusses the full cost accounting study referred to in the comment and provides DOE's and NYSERDA's response.

no amount of delay is acceptable. We've already waited long enough. We've got migration. And there's going to need to be research and study no matter what option is chosen. And we would push for a scientifically-based cleanup plan to be developed for the entire site and look closely at the full cost accounting study done by the independent scientists that do justify the full cleanup option.

DR. TRIAY: We completely appreciate that, and just to be clear, the reason that Frank and I are understanding personally your concerns is because we want to make sure that we understand from your point of view the way forward.

THE FACILITATOR: Okay. I believe we have completed this meeting. I appreciate everybody's participation, especially getting along with technology. I think we did just fine in that regard, so let us break up the meeting, I suppose.

(Proceedings concluded at 2:13 p.m.)

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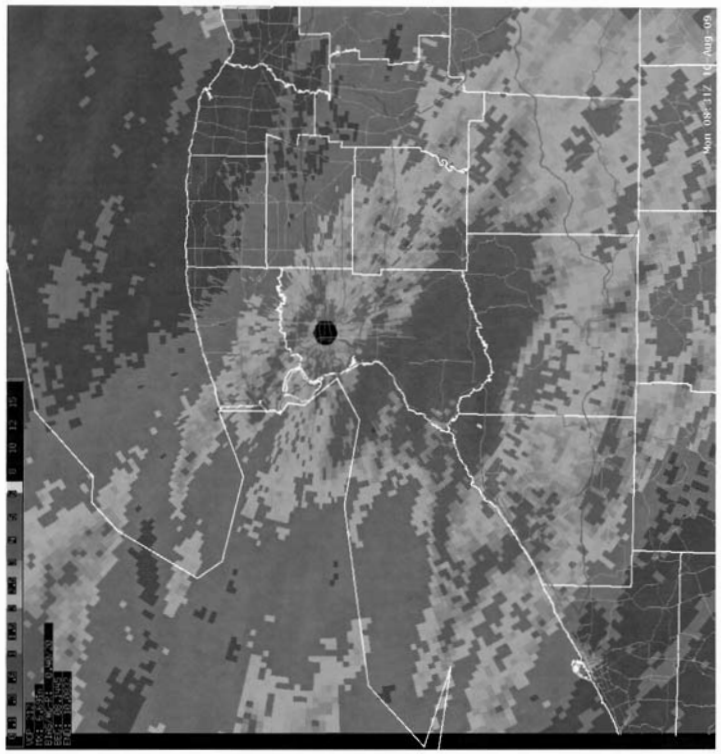
Comments from the West Valley, New York, Video Teleconference (September 4, 2009)



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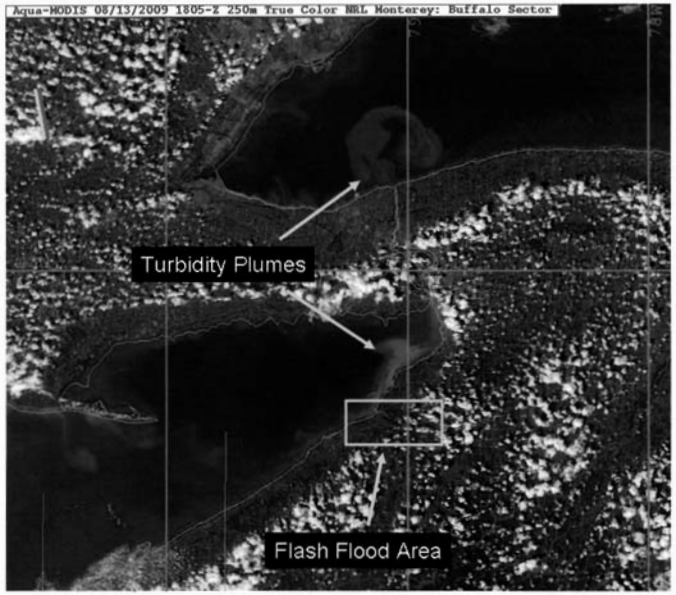
Comments from the West Valley, New York, Video Teleconference (September 4, 2009)



MODIS full color image at 2:05PM EDT August 13, 2009, 3 days after the floods. clearly evident in the lighter green colors on the east end of Lake Erie as well as Niagara River where it empties into Lake Ontario.

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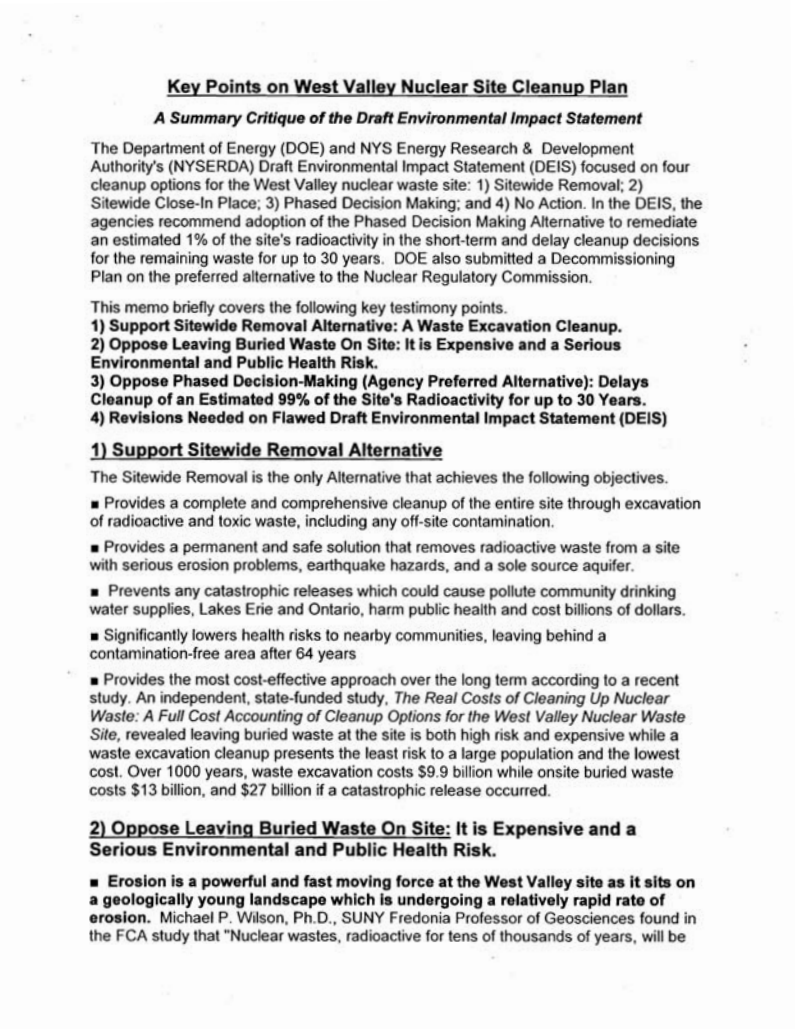

Key Points on West Valley Nuclear Site Cleanup Plan

A Summary Critique of the Draft Environmental Impact Statement

The Department of Energy (DOE) and NYS Energy Research & Development Authority's (NYSERDA) Draft Environmental Impact Statement (DEIS) focused on four cleanup options for the West Valley nuclear waste site: 1) Sitewide Removal; 2) Sitewide Close-In Place; 3) Phased Decision Making; and 4) No Action. In the DEIS, the agencies recommend adoption of the Phased Decision Making Alternative to remediate an estimated 1% of the site's radioactivity in the short-term and delay cleanup decisions for the remaining waste for up to 30 years. DOE also submitted a Decommissioning Plan on the preferred alternative to the Nuclear Regulatory Commission.

This memo briefly covers the following key testimony points.
1) Support Sitewide Removal Alternative: A Waste Excavation Cleanup.
2) Oppose Leaving Buried Waste On Site: It is Expensive and a Serious Environmental and Public Health Risk.
3) Oppose Phased Decision-Making (Agency Preferred Alternative): Delays Cleanup of an Estimated 99% of the Site's Radioactivity for up to 30 Years.
4) Revisions Needed on Flawed Draft Environmental Impact Statement (DEIS)

1) Support Sitewide Removal Alternative

The Sitewide Removal is the only Alternative that achieves the following objectives.

- Provides a complete and comprehensive cleanup of the entire site through excavation of radioactive and toxic waste, including any off-site contamination.
- Provides a permanent and safe solution that removes radioactive waste from a site with serious erosion problems, earthquake hazards, and a sole source aquifer.
- Prevents any catastrophic releases which could cause pollute community drinking water supplies, Lakes Erie and Ontario, harm public health and cost billions of dollars.
- Significantly lowers health risks to nearby communities, leaving behind a contamination-free area after 64 years
- Provides the most cost-effective approach over the long term according to a recent study. An independent, state-funded study, *The Real Costs of Cleaning Up Nuclear Waste: A Full Cost Accounting of Cleanup Options for the West Valley Nuclear Waste Site,* revealed leaving buried waste at the site is both high risk and expensive while a waste excavation cleanup presents the least risk to a large population and the lowest cost. Over 1000 years, waste excavation costs $9.9 billion while onsite buried waste costs $13 billion, and $27 billion if a catastrophic release occurred.

2) Oppose Leaving Buried Waste On Site: It is Expensive and a Serious Environmental and Public Health Risk.

- **Erosion is a powerful and fast moving force at the West Valley site as it sits on a geologically young landscape which is undergoing a relatively rapid rate of erosion.** Michael P. Wilson, Ph.D., SUNY Fredonia Professor of Geosciences found in the FCA study that "Nuclear wastes, radioactive for tens of thousands of years, will be

903-12

903-13 This attachment is identical to the attachment to Commentor no. 245. Please refer to that document for DOE's and NYSERDA's responses.

addresses only 1.2% of the total radioactivity on the site. Decisions on a majority of the waste, or 99% of the radioactivity, will be addressed in Phase 2 including high-level waste tanks, and both radioactive waste burial areas (NDA and SDA), or approximately 600,000 curies. Public participation on the Phase 2 decision making process is not explained.

- **The potential environmental and health impacts of leaving 99% of the radioactivity on site for another 30 years was not studied.** For instance, the high-level waste tanks, with 320,000 curies of radioactivity, are nearing the end of their useful life (50 years) and any leaks could seriously pollute the sole source aquifer. The Decommissioning Plan (DP) claims that the high-level waste tanks will be empty at the start of Phase I, yet neither the DEIS or DP state how and when the tanks would be actually emptied.

- **Given the past record of decades of delay, the two phased approach with a lengthy 30 year timetable is not responsive or responsible in addressing dangerous contamination.** The site sits on top of a sole source aquifer and has been plagued with problems, such as radioactive contaminated groundwater, and radioactivity from the site has been found as far away as the shore at the juncture of the Niagara River and Lake Ontario demonstrating a potential for the leaking site to contaminate drinking water supplies. For instance, the buried high-level waste area (NDA) has been undergoing measures to limit water flow, and a large amount of high-level radioactive waste is buried in deep holes 50 to 70 feet deep which pose a significant risk of leaks to the sole source aquifer.

- **The public was provided with almost no information on the data collection under Phase I, which is essential to determining the extent of future decontamination work in Phase 2.** If data collection is inadequate, a safe cleanup in Phase 2 is less likely. There is no plan for future public participation on Phase 2 activities.

4) Revisions Needed on Flawed DEIS.

- **Information Needed on Monitoring and Institutional Controls.** The DEIS includes cleanup options where long-lasting radioactive waste is left buried on site, yet there is a serious lack of information on the monitoring and maintenance of engineering and institutional controls to ensure radioactive waste is safely contained. Funds and procedures should also be described that will be in place to respond immediately to any toxic releases. This information is absolutely critical to evaluate whether or not the site can be safely maintained if waste is left buried on site. **The full monitoring, maintenance and institutional control program needs to be described in detail under each alternative.**

- **Public Disclosure is Inadequate.** There appears to be a major discrepancy in the two documents; the DEIS states that DOE will be involved in both Phase I & 2 of the Phased Decision Making Alternative. But, the Decommissioning Plan appears to describe a situation where DOE could leave the site and any responsibility at the end of Phase I in approximately 30 years. If this were the case, it could leave New York State with the responsibility for cleaning up an estimated 99% of the site's radioactivity. This would obviously be a major change, yet there are only a few references in the Plan**. It is**

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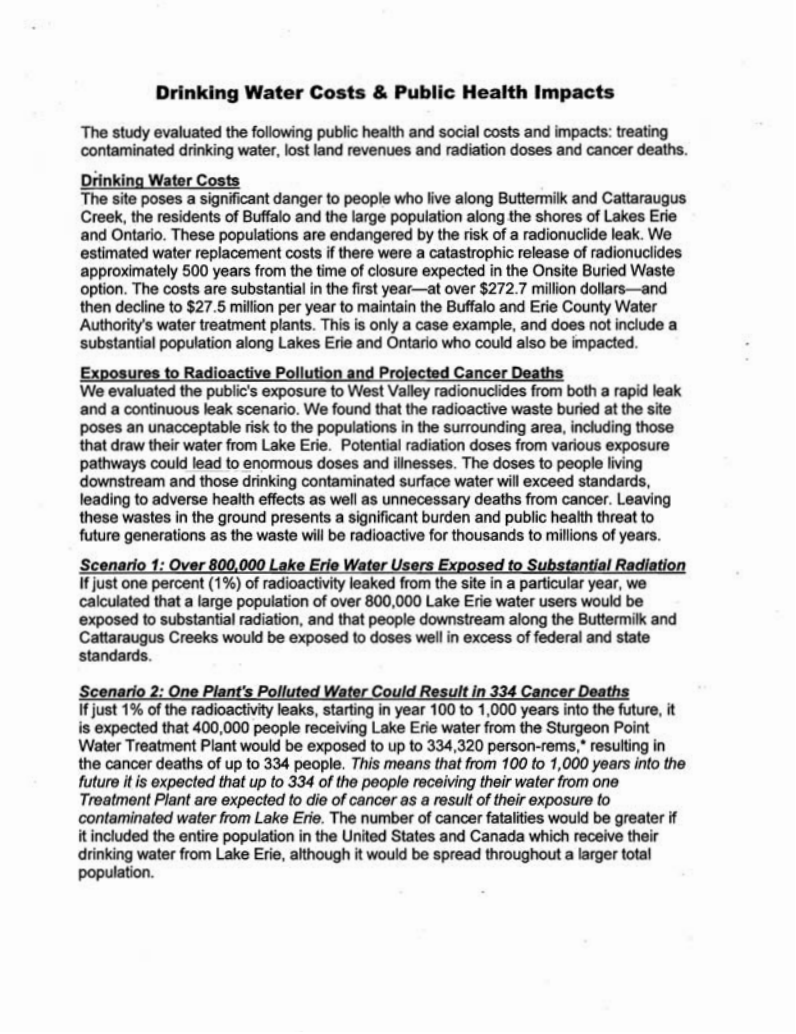

Drinking Water Costs & Public Health Impacts

The study evaluated the following public health and social costs and impacts: treating contaminated drinking water, lost land revenues and radiation doses and cancer deaths.

Drinking Water Costs

The site poses a significant danger to people who live along Buttermilk and Cattaraugus Creek, the residents of Buffalo and the large population along the shores of Lakes Erie and Ontario. These populations are endangered by the risk of a radionuclide leak. We estimated water replacement costs if there were a catastrophic release of radionuclides approximately 500 years from the time of closure expected in the Onsite Buried Waste option. The costs are substantial in the first year—at over $272.7 million dollars—and then decline to $27.5 million per year to maintain the Buffalo and Erie County Water Authority's water treatment plants. This is only a case example, and does not include a substantial population along Lakes Erie and Ontario who could also be impacted.

Exposures to Radioactive Pollution and Projected Cancer Deaths

We evaluated the public's exposure to West Valley radionuclides from both a rapid leak and a continuous leak scenario. We found that the radioactive waste buried at the site poses an unacceptable risk to the populations in the surrounding area, including those that draw their water from Lake Erie. Potential radiation doses from various exposure pathways could lead to enormous doses and illnesses. The doses to people living downstream and those drinking contaminated surface water will exceed standards, leading to adverse health effects as well as unnecessary deaths from cancer. Leaving these wastes in the ground presents a significant burden and public health threat to future generations as the waste will be radioactive for thousands to millions of years.

Scenario 1: Over 800,000 Lake Erie Water Users Exposed to Substantial Radiation

If just one percent (1%) of radioactivity leaked from the site in a particular year, we calculated that a large population of over 800,000 Lake Erie water users would be exposed to substantial radiation, and that people downstream along the Buttermilk and Cattaraugus Creeks would be exposed to doses well in excess of federal and state standards.

Scenario 2: One Plant's Polluted Water Could Result in 334 Cancer Deaths

If just 1% of the radioactivity leaks, starting in year 100 to 1,000 years into the future, it is expected that 400,000 people receiving Lake Erie water from the Sturgeon Point Water Treatment Plant would be exposed to up to 334,320 person-rems,* resulting in the cancer deaths of up to 334 people. *This means that from 100 to 1,000 years into the future it is expected that up to 334 of the people receiving their water from one Treatment Plant are expected to die of cancer as a result of their exposure to contaminated water from Lake Erie.* The number of cancer fatalities would be greater if it included the entire population in the United States and Canada which receive their drinking water from Lake Erie, although it would be spread throughout a larger total population.

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Valuing the Future:
The Viability of Institutional Controls Over 1,000 Years

The report investigated the risks of losing institutional controls for the Onsite Buried Waste approach and examined issues surrounding very long periods of time: continuity of governments, language, ethical issues with leaving an enormous hazard to future generations and valuing future costs.

Institutional Controls Unreliable Over the Long-Term

Wastes that would be left at the site are extremely long-lived. For example, one of the longest lasting radionuclides, thorium-232, has a half-life of 14 billion years. If the buried waste is left at West Valley, government would need to monitor the waste for thousands of years; such monitoring and control activities are called institutional controls. However, controls are not foolproof and have failed at many sites resulting in the need for additional remediation. Controls failed multiple times at West Valley, including the overflowing trenches in the State Disposal Area. *These incidents are not unique to the site and such failures speak to the unreliability of controls as a long term strategy for preventing harm to people.* Understanding that there is no guaranteed place or technology to truly isolate long-lasting radioactive waste, these failures suggest that the real solution is to first minimize additional production of nuclear waste from atomic power, weapons and the nuclear fuel chain.

1,000 Year Continuity in Government and Language Improbable

Maintaining institutional controls at a nuclear waste site first requires a continuity of government and language. *A fundamental obstacle to maintenance of institutional controls is the improbability of thousand-year continuity in either government or language.* A thousand years is a long time for any government to endure, let alone institutional controls at a particular waste site. It is of course impossible to look forward in time and see the world of 3008; as an alternative, we can look the other way, at the world of a thousand years ago. In 1008, Vikings were attacking England; the Norman Conquest was still decades away. Of the governments and nations that exist today, only Iceland has an unbroken lineage spanning the last thousand years. If the government of any country (other than Iceland) had made a commitment in 1008 to protect an important site for a thousand years, there is no guarantee that anyone would still know about that commitment today.

A thousand years is also a long time in the history of language—long enough for a language to change beyond recognition. While something called the English language has existed for centuries, it changes fast enough so that modern readers cannot understand words written a thousand years ago. The English literature classic that dates back a thousand years, *Beowulf*, is no longer readable, and has to be translated into modern English in order for anyone but a few specialists to understand it. A warning from the author of *Beowulf* written in the English of roughly 1000 years ago would be incomprehensible to all but a handful of experts today. In 3008, when the English of this report is as ancient as the language of *Beowulf* is today, will casual readers and potential intruders on a waste site be able to read our warning signs? There is no reason to assume that the Department of Energy could adequately address safety and communication issues at West Valley for the Onsite Buried Waste option.

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History of West Valley

Thirty miles south of Buffalo, New York, the West Valley nuclear waste site sits on a plateau slowly but certainly eroding away with time. In the 1960's, when Nuclear Fuel Services begin reprocessing nuclear fuels, the potential dangers were rapidly outweighed by the enthusiasm for nuclear reprocessing and the economic prosperity it promised. After nearly a half century, there is no doubt that this decision was a mistake for the region's safety and health. The six years in which this facility reprocessed nuclear fuel have been dramatically overshadowed by decades of fierce debate about the cleanup of the site.

Radioactive Contamination

The site is in the Town of Ashford in Cattaraugus County, NY. At least 250 of the 3,345 acres have been heavily contaminated with nuclear and hazardous wastes. By today's standards, a nuclear facility would not be allowed on land as erosion-prone as the West Valley site. *The site is burdened with vast amounts of toxic and radioactive wastes, many of which will remain radioactive for tens of thousands of years, some for millions of years.* The list of contaminated wastes reads like a laundry list of dangerous elements: cesium-137, plutonium-238, -239, -240, and -241, uranium-238, iodine-129, tritium, and thorium-234, amongst others. These elements, if ingested or inhaled, lodge in human tissues, fat, or bone and are known to be responsible for leukemias and cancers at very low doses. There is no known safe level of exposure to radioactive chemicals—each exposure increases the likelihood that cancer and other health effects may occur.

The site has been plagued with problems from the start, including leakage of radioactive and toxic waste in several areas, such as a significant underground plume of radioactive elements spreading through groundwater. Waste from the site has been found as far away as the sediment along the shore at the juncture of the Niagara River and Lake Ontario.*

Site Created by Country's Failed Commercial Reprocessing Facility

The site is the nation's only venture into commercial reprocessing of irradiated nuclear fuel. The Nuclear Fuel Services (NFS) facility was a Plutonium Uranium Extraction process plant and the process included storing spent fuel assemblies; chopping the assembly rods; dissolving the uranium, plutonium, and radioactive products in acid; separating and storing the radioactive wastes, and separating uranium nitrate from plutonium nitrate. In 1959, New York became the only state to accept a federally-initiated plan to form a public-private partnership to reprocess nuclear material and in 1961, the state purchased the land in the Town of Ashford, for what would become the Western New York Nuclear Services Center owned by NFS, a company that continues to this day. The facility operated for six years (1966-1972) and reprocessed about 640 metric tons of irradiated fuel. In 1972, reprocessing ceased and changes in safety and environmental regulations required NFS to undergo a complete licensing review. *In 1976, NFS determined it would cost over $600 million to comply and decided to leave the site, passing on responsibility for all wastes to the government.*

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Severe Erosion Problems at West Valley Site

The report found that erosion is a powerful and fast moving force at the West Valley site. West Valley sits on a geologically young landscape which is undergoing a relatively rapid rate of erosion. Within the next few hundred years, erosion is estimated to create damaging gullies. **This region could expect to have hundreds of new gullies form with erosion removing the plateau surface in the next few thousand years.** Wastes that would be left at the site are extremely long-lived and radioactive for thousands to millions of years. It is easy to imagine that if erosion is uncontrolled, gullies will penetrate a buried waste area.

Predicted Erosion Breaches Buried Waste Areas

Unless erosion and other institutional controls are rigorously maintained, we predict that the disposal areas could be breached in less than 1000 years and as quickly as 150 years from now without any controls in place. This breach would be a catastrophic failure, leaking high concentrations of radioactive waste into the watershed and then quickly into Lake Erie. Since severe erosion problems are estimated to occur at the site within hundreds of years, clearly, the long-term disposal of buried waste at the site is not an environmentally sound approach. Currently, there is a large plume of contaminated groundwater moving towards Buttermilk Creek. However, even more worrisome for the downstream population and the priceless resource of the Great Lakes is the potential for streams near the site to undercut or expose buried wastes. The following is a summary of the erosion problems that were investigated in the report.

Estimated 500 Gullies in 10,000 Years

There are approximately an estimated 64 gullies and streams per square mile in this region. Over the roughly 15,000 year period that this landscape has evolved, we estimate that the density of gullies doubles every 3,000 years. This region could expect to have over 500 new gullies, or stream splits, form in the next 10,000 years. It is easy to imagine that if erosion is uncontrolled, at least one of these gullies will penetrate a buried waste area. In fact, it will take far fewer than 500 gullies and far less time for the entire plateau surface to erode.

20 % of Plateau Surface Estimated to Erode in 10,000 Years

Using a bench-scale (30 x 50 ft) experiment as a model for the evolution of the site landscape, we estimated that within 10,000 years, 20% of the plateau surfaces that are un-gullied today will have eroded away across the lower Buttermilk watershed. There are various reasons why this is a conservative rate. First, Buttermilk Creek tributary gullies drop more rapidly and over more waterfalls than in the bench-scale model which lead to faster erosion rates in reality. Deforestation and impervious surface runoff increase erosion rates, and we expect climate change to result in more severe storm events, when the most severe erosion occurs.

Erosion Will Create Damaging Gullies Within a Few Hundred Years

A 1993 document concluded from 35 years of repetitive air photos that the head cut on Franks Creek advanced an average of 7.5 feet per year and on Erdman Brook advanced 10.5 feet per year. From these rates, we would expect that within several hundred years, this erosion will have opened new areas on the adjacent plateaus to damaging gullies. *At the rate of plateau-edge removal anticipated for Franks Creek, we*

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List of Proposed Nuclear Power Reactors and Irradiated Fuel Reprocessing Facilities in the US

1) States with Proposed Nuclear Reprocessing Facilities

Proposed Reprocessing for Global Nuclear Energy Partnership (GNEP) in ID, IL, NM, OH, SC, TN and WA.

Idaho
- Energy*Solutions*, LLC, Atomic City
- Regional Development Alliance, Inc., Idaho National Laboratory

Illinois
- General Electric Company, Morris

Kentucky
- Paducah Uranium Plant Asset Utilization, Inc., Paducah Gaseous Diffusion Plant

New Mexico
- Eddy Lea Energy Alliance, Hobbs
- Energy*Solutions*, LLC, Roswell

Ohio
- Piketon Initiative for Nuclear Independence, Portsmouth Gaseous Diffusion Plant

South Carolina
- Energy*Solutions*, LLC, Barnwell
- Economic Development Partnership of Aiken and Edgefield Counties, Savannah River National Laboratory

Tennessee
- Community Reuse Organization of E. Tennessee, Oak Ridge National Laboratory

Washington
- Tri-City Industrial Development Council/Columbia Basin Consulting Group, Hanford Site

2) States with Proposed Nuclear Power Reactors

Combined License Applications Received by the US Nuclear Regulatory Commission in AL, FL, GA, LA, MD, MI, MS, MO, NY, NC, PA, SC, TX and VA.

Alabama
- Bellefonte Nuclear Station Units 3 and 4 AP1000 Tennessee Valley Authority (TVA)

Florida
- Levy County Units 1 and 2 AP1000 Progress Energy Florida, Inc. (PEF)

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SECTION 4
REFERENCES

4.0 REFERENCES

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