



Department of Energy
West Valley Demonstration Project
10282 Rock Springs Road
West Valley, NY 14171-9799

August 3, 2012

Mr. Daniel W. Coyne
President & General Manager
CH2M HILL B&W West Valley, LLC
West Valley Demonstration Project
10282 Rock Springs Road
West Valley, NY 14171-9799

ATTENTION: J. D. Rendall, Regulatory Strategy, AC-EA

SUBJECT: Environmental Checklist WVDP-2012-01, "WVDP Reservoir Interconnecting Canal Maintenance Activities"

REFERENCE: Letter WD:2012:0409 (357953), D. W. Coyne to R. W. Reffner, "CONTRACT NO. DE-EM0001529, Section J-3, Item 105, NEPA Documentation (Transmittal of Environmental Checklist WVDP-2012-01, WVDP Reservoir Interconnecting Canal Maintenance Activities), Revision 1," dated July 24, 2012

Dear Mr. Coyne:

I have reviewed the subject Environmental Checklist and agree that the actions described therein are categorically excluded per Title 10, Code of Federal Regulations (CFR) Part 1021, as Amended, Appendix B to Subpart D, CX B1.3, "Routine Maintenance Activities." Enclosed is a signed environmental checklist form to that effect.

The contents of this correspondence are not intended to impact or modify contract scope and/or cost. If you have any questions, please contact me on Extension 4007.

Sincerely,

A handwritten signature in black ink, appearing to read "Martin P. Krentz".

Martin P. Krentz
National Environmental Policy Act Compliance Officer
West Valley Demonstration Project

Enclosure: Signed Environmental Checklist

cc: C.A. Biedermann, CHBWV, AC-EA, w/enc.
J. J. Hoch, CHBWV, WV-PL6, w/enc.
J. Craig, DOE-EMCBC, Office of the Director, w/enc.
R. Holland, DOE-EMCBC, Office of the Director, w/enc.
C. M. Bohan, DOE-WVDP, AC-DOE, w/enc.
M. P. Krentz, DOE-WVDP, AC-DOE, w/enc.
M. N. Maloney, DOE-WVDP, AC-DOE, w/enc.



**Department of Energy
West Valley Demonstration Project (DOE-WVDP)**

ENVIRONMENTAL CHECKLIST

| | | | |
|---|--|------------------|-------------------------|
| Project/Activity Title: "WVDP Reservoir Interconnecting Canal Maintenance Activities" | NEPA ID Number: WVDP-2012-01 | Rev. #: 1 | Date: 07/03/2012 |
| Contractor Project Manager: D. W. Coyne | Phone Number: (716) 942-4606 | | |
| Contractor NEPA Coordinator: C. A. Biedermann | Phone Number: (716) 942-4333 | | |
| DOE-WVDP NEPA Document Manager: M. P. Krentz | Phone Number: (716) 942-4007 | | |

A. BRIEF PROJECT/ACTIVITY DESCRIPTION: Attach a detailed description or statement of work.

B. SOURCES OF IMPACT: Would the action involve, generate, or result in changes to any of the following:

| | YES | NO | | YES | NO |
|----------------------------|-----|----|--|-----|----|
| 1. Air Emissions | X | | 12. Water Use/Diversion | X | |
| 2. Liquid Effluents | X | | 13. Water Treatment | | X |
| 3. Solid Waste | X | | 14. Water Course Modification | X | |
| 4. Radioactive Waste/Soil | | X | 15. Radiation/Toxic Chemical Exposures | | X |
| 5. Hazardous Waste | | X | 16. Pesticide/Herbicide Use | | X |
| 6. Mixed Waste | | X | 17. High Energy Source/Explosives | | X |
| 7. Chemical Storage/Use | X | | 18. Transportation | | X |
| 8. Petroleum Storage/Use | X | | 19. Noise Level | X | |
| 9. Asbestos | | X | 20. Workforce Adjustment | | X |
| 10. Utilities | | X | 21. Other | | X |
| 11. Clearing or Excavation | X | | | | |

In an attachment, qualify and explain each question that you have specifically answered "YES."

See environmental checklist, WVDP-2003-03. (The answer to Question 14 is "Yes" because it is intrinsic to the work.)

C. CATEGORY EVALUATION CRITERIA: Would the proposed action:

| | YES | NO |
|---|-----|----|
| 1. Take place in an area of previous or ongoing disturbance? | X | |
| 2. Create hazardous, radioactive, or mixed waste for which no disposal is available? | | X |
| 3. Impact a RCRA-regulated unit or facility? | | X |
| 4. Force a low income or ethnic minority population to shoulder a disproportionate share of the negative environmental impacts of pollution or environmental hazards because of a lack of political or economic strength? | | X |
| 5. Involve air emissions and be located in an air pollutant non-attainment or maintenance area for any criteria pollutants? | | X |
| 6. Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive Orders (i.e., require any federal, state, or local permits, approvals, etc.)? | | X |
| 7. Disturb hazardous substances, pollutants, or contaminants that pre-exist in the environment such that there would be uncontrolled or unpermitted releases? | | X |
| 8. Require siting, construction, or major expansion of a waste storage, disposal recovery, or treatment facilities, but may include such categorically-excluded facilities? | | X |
| 9. Adversely affect environmentally sensitive resources including, but not limited to: structures of archeological, historic or architectural significance; threatened or endangered species or their habitat; floodplains or wetlands; wildlife refuges, agricultural lands or vital water resources (e.g., sole-source aquifers)? | | X |
| 10. Involve extraordinary circumstances? As specified at 10 CFR § 1021.410(b)(2), extraordinary circumstances are unique situations presented by specific proposed actions, such as scientific controversy about the environmental effects of the action, uncertain effects or effects involving unique or unknown risks, or unresolved conflicts concerning alternate uses of available resources within the meaning of Section 102(2)(E) of NEPA [42 U.S.C. 4332(2)]. | | X |
| 11. Be "connected" to other actions with potentially significant impacts, related to other proposed actions with cumulatively significant impacts, and precluded by 40 CFR § 1506.1 or 10 CFR § 1021.211? | | X |

In an attachment, qualify and explain each question that you have specifically answered "YES."

See Attachment to Environmental Checklist WVDP-2012-01, Activity Description (also see references)

Department of Energy
West Valley Demonstration Project (DOE-WVDP)
ENVIRONMENTAL CHECKLIST

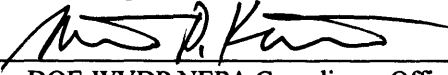
D. RECOMMENDATION AND DETERMINATION:

DOE-WVDP Director's Recommendation: I find and recommended that this proposed action meets the criteria specified in 10 CFR Part 1021, Subpart D, and/or DOE Policy and Guidance for the following:

- Categorical Exclusions (Appendix B, Class of Action B1.3(k))
- Actions Within the Scope of Existing NEPA Documentation NEPA Document ID Number _____)
- Ongoing Operations (Standard Operating Procedure OH-6.1.01, Rev. 1, Section 5.2)

Signature:  for Bryan C. Bower Date 8/2/2012
Director, West Valley Demonstration Project (WVDP),
Department of Energy

DOE-WVDP NEPA Compliance Officer's Determination: Based on my review of the attached information concerning this proposed action, as the WVDP NEPA Compliance Officer (DOE Order 451.1B, Section 5.d.), I have determined that the proposed action fits within the specified class of actions, that the other regulatory requirements identified in Section C are met, and that this proposed action proceed without further NEPA review.

Signature:  Date 8/2/2012
DOE-WVDP NEPA Compliance Officer,
West Valley Demonstration Project

OR

- Environmental Assessments (Appendix C, Class of Action _____; or Action not listed in Subpart D)
- Environmental Impact Statements (Appendix D, Class of Action _____)
- Interim Actions (40 CFR Part 1506.1 and 10 CFR Part 1021.211)
- Integrated Documentation for CERCLA/RCRA Actions
- Variances (Emergency Action, 40 CFR Part 1506.11 and 10 CFR Part 1021.34)

DOE-WVDP NEPA Compliance Officer's Concurrence: I concur with the recommendation that this proposed action fits within the specified class of actions.

Signature: _____ Date _____
DOE-WVDP NEPA Compliance Officer,
West Valley Demonstration Project

DOE-WVDP Manager's Determination: Based on my review of the attached information concerning this proposed action, as the Director of the West Valley Demonstration Project (DOE Order 451.1B, Section 5.a.), I have determined that the level of documentation recommended for the proposed action is appropriate.

Signature: _____ Date _____
Director, West Valley Demonstration Project (WVDP),
Department of Energy

ATTACHMENT TO

Environmental Checklist WVDP-2012-01

Activity Description

**Attachment To
Environmental Checklist, WVDP-2012-01,
Canal Maintenance; Restoration of Water Course to Normal Functionality**

Section A. Brief Project/Activity Description

A.1 Purpose and Need

The purpose of this project is to mitigate impedance of design flow and drainage between the two West Valley Demonstration Project (WVDP) water supply reservoirs (Figure 1). Sedimentation and bank sloughing has resulted in filling of the reservoir interconnecting canal impeding design water flow within the system. In August 2009, a severe storm event resulted in water build-up and subsequent overtopping of the man-made dam. This overtopping caused erosion of the face of Dam 2. The cause of this overtopping has been attributed, at least in part, to the inability of the canal to function as designed and adequately transfer water from Reservoir 2 to Reservoir 1 where it would discharge over the spillway.

The planned work will address the necessary maintenance of a man-made canal located between two man-made reservoirs to restore the functionality of the canal and to reduce the potential for storm surge from overtopping the dams.

A.2 Objective

Department of Energy (DOE)-West Valley Demonstration Project Contract DE-EM0001529 requires the contractor (CH2MHILL-B&W West Valley (CHBWV), among other requirements, to "...repair and maintain the reservoir, emergency spillway and dam system to ensure full functioning of the site water system, ensure integrity of the WNYNSC Class 1 railroad line supported by the dams, and eliminate overtopping of the dams. Improvements should be designed to ensure continued functioning of the system for 20 years. ..." The objective of this project is to remove sediment and restore the functionality of the canal to handle the potential storm surge from overtopping the dams, eroding the dam faces, and endangering the integrity of railroad spur, which runs across the tops of both Dam 1 and Dam 2, consistent with the CHBWV contract.

A.3 Site Improvements

This work will improve the ability to manage waters in the reservoir system to prevent storm surge water from over topping the dams, restore the functionality of the canal to transport water between the two reservoirs, and to protect the integrity of the railroad spur that is supported by the dams.

A.4 Work Scope and Type of Equipment

The planned activities include:

- Dredging the canal between the two reservoirs that will create the optimal cross-section to allow the excess storm water entering Reservoir 2 to again flow to Reservoir #1 and the spillway.
- The final cross-section is based on hydraulic calculations performed by Hartman Engineering.
- In no case will the dimensions of the new cross-sections exceed the original cross-section of the canal as originally designed by Earl W. Ek and Associate Engineers;

- As planned, dredging will begin at Reservoir 2 end of the canal, at the point where the canal intersects an ephemeral stream and proceed to Reservoir #1.
- The length of the dredging will be approximately 900 ft.
- The maximum depth will be 5 feet (not to exceed original design depth). The maximum volume of dredged materials that is to be removed is approximately 20,000 cubic feet (740 cubic yards).
- Dredged materials will be deposited on the southwest side of the canal, up-gradient from the canal within the wooded area. All applicable sediment and erosion controls will be implemented to minimize storm water impacts. These will include silt fencing, straw bale barriers, and other approved control methods, as needed.
- The disturbed area within the canal, based on a calculated 900 foot length and a 20 foot width is 18,000 square feet.
- Assuming that the maximum volume of dredged material will be generated, and assuming a spoils pile depth of 2 feet, the footprint of the spoils disposition area is approximately 100 feet by 100 feet or 10,000 square feet. The haul road area is expected to impact an additional approximately 10,000 square feet of wooded area.
- Organic materials within the footprint of the spoils pile will be pushed aside and re-introduced on the top of the pile upon completion of the dredging. All impacted areas will be re-vegetated.

Planned equipment for this project is identified in the following table:

| Description | Model Size | Purpose |
|--------------------|---|--|
| Tracked skidsteer | Bobcat T-110 Skid Steers or equivalent with a bucket width of no greater than 54-inches | Loading and hauling dredged materials fill material from canal work area and depositing in spoils area |
| Small Excavator | PC-120 or 200 or equivalent | Utilized to construct and de-construct the temporary dam |
| Survey equipment | Assorted | To support removal of dredged material to specified dimensions |
| Chainsaws | Assorted | Selective cutting of trees and brush |

A-5 Schedule and Timing

Construction is proposed to begin during the summer of calendar year 2012. It is anticipated that these activities will be completed before the end of August 2012.

Section B. Sources of Impact:

B.1 Air Emissions

There would be minor carbon monoxide and carbon dioxide air emissions generated by the construction equipment during the canal dredging and site restoration work. Equipment planned for use in the project is identified in Section A.4. These emissions would occur continuously over an 8 to 10 hour day for the duration of the project. Fugitive dust could also be generated during upland spoils pile preparation and during site restoration activities. Such dust would be controlled, if necessary, to minimize impact. Volatile organic carbon emissions could also be generated during fueling and hydraulic fluid replacement of the construction machinery. These emissions will be minimal and will not require any controls under the Clean Air Act, as amended, requirements.

B.2 Liquid Effluents

Liquid effluents such as runoff from the natural dewatering of the spoils pile will be controlled using hay bales and silt curtains as would any wastewater from equipment washing for maintenance purposes. These liquid effluents are not expected to contain any contaminants. Wash water contaminated with hydrocarbons will be contained, collected, and disposed of properly. Sanitary wastes would be contained in and periodically collected from portable sanitary facilities and disposed of on-site in the WVDP sewage treatment facility or transported to the Buffalo Sewer Authority under the existing permit.

B.3 Solid Waste

The majority of the solid waste will consist of spoils from the dredging operation. Spoils will be placed in the designated upland spoils area location having a footprint of approximately 10,000 square feet. The pile is estimated to be two foot in depth. If the volume of dredged material exceeds this quantity, the spoils pile will increase in depth. The length and width of the spoils pile will be adjusted to minimize the number of trees that must be removed. Impacts to surrounding trees will be minimized by avoiding the placement of spoil material on root systems. Prior to placement of spoil material, the surface layer of soil will be removed and stockpiled. After completion of the dredging, this top layer of soil will be used to cover the spoils pile to enhance re-vegetation of the area. The spoils area and haul path will be re-vegetated after completion of the project using a Birdfoot Trefoil, Redtop, and Creeping Red Fescue seed mix or similar seed mix deemed appropriate for the biology of the disturbed area. Soil from the temporary dam and associated dredged material will be deposited in a previously disturbed area located between the Lake 1 spillway and the railroad tracks, mixed with native soils, and the area will be reseeded.

Other solid waste will include personal protective equipment, sediment and erosion control materials, empty containers, and other materials suitable for disposal as solid waste in accordance with existing WVDP procedures.

B.7 Chemical Storage/Use

Coolants are used in the vehicles. Any spilling or leaking of these are required to be reported to the CHBWV Supervisor immediately to facilitate appropriate spill response actions. No other chemical have been identified.

B.8 Petroleum Storage and Use

Fuel, hydraulic fluids, grease, and motor oil will be stored and used in a manner that will minimize environmental impacts. These materials will only be used during daylight hours. Steps shall be taken to minimize environmental impacts to soils and to the Lakes including:

- A documented leak inspection program including twice daily inspections of all equipment (unless the equipment is idle in which case it will be inspected once daily).
- Idle equipment shall be parked in an area that is down-slope of Lake 1 and Lake 2 and the canal such that if a leak occurs, precipitation will not carry the materials to any of these water features.

- All fuel and petroleum product storage will be stored in an area that is down-slope of the Lakes and canal such that any leaks will not be carried into the lake system.
- Spill kits shall be placed along the canal on the railroad side approximately every 200 feet, adjacent to the spoil pile area, adjacent to the haul road, at the refueling area, and at the petroleum product storage area, as well as any other area deemed appropriate. Spill kits will contain petroleum absorbent booms, clay absorbent, absorbent pads, disposable nitrile gloves, and poly-bags.
- Site and subcontractor personnel shall be trained in use of the spill containment and cleanup kits.
- CHBWV personnel shall take possession of all cleanup materials and shall insure that it is properly disposed of in accordance site procedures and regulatory requirements.

B.11 Clearing and Excavation

Clearing and excavation shall occur, whenever possible, in previously disturbed areas (i.e., historic haul road paths, the man-made canal, the upland spoil disposal area). Clearing will be conducted to minimize impact to mature trees. Scrub, small trees, and cleared brush will be collected and transported to the spoil pile area, placed in Rabbit piles, and allowed to decompose naturally.

B.12 Water Use / Diversion

Dredging and construction of a temporary earthen dam shall occur in an existing man-made canal. An ephemeral stream will be temporarily diverted, if required, to minimize impact to the stream water and Lake 2 from dredging operations. Dredging will generally follow the existing centerline of the water flow in the canal. Dredging shall occur from the Lake 2 end of the canal at the point where the ephemeral stream enters the canal and proceed toward Lake 1. Lake levels will be controlled to minimize running water in the canal. This will minimize impacts from silt and turbidity to Lakes 1 and 2 and the Pump House (source of the WVDP water and drinking water supply system). Lake 2 water level and PVC piping and valves in the temporary dam located at the Lake 1 end of the canal will be controlled to ensure minimized transport of turbid water into either lake. All activities associated with this project will be authorized under a joint application to the U. S. Army Corps of Engineers and the New York State Department of Environmental Conservation for the WVDP Canal Maintenance Project signed by CHBWV and the New York State Energy Research and Development Authority. Work will be performed under the Army Corps of Engineers Nationwide Permit #3, entitled "Maintenance."

B.14 Water Course Modification

Water course modification will consist of a maintenance action on a manmade canal connecting the WVDP water supply reservoirs (Lake 1 and Lake 2). The planned maintenance activities are to remove accumulated sediments restoring the capability of unimpeded water flow between the two reservoirs and reduce the risk of dam overtopping.

B.19 Noise Levels

This activity will result in noise levels from operation of the earth moving and brush clearing equipment. Hearing protection will be used as appropriate per WVDP safety procedures. Applicable federal and state regulations and DOE Orders, as implemented by CHBWV and the subcontractor's

safety procedure, would be implemented during activities expected to generate elevated noise levels. As the project will occur in an isolated area within the Western New York Nuclear Service Center, the surrounding population will not be impacted.

Section C. Category Evaluation Criteria

C.1 Take place in an area of previous or on-going disturbance? Yes.

This maintenance project shall occur within previously disturbed areas of the Western New York Nuclear Service Center, to the extent practicable. All disturbed areas will be restored and re-vegetated.

C.2 Create hazardous, radioactive or mixed waste for which no disposal is available? No.

C.3 Impact a RCRA-regulated unit or facility? No.

C.4 Force a low income or ethnic minority population to shoulder a disproportionate share of the negative environmental impacts? No.

C.5 Involve air emissions and be located in an air pollutant non-attainment or maintenance area for any criteria pollutants? No.

C.6 Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive Orders? No.

C.7 Disturb hazardous substances, pollutants or contaminants that pre-exist in the environment such that there would be uncontrolled or unpermitted releases? No.

C.8 Require siting, construction, or major expansion of a waste storage, disposal, recovery, or treatment facilities, but may include such categorically-excluded facilities? No.

C.9 Adversely affect environmentally sensitive resources? No.

C.10 Involve extraordinary circumstances? No.

C.11 Be “connected” to other actions with potentially significant impacts, related to other proposed actions with cumulatively significant impacts, and precluded by 40 CFR 1506.1 or 10 CFR 1021.211? No.

Section D. Recommendation and Determination

A categorical exclusion (CX) is recommended for the proposed action. This routine maintenance activity described in this environmental checklist falls within the class of actions described in Title 10, Code of Federal Regulations (CFR) Part 1021, as Amended, Subpart D, Appendix B, CX 1.3, “Routine Maintenance.”

Supporting Documents

| | |
|-------------------------------|---|
| DOE and NYSERDA | “Cooperative Agreement between United States Department of Energy and New York State Energy Research and Development Authority on the Western New York Nuclear Service Center at West Valley, New York,” effective October 1, 1980, as amended September 18, 1981 |
| DOE and NYSERDA | Supplemental Agreement to the Cooperative Agreement between the USDOE and NYSERDA setting forth special provisions for the preparation of a Joint EIS on the WVDP completion and closure of the WNYNSC, (February 8, 1991) |
| DOE/EIS-0226 | U.S. Department of Energy, “Final Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western New York Nuclear Service Center,” dated January 2010 |
| DOE Order 436.1 | U. S. Department of Energy, “Departmental Sustainability”, dated May 2, 2011 |
| DOE Order 451.1B | U. S. Department of Energy, “National Environmental Policy Act Compliance Program”, Change 3, September 28, 2001 |
| 10 CFR Part 1021 | U. S. Department of Energy, "National Environmental Policy Act Implementing Procedures; Final Rule," dated October 13, 2011 |
| 40 CFR Parts 1500 -1518 | U. S. Council on Environmental Quality, "Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act," dated July 1, 2004 |
| 42 U.S.C. 4321 <i>et seq.</i> | U.S. Congress, National Environmental Policy Act, as Amended, dated January 1, 1970 |
| Public Law 96-368 | U.S. Congress, West Valley Demonstration Project Act (S.2443), dated October 1, 1980 |
| WVDP-011 | West Valley Demonstration Project, “WVDP Industrial Hygiene and Safety Manual”, revision 33, dated April 2, 2012 |
| WR: 2012:0021 | CHBWV “Joint Application for the West Valley Demonstration Project - Canal Maintenance Project,” dated May 3, 2012 |
| WVDP-321 | West Valley Demonstration Project, “DOE/EIS-0081 Supplement Analysis II of Environmental Impacts Resulting from Modifications in the West Valley Demonstration Project”, Rev. 0, dated July 16, 1998 |

Figure 1

**WVDP Dam System
2012 Canal Dredging
Aerial Photograph of Work Area**

