



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

March 31, 2015

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-2015-02, "Site-Wide Routine Maintenance Activities, 2015 Update"

REFERENCE: Letter WD:2015:0132 (365297), D. W. Coyne to R. W. Reffner, "Contract No. DE-EM0001529, Section J-3, Item 105, Revision of NEPA Documentation, Transmittal of Environmental Checklist WVDP-2015-02, 'Site-Wide Routine Maintenance Activities, 2015 Update,' Conditionally Approved, Respond to Comments," dated March 19, 2015

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, Subpart D, Appendix B, B1.3, "Routine Maintenance," as detailed in the attachment to the Environmental Checklist. 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,

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.
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.

MPK:365226 - 451.4



Attachment
Environmental Checklist WVDP-2015-02
Site-wide Routine Maintenance Activities, 2015 Update, Revision 1

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

ENVIRONMENTAL CHECKLIST

Project/Activity Title: Site-wide Routine Maintenance Activities, 2015 Update	NEPA ID Number: WVDP-2015-02 Rev. #: 1 Date: March 17, 2015
Contractor Project Manager: John D. Rendall	Phone Number: 716-942-4602
Contractor NEPA Coordinator: Charles A. Biedermann	Phone Number: 716-942-4333
DOE-WVDP NEPA Document Manager: Martin 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."

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?		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."

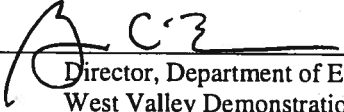
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West Valley Demonstration Project (DOE-WVDP)

ENVIRONMENTAL CHECKLIST


D. RECOMMENDATION AND DETERMINATION:

DOE-WVDP Director's Recommendation: I find and recommend 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, Routine Maintenance)
- 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:  Date 03-30-2015
Director, Department of Energy
West Valley Demonstration Project (DOE-WVDP)

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 3/26/15
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, Department of Energy
West Valley Demonstration Project (DOE-WVDP)

SECTION A. BRIEF PROJECT/ACTIVITY DESCRIPTION

BACKGROUND

From 1966 to 1972, Nuclear Fuel Services, Inc. (NFS) operated a nuclear fuel reprocessing plant at the Western New York Nuclear Service Center (WNYNSC) near West Valley, New York (Figure 1). The plant reclaimed uranium and plutonium from spent nuclear fuel. After operating the fuel reprocessing facility for six years, NFS halted operations to make modifications to increase the plant's reprocessing capacity, reduce worker doses, and reduce radioactive effluents. During this period, new regulatory requirements were issued related to earthquake and tornado protection, and waste management requirements. NFS concluded that it would not be economically viable to continue the reprocessing operation at West Valley. In 1976, NFS informed New York State that it was withdrawing from the reprocessing business and intended to turn the West Valley facility and the two disposal areas over to New York State.

At that time, the reprocessing facility contained 750 spent fuel assemblies that had not been reprocessed, 600,000 gallons of liquid High Level Radioactive Waste (HLW) stored in two steel tanks, the highly contaminated Main Plant Process Building, and almost three million cubic feet of radioactive waste buried in the two disposal areas.

In 1980, Congress passed the West Valley Demonstration Project (WVDP) Act (Public Law 96-368), which directed the U. S. Department of Energy (DOE) to do the following: (1) solidify the HLW at the WNYNSC in a form suitable for transportation and disposal; (2) develop containers for the HLW that are suitable for permanent disposal; (3) transport the solidified HLW, in accordance with applicable provisions of law, to an appropriate Federal repository for permanent disposal; (4) in accordance with applicable licensing requirements, dispose of low-level radioactive waste (LLW) and transuranic (TRU) waste produced as a result of solidifying the HLW; and (5) decontaminate and decommission: (a) the tanks and other facilities of the WNYNSC in which the HLW solidified under the Project is 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 requirements that the U.S. Nuclear Regulatory Commission (NRC) prescribes.

In 1982, a Final Environmental Impact Statement (EIS) (DOE/EIS-0081) and associated Record of Decision (ROD) were issued for the actions that DOE proposed to satisfy the first two requirements of the WVDP Act. During the initial phase of work performed under EIS-0081, which was completed in September 2002, the HLW was immobilized in borosilicate glass through vitrification. The canisters of immobilized HLW are stored on-site in the High Level Waste Interim Storage Facility (the former Chemical Process Cell) and will be relocated to the HLW Canister Interim Storage System for temporary storage until DOE authorizes their removal. In 1993 and 1998, the DOE prepared Supplement Analyses (DOE-EIS-025 and WVDP-321, respectively) of the 1982 Final EIS to re-examine on-going HLW solidification activities as well as other refinements to the actions originally evaluated in the EIS. As a result of both analyses, DOE concluded that no environmentally relevant or substantial changes in Project scope had occurred, that no new circumstances or relevant information existed, and that the environmental analyses performed for the 1982 EIS were still valid.

After solidification of liquid and sludge was completed in September 2002, the WVDP shifted its attention and resources to the remaining requirements of the WVDP Act, waste disposal and facility decontamination and decommissioning. To facilitate these activities, in 2006, DOE prepared the Environmental Assessment for the Decontamination, Demolition, and Removal of Certain Facilities at the West Valley Demonstration Project. A Finding of No Significant Impact for these actions was subsequently made. Additionally, two EISs were prepared to review alternatives for completion of these requirements; WVDP Waste Management EIS (DOE/EIS-0337-F) completed in 2003 and ROD issued in 2005 and the Decommissioning and/or Long-Term Stewardship EIS (DOE/EIS-0226) completed in 2010 and ROD issued in 2010.

The "Preferred Alternative" to be implemented as a result of the Decommissioning and/or Long-Term Stewardship final EIS (DOE/EIS-0226) employs a two phased approach to decommissioning the site. The first Phase (Phase 1) involves the decommissioning of most site facilities, including demolition of the Main Plant Process Building and Vitrification Facility and studies undertaken to reduce uncertainties associated with decommissioning the remaining facilities. The second phase (Phase 2) completes the

decommissioning and/or long term management decision making for the site. CH2M HILL and Babcock and Willcox West Valley, LLC (CHBWV) has been awarded the DOE Contract (No. DE-EM0001529) for the initial activities under the "WVDP Phase 1 Decommissioning-Facilities Disposition" Project. The scope of this contract generally includes the facility disposition portion of the work that constitutes Phase 1. CHBWV's objective is to safely deliver a reliable, cost-effective, and accelerated completion of these WVDP Phase 1 Decommissioning-Facilities Disposition Project activities, as described in the Contract.

The WNYNSC and all the structures therein, including the area being utilized to conduct the WVDP (Figures 1, 2, and 3), are the property of the State of New York and are managed by the New York State Energy Research and Development Authority (NYSERDA). The Cooperative Agreement between NYSERDA and DOE, Article IV, Section 4.08, *Operation, Maintenance and Repair*, states,

"The Department shall operate and maintain the Project Premises, Project Facilities and such Additional Facilities that it uses in carrying out the Project and as may be necessary or appropriate to carry out the Project in a manner which protects public health and safety and complies with the provisions of this Agreement. As used in this Section, the term 'maintain' shall include, but not be limited to, the obligation to make all necessary and appropriate repairs, changes, alterations, and additions thereto or replacements thereof, interior and exterior, structural and non-structural, ordinary and extraordinary, foreseen and unforeseen."

In a similar manner, DOE Order 430.1B, "Real Property Asset Management," requires all DOE sites to maintain real property assets in a manner that promotes operational safety, worker health, environmental compliance, property preservation, and cost-effectiveness while meeting the program missions. The Order specifies that maintenance is the day-to-day work that is required to sustain property in a condition suitable for it to be used for its designated purpose, including preventive, predictive, and corrective maintenance. Similarly, the Order states that repair is the restoration of failed or malfunctioning equipment, system, or facility to its intended function or design condition.

A.1 Purpose and Need

Although the Phase 1 Decommissioning and/or Long-Term Stewardship final EIS (DOE/EIS-0226) and associated Technical Reports address some operational and maintenance activities associated with decommissioning and facility disposition, it does not fully or completely cover ongoing operation and maintenance needs during the period required to complete facility disposition actions. The purpose of this environmental review is to evaluate these considerations as they apply to ongoing routine maintenance at the WVDP and WVDP associated facilities and systems located on the WNYNSC outside of the WVDP retained premises (these include but are not limited to the Live Fire Range, the Water Supply Reservoirs and Dam System, and the Rail Spur) (See Figure 2).

This site-wide routine maintenance checklist addresses the needed routine maintenance activities to comply with the requirements of the Cooperative Agreement between NYSERDA and DOE (as amended) and with DOE Order 430.1B.

A.2 Objectives

The DOE Contract with CHBWV (Contract No. DE-EM0001529) requires, among other things, to:

"...provide for the safe, economical, and efficient operation and maintenance of all project facilities. Activities are expected to include but not be limited to the following:

- a) Preventative maintenance;
- b) Repair and alterations of facilities and associated equipment;
- c) Transportation infrastructure;
- d) Monitor and repair of erosion and related control structures for WVDP facilities;
- e) Reservoir, emergency spillway and dam maintenance;
- f) General infrastructure;
- g) Utilities and utility systems and infrastructure;
- h) Janitorial services and grounds keeping services (including grass mowing; trimming; brush cutting; snow plowing; snow removal; and walkway, road,

- i) and parking lot maintenance, spraying of herbicides);
- i) Laboratory services;
- j) Laundry services (on and off Project Premises; to include compliance with all applicable regulatory requirements) and;
- k) Railroad Spur maintenance.

Systems essential to the protection of the safety and health of the public and workers, or the protection of the environment and federal property, must be continuously maintained....” (See Section C.2.0 of Contract No. DE-EM0001529 for additional detail of Site Operation, Maintenance, and Utilities requirements.)

The objective of this environmental review is to provide for all WVDP and associated facilities and systems site-wide routine maintenance activities.

A.3 Type and Scope of Activities

The proposed action evaluated in this environmental checklist involves performing preventive, predictive, and corrective maintenance (i.e., repair) activities on a routine basis for the remainder of the CHBWV Contract (Contract No. DE-EM0001529) to ensure that WVDP facilities, processes, systems and/or equipment are maintained in a condition suitable for their intended use. This environmental checklist will be reviewed annually to ensure that all planned activities fall within the scope defined below. A revised and updated checklist or a separate checklist will be prepared should a proposed action fall outside of this scope.

Routine maintenance activities are an integral and necessary part of the day-to-day operations of the WVDP. DOE has categorically excluded the broad range of activities that routine maintenance encompasses as a single class of actions - 10 CFR Part 1021, Subpart D, Appendix B C Categorical Exclusions Applicable to Specific Agency Actions, Class of Action B1.3, “Routine Maintenance.”

Classes of routine maintenance activities that fall under DOE Categorical Exclusion B1.3 can be considered to fall into four general categories:

Maintenance

Corrective (that is, repair), preventive, and predictive maintenance required to maintain buildings, structures, infrastructures, and equipment in a condition suitable for a facility to be used for its designated purpose. Corrective maintenance involves repair and restoration of equipment or components that have failed or are malfunctioning and are not performing their intended function. Predictive maintenance involves periodic monitoring and diagnosis to forecast component degradation so that "as-needed" planned maintenance can be performed prior to equipment failure. Preventive Maintenance (PM) includes periodic and planned maintenance actions taken to maintain a piece of equipment within design operating conditions and extend its life, and is performed prior to equipment failure or to prevent equipment failure.

Custodial Services

Activities to preserve facility appearance, working conditions, and sanitation (e.g., cleaning, window washing, lawn mowing, brush removal, trash collection, painting, and snow removal).

Replacement In-Kind

Replacement in kind is a one-for-one change-out, repair or replacement that is in kind and is not a substantial upgrade or improvement. In kind replacement includes installation of new components to replace outmoded components if the replacement does not result in a significant change in the expected useful life, design capacity, or function of the facility.

Minor Modifications

Changes that are made to preserve buildings, structures, infrastructures, and equipment in a condition suitable for a facility to be used for its designated purpose. Such modifications include, but are not limited to, the institution of administrative and engineering controls to meet building and safety codes, to resolve As Low As Reasonably Achievable (ALARA) concerns, and to maintain safe and efficient working conditions (e.g., installation of lighting, safety signage, non-slip surfacing, and weather-protection enclosures or canopies, etc.).

In accordance with the limitations on routine maintenance imposed by 10 CFR Part 1021, none of the activities addressed in this environmental checklist would be performed as:

- Part of, or in support of, a larger project that requires either an Environmental Assessment (EA) or an Environmental Impact Statement (EIS);
- Actions that would change the scope or mission of a facility;
- Actions that would cause a significant increase in environmental impacts of a facility;
- Actions that would affect any sensitive area or natural resources; or
- A substantial upgrade or improvement that would significantly extend the useful life of a facility.

Description of Proposed General Maintenance Activities and Processes

The following lists provide examples of the areas, facilities, processes, systems and types of equipment that routinely require maintenance at the WVDP. The lists include activities that are foreseeably necessary to accomplish a particular maintenance action, custodial service, replacement in-kind, or minor modification (e.g., the excavation that is necessary to access an underground utility line that requires repair, relocation of an overhead power or communication lines to facilitate equipment access).

Areas Requiring Maintenance

The facilities, processes and/or systems requiring maintenance include, but are not limited to, the following:

Acid and Caustic Handling Systems
Animal Control Processes
Cargo Trailers and Containers
Chemical Bulk Storage
Chemical Process Cell-Waste Storage Area (CPC-WSA)
Communication Systems and transmission lines
Computer Systems
Construction and Demolition Debris Landfill (CDDL)
Container Sorting and Packaging
Contact Size-Reduction Facility (CSRF)
Contamination Monitors
Counting Room Facilities
Crane Rooms and Associated Enclosures
Electrical Distribution Facilities
Environmental Monitoring, Sampling and Surveillance Systems
Equalization Basin
Fire Protection and Detection Systems
Fire Pump House/Stations
Fuel Receiving and Storage (FRS) Area
Guardhouses
Ground Level Offices
Groundwater and Seep Monitoring
Groundwater Water Wells and Supply System
Hardstands (e.g. LSA 2 Hardstand, Rail Packaging and Staging Area)
Hazardous Waste Storage
Head-End Cells
High-Activity Waste Storage
High Level Waste Cask Transfer Pad
High-Level Waste Interim Storage
High-Level Waste Canister Interim Storage System (HLW Canister Storage Pad)
High-Level Waste Cask Construction Pad
On-site Analytical Services
Lag Storage Areas 3, 4, and Depot
Lagoons

Lay-Down Areas
 Low-Level Waste Treatment Facilities (LLW2) and associated structures and embankments
 Main Plant Process Building
 Meteorological Monitoring
 NRC-Licensed Disposal Area (NDA) Geomembrane Cover
 NDA Interceptor Trench, Wastewater System, and Liquid Pretreatment System
 North Plateau Pump-and-Treat System
 Nuclear Regulatory Commission (NRC) Licensed Disposal Area (NDA)
 Office Buildings, Trailers, and Speed Spaces
 Permeable Treatment Wall
 Petroleum Bulk Storage
 Plant Utilities (Air, Electrical, Gas, Water)
 Power Transmission Lines
 Process Building
 Process Waste Handling
 Pump Storage Vaults
 Railroad Spur
 Radwaste Treatment System (RTS) Drum Cell
 Restrooms and Locker Rooms
 Remote Handled Waste Facility (RHWF)
 Security Systems
 Sewage Treatment Plant (AKA Wastewater Treatment Facility)
 Site Roadways, Parking Areas, Culverts, and Ditches
 Size Reduction and Compactor Area
 Solid Radioactive Waste Handling
 Storm Water Management Systems
 Substations
 Switchyards
 Tank and Vault Drying System
 Telecommunication Systems
 Trailers (Office, Restroom, and Storage)
 Utility and Potable Water Systems
 Utility Room and Expansion
 Ventilation Systems
 Vitrification Corral Waste Storage Area
 Vitrification Facility
 Vitrification Load-In/Load-Out Facility
 Vitrification Test Facility
 Vitrification Vaults Waste Storage Area
 Warehouses
 Waste Storage [Low-Level Radioactive Waste (LLW), Mixed LLW, Transuranic (TRU), Greater-Than-Class C (GTCC), High Level Radioactive Waste, and Spent Nuclear Fuel]
 Waste Processing Area
 Waste Tank Farm
 Wastewater Treatment, Sewers, and Sewage Collection and Treatment
 Wastewater and Storm Water Outfalls
 Weather Structures - Enclosures and Canopies
 West Valley Demonstration Project Dam System (Lake 1 Dam, Lake 1, Lake 2 Dam, Lake 2, Interconnecting Canal, 18-foot Diameter Buttermilk Creek Culvert, and Lake 2 Spillway)

Equipment Requiring Maintenance

Plant process equipment requiring maintenance includes, but is not limited to, the following:

Air Conditioners
 Air and Other Gas Compressors
 Alarms
 Blowers, Fans, and Ducts
 Boilers
 Closed-Circuit Television (CCTV) Cameras
 Communication Lines and Antenna, including Towers and Satellite Dishes

Computers and Peripherals
Contamination Monitoring Equipment
Cranes and Hoists
Dampers
Eductors
Electrical Power Generators
Equalization Basins
Filters and Strainers
Fire Detection and Suppression Equipment
Grinders
Heat Exchangers
Heaters
Highlifts, Forklifts
Hydrants
Ion-Exchange Columns
Instrumentation and Control Systems
Laboratory Equipment
Liquid Distribution Systems
Machine Shop Equipment
Machinery
Manipulators and Crane Manipulators
Material Handling Equipment
Meteorological Tower and Monitoring Equipment
Mixers/Agitators
Motors
Piping
Portable Ventilation Units (15)
Power Distribution Equipment
Pumps (Vacuum and Pressure)
Radiation Monitoring Equipment
Replacement Ventilation Units
Restroom Equipment (Sinks, Showers, Toilets)
Roofing
Sampling and Monitoring Equipment
Security Fencing
Shield Windows/Doors
Snowplows
Soil Containment and Catchment Structures
Substations
Space Heaters
Switch Yards
Tanks and ancillary equipment
Test Equipment
Telephone Switches
Transformers
Turbines and Engines
Uninterrupted Power Supply Units (UPS Units)
Valves
Vehicles and Construction/Demolition Equipment
Ventilation
Waste Compactors
Welding Equipment
Well Pumps

Maintenance Activities

- 1.0 Performance of independent verifications and inspections (both visual and remote) in support of budget and scheduling, maintenance planning, regulatory compliance, and improvement of plant safety. Verification and inspections include, but are not limited to, photography, configuration checks, robotics controlled surveillance, sample gathering, the use of mock-ups and/or test equipment.

- 2.0 Direct replacement of existing equipment and/or facility components.
- 3.0 Excavation and back-filling for the maintenance and repair of underground plant utility systems and services as well as extensions or isolation and removal of existing utilities from existing plant utility systems.

4.0 Maintenance of plant utility systems and services, including, but not limited to:

- water
- electrical
- air
- fuel oil
- gasoline
- diesel
- wastewater treatment and sewage
- natural gas, nitrogen and carbon dioxide
- communications and data processing
- caustic/acid chemical system
- steam
- storm water conveyance systems

4.1 Maintenance of plant water systems, including, but not limited to:

- Fire pump house/station and equipment
- Groundwater water supply system
- Potable water treatment and chemical addition
- Reservoir water supply system
- Utility water system and soft water
- Fire protection systems, including water, dry, and other fire extinguishing equipment

4.2 Maintenance of wastewater treatment facilities/systems.

- Inspection, cleaning and repair of manholes, sewer lines, traps, treatment process tanks and chambers, and pipe clean-outs
- Maintenance and repair of the WVDP sewage treatment plant, storm water, and low-level wastewater treatment facility, including, but not limited to:
 - Treatment basins, vessels, tanks, chambers, and pits
 - Process and effluent monitoring equipment
 - Storm water drainage systems
 - Sanitary sewers
 - Wastewater holding lagoons and lagoon discharge system
 - Plant drainage (e.g., foundation under-drains)
 - Addition of chemicals for controlling wastewater quality (e.g., pH)

4.3 Maintenance of electrical systems, including, but not limited to:

- Pump motors, manipulators, blower motors, motor starters, starter control systems, generators, substations, and switchgear

- Electrical system component upgrades, replacement, or installation and rewiring of conduit, junction, switch and receptacle boxes; rerouting and minor additions of conduit, wire, cable, control panels, boxes and receptacles (i.e., minor additions for 480-volt system or less); placement of new wire in existing conduit; installation of conduit supports to facilitate access and maintenance
 - Regular and emergency lighting
 - Circuits and wiring
 - Replacement of breakers, switches, disconnects, transformers, utility poles, insulators, and the replacement of downed or relocation of distribution lines
- 4.4 Maintenance of mechanical systems, such as piping, valves, and ducts.
- 4.5 Maintenance of utility and instrumentation air service systems.
- 4.6 Maintenance of natural gas service or propane, including, but not limited to, service lines from meters and tanks to the site equipment and expanded use of propane.
- 4.7 Maintenance of fuel oil service (e.g., tanks and service lines).
- 4.8 Maintenance of plant acid and chemical addition systems.
- 4.9 Maintenance of communications and data processing systems, including, but not limited to:
- Public address systems
 - Telephone systems, including facsimile (FAX), modems, and data collection lines (e.g., meteorology system)
 - Alarm systems, including fire and radiation detection
 - Mainframe, servers, wired and wireless data transmission, and personal computers and peripheral systems
 - Antenna, including towers and satellite dishes
 - Transmission lines, including fiber optics, including relocation of communication lines
 - Wired and wireless camera and instrumentation systems
- 5.0 Maintenance of process instrumentation, including, but not limited to:
- Alarm systems - electric, digital, and pneumatic instruments and systems used for controlling, recording, and alarming process variables; component replacement and repair, including, but not limited to, trouble-shooting, fitting adjustments, functionally equivalent component replacement, re-tubing, mounting and rewiring, testing, and calibration
- 6.0 Maintenance of heating, ventilation and air conditioning (HVAC), repair, replacement, and testing of HVAC systems and filters including, but not limited to:
- Office/Support Structure Spaces (HVAC)
 - Permanent Ventilation System (PVS)
 - Main Plant HVAC
 - Replacement Ventilation Units

- Vitrification Facility System HVAC
- Head End Ventilation System HVAC
- Remote Handled Waste Facility HVAC
- Main Ventilation System
- Portable Ventilation Units (PVUs)
- High-Efficiency Particulate Air (HEPA) Filters
- Installation and maintenance of HVAC when required for personnel comfort

7.0 Routine site and plant maintenance and custodial services (not within potential or known critical wildlife habitats or delineated wetlands, creeks, or other waters of the state [without first obtaining required regulatory approvals, permits and authorizations]), including, but not limited to:

- Grounds maintenance, such as lawn mowing, grass trimming, shrub and tree pruning
- Application of approved pesticides, herbicides, and rodenticides
- Snow shoveling, plowing, and removal
- Grading, drainage, and culvert repairs and sediment cleanup
- Routine re-vegetation and erosion control activities
- Repair, replacement, or removal of building and structure foundations
- Installation of non-skid surfaces on steps, ramps, and other well-traveled areas
- Maintenance of paved areas, including, but not limited to, parking lots, sidewalks, and roads as well as the addition or removal of hard surface paving and hardstands on previously stoned areas
- Minor extensions, repairs, and upgrades of existing roadways
- Maintenance of the WVDP Rail Spur including embankments and ditches
- Maintenance of the WVDP Dam System
- Establishing storage areas for maintenance tools, equipment, and supplies
- Janitorial, cleaning, and housekeeping activities
- Handling, storage, and removal/disposal of recyclables, industrial, hazardous, mixed hazardous and radioactive, and radioactive wastes
- Calibration, repair, and replacement of radiation monitoring equipment, including portal monitors, continuous air monitors, and ambient air monitoring stations
- Routine load testing of lifting equipment
- Maintenance activities in radiologically contaminated areas
- Periodic routine cleaning of storm water drainage systems (e.g., ditches, catch basins, etc.)
- Periodic animal control activities (e.g., trapping, relocation, bird nest removal, sampling, etc.)

8.0 Buildings and structural maintenance including, but not limited to:

- Painting and coating indoor and outdoor surfaces of facility equipment and other structures (e.g., walls, floors, ceilings, and decks) with paint, epoxy, and other coatings as well as surface preparations, such as cleaning, grouting, scraping, sanding, sandblasting, or other methods of surface preparation
- Installation, repair, and replacement of exterior siding, rain-gutters, and heat tracing
- Removal or replacement of existing roofing materials and installation of insulating materials, roofing materials, and sealants
- Repair or replacement of decks, doors, ceilings, walls, windows, floors, and floor covering
- Removal of asbestos or asbestos-containing material (with New York State Department of Health approval) for which removal is necessary to support WVDP projects
- Minor modifications to or removal of existing structures to increase effective use of space (e.g., door, ceiling, wall, window stairs, platforms and ramp repositioning)
- Removal and storage/disposal of obsolete or unused equipment
- Replacement and/or relocation or removal of existing office and cargo containers, speed spaces, lean-tos, equipment shelters, and storage sheds
- Dismantling of storage sheds, lean-tos, equipment shelters, containers, trailers or other similar structures, and any appurtenances attached thereto

9.0 Maintenance and minor modifications required to maintain security, communication, and data systems, to resolve safety concerns, and to prevent hazards, including, but not limited to:

- Maintenance of on-site and off-site communications facilities, such as antennas, radios, and monitoring and data transfer systems
- Maintenance of detection, monitoring, surveillance, alarms, and camera systems
- Repair and testing of emergency equipment (e.g., generators)
- Installation, maintenance, and repair of security fencing, gates, and lighting systems
- Installation of protective guards on machinery
- Addition of safety showers and eye-wash stations where only minor piping changes are required
- Fabrication, installation, and repair of steps, ramps, walk ways, safety railings, hand rails, guard rails, and frames
- Routine decontamination and spill clean-up actions
- Installation and repair of fire protection and detection systems, including, but not limited to, portable and fixed firefighting equipment as well as sprinkler systems and detection systems
- Installation and maintenance of freeze protection and related activities, including the removal of old insulation and the installation of new insulation
- Excavations for the installation and repair of utility systems

10.0 Maintenance and repair of vehicles and power equipment (excluding air conditioning and emission control systems), including, but not limited to, trucks, earth-moving equipment, mowers, forklifts, and so forth.

11.0 Maintenance and repair of on-site and off-site environmental monitoring equipment and stations, including but not limited to:

- Routine Sampling including access and egress to and from sampling locations
- Trimming trees and cutting grass around the environmental monitoring stations
- Repair to or replacement of environmental monitoring sheds, weirs, equipment and sample lines
- Placing stone, crushed gravel, etc. on walkways and/or concrete pads around and under the environmental monitoring stations
- Instituting weed control measures such as adding geotextile fabric around the stations
- Upgrading electrical and communication systems of environmental monitoring stations

A.4 Schedule and Timing

The routine maintenance activities evaluated in this environmental checklist would be performed on a routine and "as-needed" basis throughout the CHBWW contract. Applicable manuals and procedures shall be utilized to determine the frequency at which routine maintenance activities are to be performed. These determinations will be based on manufacturer manuals, plant experience, and good engineering practices. Maintenance activities performed by subcontractor personnel would be scheduled in accordance with procedure EP-7-003, "Preparation, Review, Approval and Administration of Construction Bid Packages," Attachment A.

SECTION B. SOURCES OF IMPACT

1. **Air Emissions** - There would be minor Carbon Monoxide (CO), Carbon Dioxide (CO₂) and particulate air emissions generated from the construction equipment used to perform routine maintenance activities at the WVDP. Typically, this equipment includes trucks, excavators, paving equipment, front-end loaders, high-lifts, lawn maintenance, and snow removal equipment. These emissions would occur intermittently over a ten-hour day. Fugitive dust could be generated during maintenance activities. Such dust would be controlled as necessary to minimize impact. Volatile organic emissions could be generated during refueling and hydraulic fluid replacement of the equipment. Such emissions will be minimal and will not require any controls under state and federal Clean Air Act regulations. Volatile organic compound (VOC) emissions could also be generated from painting. Similarly, particulate emissions could be generated from sandblasting. Routine maintenance activities with the potential to generate either of these emissions would be evaluated on a case-by-case basis to determine compliance with regulatory requirements under the Clean Air Act. The charging and recharging of air conditioning and refrigeration compressors will be performed by certified technicians. Radiological air emissions are monitored and controlled through authorized control treatment systems in accordance with the radiological National Emission Standards for Hazardous Air Pollutants.
2. **Liquid Effluents** - Liquid effluents are generated from wastewater from WVDP facilities, defined mixed waste streams, sanitary and industrial wastewater, and storm water run-off impacted by industrial activities. Wastewater from the plant drains, surface runoff, and interceptor trench water from the NRC-licensed Disposal Area (NDA) is treated at the existing Low-Level Waste Treatment Facility (LLWTF). These waste streams, following collection in Lagoon 2, are treated using a filtration and ion-exchange process. The effluent is released to Lagoons 4 and 5 for subsequent sampling and release to Lagoon 3. When discharge criteria are met, the final effluent is released from Lagoon 3 to the environment through a monitored New York State Pollutant Discharge Elimination System (SPDES) outfall. Sanitary wastewater is collected for treatment at a POTW. Liquid wastewater must be disposed under a permit to a POTW having a State approved pretreatment program for trucked waste. Composite sampling of treated water effluent is taken prior to discharge to the SPDES permitted outfall. Storm water impacted by construction/demolition activities is managed in accordance with the WVDP Best Management Practices Plan. Where required, approval under a General Permit under the SPDES Program will be obtained.
3. **Solid Waste** - Typical construction waste such as boxes, wood forms, concrete, asphalt, wiring, piping, paper, waste materials (insulation, wood, metal) would be generated. This waste is transported to a certified recycler or a properly permitted solid waste landfill for disposal. Soils and environmental media generated during routine maintenance activities are characterized and managed in accordance with environmental media policies (QP-450-01 and WV-939). An active program to minimize waste

generation is in place at the WVDP. The waste minimization program includes both source reduction and recycling. Waste Minimization and Pollution Prevention Opportunities are also an integral part of the work review process. Pollution Prevention opportunities are continually under consideration for identifying Waste Minimization and Pollution Prevention opportunities associated with Routine Maintenance activities.

4. **Radioactive Waste/Soil** - Maintenance activities performed inside contaminated areas within the retained Project premises would result in the generation of some radioactive waste. Typical types of waste would include anti-contamination clothing, rags, radiation enclosures and barriers, wood, dirt, contaminated materials and components (e.g., pumps, piping, roofing materials), demolition debris (which may include asphalt and concrete), contaminated High Efficiency Particulate Air (HEPA) filters, and contaminated absorbent used to clean up small spills. These materials would be packaged and stored in existing on-site storage facilities pending disposal at an authorized and permitted facility. For excavation in an area suspected to be radioactively contaminated, WVDP Radiological Control personnel would assist in developing specific radiation work permits to minimize the potential for encountering contaminated media. Excavated soils would be managed in accordance with site procedures, policies (including the environmental media management policies (QP-450-01 and WV-939), and applicable regulatory requirements. The proposed excavation and how it is to be completed would be designed to minimize the amount of contaminated environmental media generated. In an effort to reduce the amount of radioactive waste generated, segregation of clean debris from radioactively contaminated areas and debris is undertaken. Radioactively contaminated tools are kept in contaminated areas for reuse rather than disposal at the completion of the activity.
5. **Hazardous Waste** - Maintenance activities performed on equipment containing hazardous materials, such as acids, hazardous and listed solvents, and heavy metals may require management as hazardous waste. Activities would be planned and performed using waste minimizing strategies to limit the generation of hazardous waste. Any hazardous waste would be sorted, characterized, stored, treated, and disposed of in compliance with applicable Resource Conservation and Recovery Act federal and New York state hazardous waste management regulations.
6. **Mixed Waste** - Mixed waste would only be generated within the WVDP retained premises. Characterized mixed waste streams are stored in interim status units, 90-day accumulation areas, or satellite accumulation areas. Activities would be planned and performed to minimize generation of mixed waste. Mixed waste would be stored and treated in compliance with applicable state and federal regulations, DOE Orders, and legal agreements (e.g., the RCRA Part A Permit and the Site Treatment Plan (WVDP-299) prepared in accordance with the WVDP Federal Facilities Compliance Act Consent Decree with New York State).
7. **Chemical Storage/Use** - Solvents and chemical cleaning agents may be used in some activities, including, but not limited to, janitorial and cleaning activities, parts cleaning, and cleaning pipes for welding. Paint and sealants may be used as well. These chemicals will be properly stored prior to and between use. Any spilling or leaking of these chemicals must be immediately reported to the CHBWV Operations supervisor. Appropriate spill response actions will be developed and implemented depending on the chemicals involved in the spill. CHBWV Regulatory Strategy will be notified by Operations and timely DOE and regulatory notifications will be made in accordance with site policy and applicable regulations.
8. **Petroleum Storage** - Petroleum products to support maintenance activities (i.e., gasoline or diesel-powered equipment) are stored in on-site storage tanks. These tanks are monitored and inspected in accordance with WVDP procedures. All petroleum storage and use (both on and off the WVDP retained premises) will be done in a manner that will minimize environmental impacts. Steps taken will include a documented leak inspection program, spill kits will be readily available in the event of a spill or release, spills or releases of petroleum products shall be immediately reported by the person discovering the spill to CHBWV Operations who will notify Regulatory Strategy, all cleanup materials will be collected and properly disposed of by CHBWV Waste Operations. Timely regulatory and DOE notifications will be made in accordance with WVDP policies and procedures (WV-915 and WVDP-340) and New York State agreement reporting criteria.
9. **Asbestos** - Some maintenance activities involve the removal of asbestos-containing materials (ACMs). The quantity of asbestos removed would be included in the Notification of Asbestos Removal submitted annually to EPA. All asbestos waste would be handled, packaged, and disposed in

compliance with federal and state regulations, DOE Orders, and the WVDP asbestos management procedures. Projects involving greater than 25 linear feet or 10 ft² of asbestos would be reviewed for State and/or Federal notification requirements. Asbestos waste would be sent to a properly permitted solid waste landfill for disposal. If radioactively contaminated ACM is generated, it would be managed as discussed above in Section B.4, Radioactive Waste/Soil.

10. **Utilities** - In conjunction with the use of record drawings of underground utilities within the WNYNSC, an electronic line locator would be used to locate underground utilities. These locations are then marked on the ground. Excavation by hand instead of using powered excavation equipment would take place within two feet of a known underground utility.
11. **Clearing/Excavation** - To repair or replace buried piping, wire conduit, or other system components, some excavation would be required. This excavation would be done within areas previously excavated and graded. No environmentally sensitive areas would be disturbed that would complicate or prohibit future remediation. The removal or paving of existing vehicle usage areas would not cause additional ground disturbances. Removal of concrete slabs would involve a minimal excavation that may be needed to re-grade the disturbed area.
12. **Water Use/Diversion** - Activities would be performed on water systems, including the groundwater water supply system. If maintenance activities occur within designated wetlands areas or boundaries, CHBWW would obtain any required permits from New York State and the US Army Corps of Engineers. Activities are expected to fall under the Nationwide Permit #3, "Maintenance." Disturbed areas would be restored.
13. **Water Treatment** - The water for the WVDP operations is piped from the water supply wells and potentially from the WVDP Reservoir System, treated to meet drinking water standards suitable for potable as well as industrial use. The WVDP drinking water system is permitted by New York State and is overseen by the Cattaraugus County Health Department. (See also Section B.2 concerning treatment of WVDP wastewaters).
14. **Waterway Modification** - Waterways throughout the WNYNSC would include drainage ditches, storm water piping, catch basins, and culverts. Inspections during site storm water runoff episodes and periods of snowmelt can lead to the need for minor modifications and improvements to the storm water drainage system. This can include ditch modifications, cleaning/removal of debris, installation of culvert pipes, earthen slope maintenance and repair and improvement of soil erosion controls. The appropriate erosion controls including, but not limited to, backfill for replacement of eroded materials and soils and mulch (such as straw) cover on newly seeded grassed areas would control potential soil erosion and siltation of the waterways. For segments of the site drainage system that encroach regulated wetlands and associated buffer areas, Clean Water Act permits or exemption from permitting may be required for work in these areas.
15. **Radiation/Toxic Chemical Exposure** - Maintenance activities would include work in radiologically controlled areas. Although individual exposures would depend upon the duration of the activity and the proximity of the worker performing the activity to a source of radiation (e.g., waste containers, process tanks and piping), all exposures would be maintained to As Low As Reasonably Achievable levels and in compliance with applicable State and Federal regulations and DOE Orders as implemented by the WVDP Radiological Controls Manual. Worker exposure is limited by guidance provided in the WVDP Radiological Controls Manual, WVDP Industrial Hygiene and Safety Manual and by Standard Operating Procedures. Radiation dose limits to WVDP employees will be maintained to within the Administrative Control Levels specified in the Radiation Controls Manual.
16. **Pesticide/Herbicide Use** - The types of pesticides and herbicides and the methods of application employed at the WVDP are controlled by federal and state laws, rules, and regulations. Pesticides and herbicides are applied at the WVDP in accordance with these requirements through Standard Operating Procedures. "Restricted Use" and "General Use" pesticides and herbicides are only applied at the WVDP by certified applicators, typically employed by a pesticide application business under subcontract to CHBWW. The application of rodenticide at the WVDP is performed in accordance with animal control operation procedures. If needed water and wastewater treatment chemicals (e.g., algaecides and fungicides) receive prior approval for use from NYSDEC in accordance with the WVDP SPDES permit.

- 18. Transportation** – Maintenance activities will include shipments of materials onto and off of the WVDP and associated facilities. Among other things shipments will include wastewater and waste to authorized treatment and disposal facilities and shipments of soils, materials, and equipment to the WVDP. All shipments will comply with state and federal Department of Transportation regulations and requirements. Material shipments will not have significant impacts to public roads and transportation systems.
- 19. Noise Levels** - Maintenance and repair actions, such as cutting, grinding, welding, and hammering, may result in increased noise levels near the activity. The noise levels would be of short duration and probably would not exceed 85 dB. PPE (hearing protection) will be required per Occupational Safety and Health Administration requirements and DOE Orders during activities expected to generate elevated noise levels.

SECTION C. CATEGORY EVALUATION CRITERIA:

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

All routine maintenance activities shall occur solely within areas of previous or ongoing disturbance at the WVDP and Western New York Nuclear Service Center.

3. Impact a RCRA-regulated unit or facility? Yes

Routine maintenance activities will be required in WVDP RCRA regulated units. All interim status units at the WVDP are authorized to treat and store hazardous, mixed and universal wastes in accordance with the WVDP Part A Permit and New York State hazardous waste regulations. Routine maintenance activities will not impact the regulatory status of these units or result in an increase in authorized storage or treatment capacities. They will not require siting, construction or major expansion of RCRA units. Nor will these activities disturb pollutants, contaminants, petroleum and natural gas products that may exist in the environment.

SECTION D. RECOMMENDATION AND DETERMINATION:

A categorical exclusion (CX) is recommended for the proposed action. The routine maintenance activities described in this environmental checklist fall 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/custodial services for buildings, structures, infrastructures, equipment."

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FIGURE 1
Location of the Western New York Nuclear Service Center

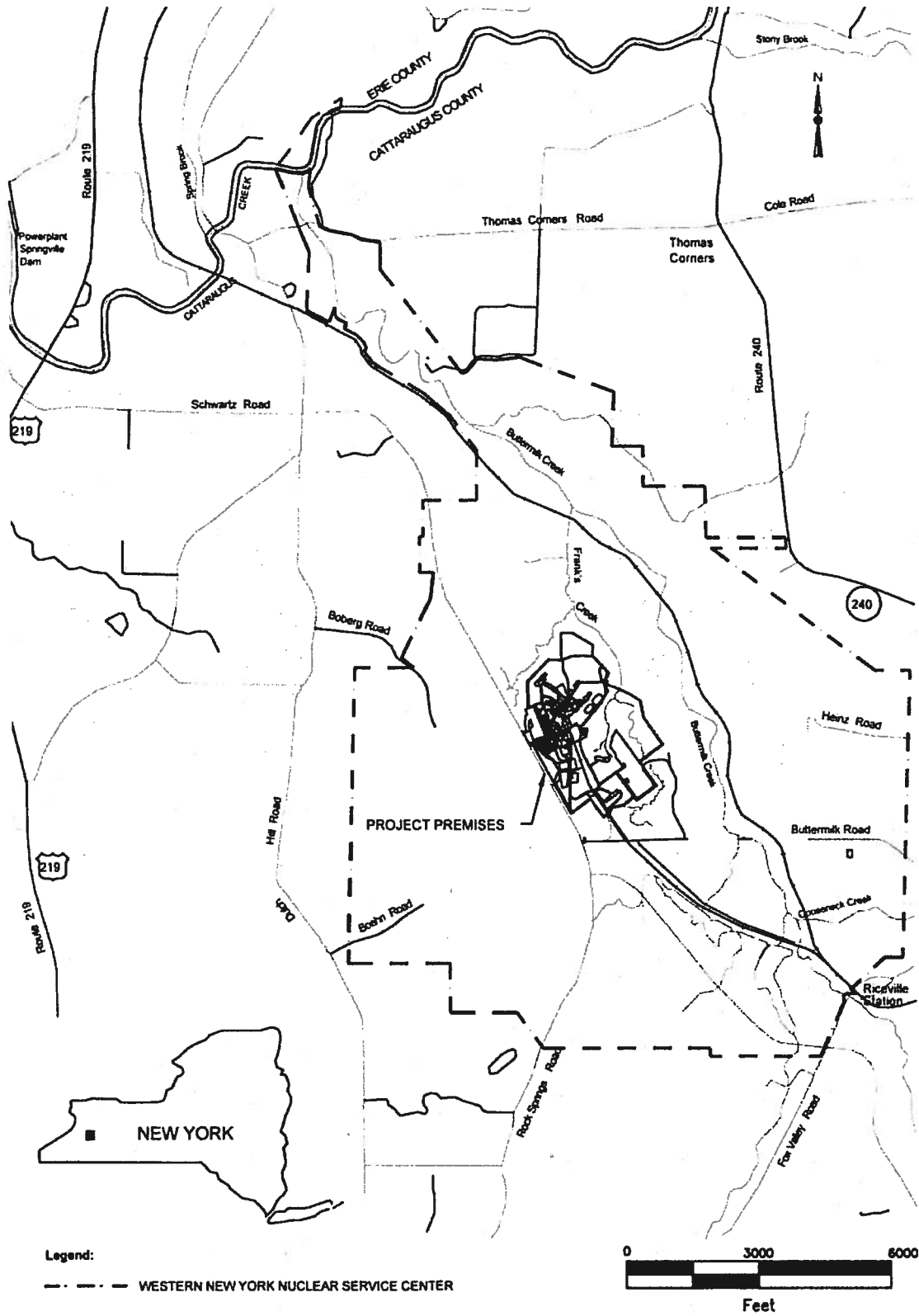


FIGURE 2
Location of the WVDP and Areas Being Utilized by the WVDP



FIGURE 3
West Valley Demonstration Project Base Map

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