



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

April 30, 2010

Mr. John G. McKibbin
President & Project Manager
West Valley Environmental Services LLC
10282 Rock Springs Road
West Valley, NY 14171-9799

ATTENTION: C. A. Biedermann, Regulatory Strategy Manager, AC-EA

SUBJECT: Environmental Checklist WVDP-2010-02, "Additional Off-Site Trencher Equipment Demonstration"

REFERENCE: Letter WD:2010:0171 (102933), C. A. Biedermann to B. C. Bower, "Environmental Checklist WVDP-2010-02, 'Additional Off-Site Trencher Equipment Demonstration,'" dated April 28, 2010

Dear Mr. McKibbin:

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 B3.11. 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 4159.

Sincerely,

A handwritten signature in cursive script that reads "Catherine Bohan".

Catherine M. Bohan,
National Environmental Policy Act Compliance Officer
West Valley Demonstration Project

Enclosure: Signed Environmental Checklist

cc: J. Moon, DOE-HQ, EM-52, FORS, w/enc.
M. S. Bellis, DOE-EMCBC, WV-DOE, w/enc.
M. P. Krentz, DOE-WVDP, AC-DOE, w/enc.
M. N. Maloney, DOE-WVDP, AC-DOE, w/enc.
J. R. Gerber, WVES, AC-ESHQ, w/enc.
J. J. Hoch, WVES, WV-PL6, w/enc.

CMB:102935 - 451.4





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

Project/Activity Title: Additional Off-Site Trencher Equipment Demonstration	NEPA ID Number: WVDP-2010-02	Rev. #: 0	Date: 4/20/10
Contractor Project Manager: C. A. Biedermann	Phone Number: (716) 942-4333		
Contractor NEPA Coordinator: J. J. Hoch	Phone Number: (716) 942-2409		
DOE-WVDP NEPA Document Manager: C. M. Bohan	Phone Number: (716) 942-4159		

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? (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."

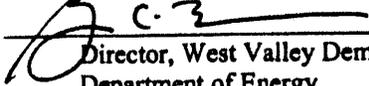
U.S. Department of Energy (DOE)
West Valley Demonstration Project (WVDP)

ENVIRONMENTAL CHECKLIST

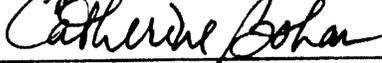
D. RECOMMENDATION AND DETERMINATION

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

- Categorical Exclusions (Appendix B, Class of Action B 3.11)
- Actions Within the Scope of Existing NEPA Documentation (NEPA Document ID Number _____)
- On-going Operations (Standard Operating Procedure OH-6.1.01, Rev. 1, Section 5.2)

Signature:  Date 04-30-2010
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 may proceed without further NEPA review.

Signature:  Date 04-30-2010
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 § 1506.1 and 10 CFR § 1021.211)
- Integrated Documentation for CERCLA/RCRA Actions
- Variances (Emergency Action, 40 CFR § 1506.11 and 10 CFR § 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 451.1A, 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-2010-02
"Additional Off-Site Trencher Equipment Demonstration"**

SECTION A. PROJECT/ACTIVITY DESCRIPTION:

1.0 BACKGROUND

To support the proposed installation of a (full scale) subsurface Permeable Treatment Wall (PTW) at the West Valley Demonstration Project (WVDP), an off-site demonstration of trenching equipment would provide the WVDP with technical details to facilitate design and subsequent full scale installation of a PTW at the WVDP.

An initial trial equipment demonstration was completed in December of 2009 (as described in Environmental Checklist WVDP-2009-10) That demonstration was performed to minimize the risk of the equipment not being able to perform as required and to identify equipment re-design or augmentation efforts that may be required given site specific conditions, etc. As a result of that demonstration, some re-design on soil and zeolite handling was determined to be necessary. This additional demonstration will test the functionality of the proposed re-designs.

2.0 TYPE AND SCOPE OF ACTIVITY

The scope of work considered in this NEPA Environmental Checklist includes additional off-site demonstration of trenching equipment to support the proposed (full scale) subsurface PTW at the WVDP. Specific components of the scope may include:

- Designing, constructing, and demonstrating modified soil conveyor system to address high water content spoils. As part of the soil conveyor system field demonstration, a small zeolite PTW (ROM: 24" wide, 25 ft deep, 10 - 20' long) will be installed at DeWind One-pass Trenching, located in Ottawa County, Holland, Michigan.
 - During the demonstration of the above:
 - Demonstrate use of water addition to zeolite and cutter side of trencher and identify field impacts of such
 - Demonstrate the utilization of a "Stone Slinger" to feed zeolite into the trencher hopper
 - Demonstrate zeolite bag handling and cutting techniques.
 - Demonstrate that reconfiguring the exhaust discharges on the tractor to deflect the exhaust away for the top zeolite conveyor reduces dust produced during zeolite transfer.
 - Demonstrate that the use of the back hopper monitoring system located in the cab of the tractor can be an effective tool to keep track of the volume of zeolite being added to the trench.

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3.0 PURPOSE AND NEED

The **purpose** of this work is to demonstrate the capabilities of trenching equipment at an off-site location to facilitate the installation of the proposed PTW at the WVDP.

The **need** is for the U.S. Department of Energy to continue to fulfill its obligations under the West Valley Demonstration Project (WVDP) to manage and mitigate health, safety, and environmental risks associated with the WVDP, pending decision making on final project decommissioning.

4.0 SCHEDULE/TIMING/COST

The cost of the proposed activities in this second off-site demonstration is expected to be approximately \$200,000. This proposed activity is anticipated to be completed in the spring/summer of CY2010. If re-design of the project is determined as a result of this demonstration, additional offsite demonstrations/testing and the associated costs may be required until designs are finalized.

SECTION B. SOURCES OF IMPACT

1. **Air Emissions:** Operation of diesel-powered excavation and grading vehicles, such as trencher, excavators, dump trucks, and bull dozers, would generate minor air emissions during the demonstration of the trencher including, but not limited to, carbon monoxide, carbon dioxide, and particulate matter. Some dust may be generated by handling of the zeolite and excavation activities. The vendor will be responsible for compliance with federal, state, or local air quality requirements, as applicable.
2. **Liquid Effluents:** Stormwater control may be needed during construction activities. The vendor would be responsible for obtaining any permits for stormwater discharges from construction activities required by the state or local agencies regulating storm water controls for the location selected for the demonstration.
3. **Solid Waste:** Excavated soil and potentially excess zeolite will be required to be managed by the vendor. The vendor would be responsible for management of such materials in accordance with applicable state and federal regulations.
4. **Radioactive Waste/Soil:** N/A
5. **Hazardous Waste:** N/A
6. **Mixed Waste:** N/A

**Attachment to Environmental Checklist WVDP-2010-02
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7. **Chemical Storage/Use:** 20 to 40 cubic yards of zeolite would be used for trenching demonstration. The material would be handled in accordance with Material Safety Data Sheet recommendations.
8. **Petroleum Storage/Use:** Only small quantities would be used, associated with construction equipment executing the approved scope of work.
9. **Asbestos:** N/A
10. **Utilities:** N/A
11. **Clearing/Excavation:** Excavation work would be performed to excavate the trench as described in Section 2.0 above. The excavation of the trench would be performed with the appropriate excavation equipment and in compliance with the health and safety procedures and plans of the selected vendor.
12. **Water Use/Diversion:** Water would be needed for equipment cleaning in connection with decontamination of construction equipment. Water would be obtained from the existing off-site utility water supply as determined by the vendor.
13. **Water Treatment:** The vendor is responsible for compliance with all applicable federal, state or local requirements regulating the area where the demonstration will take place.
14. **Water Course Modification:** N/A
15. **Radiation/Toxic Chemical Exposure:** N/A
16. **Pesticide/Herbicide Use:** N/A
17. **High Energy Source/Explosives:** N/A
18. **Transportation:** N/A
19. **Noise Level:** There would be an increase in noise levels typical of this type of construction equipment (e.g., trencher, excavators, trucks, bull dozers, etc). Noise levels are not anticipated to exceed 97 dBA. Applicable federal and state regulations, as implemented by contractor safety procedures would be observed during the work.
20. **Workforce Adjustments:** N/A
21. **Other:** N/A

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SECTION C. CATEGORY EVALUATION CRITERIA

1. **Take place in an area of previous or on-going disturbance? Yes.** This type of demonstration and/or equipment testing has occurred previously at the contractor's property.
2. **Create hazardous, radioactive or mixed waste for which no disposal is available? No.**
3. **Impact a RCRA-regulated unit or facility? No.**
4. **Force a low income or ethnic minority population to shoulder a disproportionate share of the negative environmental impacts? No.**
5. **Involve air emissions and be located in an air pollutant non-attainment or maintenance area for any criteria pollutants? No.**
6. **Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including DOE and/or Executive Orders? No.**
7. **Disturb hazardous substances, pollutants or contaminants that pre-exist in the environment such that there would be uncontrolled or unpermitted releases? No.**
8. **Require siting, construction, or major expansion of a waste storage, disposal, recovery, or treatment facilities, but may include such categorically-excluded facilities? No.**
9. **Adversely affect environmentally sensitive resources? No.**
10. **Involve extraordinary circumstances? No.**
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. Off-site demonstration of trenching equipment will fall within the class of actions described in 10 CFR Part 1021, Subpart D, Appendix B, B3.11, "Outdoor tests and experiments for the development, quality assurance, or reliability of materials and equipment (including, but not limited to, weapon system components), under controlled conditions that would not involve source, special nuclear, or byproduct materials."

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The proposed action falls within the scope and intent of the categorical exclusion identified above. In addition, the proposed action satisfies the general requirements for a categorical exclusion. There are no extraordinary circumstances related to the proposed action that would affect the significance of the action, and the action is not "connected" to other actions with potentially or cumulatively significant impacts (per 40 CFR 1508.25(a)(1) and (2), respectively).

Off-site demonstration of trenching equipment is not an interdependent part of the EIS for WVDP completion; that is, the proposed action does not depend on the EIS for justification. As such, these efforts would not prejudice the results of the EIS for WVDP completion; therefore, proceeding with the demonstration of trenching equipment would neither bias nor preclude DOE from implementing any of the EIS alternatives. Likewise, the action would not trigger other actions that require an EIS and could proceed without other actions taking place previously or simultaneously.

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/EIS-0226-D U.S. Department of Energy, "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 November 2008
- DOE Order 435.1 U. S. Department of Energy, "Radioactive Waste Management", dated August 28, 2001
- DOE Order 450.1A U. S. Department of Energy, "Environmental Protection Program", Change 3, dated January 3, 2007
- DOE Order 451.1B U. S. Department of Energy, "National Environmental Policy Act Compliance Program", Change 1, dated September 28, 2001
- Geomatrix 2007 "Focused Analysis of Remediation Alternatives for Groundwater Plume Expansion and Seepage to Surface Water. West Valley Demonstration Project – North Plateau Strontium-90 Plume West Valley, New York". Geomatrix Consultants, Inc., May 2007.
- 10 CFR Part 1021 U. S. Department of Energy, "National Environmental Policy Act Implementing Procedures; Final Rule," dated January 1, 2004
- 40 CFR Parts 1500 -1508 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 *et seq.* 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 26, dated February 6, 2007
- WVDP-215 West Valley Nuclear Services Company, "Industrial Hygiene and Safety Exposure Assessment and Monitoring Plan," revision 4, dated January 18, 2007

WVDP-321

West Valley Demonstration Project, "DOE/EIS-0081 Supplement Analysis II of Environmental Impacts Resulting from Modifications in the West Valley Demonstration Project", dated July 16, 1998

WVDP-489

West Valley Environmental Services LLC, "Characterization Plan for the Mitigation of the Leading Edge of the WVDP North Plateau Strontium-90 Plume," revision 1, dated October 15, 2008

