

# **Guidance for Identifying and Conducting Potential Phase 1 Studies on the Decommissioning and/or Long-Term Stewardship of the West Valley Demonstration Project and Western New York Nuclear Service Center**

**01/13/2011**

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## **Project Background**

The New York State Energy Research and Development Authority (NYSERDA) and the U.S. Department of Energy (DOE) recently selected Phased Decisionmaking as the path forward for Decommissioning and/or Long-Term Stewardship of the West Valley Demonstration Project and Western New York Nuclear Service Center. Under the Phased Decisionmaking alternative, the work will be conducted in two phases. During Phase 1, which will take about 10 years, a number of highly contaminated facilities will be removed at a cost of approximately \$1 billion. Also, during Phase 1, DOE and NYSERDA intend to conduct additional scientific studies in order to facilitate interagency consensus to complete decommissioning of the remaining facilities (hereafter "Phase 1 Studies"). According to DOE's Record of Decision (ROD), the Phase 1 Studies may address uncertainties associated with the long-term performance models, the viability and cost of exhuming buried waste and tanks, the availability of waste disposal sites, and technologies for in-place containment. NYSERDA's Findings Statement indicates that the studies should include, but not be limited to, analysis of soil erosion, groundwater flow and contaminant transport, engineered barriers, and uncertainty.

NYSERDA and DOE are committed to conducting Phase 1 Studies through a process that involves input from Subject Matter Experts (SME), an Independent Scientific Panel (ISP), the regulatory agencies and the public. The Phase 1 Study process is outlined in this document.

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## **Guiding Principles**

DOE and NYSERDA agree that the Phase 1 Study process will be conducted in accordance with the following guiding principles:

- The studies will be based on recognized scientific principles.
- The studies will be of sufficient scope to address the key issues, with consideration of recommendations by the SME and the ISP, and input from the regulatory agencies and the public.
- The studies will be scoped such that study findings will be available within 8 years of the Phase 1 decisions.

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### **Core Values of DOE/NYSERDA Team**

- Team members will be treated with trust and respect regardless of affiliation or position.
- Where differences of opinion exist, each agency will strive to understand the other person's or agency's position.
- Each agency will respect the other agency's position.
- Team members will engage in honest discourse.
- Team members will strive to put sound science and the needs of the site ahead of the agencies' needs.
- Team members will act with integrity and transparency.

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### **Expert Support and Facilitation**

DOE and NYSERDA will solicit the opinions of SME specific to each PAS. The SME are technical experts in specific disciplines, and will be tasked with evaluating the PAS and Phase 1 Studies. A three-member ISP will provide independent scientific guidance during the identification and scoping of scientific studies identified by the SME, and will review study plans and activities. The DOE/NYSERDA team will also secure professional facilitation services for the Phase 1 Study process.

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### **Regulatory Input/Interaction**

DOE and NYSERDA will hold routine meetings with the regulatory agencies to discuss the Phase 1 Study process, PAS, and individual scientific studies, their implementation and results.

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### **Public Input/Interaction**

DOE and NYSERDA will hold regular meetings with the public (including the CTF, environmental groups, and other interested stakeholders) to discuss the Phase 1 Study process, PAS, and individual scientific studies, their implementation and results.

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### **Potential Areas of Study**

The following list identifies PAS that have been compiled from various sources. The SME will consider this list and refine the list as needed in identifying Phase 1 Studies. The SME may recommend individual studies to address these PAS. The PAS and individual studies will be modified, as necessary, based on input by DOE and NYSERDA, SME, the ISP, the regulatory agencies and the public.

- Soil erosion
- Groundwater flow and contaminant transport
- Catastrophic release of contamination and impact on Lake Erie
- Slope stability and slope failure
- Seismic hazard
- Probabilistic versus deterministic dose and risk analysis
- Alternate approaches to, costs of, and risks associated with complete waste and tank exhumation
- Viability, cost, and benefit of partial exhumation of waste and removal of contamination
- Exhumation uncertainties and benefit of pilot exhumation activities
- In-place closure containment technologies
- Engineered barrier performance
- Additional characterization needs
- Cost discounting and cost benefit analyses over long time periods

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## **Phase 1 Study Process**

### **1. Initial Meeting with Regulatory Agencies**

DOE and NYSERDA held the initial meeting for the Phase 1 Study process with the regulatory agencies on June 15, 2010. Additional discussions will be held with the regulators on the process and on the PAS. DOE and NYSERDA will consider input from the regulatory agencies and will respond to comments.

### **2. Initial Meeting with the Public**

DOE and NYSERDA will hold a facilitated meeting with the public (including the Citizens Task Force (CTF), environmental groups, and general public) to present the Phase 1 Study process and the PAS. The public will be provided with an opportunity to ask questions and provide verbal and written comments on the material presented. DOE and NYSERDA will consider this input and respond to comments.

DOE and NYSERDA discussed the Phase 1 Study process on June 23, 2010, during a Citizens Task Force (CTF) meeting. Two additional meetings with the public were held on August 3, 2010 (Quarterly Public Meeting) and August 25, 2010 (CTF).

### **3. Evaluation of Potential Areas of Study**

- a. DOE and NYSERDA will assign an SME for each PAS. A SME may be assigned to multiple PAS. DOE and NYSERDA will provide relevant background information on the PAS, including input received from stakeholders, to SME. DOE and NYSERDA communication, correspondence and direction to SME will be transparent between the agencies.
- b. The SME will evaluate their respective PAS, and recommend to DOE and NYSERDA Phase 1 Studies.
- c. Guidance by Independent Scientific Panel: If differences of opinion prevent the SME from making a recommendation as described in Item b., above, the SME may consult with the ISP in an attempt to resolve differences.

#### **i. Option to Proceed in the Event of Continued Disagreement**

If consultation with the ISP does not resolve outstanding differences, the SME will inform DOE and NYSERDA of the disagreement. DOE and NYSERDA may: (1) decide to jointly conduct the disputed study; (2) decide not to conduct the disputed study; or (3) conduct the disputed study unilaterally, at the cost of the agency deciding to conduct the study unilaterally.

- d. When the SME makes a recommendation(s) to: (a) conduct no additional scientific study of a PAS (including rationale), OR (b) conduct additional studies (including rationale and suggestions regarding priority), the recommendation(s) will be presented to DOE and NYSERDA.

Following the SME presentation of their recommendation(s) to DOE and NYSERDA, the regulatory agencies will be briefed and the public will be briefed at a Public Meeting. During this facilitated meeting, the SME, ISP, DOE, and/or NYSERDA will be available to respond to questions and comments. Written comments may be presented to the DOE and NYSERDA, and DOE and NYSERDA will respond to these comments.

**4. Decisions on Phase 1 Study Activities**

DOE and NYSERDA, having considered the SME recommendations and input from the ISP, regulatory agencies and the public, will decide whether to proceed with the recommended studies.

**a. Guidance by Independent Scientific Panel**

DOE and NYSERDA may consult with the ISP at any time during this process. The ISP will review PAS, study plans and study implementation.

**5. Implementation of Phase 1 Studies**

If the recommended studies are approved by DOE and NYSERDA, the SME will develop study plans by which to implement them. Studies will be conducted by or under the supervision of respective SME who will evaluate study findings, make necessary adjustments to study plans, and provide DOE and NYSERDA with an interpretation of study results.

**6. Routine Meetings with Regulatory Agencies**

DOE and NYSERDA will provide briefings to the regulatory agencies during the Regulatory Roundtable meetings held on a semi-annual basis at the site. DOE and NYSERDA will provide updates on the progress of Phase 1 Study process, including study results, reports, and interpretations, and the recommendations of the SME and ISP. DOE and NYSERDA will attempt to have SME and ISP members available at the meetings, either in person or on the telephone. The regulatory agencies will have the opportunity to ask questions of DOE and NYSERDA and to provide comments. In addition to these meetings, the regulatory agencies will have the opportunity to review study plans, progress reports, validated data, and results in order to provide technical comments. DOE and NYSERDA will consider this input and will make this available to the SME and ISP as they evaluate a particular PAS. DOE and NYSERDA will respond to regulator comments.

**7. Routine Meetings with Public**

DOE and NYSERDA will meet with the public throughout the Phase 1 Study process. DOE and NYSERDA will provide updates on the progress of the Phase 1 Study process, including study results, reports, and interpretations and the recommendations of the SME and ISP. DOE and NYSERDA will attempt to have SME and ISP members available at the meetings, either in person or on the telephone. The public will have the opportunity to ask questions of DOE and NYSERDA, and provide comments. DOE and NYSERDA will consider this input and will make this available to the SME and ISP as they evaluate a particular PAS. DOE and NYSERDA will respond to comments.

**8. Independent, Agency-Neutral Contractor**

An independent, agency-neutral contractor that is jointly funded by DOE and NYSERDA shall administer contracts for all Phase 1 Study activities, including contracting with the facilitator, SME, ISP and contractors performing study activities.