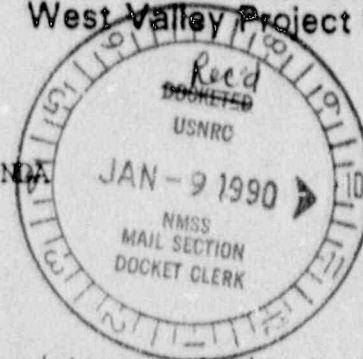
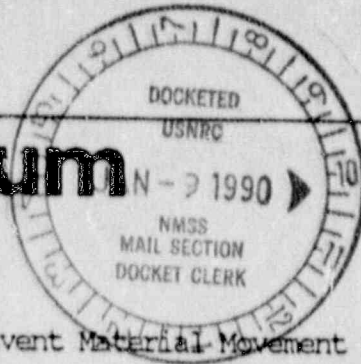


United States Government

# memorandum

Department of Energy

Idaho Operations Office  
West Valley Project Office



DATE: January 2, 1990

SUBJECT: Control of the Solvent Material Movement in the NDA  
J. E. Solecki, Acting Assistant Manager  
for Nuclear Programs

TO:

The purpose of this memorandum is to seek your assistance relative to future actions to control solvent movement in the NRC licensed disposal area (NDA). This need was identified in the draft Characterization Report evaluating solvent (n-dodecane and tri-butyl phosphate) leakage and migration, which was recently prepared jointly by Lames and Moore and West Valley Nuclear Service Company, Inc. The Characterization Report documented the findings of field investigations conducted in the summer and early fall of 1989. Both New York State Energy Research and Development Authority (NYSERDA) and the DOE encouraged and supported the study. The investigation was prompted in part, after solvent was detected in a previously uncontaminated monitoring well in August, 1988. A copy of the report is provided for your use and information (Attachment 1).

Subsequent to completion of field characterization, solvent was detected on November 14, 1989, in monitoring well 85-I-9 during weekly monitoring activities. This was the first detection of solvent in this monitoring well and represents presence of solvent at the last set of wells down gradient from the disposal area. In response to this finding, the following prompt actions were taken:

- o analysis of the solvent material to confirm the chemical and/or radioactive constituents
- o sampling of sixteen additional monitoring wells and augered holes at the down gradient periphery of installed sampling points
- o visual inspection of the area and adjacent Erdman Brook for signs of solvent
- o sampling of Erdman Brook upstream and downstream of this area

Solvent was detected in one of the augered holes. No visual signs of solvent contamination of the NDA surface were detected. Samples from Erdman Brook did not indicate presence of solvent. In summary, solvent has not been detected outside the general area of the NDA.

West Valley Nuclear Services (WVNS) recommends installation of an interceptor trench as described on pp 80-81 of the Characterization Report. This is considered to be a prudent short-term action consistent with site facility maintenance and will provide for added protection of the public health and safety. In addition, the trench will serve as a precautionary measure to mitigate any potential environmental release of any contaminated groundwater to the watershed of the immediate area to the north of the NDA. The collected ground water and solvent, if any, would be treated by the site's Liquid Waste Treatment Facility (02 plant). WVNS has initiated preparatory activities including a topographic survey, essential ground borings, and an assessment of regulatory compliance issues. Based on this information, the interceptor

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drain trench will be designed and field construction will begin consistent with weather conditions and availability of materials. I recommend funding this activity as a site and facility maintenance activity and request your concurrence in that regard.

As a long-term measure, a remediation program for the NDA should be instituted which would isolate and remove the source of solvent for positive and lasting environmental protection. Based on previous efforts associated with Special Holes 10 and 11, this activity is not clearly defined as a project cost. However, as the operator of the site and its facilities, DOE must ensure prompt corrective and responsible action is taken.

I request your support in obtaining guidance on the most prudent course of action to be taken for the long-term. Included must be a formal determination as to the applicability of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) or other environmental regulations as appropriate. To that end a draft Action Memorandum is attached which should facilitate closure on this issue (Attachment 2).

In addition to the Characterization Report and Action Memorandum, I am attaching the following: Characterization Report, Solvent Fact Sheet, Disposal Status of each Special Hole, Conceptual Design of Interceptor Trench System, and a Map of the NDA (Attachment 3).

*Tom Rowland*  
for W. W. Bixby, Director  
West Valley Project Office

Attachments

cc: T. W. McIntosh, DOE-HQ  
S. G. Harbison, NYSERDA-WV

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