

**NORTHERN NEW MEXICO CITIZENS' ADVISORY BOARD  
Recommendation to the Department of Energy**

**No. 2011-05**

**“Recommendation that Los Alamos National Laboratory Not Be  
Selected for Disposal of Greater Than Class C Low-Level  
Radioactive Waste”**

**Drafted by the Waste Management (WM) Committee  
Primary Author: Caroline Mason**

**Background:**

The Draft Environmental Impact Statement (EIS) for the Disposal of Greater-Than-Class C (GTCC) Low-Level Radioactive Waste and GTCC-Like Waste (DOE/EIS-0375-D) is available for public comment. Los Alamos National Laboratory is one of five sites being evaluated for disposition of this waste.

GTCC waste and the companion GTCC-like waste refer to LLW that has radionuclide concentrations that exceed the limits for Class C Low Level Waste given in U.S. Nuclear Regulatory Commission 10CFR 61.55 and cannot be disposed of in currently licensed commercial LLW disposal facilities. The federal government is responsible for the disposal of this waste. The same is true for GTCC-like waste (consists of LLW and potential no-defense generated TRU waste). Both types of waste have no identified path for disposal.

The disposal requirements in the EIS are based on an assumption of approximately 420,000 cubic feet of waste which includes existing waste and waste expected to be generated in the next 20 to 30 years. Some of the radionuclides in the GTCC wastes either have long half-lives (in excess of 10,000 years) or are present in high concentrations.

The draft EIS discusses five proposed methods for the development, operation, and long-term management of a disposal facility or facilities for GTCC LLW and DOE GTCC-like waste.

The five proposed disposal methods are:

1. No action,
2. Disposal at WIPP,
3. Disposal in a New Intermediate- Depth Borehole Facility,
4. Disposal in a New Enhanced near Surface Trench Disposal facility,
5. Disposal in a New Above-Grade Vault Disposal facility.

The only options presented in the EIS for the location of a waste disposal facility (1 or more) are: WIPP (or near WIPP); Los Alamos National Laboratory (LANL); Hanford Laboratory; Idaho National Laboratory (INL); Savannah River Site (SRS); and Nevada National Security Site (NNSS).

**Comments and Observations:**

The specific location at LANL that the option discussed in the EIS proposes for either borehole, trench or vault is Technical Area 54 (TA-54). This very location is the subject of extensive remediation in Material Disposal Areas (MDAs) G, L and H and is scheduled for completion in 2015 under an agreement with the New Mexico Environment Department (New Mexico 2005 Order on Consent).

Technical Area-54 is the only current Department of Energy laboratory property which shares a boundary with Native American pueblo land. The San Ildefonso Pueblo has long considered this area as

part of their sacred lands and remediation options for MDA G must consider these cultural and visual impacts. Currently, TA-54 is scheduled to be closed to new waste disposal following remediation. Long term plans are for a visually pleasing cap, restricted or prohibited access to the land, and long term monitoring. Any proposal to return TA-54 into an active waste disposal area would be in direct opposition to the goals of the New Mexico Order on Consent for environmental restoration, and would be counter to the broader objectives of reducing waste disposal at LANL. DOE has been removing TRU waste from TA-54 under the original baseline budget of a cost of \$564M. The EIS option to move TRU waste back to LANL will defeat the purpose of the environmental restoration effort.

Members of the Northern New Mexico Citizens Advisory Board (NNMCAB) have for many years consistently advised the DOE on issues that could help in the removal of legacy wastes from LANL, and have conducted public outreach to the Northern New Mexico communities to make these waste removal and remediation activities apparent. It is clear from the Board's recommendations to DOE that the NNMCAB advises the waste should be removed from LANL, not added to a future disposal problem. Current NRC policy for the disposition of GTCC-LLRW is in a geologic repository. The geologic repository alternative represents the lowest potential for human health impact.

The residents of Northern New Mexico expect no less from DOE and LANL than completion of the legacy waste remediation on schedule. To reverse this policy and add new waste will severely jeopardize LANL relations with its neighbors both near and far and negate much of the progress accomplished under the 2005 Order on Consent.

### **Recommendations:**

No. 1. The DOE should not consider using LANL as an option for disposal of GTCC waste and the GTCC-like waste.

No. 2. The NNMCAB feels the following are more appropriate sites for disposal of GTCC waste and GTCC-like waste (with equal priority):

- a) Waste Isolation Pilot Plant (WIPP). Although use of the WIPP facility is currently considered the most expensive alternative of those presented in the EIS, it appears to provide the most long-term permanent and perhaps safest choice.
- b) Nevada National Security Site (NNSS). NNSS presently serves as a regional disposal site for LLRW and mixed LLRW generated by DOE facilities and EIS tables indicate almost no Human Health Long-Term Impacts if this site is chosen.
- c) Yucca Mountain. The EIS has failed to consider what may be the best and most practical option for GTCC waste disposal. The existing demonstration tunnels, shafts and underground rooms at the Yucca Mountain Project site maybe suited for this class of waste. DOE should add this option to the EIS.

### **Intent:**

The intent of this NNMCAB recommendation is to see that the required cleanup at LANL is completed in the safest way, specifically relative to movement of waste.

### **References:**

1. Draft Environmental Impact Statement (EIS) for the Disposal of Greater-Than-Class C (GTCC) Low-Level Radioactive Waste and GTCC-Like Waste (DOE/EIS-0375-D), <http://www.gtcc eis.anl.gov/>
2. U.S. Nuclear Regulatory Commission (NRC) Waste classification 10CFR 61.55, <http://www.nrc.gov/reading-rm/doc-collections/cfr/part061/part061-0055.html>
3. New Mexico Order on Consent, 2005.