

**NORTHERN NEW MEXICO CITIZENS' ADVISORY BOARD (NNMCAB)
Recommendation to the Department of Energy
No. 2008-07
Implement DOE P 455.1, "Use of Risk-Based End States"¹
Waste Management Committee**

Background

The time is rapidly approaching for DOE and its contractor LANS to recommend to the New Mexico Environment Department (NMED) a clean-up remedy for the largest and most hazardous waste disposal site located at Los Alamos National Laboratory, MDA G (a Corrective Measures Evaluation Report due 9/12/2008). One of several criteria to be considered, as directed by formal agreement between DOE and NMED, is "long-term reliability and effectiveness". This agreement ("Order on Consent"²) states: "Respondents shall give preference to a remedy that reduces risks with little long-term management, and that has proven effective under similar conditions".

DOE Policy 455.1, "Use of Risk-Based End States" directs DOE line management to consider expected future land use from a site-wide perspective when evaluating and deciding on waste site clean-up options. These end states become the basis for exposure scenarios when conducting risk assessments that go into the decision process.

Comment

The "Order on Consent" provides little guidance on how to include long-term considerations into the risk assessment used to select a clean-up remedy.

DOE Policy 455.1 has not been implemented at LANL³ and therefore long-term risk assessment might not receive appropriate consideration in the upcoming remediation decision process for this most significant waste disposal site at LANL.

On April 16, 2008, NNMCAB held a public information forum in Santa Fe, NM to provide information and gather public comments and concerns regarding the upcoming cleanup decision process for MDA G. A recurring concern raised by individual members of the public was long-term risks. The following is a brief summary of those comments:

- Human intrusion into a waste site can't be quantified, so it is the biggest consideration.
- It will be hard to use risk as a basis because unquantifiables dominate relative risks; need to use larger, societal issues as part of overall risk.
- The soil removal and cover option for MDA H was rejected for consideration of bio-intrusion issues; MDA G will be worse.
- How long will the government support long-term monitoring?
- Recommend that DOE publish plans on how long releases will be permitted after closure (1000 years?).

- Government concerns over long periods of time show shifts, and are one of the unquantifiables. Cultural values also need to feed the risk assessment.
- Do what is best for the pueblo (San Ildefonso), into future generations. Concerned about effects to people due to presence of contaminants.

Recommendation

The NNMCAB recommends implementation of DOE P 455.1, “Use of Risk-Based End States” as input to the clean-up evaluation and decision process for MDA G and all future waste sites at LANL.

Intent

The intent is to provide a means for assuring that long-term future land use of the LANL site is appropriately considered when evaluating the risk of clean-up options.

Effect

Since DOE P 455.1 requires input from members of the public, including neighboring pueblos, the effect of implementing this recommendation will be not only to improve the decision process, but also to improve public acceptance of whatever clean-up option is selected.

References

1. *“Use of Risk-Based End States”, DOE P 455.1, U.S. Department of Energy, Washington D.C., July 15, 2003.*
2. *“Compliance Order on Consent”, State of New Mexico, Environment Department, March 1, 2005.*
3. *E-mail from Lorrie Bonds-Lopez responding to NNMCAB request, LANL, July 24, 2008.*