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LANL / ER / 60 / 1129

June 9, 1998

Bert Stevenson
U.S. Department of Energy
Office of Fissile Materials Disposition
Post Office Box 23786
Washington, D.C. 20026-3786

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DOE OVERSIGHT BUREAU

Dear Mr. Stevenson:

RE: PIT DISASSEMBLY AND CONVERSION DEMONSTRATION ENVIRONMENTAL ASSESSMENT AND RESEARCH AND DEVELOPMENT ACTIVITIES, PREAPPROVAL REVIEW; OFFICE OF FISSILE MATERIALS DISPOSITION, U.S. DEPARTMENT OF ENERGY; MAY 1998

The following transmits New Mexico Environment Department (NMED) staff comments concerning the above-referenced Environmental Assessment (EA).

The "proposed action" is to conduct a Pit Disassembly and Conversion Demonstration at the Los Alamos National Laboratory (LANL). Plutonium pits will be transported to New Mexico. Waste transport standards should be at least as protective as for other transuranic materials. Small amounts of transuranic waste, mixed low-level waste, and hazardous waste will be produced. Since most of LANL's waste processing capability and waste storage capacity has been committed, impacts at TA-55 and at the Low Level Waste Disposal Facility (TA-54), and the Radioactive Liquid Waste Treatment Facility (TA-50) should be considered. Small amounts of plutonium, americium, and tritium may be released to the atmosphere. Monitoring and control of these emissions should be demonstrated to be adequate and should be maintained. A number of more specific comments follow.

1. Page 6, 3.0 PROPOSED PIT DISASSEMBLY AND CONVERSION DEMONSTRATION

The EA mentions that pits would require tritium decontamination. This process, however, was not described at all in the text. What accidents could happen regarding this process? Could they be serious? We strongly recommend that these issues be discussed in, for example, section 6.1.4, and analyzed if they meet the appropriate criteria.

2. Page 13, 5.3.3 Radiation Exposure

According to 40 CFR Part 61.93 (b)(5)(iv): "In the case of multiple radionuclides being released from a facility, compliance shall be demonstrated if the value for all radionuclides is less than the concentration level in Table 2, and the sum of the fractions that result when each measured



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concentration value is divided by the value in Table 2 for each radionuclide is less than 1[one]." This part of the regulation should be mentioned in the text and directly demonstrated for compliance.

3. Page 19, 6.1.3 Radiological Impacts

Does the second column of Table 6-1 indicate *annual or total* "Estimated Releases from Demonstration"? This should be made clear.

4. Page 19, 6.1.3 Radiological Impacts

The code GENII Version 1.485 should be referenced. The EA should indicate whether this code has been peer reviewed, verified and validated. Also, the document should mention whether the code has been approved (or not) for use by the U.S. Environmental Protection Agency (USEPA).

5. Page 19, 6.1.3 Radiological Impacts

The radiation worker dose was estimated to be 750 mrem/year. The EA should explain how this estimate was derived; for example, was it done by comparison of doses from similar operations, from calculations, etc.-- this should be stated directly in text or demonstrated.

6. Page 22, 6.1.4 Accident Impacts

The code MACCS2 should be referenced and the EA should explain why it was used; it should also indicate whether the code has been peer reviewed, verified and validated.

7. Air Quality Comments

The main air quality issue involves radioactive emissions to the air, which are regulated under 40 CFR Part 61 Subpart H. This federal regulation states that radioactive air emissions from the facility can only result in a maximum exposure of 10 millirem (mrem)/year to any member of the public, who is determined by looking at the nearest school, business, or residence to LANL, and is referred to as the Maximally Exposed Individual (MEI). The exposure to this MEI is calculated using the EPA model CAP88 and data gathered by monitoring equipment. As long as the total calculated dose to the MEI from the facility as a whole remains under the 10 mrem/ year cap, the facility is in compliance with the regulation.

Estimates of radioactive air emissions resulting from the demonstration project given in the EA are relatively small and unlikely to cause the facility to exceed its cap. This is consistent with the facts that 1) air from the building goes through a High Efficiency Particulate Air (HEPA) filter before leaving the building, which will trap most radioactive particles, and 2) most, generally over 90%, of the radioactive air emissions from LANL are generated at a different facility which is not involved in this project, the LANSCE facility. Also, if actual radioactive air emissions from this demonstration project exceed the anticipated amount, other activities at LANL can be scaled back so that the facility does not exceed the 10 mrem/year cap. This demonstration project should not cause the facility to violate 40 CFR Part 61 Subpart H regulation.

This EA, of course, applies only to the *demonstration project*, not the entire Surplus Plutonium Disposition Project. A Finding Of No Significant Impact (FONSI) for this EA would be for the

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demonstration, not the overall project. According to section 1.1 of the EA, a full scale Surplus Plutonium Disposition Environmental Impact Statement (SPD EIS) is currently in preparation and should be available for separate review. Monitoring data gathered on actual radioactive air emissions measured during the demonstration project should be used to revise the estimated releases for the SPD EIS if they become available before the EIS is completed.

We appreciate the opportunity to comment on this document, please let us know if you have any questions on the above.

Sincerely,

A handwritten signature in black ink, appearing to be 'Gedi Cibas', written over a horizontal line.

Gedi Cibas, Ph.D.
Environmental Impact Review Coordinator

NMED File No. 1172ER