UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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LANL General

July 27, 2005

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Mr. Aaron Borrelli
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation (E-60)
1600 Clifton Road, N.E.,
Atlanta, GA 30333

RE: Public Comment Release– Public Health Assessment of Los Alamos National Laboratory

Dear Mr. Borrelli:

I have reviewed the Agency for Toxic Substances and Disease Registry (ATSDR) public health assessment for Los Alamos National Laboratory, dated April 26, 2005. My comments are as follows.

General Comments:

The health assessment is based on information prior to 2001 and misses several relevant activities that would improve the usefulness of the public health assessment. For example, there is no mention of the RACER project or of the clean-up of Acid Canyon. The RACER project (Risk Analysis, Communication, Evaluation, and Reduction) began in 2003 when Colorado State University (CSU) undertook an independent and comprehensive risk assessment for public health and the environment for chemicals and radionuclides associated with Los Alamos National Laboratory (LANL) operations. Risk Assessment Corporation (RAC) of Neeses, S.C., was selected to conduct the technical work as the primary, independent sub-contractor. One of the major work products from RAC has been the creation of a database that incorporates data from all media and all organizations involved in remediation activities at LANL. This was a huge task as sites with the same location, but sampled by different entities were labeled differently, and chemical names were not consistent. Use of this data would greatly improve any risk assessment document.

Acid Canyon was cleaned up in 2001 based upon the risk assessment developed by the State of New Mexico using the extended backyard scenario. See comment concerning page 33 under "Specific Comments" for more information on this scenario.

Blanket statements are made regarding the conservatism of this public health assessment without supporting documentation. In general, a risk assessment is revised to reflect more appropriate site-specific exposures or exposure point concentrations to rather than rely upon defaults and declare that the risk assessment is conservative. It is not appropriate, however, to reduce the conservatism by comparing site contamination or intake values to LOELs/LOAELs. This is not an

13934

established procedure in any risk protocol. Comparing to LOELs/LOAELS, eliminates considerations of sensitive populations and intra and interspecies differences.

Specific Comments:

1. Page 6. Where can we access the data that was collected by ATSDR between 1994 to 1996? This data could be provide important information in the ongoing corrective action efforts at LANL.

2. Page 33. Recreational use is not defined, but based upon this scenario, ATSDR concluded that. Acid Canyon showed no risk. This conflicts with the risk assessment results from New Mexico which showed risk from Plutonium 239/240. The exposure scenario defined by New Mexico is as follows: children playing in the canyon for 6 years, ages 5-12 years, for one hour per day for 200 days per year and a risk level of 10(-5).

What exposure defaults did ATSDR use for the recreational use scenario?

As a result of the risk assessment and community involvement, Los Alamos National Labs removed lots of sediment from the canyon. More sediment was removed than necessary to meet the risk goals, but the extra sediment was necessary to meet the requirements of the Transportation Department for transporting radioactive materials

3. Page 38. ATSDR asserts that PCB contamination is minimal and does not pose a threat to human health. What values were used to make this determination? According to the New Mexico Environment Department, PCBs are of particular concern in that they are exceeding the state's water quality standards which are designed to protect human health from fish ingestion. Did ATSDR consider New Mexico's water quality standards when determining that PCBs pose no risk?

4. Page C-10. The Acid Canyon description needs updating to include information on clean-up.

5. Page H-4. The fluoride discussion seems to gloss over details. Is it in the drinking water? Levels are high enough to cause pitting of permanent teeth which is considered to be a cosmetic effect. Mottled teeth are more than just a cosmetic effect, although this outcome seems acceptable to ATSDR. Since the intake is below the level to affect bone, the conclusion is that fluoride is not expected to result in adverse health effects from water supplies.

6. Page H-5. The discussion on perchlorate needs updating to include the new IRIS RfD for perchlorate.

7. Page H-6. Arsenic doses were compared to the LOAEL. This is not appropriate.

8. Page H-9. Lead appears to be a concern. Blood lead levels are predicted to be 23 ug/dl based upon only drinking water as a source. The level that is of concern to EPA is 10 ug/dl from all sources.

9. Page H-11. The 2nd paragraph under the subheading of "Cancer Effects" discusses exposure to adults and lifetime residents. I think what is meant is child instead of lifetime resident.

10. Page H-11. The PHA discusses the study used to derive the cancer slope factor for arsenic. EPA is currently in the process of revising the IRIS file for arsenic and this discussion may be outdated by the time the PHA goes final. However the IRIS file is revised, the MCL remains at 10 ppm and the monitoring data show values above the current MCL of 10 ppm. Are these values from currently used drinking water wells?

11. Page H-12. Where is the data to support that non-continuous exposures to gross alpha does not increase cancer risk?

12. Page H-16. The estimated dose of chloride in children is compared to the NOAEL. This appears to be because the estimated dose exceeded the RfD, but not the NOAEL. It has never been acceptable risk assessment practice to compare human doses to a rat NOAEL to determine that no adverse human health effects are expected.

13. Page H-31 This discussion provides examples of where ATSDR may have been overly conservative in their risk assessment approach and makes a blanket statement that there is no problem. ATSDR should redo their risk assessment to reduce conservatism and not assume that there is no risk.

14. Page H-31. ATSDR did sum pathways for individual chemicals with the exception of the pathway of fish consumption. However, chemicals were not combined to determine the cumulative risk.

Thank you for the opportunity to comment on the PHA. Please do not hesitate to call me at 214-665-6643 should you have any questions concerning my comments or if you would like to discuss them further.

Sincerely,

Cheryl Overstreet
Toxicologist
Federal Facilities Section 6PD-F

cc: James Bearzi, New Mexico Environment Department