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James Bearzi / File



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PETER MAGGIORE  
Secretary

(k)

October 29, 1999

Laura Holgate, Director  
Office of Fissile Materials Disposition  
U.S. Department of Energy  
P.O. Box 23786  
Washington, DC 20026-3786

RED LAWL G/P/'99

Dear Ms. Holgate:

**RE: ENVIRONMENTAL ASSESSMENT FOR THE PARALLEX PROJECT FUEL MANUFACTURE AND SHIPMENT; LOS ALAMOS NATIONAL LABORATORY, LOS ALAMOS, NEW MEXICO; PREPARED BY U.S. DEPARTMENT OF ENERGY, OFFICE OF FISSILE MATERIALS DISPOSITION, WASHINGTON, DC; JANUARY 1999**

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

**(1) Page 29 – 4.1.1.1 MOX Fuel Fabrication**

The "probability" statements regarding probabilities of "1.0" are fallacious, misleading and irrelevant in the context of this report. A probability of 1.0 applies only to a single individual for any single, onetime event for predicting an absolute certainty. By this rationale, for the 12 workers referenced throughout the EA, a probability of 0.08 would be enough to ensure that one of them would, with absolute certainty, develop an excess cancer as a result of occupational radiation exposures.

There is no reason or justification (statistical or otherwise) to arbitrarily amend the expected MOX fuel production workers exposure to 95% of the maximum dose for worker conducting similar operations, particularly since this "maximum dose" is already calculated as an "average" maximum. This is neither "conservative" nor consistent with ALARA principles. Reporting a range of, or a reference for, maximum exposures that have resulted from similar operations would also be useful.

**(2) Page 37 – 5.1 MOX Fuel Fabrication Fire**

The reported accident "likelihood" of between one in 100 and one in 10,000 is baseless. This is evidenced in Appendix D. RISK ASSESSMENT where a reported incident rate of 115 fires from 1952 to 1980 (28 years), or a frequency of occurrence (F) = 115 divided by 28 = 4.1 fires per year, is further subdivided by a contrived unit of "30,000 sprinkler system-years" to arrive at a probability of "one chance in 10,000 years". A more reasonable "qualitative" estimate of occurrence of this accident scenario would be derived at by dividing the 4.1 fires per year, as



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documented, by the number of similar facilities, assuming that the occurrences are random across all facilities, to arrive at a likelihood of fire per facility per year.

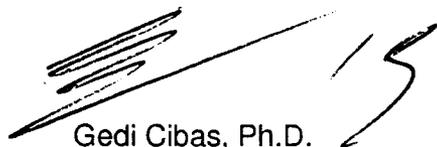
Additionally, the risk assessment in Appendix D assumes that there is some correlation between the size and type of fire necessary to result in an inhalation exposure to plutonium dioxide and an event that would initialize the sprinkler systems. It is further implied that the later event would somehow mitigate the former, which is unsubstantiated and inconsistent with the accident scenario as described.

**(3) General comment**

The document is not clear when the production of MOX fuel from weapons-usable plutonium might begin at LANL.

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 read 'Gedi Cibas', with a large, stylized flourish extending to the right.

Gedi Cibas, Ph.D.  
Environmental Impact Review Coordinator

NMED File No. 1316ER