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15 May 2006

Bonnie Gitlin
Acting Director
Radiation Protection Division
Office of Radiation and Indoor Air
U.S. Environmental Protection Agency
Washington, DC 20460

Dear Ms. Gitlin:

Thank you for your letter of May 2, 2006. I appreciate that the EPA has worked with the DOE Carlsbad Office to address the inadequacies in the non-destructive assay operations of Los Alamos National Laboratory (LANL). However, this does not resolve the problem of large plutonium discrepancies.

On April 21, 2006, I issued a revised report on this matter, entitled [*Dangerous Discrepancies: Missing Plutonium in Los Alamos National Laboratory Waste Accounts*](#). I sent this report to Ms. Forinash and am enclosing a copy for you. While the revision was occasioned by the need to correct an error (which did not result in any significant change in the overall conclusion regarding a plutonium discrepancy of about 300 kilograms), I took the occasion to do a more detailed analysis of the plutonium accounts relating to LANL waste. Specifically, I looked in detail at the annual distribution of plutonium discarded into waste as specified in the Nuclear Materials Management Safeguards System (NMMSS).

This account shows that over 550 kilograms of plutonium was discharged into waste during the 1980s and 1990s, when LANL was storing such waste retrievably (Table 8, p. 17 of the enclosed report). Of this amount, over 500 kilograms is shown as having been discharged in the 1980s alone. The 1980s and 1990s wastes are essentially the same as those that EPA has now approved for acceptance at the Waste Isolation Pilot Plant (WIPP). However, as explained on page 10 of the enclosed report, the WIPP accounts only show a total of about 200 kilograms of weapons plutonium contained in WIPP waste. Hence, it appears that (i) many or most of the entries for plutonium discharged into waste in the NMMSS account for the 1980s (and possibly others) are wrong or (i) the WIPP account is wrong.

In a [letter](#) dated February 28, 2006, which drew on a review of the matter done at LANL, Ambassador Brooks assured me that "the Department of Energy had the utmost confidence in the information contained in the facility accountability systems and in the NMMSS." I am enclosing the letter for your convenience.

I do not believe that your technical and legal requirements for shipment of waste to WIPP allow for vast discrepancies in the amount of plutonium contained in the shipments, with attendant questions about criticality and other risks. Hence your assurances regarding the integrity of LANL characterization of WIPP waste are not compatible with Ambassador Brooks' assurance that the NMMSS account is worthy of the "utmost confidence." ***Either the WIPP account is wrong or the NMMSS account is wrong by large amounts of plutonium. Both cannot be right.*** Of course it is possible that both may be wrong.

I again urge you to suspend shipments to WIPP from LANL until the plutonium in waste discrepancies have been reduced to a level that does not threaten security or the integrity of the WIPP program. The current level of discrepancies - about 60 nuclear bombs worth of plutonium - is clearly unacceptable by any reasonable measure or standard.

Thank you again for your response. I look forward to an explanation that will actually address the matter of the plutonium accounts. I request that you coordinate your investigation with the NNSA, so that this critical discrepancy can finally be resolved.

Yours sincerely,

Arjun Makhijani, Ph.D.
President, Institute for Energy and Environmental Research

cc:

Ambassador Linton Brooks
Gregory Friedman, Inspector General, DOE
Don Hancock, SRIC