



Department of Energy
National Nuclear Security Administration
Washington, DC 20585
December 19, 2001

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW.
Suite 700
Washington, D.C. 20004-2901

Dear Mr. Chairman:

We have received your letter concerning tritium facility operations and site-wide emergency hazard assessment activities at the Los Alamos National Laboratory. We appreciate your compliment that significant progress has been made toward upgrading the safety basis of the enduring tritium facilities and the sites emergency hazard assessment. I am encouraged to see how well our staffs are working in resolving the issues that you identified in your letter, but due to the extended period of time it is taking to resolve some of the issues, I wanted to formally address those issues that have been resolved.

Your concerns have been noted in reference to the Weapons Engineering Tritium Facility (WETF) safety analysis activities and the limited resources for emergency management and response. As discussed with your staff, the comments on the WETF safety analysis have been forwarded to the Los Alamos Area Office for consideration in the final safety analysis. My staff has reviewed the comments in the trip report enclosed with your letter, and the response to the special recovery line and emergency response observations is included in the enclosure.

If you have any questions, please contact me or have your staff contact David Beck at 202-586-4978.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Haeckel".

RONALD J. HAECKEL
Brigadier General, USAF
Acting Deputy Administrator
for Defense Programs

Enclosure

cc w/enclosure:
M. Whitaker, S.3-1



ENCLOSURE

Specific observations detailed in the trip report attached to the letter included:

“However, during the course of the review, the staff noted that a lack of funding for SRL had nearly resulted in operations being placed into a cold standby mode. Until the Pit Disassembly and Conversion Facility becomes available, the SRL represents the only disposition path for a subset of relatively vulnerable pits currently stored at the Pantex Plant. It would appear to be prudent to stabilize funding for SRL to maintain the ability to dispose of vulnerable pits at Pantex should an acute problem arise there.”

NNSA Response: The Administration shares the Board's concern about maintaining a capability to handle tritium contaminated components. The availability of the Special Recovery Line has been maintained, pending the identification of a disposition path, or paths, for the pits in question.

“The EHA is based mainly on the existing authorization basis documents. This would represent a positive attempt to integrate identification and analysis of the hazards if the facilities had comprehensive hazard analyses as part of their safety bases. The existing documents are of varying quality and degrees of completion or correctness. Consequently, the information provided in the EHA may not be complete, valid, or up to date. It should be noted that LANL has an authorization basis upgrade program under way to improve the quality of existing authorization bases for nuclear facilities during the next few years.”

NNSA Response: We concur that the previous Emergency Hazard Analysis (EHA) needs to be improved as the AB documents are upgraded. LANL has introduced a new process that involves routing of documents for EHA thru the LANL Office of Authorization Basis (OAB). The AB upgrade program should improve the quality of the documents. EMR has established a point of contact in the OAB that keeps them informed of the upcoming SARs/BIOs etc that are in progress that will need to be considered and rolled into the EHA process. They also periodically review the OAB web page to ensure that they are aware of the upcoming SARs/BIO/etc. Lab policy is that Safety documents are rolled into the EHA at the 90% completion level. The EHA is reviewed semiannually and published in the last quarter of the fiscal year.

“The EHA has been prepared by one employee during the last few years. Preparation of this document requires a more comprehensive, team effort than can be provided by a single individual, regardless of his or her high qualifications. For example:

- **The analyses need to be independently reviewed and approved to ensure that an acceptable level of quality is maintained throughout the process. The current document lacks such quality assurance.**
- **Preparation of the EHA needs to be coordinated with the Office of Authorization Basis to ensure that up-to-date information on hazards and their analysis is used. This coordination, which is necessary for continuous improvement and upgrading of the EHA, has not been carried out.**

A more comprehensive assessment of all chemical hazards identified in the Automated Chemical Inventory System needs to be performed to ensure that all the hazards are captured in the EHA. Furthermore, an evaluation of the analytical methodologies is needed to ensure that the computer programs are not used beyond their expected capabilities. For example, virtual source terms (e.g., spills) that the computer codes are not written to handle.”

NNSA Response: Future EHA documents will be reviewed using a team approach. Coordination with OAB will be fully established and strengthened to enhance the quality of the documents and improve consistency. EMR has established a point of contact in the OAB that keeps them informed of the upcoming SARs/BIOs etc that are in progress that will need to be considered and rolled into the EHA process. They also periodically review the OAB web page to ensure that they are aware of the upcoming SARs/BIO/etc. Lab policy is that Safety documents are rolled into the EHA at the 90% completion level. The EHA is reviewed semiannually and published in the last quarter of the fiscal year.

The OAB will provide the independent oversight of the documents. LANL is completing their reviews of their annual Emergency Management Plan (EMP) at this time. These EMPs will roll in the new information on hazards, changes in facilities, and inventories. LAAO reviews these documents annually and provides feedback to LANL. The Cerro Grande Fire of May 2000 highlighted and brought to light several areas that needed improvement. As a result of that event, LANL wrote a special comprehensive analysis on the potential for wildland fire impact. The new EMPs will include this analysis. Additional analysis for natural phenomena are also being developed and will be rolled into the EHA documents.

It is recognized that the current LANL Automated Chemical Information System (ACIS) needs improvement. LANL is in the progress of re-inventorying the chemicals in the program. They have issued a comprehensive chemical management program LIR 402-510-01 and will be providing further guidance on chemical safety in an upcoming future LIR. The re-inventories will be rolled into the EMP that are currently being developed.

“Additionally, it appears that LANL needs to perform an assessment of the laboratory's protective action procedures to ensure that corresponding procedures are available at the facility level to respond to protective action recommendations made by EM&R. For example, the Board's staff noted that some facilities did not have procedures in place that would need to be referred to in case of an emergency, such as those for taking shelter in case of an accident in a neighboring facility.”

NNSA Response: LANL has conducted a review of the Laboratory's protective action procedures and will implement changes to ensure consistency site wide. Until training is completed and a drill conducted, the Control Center will verbally direct the responses necessary via the paging system in place today.