

## Department of Energy

Richland Operations Office P.O. Box 550 Richland, Washington 99352

DEC 6 2000

01-SFO-034

Mr. John T. Conway Chairman Defense Nuclear Facilities Safety Board 625 Indiana Avenue, NW Suite 700 Washington, D.C. 20024

Dear Mr. Conway:

This letter is to confirm and document my plan and rationale for closing out the concerns discussed in our December 6, 2000, videoconference.

## Summary of RL's Position on the Start of Fuel Processing Operations

As correctly observed by the Board, the Operational Readiness Reviews (ORRs) conducted by the Department of Energy, Richland Operations Office (RL), as well as those performed by the Contractor in preparation for authorizing the start up of fuel removal operations from the K West Basin, exposed weaknesses in the conduct of operations, operator knowledge and radiological work practices. The Board questioned whether these problems were so significant as to indicate it would be premature to begin operations at this point. My basis for confidence that the problems did not rise to that level derives in part from the fact that the only operations I am authorizing at this point are low risk (involving only "cold", high integrity fuel) for which there is considerably more tolerance for errors of the type identified in the ORR then for later fuel movements involving damaged fuel or fuel of questionable integrity.

Notwithstanding that, the contractor has implemented both short-term and longer-term corrective actions in response to those weaknesses. I believe those actions are appropriate and will be effective, but I also intend to further verify that before expanding the limited operational authority I have provided to date.

More specifically, the rationale for my belief that the contractor can safely begin fuel drying and storage operations and the start of fuel removal operations is as follows:

• Compensatory measures will be put in place over and above those that were used during the operational readiness reviews. Specifically, qualified and knowledgeable RL personnel will be present during all operations to supplement the contractor's Senior Supervisory Watch and mentors. This RL coverage will remain in effect until contractor management and RL jointly agree that such oversight is no longer needed.

- Loading of the first two Multi-Canister Overpacks (MCOs) is restricted to essentially undamaged spent fuel, which greatly reduces the risk associated with the process of retrieving, cleaning, repackaging and drying the fuel. The integrity of the fuel has been confirmed by visual inspection of each individual fuel element. Thus the consequences of any conduct of operations deficiencies that may occur during the initial operations are minimal.
- I believe experience in handling real MCOs with real spent fuel through the entire process from start to completion, will be more effective in further refining our procedures and developing operator proficiency than further operations under simulated or contrived conditions. This was borne out in the fuel retrieval and cleaning operations that were successfully accomplished during the Phased Startup Initiative testing that was recently completed; after some initial operator issues, more than 20 canisters of spent fuel were decapped, cleaned, inspected and placed into special baskets without incident.
- I have limited authority to operate to two MCOs in addition to other limits as described in the attached letter authorizing startup, which will form the basis for my further evaluating whether in fact the contractor is ready to move higher risk fuel. These first two movements will be heavily scrutinized to discern lessons learned, make any further improvements necessary and gauge the effectiveness of the corrective actions.

## Summary Of Principal Contractor Corrective Actions

There were 8 pre-start findings from the DOE ORR of the Cold Vacuum Drying Facility. Each of those findings has been addressed by a corrective action plan and an evidence file has been provided to document completion of the planned actions. The principal contractor actions are:

- Identify those MCO and MCO support activities that will require Senior Supervisory Watch (SSW) and mentor coverage
- Assign qualified SSW and mentor coverage to critical MCO-related activities (those activities that require a Quality Assurance signature)
- Brief all involved personnel (at the Cold Vacuum Drying Facility (CVDF),
   Canister Storage Building and the K West Basin) on the details of the critical
   MCO-related activities and the specific deficiencies identified in the ORRs
- Provide refresher training for Field Work Supervisors on conducting pre-job briefings, critical MCO-related activities and the specific deficiencies identified in the ORRs
- Ensure that the SSW and the mentors are in the field during critical MCO-related activities and that mentors and crew supervisors are proactive with the operators prior to the execution of a critical activity
- Perform continuing training in the inactive bay of the CVDF during the slack time while Process Validation is in progress at the K West Basin during processing of the spent fuel for the second MCO

<sup>&</sup>lt;sup>1</sup> These files are available for review by interested parties in 100K/MO-500.

 Conduct briefings of the CVDF operators and radiological control technicians on the specific deficiencies identified during the ORRs

Change four key procedures to ensure that quality inspection requirements are
properly called out, authorization basis requirements are clearly and properly
incorporated, and support procedures are properly interfaced with other related
activities

 Establish specific expectations for maintenance of qualifications and procedures for removal of authorization to stand watches if qualifications are not maintained.

In addition, RL has assigned knowledgeable and qualified facility representatives to continuous coverage of operations at all facilities. RL has also established that this oversight, as well as the requirement for contractor mentors and the senior supervisory watch, will remain in effect until the contractor self-certifies that it is no longer needed, and an independent assessment conducted by RL and approved by the Hanford Site Manager confirms that the contractor is able to operate safely and proficiently without such support.

If you have any question, please contact me, or you may contact Phil Loscoe of my staff on (509) 376-7465.

Sincerely

Keith A. Klein Manager

Attachment