



**Department of Energy**  
**National Nuclear Security Administration**  
**Washington, DC 20585**



August 18, 2015

The Honorable Joyce L. Connery  
Chairman  
Defense Nuclear Facilities Safety Board  
625 Indiana Avenue, NW, Suite 700  
Washington, DC 20004

Dear Madam Chair:

This letter is to inform you of our next steps regarding improvements in PF-4's seismic performance following release of the Seismic Expert Panel's report, *Independent Review of Seismic Performance Assessments for the Plutonium Facility, PF-4*.

I transmitted the enclosed memorandum to the Los Alamos Field Office requesting it to direct Los Alamos National Lab to update their plan to address the remaining PF-4 seismic issues, considering the costs and benefits of additional design upgrades as well as addressing the schedule for a future safety basis update. In addition, I have asked that a team be formed to develop a Request for Proposal that NA-50 would use to solicit cost, scope, and schedule for a dynamic non-linear analysis of selected aspects of PF-4.

Our path forward to understand and ensure appropriate seismic margin for this vital, enduring facility will continue to mature as start dates and completion timelines are developed for follow-on actions. My office will continue to inform your staff of refinements and schedules associated with this path forward.

If there are any questions, please contact the Acting Deputy Associate Administrator for Safety, Jeffrey Roberson, at 301-903-9228.

Sincerely,

James J. McConnell  
Associate Administrator  
for Safety, Infrastructure & Operations

Enclosure

cc: J. Olencz, AU-1.1  
K. Lebak, NA-LA






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July 22, 2015

MEMORANDUM FOR KIMBERLY DAVIS LEBAK  
MANAGER, LOS ALAMOS FIELD OFFICE (NA-LA)

FROM: JAMES J. MCCONNELL   
ASSOCIATE ADMINISTRATOR FOR  
SAFETY, INFRASTRUCTURE AND OPERATIONS

SUBJECT: Los Alamos Plutonium Facility (PF-4) - Record of Decision on Path  
Forward to Address Seismic Issues

REFERENCE: Seismic Expert Panel Report, *Independent Review of Seismic  
Performance Assessments for the Plutonium Facility, PF-4*, March 31,  
2015

After considering the referenced report, I have decided to direct the following actions in response to the recommendations of the report. Please task Los Alamos National Security, LLC, (LANS) to update and submit for approval the plan for addressing the remaining PF-4 seismic issues. The revised plan should include the following elements:

1. Completion of the proposed actions characterized as 'required' or 'prudent' in Section 6.2 of the Reference, subject to the following two caveats. First, the cost and benefit of the different options for performing the recommended column capital testing should be evaluated and your and my approval obtained before LANS commits to its completion. Second, if LANS believes that the cost of completion of any recommendation in Section 6.2 of the report is not warranted, LANS should discuss the matter with you and me before excluding it or committing to its completion in the updated plan.
2. Consider the cost versus benefit of upgrading additional roof girders, given that an upgrade design exists and trained installation crews are currently available.
3. Propose the manner and timing for LANS to exit the currently approved PF-4 seismic safety basis addendum.
4. Balance the need for further upgrades against the benefit in improving confidence in PF-4's seismic performance, as demonstrated by independently reviewed analysis.

Looking past the Reference and our responses to it, you and I understand that we need to have a longer-term strategy to provide assurance of the acceptability of the final seismic system performance. To this end, you and I have agreed that we should establish a working group to develop a request for proposal (RFP) for NA-50 to solicit cost, scope, and schedule to conduct a



dynamic, non-linear analysis of selected aspects of PF-4, consistent with the guidance in Section 5.3 of the Reference. The working group would include representatives from NA-50, NA-LA, and LANS. The objective would be to obtain a state-of-the-art seismic performance analysis for PF-4 (as upgraded), with results that can be compared to the alternate criteria of ASCE/SEI 43-05 and the DOE STD 1020 Target Performance Goal. The analysis would build upon the four seismic performance analyses accomplished during the last five years to further improve understanding of and confidence in PF-4's long-term seismic performance. NA-50 would use the information from the RFP solicitation, in consultation with your office and LANS to select a specific path forward for additional modelling of PF-4.

Our staffs will work jointly to develop a working group charter, which will specify the timing for drafting the request for proposal, the periodicity for status reports and briefings to you and me, and the criteria for technical decisions that will require your and my approval. To establish the working group, please request LANS participation in the working group, particularly for technical scope and contractual development of an appropriate request for proposal, to be issued through NA-50.

Please have your staff contact Jeffry Roberson (NA-51) at 301-903-9228 regarding a point of contact for the working group, or if there are any questions regarding the decisions in this memorandum.