



## Department of Energy

Washington, DC 20585

JAN 08 2016

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

Dear Madam Chair:

On November 24, 2014, the Office of Environmental Management provided an update regarding Department of Energy (DOE) activities to resolve issues associated with ammonia used in the melter off-gas treatment at the Waste Treatment and Immobilization Plant (WTP), in response to your letter dated September 24, 2014. In that response, we committed to provide you an update to the status of activities.

There are three major ammonia hazard concerns outstanding: (1) the Pretreatment Facility (PTF) main control room habitability; (2) the Balance of Facilities (BOF) interactions with other WTP facilities; and (3) potential tanker truck events.

The hazard analysis for Low Activity Waste (LAW) Facility, which includes the BOF (issue (2)), is now complete and control set options have been developed which may include adding physical barriers and water deluging with existing controls, including vessel material, code compliance, and pressure relief valves. Calculation results and control set options were provided to Defense Nuclear Facilities Safety Board (Board) staff in a teleconference held in August, 2015. Calculations of the potential ammonia and carbon dioxide boiling liquid expanding vapor explosions have been completed, issued, and provided to the Board staff.

Bechtel National, Inc. (BNI) will incorporate the selected control strategy in the Preliminary Documented Safety Analysis (PDSA) and submit it for approval by DOE Office of River Protection mid-calendar year 2016. The LAW PDSA change request will also include the controls associated with transportation of ammonia (i.e., issue (3) - tanker truck accidents).

Work on the PTF is suspended, pending resolution of other technical issues. Once production engineering on PTF resumes, BNI will request inclusion of the ammonia control strategy for the PTF control room habitability in that facility's PDSA. This strategy is expected to be similar to the strategy for the LAW Facility control room, which likely will have been approved by the time of the PTF request. When complete, this action will close issue (1).



If you have any further questions, please contact me or Mr. James Hutton, Deputy Assistant Secretary for Safety, Security, and Quality Programs, at (202) 586-5151.

Sincerely,

A handwritten signature in black ink, appearing to read "Monica C. Regalbuto", with a long horizontal flourish extending to the right.

Monica C. Regalbuto  
Assistant Secretary  
for Environmental Management