



Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

JUN 30 2011

11-AMRC-0169

Mr. T. J. Dwyer
Technical Director
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W., Suite 700
Washington, D.C. 20004

Dear Mr. Dwyer:

RESPONSE TO DEFENSE NUCLEAR FACILITIES SAFETY BOARD (DNFSB) REPORT
REGARDING SLUDGE TREATMENT PROJECT (STP)

In a December 22, 2010, letter from DNFSB, four issues regarding the design and safety basis for the STP were identified. In response to this letter, the RL staff met numerous times with the DNFSB staff, including two full day sessions, to discuss the issues and develop acceptable actions to resolve the DNFSB concerns. On April 13, 2011, RL Senior Management presented these ongoing actions to the DNFSB.

The recent DNFSB Report to Congress on the "Status of Significant Unresolved Issues with the Department of Energy's (DOE) Design and Construction Projects," dated June 15, 2011, reiterated the issues from the December 22, 2010, DNFSB letter. As noted above, these issues are being addressed by RL actions that the DNFSB considers to be acceptable. Following completion of these actions RL will evaluate the issues for closure. The issues and associated actions are summarized in the attached table.

Please inform me immediately if the DNFSB does not agree with this letter and the STP path forward.

Sincerely,

A handwritten signature in black ink, appearing to read "Doug S. Skoop" with a flourish underneath.

Matt McCormick
Manager

AMRC:DCB

Attachment

cc w/attach:
D. Y. Chung, EM-2
K. G. Picha, EM-20
J. A. Poppiti, EM-21
M. N. Campagnone, HS-1.1

Attachment

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DNFSB Issue Resolution Table

| <p align="center">DNFSB Issues 12/22/2010 Letter</p> | <p align="center">DNFSB Issues 6/15/2011 Report to Congress</p> | <p align="center">RL Actions Presented to DNFSB 4/13/2011</p> |
|--|--|---|
| <p>The Board believes that public access to the Columbia River, which is significantly closer to the 100 K Area than the Wahluke Slope, must be considered in determining the safety classifications of SSCs. DOE-RL is currently studying options to resolve this issue by either upgrading the safety classification of several SSCs to safety-class or keeping the safety-significant classification of the SSCs and controlling public access to the river in the event of an accident.</p> | <p>Inadequacies in safety basis development</p> | <p>Project will maintain SSCs as safety significant and control river access for sludge transfers to the Sludge Transportation and Storage Container.</p> |
| <p>In reviewing the safety analysis for the Waste Treatment and Immobilization Plant (WTP), the Board's staff identified several issues associated with the methodology used to evaluate spray leak accidents. These issues could impact the methodology used by the contractor to assess spray leak accidents in the STP conceptual design. The Board encourages personnel from both projects to share information and will continue to evaluate the STP and WTP spray leak accident methodologies as they are developed.</p> | | <p>Project has performed a non-mechanistic analysis for system classification. This has resulted in safety significant SSCs.</p> |
| <p>The design documentation for the active ventilation system for the modified K West Basin Annex does not include sufficient information with which to identify the safety-significant system boundaries and flow control devices needed to verify that the system will be able to perform its safely function of venting hydrogen.</p> | <p>Inadequacies in integration of safety into the design process</p> | <p>Additional information will be provided during Preliminary Design.</p> |
| <p>The (tailoring) strategy combines CD-2 and CD-3 but does not require either a Preliminary Safety Design Report or a Preliminary Safety Validation Report, both of which should be due at CD-2...Such safety reviews should not be delayed when combining CD-2 and CD-3.</p> | | <p>A Preliminary Safety Design Report and Preliminary Safety Validation Report will be issued as part of preliminary design.</p> |