Department of Energy
Washington, DC 20585

SEP 1 1 2008

Mr. T. J. Dwyer
Technical Director
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W., Suite 700
Washington, D.C. 20004-2901

Dear Mr. Dwyer:

During the Department of Energy (DOE), Office of River Protection (ORP) review of the Authorization Basis Amendment Request (ABAR) regarding final filter fire protection design in February and March 2008, ORP identified a number of technical inaccuracies that prevented approval of the ABAR without a more technically defensible analysis. ORP rejected the ABAR on June 5, 2008, as you noted in your letter dated June 24, 2008, regarding the Waste Treatment and Immobilization Plant ventilation fire protection design attributes. ORP's rejection letter identified specific actions required of Bechtel National, Inc. (BNI) to assure submittal of a quality and technically defendable authorization basis change in a timely manner.

Over the last three months, DOE staff has been working with BNI in developing a successful path for the timely implementation of DOE-STD-1066-97, Fire Protection Design Criteria, specifically Chapter 14 Nuclear Filter Plenum Fire Protection. We agree with your issues and concerns identified in your letter and are addressing them as part of our overall resolution strategy. The path forward will result in a technically defensible approach supporting alternate methods that provide equivalent fire protection features in protecting the final High Efficiency Particulate Air filters/plenums from failure in accordance with the DOE-STD-1066-97.

ORP and BNI held a joint working meeting, including a Fire Protection Engineer from my staff, on July 23-24, 2008, in Richland, Washington, to lay out DOE's expectations and identify specific actions and responsibilities for closure of the fire protection design authorization basis. Specific activities involve selection of appropriate control strategies for embers, exposure fire, and heat/soot hazards; establishing and performing technical analysis demonstrating control selection functional capability/requirements; preparation, review and approval of ABARs for each of the facilities (except Balance of Facilities); and identification of potential confirmatory testing as necessary.

The overall approach entails methodologies developed by BNI technical consultants along three lines: 1) ember transport methodology; 2) fire exposure methodology; and 3) heated air/soot transport methodology. These methodologies were reviewed and commented by ORP and Environmental Management (EM) staff, and BNI has formally submitted them to ORP for approval.

It is DOE's expectation that BNI will complete the analysis documenting the results of each methodology and provide to ORP for review by the end of February 2009, followed by ABAR preparation, review and approval. ORP has concurred with the BNI approach that will entail phased approval of ABARs to address the less complex facilities initially and incorporate lessons learned in the more complex facilities, beginning with the Analytical Laboratory (LAB), followed by Low Activity Waste (LAW), and concluding with the Pretreatment Facility and the High-Level Waste Facility (PT/HLW). Another key component of this approach is the contractor's preparation of a Justification for Continued Design, Procurement, and Installation (JCDPI). The JCDPI will provide BNI evaluation of the safety and programmatic risks of continuing design, procurement, and/or installation activities while the methodology analyses are being performed to allow BNI to submit recommendations on what activities should be allowed to continue and which activities should be put on hold. ORP is currently reviewing the JCDPI which the Manager of ORP will formally approve.

We are committed to a timely resolution of the nuclear filter plenum fire protection design issues that will result in an equivalent fire protection design and technically defensible safety and authorization basis. Closure of the fire protection issue will be documented in DOE-approved Safety Evaluation Reports, one each for the LAB, LAW, and PT/HLW combined.

During the course of performing the technical fire hazards analysis, additional issues may warrant modification of the schedule. To minimize this potential, DOE has contracted the services of Dr. Frederick W. Mowrer, Associate Professor, Department of Fire Protection Engineering, University of Maryland to assist DOE fire protection engineers in reviewing and concurring with the fire hazards analysis methodologies, work scopes and analyses prior to BNI submitting authorization basis documents.

ORP has established monthly teleconferences with your staff to continue open communication and sharing of information during the resolution of this issue. Additionally, ORP has forwarded your staff the methodologies, DOE's review of the methodologies, schedule, and the draft JCDPI process.

If you have any questions, you may contact me at (202) 586-5151 or Shirley Olinger at (509) 372-3062.

Sincerely,

Dae Y. Chung,
Deputy Assistant Secretary for
Safety Management and Operations
Environmental Management

cc:
J. Owendoff, EM-3
M. Whitaker, HS-1.1
S. Olinger, ORP