

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Timothy Dwyer, Technical Director
FROM: Wayne Andrews and David Kupferer, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending March 11, 2011

Operational Performance Improvement (OPI)/Conduct of Operations. This month, B&W is conducting its ninth tri-annual OPI training session for all production personnel. The theme of this session is “procedure compliance” and includes briefings regarding procedure compliance expectations, high reliability organization initiatives, and recent personnel contamination events. The briefing regarding procedure compliance expectation highlighted the following:

- procedure compliance is mandatory and workers are expected to suspend work if a procedure cannot be executed as written or if the procedure is unclear,
- while performing ‘continuous use’ procedures (see the 3/26/10 report), the procedure should be ‘at hand’ and a place keeping method should be used

The site representatives note that most of the operating procedures used by the production division have been designated ‘continuous use’; however, supervisors frequently do not require operators to use a place keeping method during performance of continuous use procedures. B&W recently completed an assessment of personnel contamination events (see the 2/12/10 report) in response to an upward trend of contamination events in 2010 identified by applicable metrics. The assessment team concluded that these recent events indicate a need for heightened worker attention to avoid personnel contamination and recommended that production management conduct additional briefings on the fundamentals of contamination control.

Safety Analysis/Conduct of Operations. In August 2009, B&W discovered a five-gallon container in Building 9204-2 that was labeled Niobium Hydride (NbH). At that time, B&W errantly believed that the hazards of NbH were similar to those of Lithium Hydride. Consequently, facility personnel did not recognize that the storage and handling of NbH was not covered by the safety basis for 9204-2. In 2009, B&W determined that the container would be packaged and shipped to Building 9202 to be opened so that the contents could be sampled and confirmed to be NbH. The container was never shipped because personnel in Building 9202 determined they could not receive NbH; however, personnel in Building 9204-2 assumed that the container had been shipped. Last month, facility personnel in Building 9204-2 re-discovered this legacy container. Upon re-evaluating the hazards associated with NbH, facility safety personnel determined that NbH is not permitted by the safety basis for 9204-2. B&W subsequently reported a Potential Inadequacy in the Safety Analysis (PISA) and positive Unreviewed Safety Question. B&W is developing a Justification for Continued Operations (JCO) and is still planning to ship the container to Building 9202 for sampling and disposition.

Tank W-1A Removal. In response to weaknesses identified by the staff in calculations that support the Documented Safety Analysis (DSA) and As Low As Reasonably Achievable (ALARA) analysis for the Tank W-1A Removal project (see the 12/17/10 report), Bechtel Jacobs Company developed and DOE-ORO approved a revision to the DSA. The BJC ALARA Working Group met and approved a final revised ALARA analysis. The contractor Operational Readiness Review (ORR) is currently scheduled to begin on April 4 and the DOE ORR on April 20, although there are potential technical issues which might make these dates slip into the May timeframe. Field operations are expected to begin in late May or June.