DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Steven Stokes, Acting Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending March 1, 2013

Pressurized Drum: B&W's latest attempt to vent the bulging drum in Building 9204-2E was unsuccessful (see 2/22/13 report). The response team has determined that the brass bit on the puncturing device is incapable of venting the stainless steel drum. Given the difficulty the response team has had in developing an effective method for puncturing the drum, the Building 9204-2E operations manager determined that the next proposed venting strategy must be reviewed by a site-level management board. The response team plans to propose replacing the brass bit with a stronger steel bit and increasing the source pressure on the pneumatically-powered puncturing device. The site rep expressed a concern to B&W management that the new bit may not effectively limit spark generation during the venting operation. The response team plans to address this concern during the management review board, which is scheduled to take place this weekend.

Transuranic Waste Processing Center (TWPC): Late last week, the TWPC contractor, Wastren Advantage, Inc. (WAI), declared a potential inadequacy in the safety analysis (PISA) associated with the use of drum lid restraints (DLRs). The DLRs are nylon strap assemblies that are affixed to drums in such a way to allow vertical lifting of the drums and restrict movement of an ejected lid. The TWPC documented safety analysis (DSA) credits DLRs as safety significant passive design features to reduce the significance of an injury resulting from a lid ejected from an over-pressurized drum. The testing conducted by the DLR manufacturer did not clearly demonstrate the restraint would perform its safety function during a drum deflagration event. WAI has prohibited the use of the DLRs and movement of unvented drums. The same DLRs are used at Melton Valley Solid Waste Storage Facility, and the contractor, URS/CH2M Oak Ridge, LLC. (UCOR), has taken similar actions to address the issue.

Solid Waste Storage Area (SWSA)-5: The SWSA-5 project involves handling, processing, and repackaging 26 containers of plutonium-bearing waste material currently stored at Oak Ridge National Laboratory. This material will be repackaged at TWPC to meet the Waste Isolation Pilot Plant waste acceptance criteria for contact handled transuranic waste. In early February, WAI submitted a request to perform limited procurement activities for the SWSA-5 project. In its request, WAI indicated that it needed to procure certain equipment prior to completion and approval of the preliminary DSA in order to ensure that the SWSA-5 project can meet the timeline for state-mandated milestones associated with contact-handled transuranic waste (these milestones must be completed by the end of fiscal year 2014). Last week, ORO-EM approved the request. The ORO-EM review team based its approval on the following: 1) the WAI request made conservative assumptions with respect to the safety classification of equipment (e.g., the procurement strategy assumes the inert glovebox that will be used for this project will be functionally classified as safety class), 2) the limited cost of the equipment, and 3) the potential for future use of the equipment for other mission activities.