

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 July 12, 2013

Fire Protection: NPO and B&W have been discussing the equivalencies for specific requirements from various Nation Fire Protection Association (NFPA) codes and standards for water-based fire protection systems. In a May 7, 2013, letter, B&W proposed a revision to the equivalency for NFPA 25 testing, maintenance, and inspection requirements. The equivalency contained 49 new requirements, but relaxed the testing, maintenance, and inspection frequency associated with 33 requirements. Later that month, B&W discovered corrosion of the active components of credited dry pipe fire protection systems (see 5/24/13 report), which led B&W and NPO to further scrutinize the equivalency request in the May 7 letter. As a result, NPO issued a letter to B&W last week indicating that no relief would be provided for the NFPA 25 testing, maintenance, and inspection requirements for dry pipe systems. The letter also requests additional justification for each requirement for which B&W sought relief from NFPA 25 requirements in the proposed equivalency revision. In addition, the NPO letter directed B&W to evaluate the adequacy of safety basis surveillance requirements that support fire protection system operability. As part of this evaluation, the letter directs B&W to confirm that the credited safety basis activities derived from NFPA 25 and DOE Standard 1066 address the functional requirements for fire protection systems. Lastly, NPO requested that B&W reevaluate and resubmit for approval all active Y-12 fire protection equivalencies that were previously approved by YSO or the Oak Ridge Office.

Dispersion Analysis: The Oak Ridge Office of Environmental Management (OREM) recently sent letters to two of its contractors—Wastren Advantage, Inc. and Isotek—that provided new direction on the parameters to be used for dispersion analyses that support safety basis dose estimates. These letters of direction stemmed from a recently issued URS/CH2M Oak Ridge (UCOR) report, which was developed in accordance with the direction in DOE Safety Bulletin 2011-02 and contained recommendations for performing dispersion analysis for safety basis documentation in the Oak Ridge area. UCOR chose to use the GENII2 atmospheric dispersion code, which includes the calculation of a site-specific deposition velocity. As part of this effort, UCOR also collected meteorological data from weather towers stationed throughout Oak Ridge. The OREM direction allows its contractors to use either the dilution factor (X/Q) calculated by UCOR, or apply a set of specific assumptions from the UCOR report associated with surface roughness, atmospheric stability class, meteorological data, and deposition velocity.

Training: In a July 2012 letter, NPO directed B&W to review the opportunities for improvement identified in the Board's June 5, 2012, letter on B&W's training and qualification program and identify any proposed corrective actions (see 8/3/12 and 10/12/12 reports). One of the key actions identified by B&W was to develop a continuing training pilot within the production organization. For several months, production personnel have been working on the specific objectives of this program and, last week, production issued a document that will serve as interim guidance while the program is being piloted. The goal of this effort is to create an integrated continuing training program that takes input from various sources (e.g., management assessments, operational events) and establishes flexible continuing training consistent with a long term strategic vision. To that end, based on feedback from the last several months, the production training staff determined that priority would be given to the development of continuing training in the areas of criticality safety, conduct of operations, and hazardous material communication. Another goal of the new pilot program is to improve the worker's understanding of process hazards as a means of fostering a healthy questioning attitude.