

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 13, 2017

TO: Steven Stokes, Technical Director
FROM: Jennifer Meszaros and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending February 10, 2017

Building 9204-2E: The Building 9204-2E operations manager reported a Potential Inadequacy in the Safety Analysis (PISA) this week after a shift technical advisor identified an administrative control in a facility hazard evaluation that was not included in the facility safety analysis. The hazard evaluation in question identifies a suite of controls that ensures hazardous components are not placed into unauthorized ovens. The site representatives discussed the PISA with the shift technical advisor, reviewed pertinent sections of the hazard evaluation and the safety analysis, and studied implementation of the controls in two component surveillance procedures. Additionally, the site representatives discussed procedure implementation with the responsible supervisor and walked down facility operations that identify, containerize, and label components prior to oven loading. The site representatives concluded that controls identified in these procedures comply with requirements identified in the facility hazard evaluation.

Building 9212: Next week, enriched uranium operations management plans to hold a kick-off meeting for a team charged with improving the safe handling, storage, and throughput of enriched uranium (EU) briquettes. Key drivers for this initiative are recent unplanned briquette oxidation events (see 12/9/16, 12/16/16, and 1/6/17 reports) and challenges in processing briquettes at the rate set forth in current material-at-risk reduction plans (see 1/27/17 report). Of note, the team will evaluate opportunities to improve the EU metal yield from briquette casting operations as current attempts to cast briquettes result in large quantities of EU oxide and very little EU metal. EU oxide not only requires additional processing to convert it to an acceptable feedstock for casting, but its formation reduces briquette throughput rates because it does not cool as quickly as EU metal. The team's strategy for improving the EU metal yield from briquette casting operations will involve monitoring and adjusting key process variables from EU chip generation, cleaning, storage, briquetting, and casting operations.

Emergency Management: This week, the CNS Y-12 emergency services organization held a drill to test the activation and operation of the Y-12 alternate emergency operations center (EOC). The key objectives of the drill included achieving minimum staffing of the alternate EOC, demonstrating operability of key equipment, developing releasable information, developing and posting the worst case or actual plume model, and validating the categorization, classification, and protective actions taken in response to the event (a simulated fire involving approximately 50 gal of acetic acid on the west end of the site). Emergency services staff preliminarily concluded that the EOC staff met these objectives, but did identify opportunities to improve the alternate EOC's layout. Emergency services staff are preparing a report to capture the results of the drill. The site representatives observed the drill and identified no issues.

Building 9206: CNS held a meeting of the Management Review Board (MRB) to discuss the path forward proposed by facility management to test and disposition a can of amorphous material recently found in a previously locked room in Building 9206. Although the origins of the material are unknown, several subject matter experts believe the can was used to collect leaks from a nearby sodium hydroxide tank and as such does not contain transuranic or shock sensitive materials. Regardless, the facility management team proposed a conservative path forward to test the material using semi-quantitative, non-invasive analysis strips before choosing to further sample and/or dispose of the material. Members of the MRB voted to authorize this path forward.