

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 9, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Matthew Duncan and Brandon Weathers, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending April 9, 2021

DNFSB Activity: NPO and CNS briefed the Board regarding NPO oversight, nuclear criticality safety, conduct of operations, and radiological control.

Building 9204-2: The fire department extinguished a fire involving mineral oil in Building 9204-2, a less than hazard category 3 facility (see 9/7/18 report). An investigation is ongoing.

Nuclear Criticality Safety: CNS reported two nuclear criticality safety deficiencies this week. In the first event, a shift manager established administrative control around carbon burner furnaces and an associated hood due to exceeding a U-235 mass limit by four percent. Nuclear criticality safety personnel provided guidance for operations personnel to re-enter the controlled area to shut down the carbon burner furnaces, unload the material, and put it into an appropriate storage container. In the second event, operators discovered plastic sample bottles within a container that is not approved to contain them. The shift manager responded appropriately and established administrative control of the area. A group including the shift manager, operators, and nuclear criticality safety personnel inspected other containers in the area and identified 17 additional containers with plastic sample bottles. The group inspected other areas that this type of container is stored and did not find any other non-complaint containers.

CNS issued a plan for performing reviews within multiple facilities to identify legacy portable items or removed equipment that may contain fissile material (see 3/26/21 and 4/2/21 reports). CNS expects that the items targeted in this review contain low amounts of fissile material relative to the fissile material discovered in out-of-service equipment during 2019 and 2020 (see 10/25/19 and 9/4/20 reports). The review scope includes all fissile control areas in Buildings 9212, 9206, 9215, 9995, and 9204-2E. The walkdown teams will be led by a criticality safety officer and include nuclear criticality safety engineers, several operations personnel, and other subject matter experts, as deemed necessary. During the reviews, the walkdown teams will use the criteria in the plan to evaluate and label items as either exempt from the nuclear criticality safety program or under administrative control (which includes items that cannot be proven to be exempt until non-destructive assay measurements are performed). CNS expects to complete the walkdowns in all facilities by August and finish documenting the results by September.

NPO Oversight: NPO closed an emerging item of interest related to the timeliness of abnormal event investigations and notifications (see 4/17/20 report). However, NPO noted that there has been inconsistent performance with respect to the quality of critiques and plans to continue monitoring the event investigation and notification process through routine oversight and the Disciplined Operations Council.

NNSA Production Office: Geoff Beausoleil, the NPO field office manager, plans to retire at the end of this month. NNSA selected Teresa Robbins, one of the two NPO deputy field office managers, to replace him.