

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 5, 2023

TO: Christopher J. Roscetti, Technical Director
FROM: A.Z. Kline, L. Lin, Z.C. McCabe, and E.P. Richardson, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending May 5, 2023

Salt Waste Processing Facility (SWPF): On April 20, a fire occurred adjacent to the SWPF processing building when a 480V busway failed (see 4/21/2023 weekly report). Facility operations responded appropriately using the correct abnormal operating procedures, entering limiting conditions of operations, and contacting the site fire department. The fire department was on scene within 15 minutes, and upon arrival, the fire had self-extinguished. Normal power was lost to SWPF, and all safety systems responded per design. Facility operations, working with site utility services, restored normal power to the facility the same day using a different power feeder. Facility management conducted a fact finding meeting on May 4 to discuss the response to the event and possible failures of the busway. Engineering determined that the busway caught fire when the B and C phase busbars arced for an unknown reason. The failure occurred near the middle of the busway and not at a seam or bend, which would be the more likely locations. Engineering also determined the electrical distribution system responded per design by evaluating the fuse that blew during the event. The cause of the failure remains unknown and facility engineering continues to work with the vendor of the busway to determine possible causes. Management determined that there is likely no similar issues with the other busways. Facility management concluded at the fact finding that the response to the event was appropriate and no procedural changes are needed.