



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100.
KING OF PRUSSIA, PA 19406-2713

March 4, 2021

EA-20-131

Mr. Brad Berryman
President and Chief Nuclear Officer
Susquehanna Nuclear, LLC
769 Salem Blvd., NUCSB3
Berwick, PA 18603

**SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION – UNIT 2 - NRC INVESTIGATION
REPORT NO. 1-2020-001 AND NRC INSPECTION REPORT NO.
05000388/2021012**

Dear Mr. Berryman:

This letter refers to an investigation conducted by the U.S. Nuclear Regulatory Commission (NRC) Office of Investigations (OI) at the Susquehanna Nuclear, LLC (Susquehanna Nuclear) Susquehanna Steam Electric Station (SSES). The investigation, which was completed on September 30, 2020, was conducted to evaluate the circumstances of a March 24, 2019 event in which two non-licensed operators (NLOs) entered the SSES Unit 2 drywell, a posted locked high radiation area (LHRA), without the escort or surveillance of a radiation protection technician (RPT), contrary to the requirements of site technical specifications and procedures.

Based on the evidence gathered during the OI investigation, the NRC determined that two Severity Level IV (SL IV) violations of NRC requirements occurred. Specifically, SSES Unit 2 Technical Specification (TS) 5.4.1 states, in part, that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide 1.33, Rev. 2, Appendix A, February 1978, which, in part, recommends radiation protection procedures for access control to radiation areas. The related site procedure RP-180, "Radiological Postings, Labelings, and Markings," Step 5.9.5 requires ensuring that a high radiation area is enclosed by a barricade, while step 5.2.2 provides that an RPT may be posted to provide positive control over access to such an area in lieu of the barricade. On March 24, 2019, SSES staff assigned a contract RPT to control access to the Unit 2 drywell, which was posted as a LHRA. However, the RPT left the area unattended and did not ensure the drywell entrance was barricaded. Based on the results of the investigation, the NRC determined that the RPT acted deliberately.

Additionally, SSES Unit 2 TS 5.7.2.d.iii.a states, in part, that for HRAs with dose rates greater than 1.0 rem/hour at 30 cm from the source or from any surface penetrated by the radiation, but less than 500 rads/hour at 1 m from the radiation source or from any surface penetrated by the radiation, each individual entering such an area shall, in part, be under the surveillance (as specified in the Radiation Work Permit (RWP) or equivalent) of an individual qualified in radiation protection (RP) procedures. RWP No. 20192307, "DW Operations Activities," requires that constant RP coverage is required when personnel have access to areas \geq 1R/hr or changing radiological conditions. However, on March 24, 2019, while the Unit 2 drywell entrance was unattended, two NLOs operating under RWP No. 20192307 entered the drywell without RP coverage and had access to areas \geq 1R/hr or changing radiological conditions.

Based on the results of the NRC investigation, the NRC did not identify deliberate misconduct on the part of the NLOs

The NRC determined that the willful action by the RPT to leave the drywell access area unattended which allowed two NLOs to enter the drywell without the required RP coverage, caused the licensee to violate a license condition by failing to follow SSES Unit 2 technical specifications. The NRC did not identify any separate licensee performance deficiencies. The ROP's significance determination process does not specifically consider willfulness in its assessment of licensee performance. Therefore, it is necessary to address the violations using traditional enforcement to adequately deter non-compliance. In evaluating the severity level of the violations, the NRC considered the examples in the NRC Enforcement Policy and also considered that, absent willfulness, the significance of this unescorted drywell entry would be assessed as green using Inspection Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process." Based on these considerations, the NRC determined that the violations are appropriately categorized at SL IV, which reflects that the issue resulted in relatively inappreciable potential safety consequences.

After considering the factors set forth in Section 2.3.2.a of the Enforcement Policy, these violations are being treated as non-cited violations (NCVs). Namely, the violations were non-repetitive, and the licensee entered the violations into the corrective action program. Further, the licensee restored compliance immediately upon identification. Specifically, upon identifying that the NLOs had entered the drywell without a RP escort, SSES staff retrieved the individuals and evaluated any dose impacts. As identified by the licensee, the NLOs were signed in on the proper RWP and were wearing the appropriate dosimetry. They did not access the highest dose rate areas of the drywell and did not receive dose rate or accumulated dose alarms. Therefore, the event did not result in unplanned or excess radiation exposure. Additionally, although the violations resulted from the willful actions of the RPT, the NRC considered that they were identified by the licensee, involved the isolated actions of a non-supervisory worker, and resulted in remedial action commensurate with the circumstances (the RPT was removed from the drywell access control duty and is no longer working at SSES).

In accordance with NRC Inspection Manual Chapter 0305, "Operating Reactor Assessment Program," Section 13.02.b, the NRC will follow up the violation using Inspection Procedure 92702, "Follow-up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, Confirmatory Orders, and Alternative Dispute Resolution Confirmatory Orders."

You are not required to respond to this letter. However, if you contest the violations or significance of these NCVs, you should provide a response within 30 days of the date of this letter, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001, with copies to: (1) the Regional Administrator, Region 1, 2100 Renaissance Boulevard, Suite 100, King of Prussia, PA 19406; (2) the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and (3) the NRC Senior Resident Inspector at SSES.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room and from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response, if you choose to provide one, should not include any personal privacy or proprietary, information so that it can be made available to the public without redaction.

Please note that final NRC investigation documents, such as the OI report described above, may be made available to the public under the Freedom of Information Act (FOIA), subject to redaction of information appropriate under the FOIA. Requests under the FOIA should be made in accordance with 10 CFR 9.23, "Requests for Records." Additional information is available on the NRC website at <http://www.nrc.gov/reading-rm/foia/foia-privacy.html>.

This enforcement action will be administratively tracked under NRC Inspection Report No. 05000388/2021012. Should you have any questions regarding this letter, please contact Mr. Christopher Lally of the NRC staff at Christopher.lally@nrc.gov.

Sincerely,

Daniel S. Collins, Director
Division of Reactor Projects

Docket Nos. 50-388
License Nos. NPF-22

Enclosure: As described

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SUBJECT: NRC INVESTIGATION REPORT NO. 1-2020-001 AND NRC INSPECTION REPORT NO. 05000388/2021012 Dated March 4, 2021

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*See previous concurrence

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