



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

August 16, 2019

Mr. Brad Berryman
President and Chief Nuclear Officer
Susquehanna Nuclear, LLC
769 Salem Blvd - NUCSB3
Berwick, PA 18603-0467

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 –
TEMPORARY INSTRUCTION 2515/193 INSPECTION REPORT
05000387/2019012 AND 05000388/2019012

Dear Mr. Berryman:

On July 11, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Susquehanna Steam Electric Station, Units 1 and 2 and discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspectors did not identify any finding or violation of more than minor significance.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Matthew R. Young, Chief
Technical Support and Administrative Team
Division of Reactor Projects

Docket Nos. 05000387 and 05000388
License Nos. NPF-14 and NPF-22

Enclosure:
As stated

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SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 -
 TEMPORARY INSTRUCTION 2515/193 INSPECTION REPORT
 05000387/2019012 AND 05000388/2019012 DATED AUGUST 16, 2019

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Numbers: 05000387 and 05000388

License Numbers: NPF-14 and NPF-22

Report Numbers: 05000387/2019012 and 05000388/2019012

Enterprise Identifier: I-2019-012-0019

Licensee: Susquehanna Nuclear, LLC

Facility: Susquehanna Steam Electric Station, Units 1 and 2

Location: Berwick, PA 18603

Inspection Dates: July 8, 2019 to July 11, 2019

Inspectors: F. Arner, Senior Reactor Analyst
P. Presby, Senior Operations Engineer

Approved By: Matthew R. Young, Chief
Technical Support and Administrative Team
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a Temporary Instruction (TI) 2515/193 inspection at Susquehanna Steam Electric Station, Units 1 and 2 in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

List of Findings and Violations

No findings or violations of more than minor significance were identified.

Additional Tracking Items

None.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

2515/193 - Inspection of the Implementation of EA-13-109: Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation under Severe Accident Conditions (1 Sample)

- (1) Based on samples selected for review, the inspectors verified that the licensee satisfactorily implemented appropriate elements of the reliable hardened containment wetwell vent as described in the plant specific submittals and the associated safety evaluation (ADAMS Accession No. ML18302A303) and determined that the licensee was in compliance with NRC Order EA-13-109 Phase 1, "Reliable, Severe Accident Capable Wetwell Venting System" (ADAMS Accession No. ML13143A321).

The inspectors verified that the licensee satisfactorily:

- Installed the hardened containment wetwell vent system (HCVS) to meet the performance objectives outlined in Section A.1.1 of Attachment 2 to the Order EA-13-109;
- Installed the HCVS system with the design features specified in Section A.1.2 of Attachment 2 to the Order EA-13-109;
- Designed the HCVS to meet the quality standards described in Section A.2 of Attachment 2 to the Order EA-13-109;
- Developed and implemented adequate maintenance and testing of HCVS equipment to ensure their availability and capability;
- Developed and issued procedures to safely operate the HCVS using normal power supplies, during an extended loss of AC power (ELAP), and a postulated severe accident scenario, and integrated the procedures into existing plant procedures; and
- Trained their staff to assure personnel can proficiently operate the HCVS.

Based on samples selected for review, the inspectors verified that the licensee satisfactorily implemented appropriate elements of the reliable wetwell venting strategy as described in the plant specific submittals and the associated safety evaluation (ADAMS Accession No. ML18302A303), and determined that the licensee was in compliance with NRC Order EA-13-109 Phase 2, "Reliable, Severe Accident Capable Drywell (or alternative strategy) Venting System" (ADAMS Accession No. ML13143A321).

The inspectors verified that the licensee satisfactorily developed a strategy making it unlikely that the licensee would need to vent from the containment drywell, that includes the following:

- Implemented the severe accident water addition/severe accident water management (SAWA/SAWM) systems as defined and fulfilled functional requirements for installed and portable equipment;
- Installed and/or identified the previously-installed instrumentation necessary to implement SAWM;
- Developed and implemented adequate maintenance and testing of SAWA/SAWM equipment to ensure availability and capability;
- Developed and issued procedures to safely operate the SAWA/SAWM during an ELAP and during postulated severe accident scenario, and integrated their procedures into their existing plant procedures such that entry into and exiting from the procedures are clear when using existing plant procedures; and
- Trained their staff to assure personnel can proficiently operate the HCVS during an ELAP and accident scenario.

The inspectors verified that any noncompliance with requirements and standards identified during the inspection were entered into the licensee's corrective action program.

This TI is considered closed.

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On July 11, 2019, the inspectors presented the NRC inspection results to Brad Berryman and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
2515/193	Corrective Action Documents Resulting from Inspection	CR-2019-09134 CR-2019-09136 CR-2019-09138 CR-2019-09135		
	Miscellaneous		Final Integrated Plan, HCVS Order EA-13-109 for SSES	11/13/2018
	Procedures	DC-B5B-102	Connection of Portable Pump Truck to The RHRSW System to Provide Alternate Means of Low Pressure RPV Injection, Containment Sprays or Suppression Pool Makeup to Unit One	Revision 12
		DC-B5B-202	Connection of Portable Pump Truck to The RHRSW System To Provide Alternate Means of Low Pressure RPV Injection, Containment Sprays Or Suppression Pool Makeup to Unit Two	Revision 11
		EO-100-030-6	Station Blackout	Revision 4
EP-DS-001-1	SAG-1 RPV, Containment, and Radioactivity Release Control	Revision 6		