

UNITED STATES NUCLEAR REGULATORY COMMISSION
REGION I

Inspection/Report Nos. 50-387/93-04
50-388/93-04

License Nos. NPF-14
NPF-22

Licensee: Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

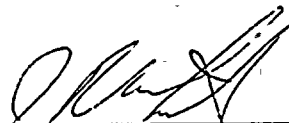
Facility Name: Susquehanna Steam Electric Station

Inspection At: Salem Township, Pennsylvania

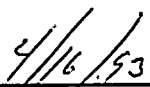
Inspection Dates: February 16, 1993 - March 29, 1993

Inspectors: G. S. Barber, Senior Resident Inspector, SSES
D. J. Mannai, Resident Inspector, SSES

Approved By:



J. White, Chief
Reactor Projects Section No. 2A, DRP



Date

Inspection Summary: This inspection report documents routine and reactive inspections (during day and backshift hours) of station activities, including: plant operations; radiation protection; surveillance and maintenance; and safety assessment/quality verification. Findings and conclusions are summarized in the Executive Summary. Details are provided in the full inspection report.

EXECUTIVE SUMMARY

Susquehanna Inspection Reports
50-387/93-04; 50-388/93-04
February 16, 1993 - March 29, 1993

Operations (30702, 71707, 71710)

Both Susquehanna units were operated in a safe manner. Operators effectively controlled plant evolutions and identified plant problems.

Maintenance/Surveillance (61726, 62703)

During the period, the licensee completed an 18 month inspection of the "B" Emergency Diesel Generator and identified that the #10 main bearing clearance was excessive at .016" when measured at the flywheel. The clearance measured directly at the bearing was .011". The licensee discussed the condition with Cooper-Bessemer and determined the bearing clearance to be acceptable. The licensee initiated a Non-Conformance Report (NCR) 21 days after the excessive bearing clearance was identified. The inspector noted that the licensee's procedures appear to require more expeditious formal identification of such matters. Station procedures require reporting and documenting of deficiencies encountered during work activities. Personnel involved did not use the formal deficiency control programs to evaluate and resolve the bearing clearance problem until the NCR was written. The inspector noted that the bearing wear rate may have increased over the last cycle as measured at the flywheel. The licensee apparently did not consider this possibility. In response to the inspector's concern, a mid-cycle vibration analysis is scheduled to evaluate the need for obtaining mid-cycle bearing clearances. The licensee has agreed to ensure maintenance personnel are aware of when formal deficiency programs must be used. Section 4.4.1 pertains.

Security (71707)

The inspector reviewed the licensee's program for land-based bomb contingencies per Generic Letter (GL) 89-07. The licensee's program was found to be responsive to GL 89-07. Section 6.2.1 pertains.

Engineering/Technical Support (71707, 92720, 93702)

During a power uprate evaluation, the licensee identified two intermediate steam break scenarios where large motor starts could initiate the degraded grid protection scheme after an accident signal. One scenario involved the independent auto-start of the "D" condensate pump. The other involved the start of the "B" control structure chiller components. After the licensee determined that these events were credible, they were reported as conditions outside the design basis. Upon completing a safety evaluation, the licensee installed a bypass to prevent "D" condensate pump auto-start which will prevent recurrence of these types of

events. The inspector determined the licensee's corrective actions were appropriate. However, administrative weaknesses were identified in the EDR's executive summary and operability evaluation. A potential generic vulnerability was identified. Any large motor start that occurs during an accident scenario that is initiated by logic different than that provided for ECCS load sequencing could potentially result in the same vulnerability. The licensee has found that other large motor starts at the 13.8 and 4KV level and loss of DC control power conditions were considered and found to acceptable. Additional licensee follow up is planned to affirm these findings. Section 7.2.1 pertains.

Safety Assessment/Assurance of Quality (40500, 90712, 92700, 92701)

The licensee made effective decisions to help mitigate the effects of a severe snow storm that occurred on March 13 and 14. The blizzard dropped in excess of twenty inches of snow on the site. Normal access was severely hampered, and thus, security, operations and health physics personnel stayed over night to assist in plant operations. There were no transients on either unit during the blizzard. However, the excessive snow fall showed vulnerabilities in certain areas. The licensee did not have an in-depth contingency plan for severe storms. Nonetheless, the licensee performed well during these adverse conditions. Section 8.1 pertains.

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DETAILS

1.0 SUMMARY OF OPERATIONS

1.1 Inspection Activities

The purpose of this inspection was to assess licensee activities at Susquehanna Steam Electric Station (SSES) as they related to reactor safety and worker radiation protection. Within each inspection area, the inspectors documented the specific purpose of the area under review, the scope of inspection activities and findings, along with appropriate conclusions. This assessment is based on actual observation of licensee activities, interviews with licensee personnel, measurement of radiation levels, independent calculation, and selective review of applicable documents.

Abbreviations are used throughout the text. Attachment 1 provides a listing of these abbreviations.

1.2 Susquehanna Unit 1 Summary

Unit 1 began the inspection period at 100% power. On March 26, power was reduced to 60% to facilitate control rod pattern adjustments, surveillance testing, maintenance, and feedwater flow element work. Feedwater level control stability was tested at 60, 70, and 80% power for both single and three element control. The feedwater master water level controller gain and reset settings were adjusted for improved single element control at 70 and 80% power. Reactor power was returned to 100% on March 29. No reactor scrams or ESF actuations occurred during the inspection period.

1.3 Susquehanna Unit 2 Summary

Unit 2 began the inspection period at 100% power. On March 2, power was reduced to 60% to repair a condenser water box tube leak. The unit returned to 100% power operation on March 4. Operators conducted several other routine power reductions during the period to facilitate control rod pattern adjustments, surveillance testing, and maintenance. No reactor scrams or ESF actuations occurred during the inspection period.

2.0 OPERATIONS

2.1 Inspection Activities

The inspectors verified that the facility was operated safely and in conformance with regulatory requirements. Pennsylvania Power and Light (PP&L) Company management control was evaluated by direct observation of activities, tours of the facility, interviews and discussions with personnel, independent verification of safety system status and Limiting Conditions for Operation, and review of facility records. These inspection activities were conducted in accordance with NRC inspection procedure 71707.

The inspectors performed 34.5 hours of deep backshift inspections during the period. These deep backshift inspections covered licensee activities during between 10:00 p.m. and 6:00 a.m. on weekdays, and weekends and holidays.

3.0 RADIOLOGICAL CONTROLS

3.1 Inspection Activities

PP&L's compliance with the radiological protection program was verified on a periodic basis. These inspection activities were conducted in accordance with NRC inspection procedure 71707.

3.2 Inspection Findings

Observations of radiological controls during maintenance activities and plant tours indicated that workers generally obeyed postings and Radiation Work Permit requirements.

4.0 MAINTENANCE/SURVEILLANCE

4.1 Maintenance and Surveillance Inspection Activity

On a sampling basis, the inspector observed and/or reviewed selected surveillance and maintenance activities to ensure that specific programmatic elements described below were being met. Details of this review are documented in the following sections.

4.2 Maintenance Observations

The inspector observed and/or reviewed selected maintenance activities to determine that the work was conducted in accordance with approved procedures, regulatory guides, Technical Specifications, and industry codes or standards. The following items were considered, as applicable, during this review: Limiting Conditions for Operation were met while components or systems were removed from service; required administrative approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and quality control hold points were established where required; functional testing was performed prior to declaring the involved component(s) operable; activities were accomplished by qualified personnel; radiological controls were implemented; fire protection controls were implemented; and the equipment was verified to be properly returned to service.

These observations and/or reviews included:

- WA 24187, "Annual Inspection Emergency Switch Gear Room Cooling Fan 1V226A," dated March 1.

- WA 23818, "Insulation Resistance Testing "B" Emergency Diesel Generator," dated March 1.
- WA 23818, "'B' Diesel Generator Main Bearing Clearance Checks," dated March 4.
- WA 24157, "Standby Liquid Control Pump Preventative Maintenance," dated March 16.

4.3 Surveillance Observations

The inspector observed and/or reviewed the following surveillance tests to determine that the following criteria, if applicable to the specific test, were met: the test conformed to Technical Specification requirements; administrative approvals and tagouts were obtained before initiating the surveillance; testing was accomplished by qualified personnel in accordance with an approved procedure; test instrumentation was calibrated; Limiting Conditions for Operations were met; test data was accurate and complete; removal and restoration of the affected components was properly accomplished; test results met Technical Specification and procedural requirements; deficiencies noted were reviewed and appropriately resolved; and the surveillance was completed at the required frequency.

These observations and/or reviews included:

- SI-178-209, "Weekly Functional Test of Average Power Range Monitor (APRM) Channels," dated February 18.
- SI-259-303, "Eighteen Month Calibration of Suppression Pool Water Temperature Channels TX-25751 and TX-25752," dated February 21.

4.4 Inspection Findings

The inspector reviewed the listed maintenance and surveillance activities. The review noted that work was properly released before its commencement; that systems and components were properly tested before being returned to service and that surveillance and maintenance activities were conducted properly by qualified personnel. Where questionable issues arose, the inspector verified that the licensee took the appropriate action before system/component operability was declared. Except as noted below, the inspectors had no further questions on the listed activities.



4.4.1 "B" Emergency Diesel Generator Main Bearing Clearance Checks

During the inspection period, the licensee completed performance of an 18 month inspection of the "B" Emergency Diesel Generator (EDG). The licensee began EDG maintenance on February 8 and completed the activity on March 5. On February 9, Mechanical Maintenance Department personnel (Maintenance) obtained main bearing clearance measurements per maintenance procedure MT-024-006. These measurements indicated that the #10 bearing clearance may have exceeded the allowable tolerance. Excessive bearing clearance could result in improper alignment leading to increased vibration and accelerated wear.

By original practice, Maintenance had always obtained the #10 bearing clearance measurement indirectly by measuring the clearance at the EDG flywheel. The current measurement indicated a clearance of .016" at the flywheel. Previous measurements at the flywheel (taken during the last 18 month inspection) were .012". The vendor acceptance criteria or tolerance for a new bearing is .007-.012", with an additional licensee prescribed tolerance increase over life of .003" to accommodate bearing wear.

In view of this apparent indication of excessive wear, Maintenance obtained measurements at the #10 bearing directly, which showed a clearance of 0.011". Since direct measurements of clearance at the #10 bearing had not been obtained previously, the licensee had no comparison data to use to determine a bearing wear trend. For an old bearing, the allowable tolerance (i.e., .010"-.015") allows a .003" increase from the new bearing tolerance. The licensee did not have the new bearing clearance documented. Consequently, Maintenance contacted Cooper-Bessemer (the diesel manufacturer), on February 10, to discuss the measurements taken at the flywheel and the #10 bearing, and the interpretation of the data since the procedure requires bearing removal and inspection when indications of excessive wear are determined.

Based on a discussion with the Cooper-Bessemer Engineering Department Head, the licensee concluded the deviation in measurements between clearances at the flywheel and the #10 bearing are explained by the cantilever effect that occurs due to the moment arm that exists between these two points of the engine crankshaft. The manufacturer also explained that while the #10 bearing clearance is obtained by jacking the flywheel, the measurement should be taken directly at the bearing, as opposed to the flywheel (where Maintenance had always taken the measurements to correlate to the #10 bearing tolerance). The manufacturer indicated that the measured clearance at the #10 bearing (.011") was acceptable. The licensee subsequently documented the manufacturer's acceptance.

Twenty-one days later, on March 2, the licensee issued Non-conformance Report (NCR) 93-023, which documented the initial indication of excessive bearing clearance. The licensee dispositioned the NCR as "use-as-is", which requires an engineering evaluation. Subsequently, Nuclear System Engineering concluded that the clearance taken at the flywheel reflected the actual #10 bearing clearance, with consideration of the cantilever effect (distance from the #10 bearing to the flywheel). The licensee reviewed lube oil and vibration analysis and concluded that no adverse wear trends currently existed. Consequently, the licensee determined that the bearing clearance of .011", that was obtained directly at the #10 bearing, was sufficient indication of acceptable wear.

The inspector noted that while the licensee identified the non-conforming condition on February 9, the associated NCR was not prepared until March 2, twenty-one days after the discovery. Administrative Procedure AD-QA-120, Non-conformance Reports - Control and Processing, states station personnel are responsible for reporting of deficiencies or potential deficiencies which are identified during work activities. Nuclear Department Instruction NDI-QA-8.5.1, requires each nonconformance be documented on non-conformance report. The inspector determined that the licensee's delay in documenting a non-conforming condition was unnecessary and caused the engineering group to rapidly disposition the matter in order to maintain the schedule for the diesel outage. In fact, the NCR operability determination was completed on March 5, the day the diesel generator was scheduled to be tested and returned to service.

The inspector noted since the licensee had not established any bearing wear data directly from the #10 bearing, there was no established basis for trending wear over the last inspection cycle. The only comparison data pertained to measurements taken at the flywheel over the 18 month interval between inspections. The licensee agreed with the inspector's concern and initiated action to (1) perform a mid-cycle vibration analysis and evaluate the need for obtaining mid-cycle bearing clearances; and (2) closely monitor the monthly lube oil analysis for changes. The inspector determined, through interviews with maintenance personnel, that they did not use formal deficiency control mechanisms to evaluate and resolve conditions encountered during EDG maintenance. Hence, the formal reviews, disposition and operability determination required by the NCR process were delayed until an NCR was written. In response, the licensee has initiated a review and evaluation of deficiency processing practice to assure that maintenance personnel are aware when deficiencies can be evaluated and resolved within the context of the work procedure and when to utilize the formal deficiency control programs.

4.4.2 Suppression Pool Temperature Monitoring System (SPOTMOS) Surveillance Activity

The licensee performed corrective maintenance on Division I of the Suppression Pool Temperature Monitoring System (SPOTMOS) on February 20. The inspector observed portions of the post-maintenance testing, which included SI-259-303, 18 month calibration of Suppression Pool Temperature Water Channels TX-25751 and TX-25752, on February 21.



The instrumentation and control technicians performed the activity in a controlled manner. The individuals understood the surveillance procedure, the test equipment involved and its effects on the system. Communications between the I&C technicians and control room operators was thorough and complete. The inspector, through questioning, identified that during the test setup portion of the surveillance the technicians disabled eight RTDs when the procedure specified six. The technicians quickly restored two channels. Since the error was identified and corrected during test setup there were no consequences. The inspector attributed this error to a poorly worded section in the procedure.

The Division I of SPOTMOS has eight channels (RTDs). Normally, the sum of the eight channels is averaged and used for alarms and indication. However, two channels are removed from the averaging circuit during the surveillance. The SPOTMOS system averages only six channels during the surveillance. The inspector questioned I&C engineering how the system can be retested following maintenance, or surveilled every 18 months, while testing with only six channels of eight channels. The licensee responded that the RTDs are inputs to the SPOTMOS Unit and that six inputs are sufficient to test the Division I Spotmos Unit (TX-25751). The procedure requires before and after readings on all eight sensors. The acceptance criteria requires that before and after readings be within 2°F to ensure no faults exist. The licensee plans to prepare a procedure revision to enhance the wording. Except during the test setup, the inspector concluded the activity was performed in an acceptable manner and had no further questions.

5.0 EMERGENCY PREPAREDNESS

5.1 Inspection Activity

The inspector reviewed licensee event notifications and reporting requirements for events that could have required entry into the emergency plan.

5.2 Inspection Findings

No events were identified that required emergency plan entry. The inspector had no findings in this area.

6.0 SECURITY

6.1 Inspection Activity

PP&L's implementation of the physical security program was verified on a periodic basis, including the adequacy of staffing, entry control, alarm stations, and physical boundaries. These inspection activities were conducted in accordance with NRC inspection procedure 71707.



6.2 Inspection Findings

The inspector reviewed access and egress controls throughout the period. Within the scope of this review, security and plant protection activities were acceptable.

6.2.1 Land Based Bomb Contingency Plan

On March 8, the inspector met with licensee security personnel to review their Land Based Bomb Contingency Plan (LBBCP). This review was performed to ensure their plan could be effectively implemented. Generic Letter (GL) 89-07 provides the most recent guidance on considerations for this threat. The inspector noted that licensee did have detailed procedures in place and adequately trained personnel are available on-site to respond to this contingency. In addition, the licensee added additional measures to increase their ability to cope with this threat. Based on this review, the inspector concluded that the licensee's program appeared to be fully responsive to GL 89-07.

7.0 ENGINEERING/TECHNICAL SUPPORT

7.1 Inspection Activity

The inspector periodically reviewed engineering and technical support activities during this inspection period. The on-site Nuclear Systems Engineering (NSE) organization, along with Nuclear Technology (NPE) in Allentown, provided engineering resolution for problems during the inspection period. NSE generally addressed the short term resolution of engineering problems; and interfaced with the Nuclear Modifications organization to schedule modifications and design changes, as appropriate, to provide long term corrective action. The inspector verified that problem resolutions were thorough and directed at preventing recurrences. In addition, the inspector reviewed short term actions to ensure that they provided reasonable assurance that safe operation could be maintained.

7.2 Inspection Findings

7.2.1 Postulated Overlapping Large Motor Starts are Outside the Plant's Design Basis

On March 8, the licensee identified two postulated scenarios that challenged the plant's design basis. In the first case, the licensee postulated an intermediate steam break inside containment with only one offsite source available. This results in a moderate depressurization with little inventory loss. The drywell (DW) pressurizes till the high DW pressure setpoint (1.72 psig) is reached. A scram is initiated and the diesel generators (DGs) start on high DW pressure. The DG start initiates a timer to start Emergency Service Water (ESW) in 40 seconds. The Main Steam Isolation Valves (MSIVs) close at 37 seconds due to low steam pressure and a main generator trip due to reverse power occurs at 82 seconds. The generator trip will initiate a timer to start the "D" condensate pump in 25 seconds. In this postulated scenario, the condensate pump start may overlap the auto-start of the "A" and

"B" Residual Heat Removal (RHR) pumps which suppresses emergency bus voltage. The "C" and "D" pumps start 7.5 seconds later and continue to act to suppress emergency bus voltage below the degraded grid setpoint (<93% nominal voltage). Ten seconds after the "D" condensate pump starts, the degraded grid protection scheme initiates to strip the remaining offsite feeder, closes all DG output breakers, and begins resequencing emergency loads. However, by design, the ESW pumps do not reset for the second auto-start signal. This would lead to DG overheating under the presumption that no operator action is allowed for the first 10 minutes of any accident. Both units are affected.

The second scenario involved the overlapping start of an RHR pump (A & B or C & D) and the planned auto-start of either the Loop "B" Control Structure Chill Water (CSCW) or the Loop "B" Control Structure (CS) chiller. Four combinations of scenarios result in bus under voltage (UV) at 82.5, 90, 133.5, and 141 seconds after a given size intermediate break. These UV transients would similarly prevent auto-start of ESW and potential degradations of the DGs. Only Unit 1 is affected.

The licensee developed and analyzed these scenarios from March 8 until March 26 when the inspector was informed that these conditions existed and may be reportable. The licensee's engineering staff worked through the weekend of March 27 and concluded that these two scenarios represented postulated conditions outside the design basis and were reportable. A 10 CFR 50.72 notification was made at 10:45 a.m., March 29.

The inspector questioned the licensee in detail on both scenarios. The inspector noted that these scenarios were discovered during power uprate reviews and noted their identification as a positive licensee initiative. In addition, once the licensee determined that events were potentially reportable, the licensee's engineering staff worked through the weekend to fully analyze the postulated scenarios. The reporting of the postulated scenarios was in accordance with the regulation, and the inspector noted that the licensee took prompt action to correct the conditions. The licensee performed a 10 CFR 50.59 evaluation of a bypass to override the "D" condensate auto-start feature and concluded it was acceptable. This bypass was installed on March 30. By preventing this auto-start, the planned RHR pump auto-starts for both of these scenarios will not challenge the degraded grid setpoints. The inspector concluded that the corrective action was appropriate.

The inspector had the following additional observations:

- The EDR's (G30017) executive summary did not provide sufficient information to understand the scenario, it identified the results but did not provide the sequence of events. It appeared to provide fragmented facts and did not provide a cohesive summary of the engineering discrepancy.

- The EDR did not identify the potential generic implications of these scenarios. The primary reason for this vulnerability was that the auto-start of the "D" condensate pump and "B" chiller components was provided by logic that was different than that used to start Emergency Core Cooling Systems (ECCS). Thus, either unit would be vulnerable to the start of "any" large motor by any circuit other than those used for ECCS sequencing. The licensee has found that other large motor starts at the 13.8 and 4KV level and loss of DC control power were considered and found acceptable. Additional licensee follow up is planned to affirm these findings.

- The operability evaluation for these scenarios as described in EDG G30017 is acceptable, but weak for the following reasons. Operability is a technical specifications (TS) defined term. Operability is defined as the capability of a structure, system or component (SSC) to perform its intended safety function. This includes the ability of support systems to perform their safety-related support function. The standard questions invoked in the EDR do not ask if TS operability is being met for these postulated conditions. The operability evaluation asks three questions that pertain to the reporting of certain non-emergency events to the NRC within one hour which are not directly related to operability. This is inconsistent with the purpose of this section.

- In addition, Generic Letter 91-18, "Resolution of Degraded, and Nonconforming Conditions, and Operability," provided additional guidance on operability determinations which was not addressed in the licensee's operability evaluation. It appeared that the licensee was taking credit for substituting manual actions for automatic actions to ensure DG operability per Section 6.7 of GL 91-18. Only an extremely small portion (one sentence out of a four page evaluation) provided this assertion. Both the operability and reportability evaluations frequently repeated information that was provided elsewhere within the EDR. Although the system provides a means for the engineering staff to identify technical concerns, the process appears cumbersome and difficult to administer.

Upon discussion of these findings, the licensee agreed to initiate review and effect corrective measures. A special inspection of the licensee's EDR program is planned for April 26, 1993.

8.0 SAFETY ASSESSMENT/QUALITY VERIFICATION

8.1 Performance During Severe Weather

On March 12, the inspector reviewed licensee activities in preparation for a severe snow storm forecast for March 13 and 14. The inspector determined that the licensee did not have a specific severe storm contingency plan. However, off-normal procedure (ON)-000-002, Natural Phenomena, does provide certain limited actions for high winds, earthquakes and floods. The inspector walked down the site to identify loose material that could be carried by high winds to potentially block transformer cooling or hamper other safety functions. Some



loose material was identified and was subsequently removed or secured by the licensee. The inspector also determined that four diesel generator and both offsite sources of power were fully operable. All high and low pressure ECCS was operable for both units. No maintenance or surveillance activities were planned to jeopardize safety system status or plant availability.

Heavy snow fall began at approximately 3:00 a.m., March 13 and continued all day. Pennsylvania Department of Transportation (Penn DOT) continued snow removal efforts until approximately 2:00 pm., March 13 when the drifting became overwhelming. Licensee operators and security personnel responded to the site through the unplowed roads for the start of night shift at 7:00 p.m., March 13. The day shift supervisor decided to keep his shift over night because of the lack of ongoing snow removal and the drifting snow that had the potential to prevent their return to the site the next morning. Health Physics and security personnel also stayed over night to provide operational support. Make shift sleeping arrangements were provided. Both units remained at full power throughout the weekend. There were no transients. Offsite power was not threatened since weak trees were culled in earlier storms. Powerful, swirling winds prevented the accumulation of light, dry snow on branches and power lines. Plant security was maintained throughout the storm. Adequate staffing was provided for both security and operations throughout the weekend. Twenty-one inches of snowfall was recorded at the Avoca airport and this storm was noted as the worst snow storm on record for this area.

The inspector frequently contacted the licensee throughout the weekend to assess their efforts during the storm. Additional discussions were conducted to determine the lessons learned from the storm. The licensee recognized the need to develop a severe weather contingency plan to cope with this situation in the future. Two immediate improvements were identified by the licensee. First, the need for pre-established sleeping arrangements. Cots were available at an off-site warehouse that was inaccessible because of the storm. The licensee is ordering cots to be staged on site for this contingency. The second improvement was the need for diverse communications. The licensee will be procuring cellular phones to be used during adverse weather. The inspector was also concerned with the lack of snow removal from Berwick to the plant and to the EOF. The inspector noted that when snow removal was reestablished, snow plows were able to clear the roads from Bloomsburg to Berwick (11 miles) on a second priority basis (first priority - hospitals, clinics and other emergency facilities). However, the roads from Berwick to the site remained unplowed. This could jeopardize timely response of station personnel during an emergency. The licensee has agreed to work with Penn DOT and Salem township to raise their priority for snow removal to enable emergency response organizations to man their stations during severe weather. In addition, the licensee has formed a team to develop a severe storm contingency plan to address the lessons learned from this blizzard. The inspector had no further questions on this issue.

9.0 MANAGEMENT AND EXIT MEETINGS

9.1 Resident Exit and Periodic Meetings

The inspector discussed the findings of this inspection with station management throughout and at the conclusion of the inspection period. Based on NRC Region I review of this report and discussions held with licensee representatives, it was determined that this report does not contain information subject to 10 CFR 2.790 restrictions.

9.2 Management Meeting - Review Revision to Security Plan

On March 24, 1993, members of the licensees corporate and site security departments met with safeguards staff members in the Region 1 office in King of Prussia, PA. The purpose of that meeting was to review a major revision to the Susquehanna Steam Electric Station NRC-approved Security Plan. The proposed changes were deemed not to decrease the effectiveness of the Security Plan and it was determined that the revision could be submitted in accordance with 10 CFR 50.54(p).

The details of the review are Safeguards Information and are being withheld from public disclosure in accordance with the provisions of 10 CFR 73.21. A list of attendees is provided in Attachment 2.

9.3 Inspections Conducted By Region Based Inspectors

| <u>Date</u> | <u>Subject</u> | <u>Inspection Report No.</u> | <u>Reporting Inspector</u> |
|-------------|------------------------|----------------------------------|--------------------------------|
| 02/23-25 | Emergency Preparedness | 93-03 | C. Gordon |

ATTACHMENT 1

Abbreviation List

| | |
|---------|--|
| AD | - Administrative Procedure |
| ADS | - Automatic Depressurization System |
| ANSI | - American Nuclear Standards Institute |
| ASME | - American Society of Mechanical Engineers |
| CAC | - Containment Atmosphere Control |
| CFR | - Code of Federal Regulations |
| CIG | - Containment Instrument Gas |
| CRDM | - Control Rod Drive Mechanism |
| CREOASS | - Control Room Emergency Outside Air Supply System |
| DG | - Diesel Generator |
| DX | - Direct Expansion |
| ECCS | - Emergency Core Cooling System |
| EDG | - Emergency Diesel Generator |
| EDR | - Engineering Discrepancy Report |
| EP | - Emergency Preparedness |
| EPA | - Electrical Protection Assembly |
| EQ | - Environmental Qualification |
| ERT | - Event Review Team |
| ESF | - Engineered Safety Features |
| ESW | - Emergency Service Water |
| EWR | - Engineering Work Request |
| FO | - Fuel Oil |
| FSAR | - Final Safety Analysis Report |
| HVAC | - Heating, Ventilation, and Air Conditioning |
| IERP | - Industry Event Review Program |
| ILRT | - Integrated Leak Rate Test |
| I&C | - Instrumentation and Control |
| JIO | - Justifications for Interim Operation |
| LCO | - Limiting Condition for Operation |
| LER | - Licensee Event Report |
| LLRT | - Local Leak Rate Test |
| LOCA | - Loss of Coolant Accident |
| LOOP | - Loss of Offsite Power |
| MSIV | - Main Steam Isolation Valve |
| NCR | - Non Conformance Report |
| NDI | - Nuclear Department Instruction |
| NPE | - Nuclear Plant Engineering |
| NPO | - Nuclear Plant Operator |
| NQA | - Nuclear Quality Assurance |
| NRC | - Nuclear Regulatory Commission |
| NSE | - Nuclear Systems Engineering |
| OI | - Open Item |

| | |
|-------|---|
| OOS | - Out-of-Service |
| PC | - Protective Clothing |
| PCIS | - Primary Containment Isolation System |
| PMR | - Plant Modification Request |
| PORC | - Plant Operations Review Committee |
| PSID | - Pounds Per Square Inch Differential |
| QA | - Quality Assurance |
| RB | - Reactor Building |
| RBCCW | - Reactor Building Closed Cooling Water |
| RCIC | - Reactor Core Isolation Cooling |
| RG | - Regulatory Guide |
| RHR | - Residual Heat Removal |
| RHRSW | - Residual Heat Removal Service Water |
| RPS | - Reactor Protection System |
| RWCU | - Reactor Water Cleanup |
| SGTS | - Standby Gas Treatment System |
| SI | - Surveillance Procedure, Instrumentation and Control |
| SO | - Surveillance Procedure, Operations |
| SOOR | - Significant Operating Occurrence Report |
| SPDS | - Safety Parameter Display System |
| SPING | - Sample Particulate, Iodine, and Noble Gas |
| TS | - Technical Specifications |
| TSC | - Technical Support Center |
| WA | - Work Authorization |

ATTACHMENT 2

PP&L MANAGEMENT MEETING WITH NRC
March 24, 1993

Nuclear Regulatory Commission (NRC)

Richard R. Keimig, Chief, Safeguards Section, DRSS
Gregory C. Smith, Senior Physical Security Inspector, DRSS
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