June 12, 2000

EA 00-135

Mr. Robert G. Byram
Senior Vice President, Nuclear
PPL, Inc.
Susquehanna Steam Electric Station
2 North Ninth Street
Allentown, PA 18101

SUBJECT: NRC's SUSQUEHANNA REPORT 05000387/2000-003, 05000388/2000-003

Dear Mr.Byram:

On May 13, 2000, the NRC completed an inspection at the Susquehanna Steam Electric Station. The enclosed report presents the results of that inspection. The results of this inspection were discussed on May 16, 2000, with Mr. R. Ceravolo and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel.

The NRC identified three issues that were evaluated under the risk significance determination process and were determined to be of very low safety significance (Green). These issues were entered into your corrective action program and are discussed in the summary of findings and in the body of the attached inspection report. All three issues were determined to involve violations of NRC requirements, but because of their very low safety significance, the violations are not cited. If you contest these noncited violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001, with copies to the Regional Administrator, Region I, and the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001, and the NRC Resident Inspector at the Susquehanna Steam Electric Station.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room and will be available on the NRC Public Electronic Reading Room (PERR) link at the NRC home page, http://www.nrc.gov/NRC/ADAMS/index.html.

If you have any questions please contact me at 610-337-5233.

Sincerely,

/RA/

Curtis J. Cowgill, Chief
Projects Branch 4
Division of Reactor Projects

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

Enclosure: Inspection Report 05000387/2000-003, 05000388/2000-003

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos.:	05000387, 05000388
License Nos.:	NPF-14, NPF-22
Report No.:	2000-003
Licensee:	Pennsylvania Power and Light, Inc.
Facility:	Susquehanna Steam Electric Station
Location:	Post Office Box 35 Berwick, PA 18603
Dates:	April 2, 2000 to May 13, 2000
Inspectors:	S. Hansell, Senior Resident Inspector J. Richmond, Resident Inspector A. Blamey, Resident Inspector T. Burns, Reactor Inspector J. Noggle, Senior Health Physicist J. Jang, Senior Radiation Specialist
Approved by:	Curtis Cowgill, Chief Projects Branch 4 Division of Reactor Projects

SUMMARY OF FINDINGS

Susquehanna Steam Electric Station
NRC Inspection Report 05000387/2000003, 05000388/2000003

The report covered a six-week period of resident inspection and announced inspections by a regional reactor inspector, a senior health physicist, and a senior radiation specialist. The significance of issues is indicated by their color (GREEN, WHITE, YELLOW, RED) and was determined by the Significance Determination Process in Inspection Manual Chapter 0609. (See Attachment 1)

Cornerstone: Barrier Integrity

- Green. During a Unit 1 refueling outage operators inadvertently drained approximately 1100 gallons of water from the reactor vessel/cavity. Operators failed to close valves to isolate the reactor water cleanup system from the reactor vessel/cavity during a planned activity to drain the reactor water cleanup system. This was of very low safety significance because more than one million gallons of water were still available in the reactor vessel/cavity to cool the fuel in the core and in the spent fuel pool. The inspectors identified a noncited violation for not correctly performing a procedure. (Section 1R20.2)

- Green. PPL, Inc (PPL) determined that Unit 1 and Unit 2 residual heat removal system spectacle flanges did not have valid leakage tests as required by technical specifications because an extra o-ring was installed which may have prevented the performance of a valid leakage test. This was of very low safety significance because the extra o-ring had little effect on the leak tightness of the flanged connection (containment integrity) and significant margin existed to technical specification leakage limits. The inspectors identified a noncited violation for not having performed valid technical specification required leakage tests. Unit 1 properly leak tested the flanges during the refueling outage. For Unit 2, since it was at power, PPL requested that the NRC exercise discretion to not enforce compliance with the actions required in the technical specification to shutdown the unit. The NRC issued enforcement discretion since this condition had minimal safety impact, was consistent with the enforcement policy and staff guidance, and had no adverse impact on the health and safety of the public. (Section 1R22.2)

Cornerstone: Operational Radiation Safety

- Green. PPL identified that a barricade to prevent unauthorized or inadvertent entry to the drywell was not sufficiently secured to prevent unauthorized access. Since the drywell contained areas that had dose rates greater than1 rem/hour at 30 centimeters, technical specifications required a locked door or gate to prevent unauthorized entry. This was of very low safety significance because there was no substantial potential for exposure in excess of regulatory limits and there was no significant unplanned exposure. The inspectors identified a noncited violation against technical specifications. (Section 2OS1)

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Report Details

SUMMARY OF PLANT STATUS

Susquehanna Steam Electric Station (SSES) Unit 1 began the period shutdown in a maintenance and refueling outage. Operations restarted the unit on May 5, 2000, and achieved full power on May 9.

Unit 2 began the period at full power and operated at or near full power for the entire report period.

1. REACTOR SAFETY
Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather (71111.01)

a. Inspection Scope

The inspectors reviewed operator actions taken at the facility during a transition period of several days, when the weather rapidly changed from near freezing temperatures to over 80 °F. The inspectors walked down numerous plant areas to review the potential hot weather vulnerabilities.

b. Issues and Findings

There were no findings identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors performed walkdowns of various plant areas to assess PPL's control of transient combustible material and ignition sources, fire detection and suppression capabilities, fire barriers, and any related compensatory measures. The areas toured included the Unit 1 and 2 safety-related battery rooms, Unit 1 4kV switchgear rooms, Unit 1 reactor water cleanup room complex, Unit 1 primary containment (drywell), emergency service water building, turbine building roof area (following completion of roofing repairs), Unit 1 residual heat removal system pump rooms, and Unit 1 and 2 upper and lower relay rooms.

b. Issues and Findings

There were no findings identified.

1R08 Inservice Inspection (ISI) (71111.08)

a. Inspection Scope

The inspector observed NDE activities which included ultrasonic tests (UT) and penetrant tests of pressure boundary welds on core spray piping. The inspector reviewed PPL's documentation of a visual examination of two main steam pipe hangers. The inspector verified by direct observation and documentation review that NDE activities were performed in accordance with the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code. The inspector reviewed the in-vessel visual inspection of vessel internals through observation of the video recordings of examination of the in-vessel core spray piping and associated components, two jet pump assemblies and supports, and a portion of the core shroud vertical welds. The inspector reviewed the preliminary UT data recorded from the examination of the core shroud H-4 weld (fourth horizontal weld down from the shroud head flange). The inspector examined radiographs and radiographic documentation of the replacement, by welding, of two check valves and associated piping (four welds) in the control rod drive system to verify that welding activities and acceptance criteria were in accordance with the ASME Section XI Code requirements. The inspector verified the welding activities were in compliance with the requirements of the Code by review of the weld procedure and weld procedure qualification.

The inspector reviewed examination data and documentation for additional NDE tests performed during the ISI activity to verify SSES recorded, documented, reviewed, and resolved indications identified during non-destructive examination. The inspector verified that rejectable indications identified were incorporated into the corrective action program and dispositioned in accordance with site procedures.

b. Issues and Findings

No findings were identified.

1R13 Maintenance Risk Assessment and Emergent Work (71111.13)

a. Inspection Scope

The inspectors reviewed PPL's risk management for emergent work activities on Unit 2 primary containment isolation valve SV-25782A, Unit 1 and Unit 2 reactor core isolation cooling (RCIC) pumps, and Unit 1 main steam isolation valves. The inspectors observed selected portions of the emergent work and reviewed PPL's risk evaluation and contingency plans for the maintenance activities to verify that appropriate risk evaluations were performed and to assess PPL's management of overall plant risk, during on-line maintenance.

b. Issues and Findings

There were no findings identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the operability determinations associated with the following plant equipment issues:

CR 252327 The “E” emergency diesel generator (EDG) “3R” cylinder exhaust valve adjusting screw and the oil lifter were found separated.

CR 249122 Binding was found in the Unit 1 RCIC turbine.

b. Issues and Findings

There were no findings identified.

1R20 Refueling and Maintenance Outage Activities (71111.20)

.1 Refueling Activities

a. Inspection Scope

During the Unit 1 refueling outage the inspectors verified that the temporary alternative decay heat removal system was operable during the time periods when the residual heat removal system was unavailable for shutdown cooling operation. The inspectors observed fuel handling practices from the refuel platform and fuel movement between the spent fuel pool and the reactor core. The inspectors verified refuel floor secondary containment integrity during fuel handling operations. The availability of reactor coolant emergency makeup source from the core spray system was inspected. The inspectors reviewed the main steam isolation valve repairs and valve leak rate testing.

b. Issues and Findings

There were no findings identified.

.2 Plant Operations With the Potential to Drain the Reactor Vessel (71111.20)

a. Inspection Scope

The inspectors reviewed portions of selected plant operations with the potential for draining the reactor vessel or cavity to verify that the necessary administrative or engineering controls were in-place to prevent an inadvertent loss of reactor coolant.

b. Issues and Findings

On March 27, operators inadvertently drained approximately 1100 gallons from the reactor vessel/cavity to a liquid radwaste collection tank during a planned activity to drain the reactor water cleanup (RWCU) system. The operators did not properly isolate the RWCU system from the reactor vessel/cavity because the operators did not verify a prerequisite in the procedure (DR-161-002, RWCU - Drain Recommendations While Unit is Shutdown) to close valves in the reactor vessel bottom head drain line. Although the inadvertent drain flow resulted in a valid high differential flow signal which should have automatically closed RWCU isolation valves, operator actions were required to stop the drain flow. The isolation logic for the RWCU primary containment isolation valves had been bypassed as part of the procedure to drain the RWCU system. PPL concluded the root cause for the event was inadequate procedure usage by the operators.

This finding was of very low safety significance (Green) as determined by the Significance Determination Process because the refuel cavity was flooded and connected with the Unit 1 and 2 spent fuel pools. This configuration provided more than one million gallons of water to cool the core and spent fuel pools. With the cavity flooded, the time to core boiling was in excess of 24 hours. Alarms in the control room for high RWCU flow rate and low spent fuel pool water level provided operators ample time to identify and stop the flow diversion. The inspectors' assessment for this event was confirmed by an NRC senior reactor analyst.

Technical Specification section 5.4, "Administrative Controls - Procedures," requires procedures be established and implemented in accordance with Regulatory Guide 1.33. Regulatory Guide 1.33, Appendix A, item 4.a requires a procedure for RWCU system draining. Station procedure DR-161-002 was not correctly implemented, thereby preventing the reactor vessel from being isolated from the RWCU system. This violation is being treated as a Non-Cited Violation, consistent with the NRC Enforcement Policy. This violation is documented in PPL's corrective action program as condition report 244768. **(NCV 05000387/2000003-01)**

.3 Configuration Management, Test Control, and Post Maintenance Testing (71111.20)

a. Inspection Scope

The inspectors observed selected portions of equipment and system testing and reviewed selected portions of equipment restoration and test procedures to verify that equipment configuration management, test control, and post maintenance checks were performed in accordance with NRC requirements and PPL procedures. The inspected activities included:

- "E" Emergency Diesel Generator (EDG) Integrated Test;
- HV-151F028B, Residual Heat Removal (RHR) System Suppression Pool Spray Valve, Dynamic Votes Test;
- Common RHR/CIG/SRV Functional Test at Remote Shutdown Panel;
- Division-2 RHR Logic System Functional Test;
- Recirculation Loop Chemical Decontamination;
- Division-2 LOCA-LOOP Test with the "E" EDG;
- Post-Fuel Shuffle Fuel Verification;
- Main Steam Isolation Valve Local Leak Rate Test (LLRT);
- Drywell to Suppression Pool Vacuum Breaker Valve LLRT; and
- Reactor Coolant Isolation Cooling System Post-maintenance Pump Test with Auxiliary Steam.

b. Issues and Findings

There were no findings identified.

.4 Reactor Plant Startup Activities (71111.20)

a. Inspection Scope

The inspectors performed a post-maintenance walkdown of the primary containment (drywell) during the reactor pressure vessel hydrostatic test. The inspectors observed portions of PPL's in-service inspection for reactor coolant system operational leakage checks and operation's reactor pressure control. The inspectors reviewed the operational leakage test results to verify conformance with NRC requirements and PPL administrative procedures.

The inspectors observed selected portions of the reactor startup from the control room to verify that technical specifications, license conditions, and administrative requirements were satisfied. The observed activities included: startup preparations for mode change, control rod withdrawals, reactor criticality, reactor coolant system heatup, reactivity manipulations with the reactor recirculation system, and turbine generator excitation and synchronization to the grid. The inspectors verified that reactor criticality occurred with the control rod positions within the allowed band predicted by the core design.

b. Issues and Findings

There were no findings identified.

1R22 Surveillance Testing (71111.22)

.1 Routine Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed the performance of selected portions of surveillance tests and reviewed portions of the test results to verify that the tested systems and components were capable of performing their safety functions.

SO-024-001	"D" Emergency Diesel Generator Monthly Operability Verification
SE-259-019	SV-25782A, Primary Containment Isolation Valve Local Leak Rate Test
SI-178-319A	"A" Average Power Range Monitor Post-calibration Functional Test
TP-150-004	Unit 1 Reactor Core Isolation Cooling Overspeed Test With Auxiliary Steam

b. Issues and Findings

There were no findings identified.

.2 Invalid Local Leak Rate Tests For Testable Spectacle Flanges and Notice of Enforcement Discretion (71111.22)

a. Inspection Scope

On April 7, 2000, PPL determined that valid leakage tests had not been performed on the Unit 1 and Unit 2 residual heat removal (RHR) system spectacle flanges 1(2)S299A and 1(2)S299B. Since Unit 1 was in a refueling outage, the Unit 1 flanges were correctly tested, in April 2000, prior to the Unit 1 Startup. However, PPL determined that the Unit 2 RHR spectacle flanges could not be tested because the Unit was at power. Technical Specification (TS) surveillance requirement (SR) 3.6.1.1.1, requires a leakage test be performed each time the flange boundary is opened. Since a valid leakage test had not been performed on Unit 2, PPL entered SR 3.0.3 which required that the leakage test be completed within the next 24 hours or the Unit needed to be shutdown in the following 12 hours. On April 8, PPL requested that the NRC exercise discretion to not enforce compliance with the actions required in TS SR 3.6.1.1.1 thus not requiring the Unit 2 shutdown.

The inspectors performed in-plant walkdowns and reviewed PPL documentation to verify the condition of the flanges and PPL's assumptions used in the request for enforcement discretion. This included a review of PCWO 100820, SE-159-107, “LLRT 1S229B O-RINGS”, a summary of past spectacle flange tests, and NDAP-QA-0412, “Leakage Rate Test Program.” The inspectors also reviewed PPL’s root cause analysis and their corrective actions (CR 247422).

b. Issues and Findings:

PPL determined that the Unit 1 RHR system spectacle flanges 1S299A and 1S299B were reassembled improperly in October 1996 and May 1998 respectively. The Unit 2 RHR system spectacle flanges 2S299A and 2S299B were reassembled improperly in March 1997. Specifically, the spectacle flanges had 3 o-rings installed instead of 2 o-rings. PPL determined that the third o-ring on the flange face may have obstructed the test ports used to pressurize the volume between the outer and inner o-rings during leakage test of the flange. Therefore, PPL concluded that the previously performed leakage test may not have been valid. On April 8, 2000, PPL requested that the NRC exercise discretion to not enforce compliance with the actions required in TS SR 3.6.1.1.1 for the Unit 2 flanges which would have required the Unit to shutdown.

The inspectors determined that the third o-ring had little effect on the leak tightness of the flanged connection. In addition, PPL currently has significant margin between the current total maximum pathway leakage and the TS leakage limit.

NRC issued a notice of enforcement discretion (NOED 00-6-005) which allowed PPL a one time deferral of testing on the Unit 2 flanges from April 8, 2000, until the next outage when Unit 2 will be placed in cold shutdown, not to exceed the next Unit 2 refueling outage. The NRC determined that this condition had minimal safety impact, was consistent with the enforcement policy and NRC staff guidance, and had no adverse impact on the health and safety of the public.

The inspectors determined that the work plans did not provide adequate information to maintain the design configuration of these flanges. In 1994, PPL identified (WO

H20533) that two o-rings should have been installed on each flange face. However, the work plans used on Unit 1 in October 1996 and May 1998 and on Unit 2 in March 1997, allowed technicians to install 3 o-rings on flanges 1(2)S299A and 1(2)S299B, which prevented a valid leakage test. The failure to perform a valid leakage test on the Unit 1 and Unit 2 RHR system spectacle flanges, after the flanges were opened, is a violation of TS SR 3.6.1.1.1. This finding was of very low safety significance (Green) because the third o-ring had minimal impact on the leak tightness of the flange (integrity of containment) and PPL's current total maximum pathway leakage had significant margin to the TS leakage limit. Therefore this violation is considered a Non-Cited Violation consistent with the NRC Enforcement Policy. PPL entered this violation into their corrective action program as CR 247422. **(NCV 05000387 & 05000388/2000003-02)**

2. RADIATION SAFETY
Cornerstone: Occupational Radiation Safety, Public Radiation Safety

2OS1 Access Control (71121.01)

a. Inspection Scope

The inspector reviewed condition report 240558, for a high radiation access control event.

b. Issues and Findings

Susquehanna Technical Specifications 5.7.2.a states that each area with dose rates greater than 1 Rem per hour at 30 centimeters from the source shall be provided with a locked door or gate that prevents unauthorized entry. On March 20, 2000 at 10:00 a.m., a routine health physics surveillance activity identified that the fencing material used as a barricade to prevent unauthorized or inadvertent entry to the open Unit 1 drywell equipment hatch was not sufficiently secured to prevent unauthorized access. PPL identified that the drywell contained areas with dose rates greater than 1 Rem per hour at 30 centimeters and identified this condition as a violation of the TS 5.7.2.a.

PPL’s investigation determined that the condition could have existed for no more than 15 hours before being identified. Upon identification, the fence was promptly secured. PPL recognized this deficient condition to be a performance indicator affecting Occupational Exposure Control Effectiveness. PPL’s review confirmed that no unusual personnel exposures were reported for the duration of the condition. The inspector confirmed that there was no substantial potential for exposure in excess of regulatory limits or any significant unplanned exposures, and that PPL’s ability to assess exposure was not compromised. For these reasons, this finding was of very low safety significance and was characterized as Green, by the Significant Determination Process. This violation is being treated as a Non-Cited Violation consistent with the NRC Enforcement Policy. This violation was documented in PPL’s corrective action program as condition report 240558. **(NCV 05000387/2000003-03)**

2OS2 ALARA Planning and Controls (71121.02)

a. Inspection Scope

The inspector reviewed five work activities which represented the highest exposures estimated by PPL for the Unit 1 refuel outage. These activities were scaffolding work in the drywell, recirculation piping chemical decontamination in the drywell, insulation work in the drywell, control rod drive exchange in the drywell, and the RHR pump and pump motor change-out in the RHR room. The inspector reviewed the ALARA controls for those principal high exposure outage work locations and the associated worker ALARA performance for all drywell work locations and RHR pump work locations. The inspector reviewed the engineering controls associated with those areas and temporary shielding packages in each of the mentioned work locations. The inspector reviewed the source term control strategy plans, current outage results, and the exposure results and controls associated with declared pregnant women. The inspector reviewed 44 outage-related condition reports involving occupational radiation safety issues.

b. Issues and Findings

There were no findings identified. The inspector had the following observation.

PPL management personnel determined that ineffective communication and inter-departmental coordination contributed to an unnecessary delay in reducing the source of high radiation readings (ranging as high as 3 Rem per hour at 30 cm) that had developed in a section of reactor water cleanup (RWCU) piping in the primary containment during the Unit 1 refueling outage. Although PPL adequately controlled the area as a High Radiation Area consistent with Technical Specifications, personnel that worked in the vicinity (including replacing the ‘B’ recirculation pump motor lower bearing and inspecting RWCU pipe welds) received a planned exposure (estimated to be less than 1 person-rem) that could have been prevented. PPL documented this issue in CR 250668.

2PS1 Gaseous and Liquid Effluents (71122.01)

a. Inspection Scope

The inspector reviewed the following documents to ensure the PPL met the requirements specified in the Technical Specifications/Offsite Dose Calculation Manual (TS/ODCM): (1) the 1998 and 1999 Radiological Annual Effluent Release Reports, (2) the most recent ODCM and technical justifications for ODCM changes, (3) monthly, quarterly, and annual projected doses to the public, (4) sampling and analyses for charcoal cartridge and particulate filter samples, (5) records of releases made with inoperable effluent radiation monitors, (6) calibration records for laboratory measurements equipment, (7) measurement laboratory quality control programs, (8) quarterly self-assessments, (9) Quality Assurance audit for the TS/ ODCM implementations, and (10) response to Generic Letter 99-02, ”Laboratory Testing of Nuclear-Grade Activated Charcoal.”

The following systems were reviewed for operability: (1) reactor and turbine building vents sampling systems, (2) standby gas treatment system, and (3) effluent radiation monitoring systems.

The most recent channel calibration and functional testing results for the following effluent radiation monitoring systems were reviewed for both units: (1) liquid radwaste effluent line radiation monitor, (2) service water system effluent line radiation monitors, (3) RHR service water system effluent line radiation monitors, (4) reactor building ventilation noble gas monitors (low & high ranges), (5) turbine building ventilation noble gas monitor (low & high ranges), and (6) standby gas treatment system noble gas monitors (low & high ranges).

The most recent channel calibration results for the following flow rate measurement devices for both units were reviewed: (1) liquid radwaste effluent line, (2) cooling tower blow down line, (3) reactor building ventilation effluent system, (4) turbine building ventilation effluent system, and (5) standby gas treatment system effluent system.

Surveillance testing results for the standby gas treatment system, required by TS Section 3.6.4.3, and control room emergency outside air supply system, required by TS Section 3.7.3.

b. Issues and Findings

There were no findings identified.

4. OTHER ACTIVITIES

4OA3 Event Follow-up (71153)

.1 (Closed) LER 05000387/2000-006-00: Invalid Local Leak Rate Tests For Testable Spectacle Flanges. This issue is discussed in section 1R22.2 of this inspection report. This LER is Closed.

.2 (Closed) LER 05000387/2000-004-00: Actuation of Reactor Water Cleanup (RWCU) High Differential Flow Isolation Logic during RWCU Draining. This issue is discussed in section 1R20.2 of this inspection report. This LER is Closed.

4OA4 Cross Cutting Issues

.1 Human Performance Problems

a. Inspection Scope

The inspectors observed and reviewed the coordination of work during the Unit 1 refueling outage. In addition, the inspector reviewed two condition reports that described personnel errors which resulted in unexpected draining of water the reactor vessel/cavity and the condensate storage tank.

b. Issues and Findings

On two occasions during the Unit 1 refueling outage, operators did not verify that prerequisites were satisfied prior to performing work which resulted in unexpected draining of water. This issue represented a problem because operators are required to verify that prerequisites are satisfied prior to performing work. Specifically, on March 27, 2000, reactor water was unexpectedly drained from the reactor vessel/cavity to radwaste during a RWCU system draining evolution. This occurred because the operators did not verify that the RWCU system was isolated from the reactor vessel. This is discussed further in section 1R20.2 of this report. On April 6, 2000, water from the condensate storage tank (CST) was unexpectedly drained to the Unit 1 suppression pool during a leakage test on the "B" Core Spray penetration. This occurred because operators did not verify that the CST was isolated from the core spray system. PPL documented this condition in CR 247169. There was no safety significance for the CST draining because the effected equipment was not in service when the error occurred.

4OA5 Other

.1 Institute of Nuclear Power Operations (INPO) Report Review: The inspectors reviewed the Susquehanna INPO Evaluation Interim Report, dated March 20, 2000. No significant safety issues were identified requiring further NRC follow-up.

4OA6 Meetings

.1 Exit Meeting Summary

On May 16, 2000, the inspectors presented the inspection results to Mr. R. Ceravolo and other members of your staff who acknowledged the findings.

The inspectors asked PPL whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened and Closed

05000387/2000003-01	NCV	Actuation of Reactor Water Cleanup (RWCU) High Differential Flow Isolation Logic during RWCU Draining. (section 1R20.2)
05000387/2000003-02 05000388/2000003-02	NCV	Invalid Local Leak Rate Tests For Testable Spectacle Flanges. (section 1R22.2)
05000387/2000003-03	NCV	Failure to Control a High Radiation Area (greater than 1000 millirem/hour at 30 cm) in accordance with Technical Specification 5.7.2.a (section 2OS1)

Closed

05000387/2000-004-00	LER	Actuation of Reactor Water Cleanup (RWCU) High Differential Flow Isolation Logic during RWCU Draining.
05000387/2000-006-00	LER	Invalid Local Leak Rate Tests For Testable Spectacle Flanges.

LIST OF ACRONYMS USED

ALARA	As Low As is Reasonable Achievable
ASME	American Society of Mechanical Engineers
AV	Apparent Violation
CFR	Code of Federal Regulations
CST	Condensate Storage Tank
CIG	Containment Instrument Gas
CR	Condition Report
EDG	Emergency Diesel Generator
ESW	Emergency Service Water
F	Fahrenheit
INPO	Institute of Nuclear Power Operations
IR	Inspection Report
ISI	Inservice Inspection
LER	Licensee Event Report
LLRT	Local Leak Rate Test
LOCA	Loss of Coolant Accident
LOOP	Loss of Off Site Power
NDE	non-destructive examinations
MR	Maintenance Rule
MSIV	Main Steam Isolation Valve
NCV	Non-Cited Violation
NOED	Notice of Enforcement Discretion
NOV	Notice of Violation
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
QA	Quality Assurance
QC	Quality Control
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RWCU	Reactor Water Clean-Up
SR	Surveillance Requirement
SRV	Safety Relief Valve
SSES	Susquehanna Steam Electric Station
TS	Technical Specification
UT	Ultrasonic Testing
WO	Work Order

ATTACHMENT 1

NRC's REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

Radiation Safety

- Occupational
- Public

Safeguards

- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.