

January 9, 2002

Mr. Robert G. Byram
Senior Vice President and
Chief Nuclear Officer
PPL Susquehanna, LLC
Susquehanna Steam Electric Station
2 North Ninth Street
Allentown, Pennsylvania 18101

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION - NRC INSPECTION REPORT
50-387/01-11, 50-388/01-11

Dear Mr. Byram:

On December 29, 2001, the NRC completed an inspection at your Susquehanna Steam Electric Station Units 1 and 2. The enclosed report documents the inspection findings which were discussed on January 3, 2002, with Mr. B. Shriver, Vice President - Nuclear Site Operations, and other members of your staff.

This inspection examined 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. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

No findings of significance were identified.

Since September 11, 2001, the Susquehanna Steam Electric Station has assumed a heightened level of security based on a series of threat advisories issued by the NRC. Although the NRC is not aware of any specific threat against nuclear facilities, the heightened level of security was recommended for all nuclear power plants and is being maintained due to the uncertainty about the possibility of additional terrorist attacks. The steps recommended by the NRC include increased patrols, augmented security forces and capabilities, additional security posts, heightened coordination with local law enforcement and military authorities, and limited access of personnel and vehicles to the site.

The NRC continues to interact with the Intelligence Community and to communicate information to PPL Susquehanna, LLC. In addition, the NRC has monitored maintenance and other activities which could relate to the site's security posture.

Mr. Robert G. Byram

2

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm.html> (The Public Electronic Reading Room).

If you have any questions please contact me at 610-337-5209.

Sincerely,

/RA/

Mohamed Shanbaky, Chief
Projects Branch 4
Division of Reactor Projects

Docket Nos. 50-387, 50-388
License Nos. NPF-14, NPF-22

Enclosure: Inspection Report 50-387/01-11, 50-388/01-11

Attachment 1 - Supplemental Information

cc w/encl: B. L. Shriver, Vice President - Nuclear Site Operations
R. Anderson, General Manager - SSES Operations
R. L. Ceravolo, General Manager - Plant Support
G. A. Williams, General Manager - Nuclear Assurance
A. J. Wrape III, General Manager - Nuclear Engineering
T. Harpster, Manager - Regulatory Affairs
R. R. Sgarro, Supervisor, Nuclear Licensing - SSES
C. D. Markley, Supervisor - Nuclear Licensing
M. M. Golden, Manager - Nuclear Security
P. Nederostek, Nuclear Services Manager, General Electric
A. M. Male, Manager, Quality Assurance
H. D. Woodeshick, Special Assistant to the President
G. DallaPalu, PP&L Nuclear Records
R. W. Osborne, Vice President, Supply & Engineering
Allegheny Electric Cooperative, Inc.
Commonwealth of Pennsylvania

Distribution w/encl: H. Miller, RA/J. Wiggins, DRA (1) Inspection Reports
 S. Hansell, DRP - SRI Susquehanna
 M. Shanbaky, DRP
 D. Florek, DRP
 J. Talieri, DRP
 S. Iyer, DRP
 R. Junod, DRP
 T. Bergman, OEDO
 E. Adensam, NRR
 D. Collins, PM, NRR
 T. Tate, PM, NRR (Backup)
 G. Vissing, PM, NRR
 Region I Docket Room (with concurrences)

DOCUMENT NAME: G:\BRANCH4\SUSQUEHANNA\SUS0111.WPD

After declaring this document "An Official Agency Record" it **will/will not** be released to the Public. **To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy**

OFFICE	RI/DRP		RI/DRP		RI/DRP	
NAME	SHansell/DF for		DFlorek/DF for		MShanbaky/MS	
DATE	01/8/02		01/8/02		01/9/02	

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos.: 05000387, 05000388

License Nos.: NPF-14, NPF-22

Report No.: 50-387/01-11, 50-388/01-11

Licensee: PPL Susquehanna, LLC

Facility: Susquehanna Steam Electric Station

Location: Post Office Box 35
Berwick, PA 18603

Dates: November 18, 2001 to December 29, 2001

Inspectors: J. Richmond, Senior Resident Inspector
A. Blamey, Senior Operations Engineer
J. Carrasco, Reactor Inspector
J. Noggle, Senior Health Physicist
C. Sisco, Operations Engineer

Approved by: Mohamed M. Shanbaky, Chief
Projects Branch 4
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000387-01-11, 05000388-01-11; on 11/18-12/29/2001; PPL Susquehanna, LLC; Susquehanna Steam Electric Station; Units 1&2. Resident Inspector and Health Physics Specialist Report.

The report covered a 6 week period of inspection by resident inspectors, Senior Operations Engineer, Operations Engineer, and a Senior Health Physicist. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/reactors/operating/oversight.html>

A. Inspection Findings

No findings of significance were identified.

TABLE OF CONTENTS

SUMMARY OF FINDINGS	ii
TABLE OF CONTENTS	iii
Summary of Plant Status	1
1. REACTOR SAFETY	1
1R01 Adverse Weather Protection	1
1R04 Equipment Alignments	2
.1 Complete System Walkdown	2
1R05 Fire Protection	2
.1 Routine Plant Area Inspections	2
.2 Station Fire Brigade Performance	3
1R07 Heat Sink Performance	4
1R12 Maintenance Rule Implementation	4
1R13 Maintenance Risk Assessment and Emergent Work	5
1R14 Personnel Performance During Non-routine Plant Evolutions & Events	6
.1 Unit 1 Main Turbine Shutdown for 230kV Disconnect Switch Repairs ..	6
1R15 Operability Evaluations	7
1R16 Operator Work-Arounds	7
1R19 Post Maintenance Testing	8
1R22 Surveillance Testing	8
2. RADIATION SAFETY	9
2PS2 Radioactive Material Processing and Transmission	9
4. OTHER ACTIVITIES	10
4OA1 Performance Indicator Verification	10
.1 Reactor Safety Indicators	10
.2 Occupational Exposure Control Effectiveness Indicator	11
.3 Physical Protection Indicators	11
4OA5 Other	12
.1 Institute of Nuclear Power Operations (INPO) Report Review	12
4OA6 Meetings	12
.1 Exit Meeting Summary	12
ATTACHMENT 1	13
List of Items Opened, Closed and Discussed	13
List of Documents Reviewed	13
List of Acronyms	13

Report Details

Summary of Plant Status

Susquehanna Steam Electric Station (SSES) Unit 1 began the period at full power. On December 20, reactor power was reduced to approximately 18% and the main turbine generator was taken out of service to repair a 230kV disconnect switch. The Unit was returned to full power on December 21, and operated at or near full power for the remainder of the report period except for control rod pattern adjustments and main turbine control valve testing.

Unit 2 was operated at or near full power for the report period except for control rod pattern adjustments and main turbine control valve testing.

1. **REACTOR SAFETY**

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness

1R01 Adverse Weather Protection (711111.01)

a. Inspection Scope

The inspectors reviewed PPL's preparations for cold weather conditions and performed plant walkdowns for selected structures, systems, and components. The walkdowns and reviews were conducted to determine the adequacy of PPL's weather protection activities and system features. The inspectors compared their observations to PPL's procedures for cold weather protection of the associated systems. The areas, components, and documents included:

Structures, Systems, and Components

- Unit Common Emergency Service Water Pump House
- Units 1 and 2 Condensate Storage Tanks
- Unit Common Refueling Water Storage Tank

Procedures and Documents

- NDAP-00-0024, revision 4, "Winter Operation Preparations and Severe Weather Operation"
- OP-1(2)85-001, "Freeze Protection System"
- MT-085-001, "Freeze Protection, Process Heat Trace Testing and Maintenance"
- WO E1663-01, "Freeze Protection Inspection Condensate & Refuel Water Storage Tanks"
- WO E1663-11, "Inspect ESW Freeze Protection 1BC591 (ESW & RHRSW)"
- WO E1663-60, "Inspect Condensate Storage Tank Freeze Protection 2BC590"
- NPO Logs for Turbine Buildings, Control Structure, and Outside Buildings

b. Findings

No findings of significance were identified.

1R04 Equipment Alignments (71111.04).1 Complete System Walkdowna. Inspection Scope

The inspectors performed a complete system walkdown on the common fire protection water supply system (diesel driven fire pump, OP511; motor driven fire pump, OP512; and the jockey fire pump, OP543) to verify whether the equipment was properly aligned. In addition, the inspectors reviewed the Fire Protection Review Report (FPRR), fire protection system design drawings, and issues tracked by the system health report (condition reports, work orders, and maintenance rule issues). These reviews were conducted to identify discrepancies that would impact system operability. The following documents were included in the review:

- Maintenance Rule Basis Document for System 13 (Fire Protection)
- System Health Report for System 13
- M-122, "Fire Protection Pump House P&ID"
- DBD-019, "Design Basis Document for Fire Protection System"
- FPRR section 4.1, "Fire Protection Water Supply Systems"
- Technical Requirements Manual and Basis sections 3.7.3.1, "Fire Suppression Water Supply System"

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q).1 Routine Plant Area Inspectionsa. Inspection Scope

The inspectors reviewed PPL's Fire Protection Review Report to determine the required fire protection design features, fire area boundaries, and combustible loading requirements for selected areas. The inspectors walked down those 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. In addition, based on the heightened level of security since September 11, 2001, the inspectors reviewed the fire protection features of the Security Control Center and North Gate House, and performed walkdowns of those fire areas to assess PPL's fire protection program in those areas. The areas and documents reviewed included:

Plant Areas and Fire Zones

- Units 1 and 2 Lower Cable Spreading Rooms, Fire Zones 0-25A&E
- Unit Common Emergency Service Water Pump House, Fire Zones 0-51,52
- "A-D" Emergency Diesel Generator Rooms, Fire Zones 0-41A,B,C, and D

- Units 1 and Unit 2 Emergency Switchgear Rooms, Fire Zones 1(2)-4C,D and 1(2)-5F,G
- Security Control Center and North Gate House

Pre-fire Plans

- FP-013-146,150, "Unit 2(1) Lower Cable Spreading Room"
- FP-013-189,192,195,198, "Diesel Generator Bay A(B,C, and D)"
- FP-013-200,201, "ESW Pump House Loop-A(B)"
- FP-013-115,250 "Switchgear Rooms, Elevation 719"
- FP-013-123,258 "Load Center Rooms, Elevation 749"

b. Findings

No findings of significance were identified.

.2 Station Fire Brigade Performance

a. Inspection Scope

On December 13, 2001, the inspectors observed an announced fire brigade drill in the fire area for Drill Scenario No. 39, "Motor Vehicle Fire." During the fire drill there was participation from off-site fire fighters (non-PPL). The inspectors assessed PPL's strategies, which utilized both PPL and off-site fire brigades, to fight a fire on site and to evaluate the readiness of PPL to prevent and fight fires. In addition, the inspectors evaluated PPL's heightened security measures while bringing off-site fire fighters onto PPL owner controlled property. No pre-fire plan was available for the selected fire area.

The inspectors observed the fire brigade members don protective clothing and turnout gear and enter the fire area. In addition, the inspectors observed the fire fighting equipment brought to the fire area scene to evaluate whether sufficient equipment was available for the simulated fire. The inspectors observed fire fighting directions and radio communications between the brigade leader, brigade members, off-site fire fighters at the scene, and the control room. The inspectors observed the post drill critique to evaluate if the drill objectives' acceptance criteria were satisfied and interviewed control room operators to assess adherence to emergency plan implementation.

b. Issues and Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07)a. Inspection Scope

The inspectors observed PPL's inspection, cleaning, and maintenance activities in the field, and reviewed PPL's evaluation of the as-found conditions for the Unit 1 high pressure coolant injection system (HPCI) "B" room cooler (1E229B) using the following documents:

- NDAP-QA-0504, "Heat Exchanger Program"
- NEPM-QA-1159, "Heat Exchanger Inspection"
- MT-GM-025, "Heat Exchanger Cleaning and Inspection"
- Specification H-1001, "Heat Exchanger/Condenser Tube Cleaning"
- Specification H-1004, "Heat Exchanger/Condenser Inspection and Condition Assessment"
- WO 339721, "Clean and Inspect the "B" HPCI room cooler 1E229B"

The inspectors reviewed PPL's inspection and cleaning records for the selected heat exchanger to verify whether PPL evaluated properly the results to ensure adequate heat transfer capabilities. The inspectors compared their observations against PPL's procedures and specifications to assess whether the HPCI room cooler was capable of performing its designed function. In addition, the inspectors reviewed the previous inspection records and compared the previous and current heat exchanger inspection and cleaning results against PPL's specifications and acceptance criteria to determine if the current results were consistent with predicted performance trends and with industry practice.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12Q)a. Inspection Scope

The inspectors evaluated the follow-up actions for selected system, structure, or component (SSC) issues and reviewed the performance history of these SSCs to assess the effectiveness of PPL's maintenance activities. The inspectors reviewed PPL's problem identification and resolution actions for these issues to evaluate whether PPL had appropriately monitored, evaluated, and dispositioned the issues in accordance with PPL procedures and the requirements of 10 CFR 50.65(a)(1) and (a)(2), "Requirements for Monitoring the Effectiveness of Maintenance." In addition, the inspectors reviewed selected SSC classification, performance criteria and goals, and PPL's corrective actions that were taken or planned to verify whether the actions were reasonable and appropriate. The following issues and documents were reviewed:

Equipment Issues

- Unit 1 Reactor Manual Control System (RMCS) for Rod Position Indication System (RPIS) power supply failure (CR 368654)
- Unit 1 High Pressure Coolant Injection (HPCI) system for steam line drain valves that failed closed (CR 366338)
- Unit 2 Control Rod Drive (CRD) system for two pump discharge check valve failures (CRs 286440, 324449, 336556, and PLI-90802, "MR Expert Panel Meeting Minutes 2001-0627")
- Unit 2 "B" Reactor Protection System (RPS) motor-generator failure (CRs 319646, 301261, and PLI-90456, "MR Expert Panel Meeting Minutes 2001-0314")
- Units 1 and 2 reactor building vent isolation solenoid valve failures (CR 70093)
- Unit 2 Reactor Vessel Low-Low Level Switches (Level-1) LIS-B21-2N031 repetitive surveillance failures; used to actuate low pressure coolant injection and core spray initiation (CR 71103, and PLI-90891, "MR Expert Panel Meeting Minutes 2001-0801")

Procedures and Documents

- Maintenance Rule Basis Documents for RMCS, RPIS, CRD, RPS, RB HVAC
- System Health Reports for RMCS, RPIS, CRD, RPS, RB HVAC
- NDAP-QA-0413, "SSES Maintenance Rule Program"
- EC-RISK-0528, "Risk Significant SSCs for the Maintenance Rule"
- EC-RISK-1054, "SSC Availability Performance Criteria for the Maintenance Rule"
- EC-RISK-1060, "Acceptable Number of Failures for Risk Significant SSCs"

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work (71111.13)

a. Inspection Scope

The inspectors reviewed the assessment and management of selected maintenance activities to evaluate the effectiveness of PPL's risk management for planned and emergent work. The inspectors compared the risk assessments and risk management actions to the requirements of 10 CFR 50.65(a)(4) and the recommendations of NUMARC 93-01 Section 11, "Assessment of Risk Resulting from Performance of Maintenance Activities." The inspectors evaluated the selected activities to determine whether risk assessments were performed when required and appropriate risk management actions were identified.

The inspectors reviewed scheduled and emergent work activities with licensed operators and work-coordination personnel to verify whether risk management action threshold levels were correctly identified. The inspectors assessed those activities to evaluate whether appropriate implementation of risk management actions were performed in accordance with the following PPL procedures:

- ON-155-004, "Rod Position Indication System (RPIS) Failure"
- GO-100-004, "Plant Shutdown to Minimum Power"
- OP-AD-001 section 6.2.7, "Operations Standards...Technical Specification Requirements"
- NDAP-QA-1902, "Maintenance Rule Risk Assessment and Management Program"
- NDAP-QA-0340, "Protected Equipment Program"
- PSP-22, "Susquehanna Sentinel Program"
- SSES Team Manual

In addition, the inspectors compared the assessed risk configuration to the actual plant conditions and any in-progress evolutions or external events to evaluate whether the assessment was accurate, complete, and appropriate for the issue. The inspectors performed control room and field walkdowns to verify whether the compensatory measures identified by the risk assessments were appropriately performed. The selected maintenance activities included:

- Unit 1 RPIS power supply failure (CRs 368654, 368899, 373281)
- Unit 2 "A" Reactor Recirculation System motor-generator unexpected lock-up of the scoop tube positioner (CR 371192)

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-routine Plant Evolutions & Events (71111.14)

.1 Unit 1 Main Turbine Shutdown for 230kV Disconnect Switch Repairs

a. Inspection Scope

On December 19, 2001, PPL identified that the Unit 1 230kV disconnect switch, on the grid side of the main generator output breaker, had developed an abnormally high temperature. Reactor power was reduced to approximately 80% to lower the main generator's electrical load, which reduced the disconnect switch temperature to an acceptable level. Reactor power was subsequently reduced to approximately 18% on December 20, the main turbine generator was taken out of service, and the disconnect switch repaired.

The inspectors observed selected portions of the plant shutdown and startup activities in the control room to verify whether Technical Specification (TS), Technical Requirements Manual (TRM), and administrative requirements were satisfied. Specifically, the inspectors observed reactivity manipulations with control rods and the reactor recirculation system, and operator verification of reactor core thermal limits. The inspectors reviewed operating logs, plant computer data, and interviewed plant operators for this unplanned event to assess personnel performance and evaluate whether the operator response was appropriate and in accordance with procedures and training. The inspectors compared their observations to the TS, TRM, GO-100-004, "Plant Shutdown to Minimum Power," GO-100-002, "Plant Startup, Heat up, and Power

Operations," Engineering Work Request 360846, and CRs 374173, 374174, 374178, and 374249.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed selected operability determinations, based on risk insights, to assess the adequacy of the evaluations, the use and control of compensatory measures, compliance with the Technical Specifications, and the risk significance of the issue. In addition, the inspectors reviewed the selected operability determinations to verify whether the determinations were performed in accordance with NDAP-QA-0703, "Operability Assessments." The inspectors used the Technical Specifications, Technical Requirements Manual, Final Safety Analysis Report (FSAR), and associated Design Basis Documents as references during these reviews. The issues reviewed included:

- Unit 2 main turbine combined intermediate valve #4 failed to stroke (CR 373327, SO-293-001)

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds (71111.16)

a. Inspection Scope

The inspectors evaluated the cumulative effects of plant problems identified on the PPL operator work-around list to determine if the functional capability of a system, or a human reliability response during an event, would be affected. This review focused on the operators' ability to implement abnormal and emergency operating procedures during postulated plant transients with the existing equipment deficiencies. In addition, the inspectors interviewed operators and reviewed OP-AD-002, "Operations Standards for Error and Event Prevention."

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors observed portions of post-maintenance testing activities in the field to determine whether the tests were performed in accordance with the approved

procedures. The inspectors assessed the test's adequacy by comparing the test methodology to the scope of maintenance work performed. In addition, the inspectors evaluated the test acceptance criteria to verify whether the test demonstrated that the tested components satisfied the applicable design and licensing bases and the Technical Specification requirements. The inspectors reviewed the recorded test data to determine whether the acceptance criteria were satisfied. The maintenance activities reviewed included:

- Unit 2 CRD Hydraulic Control Units 06-23 and 14-11 re-test following directional control valve replacement (WO 367180, OP-AD-338)
- Unit 2 "A" Reactor Recirculation System Motor-Generator high speed and low speed electrical stop re-test following replacement of a scoop tube positioner relay board (WO 371193)
- Unit 2 main turbine stop valve #4 re-test following C72-K10D relay replacement (CR 369482, WO 396606, SO-293-001, on 12-15-01)

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed portions of selected surveillance test activities in the control room and in the field and reviewed the test data results. The inspectors compared the test results to the established acceptance criteria and the applicable Technical Specification or Technical Requirements Manual operability and surveillance requirements to evaluate whether the systems were capable of performing their intended safety functions. The observed or reviewed surveillance tests included:

- "B" Emergency Diesel Generator Integrated Test, including emergency test start, largest single load rejection test, full load rejection test, protective trip bypass test, maximum load test, 24 hour endurance run, and hot restart test (SE-024-B01, on 12-03-01 to 12-05-01)
- Units 1 and 2 Reactor Recirculation System motor-generator high speed stop functional test, alternate testing justification (SI-1(2)64-305, CR 371801, PORC meeting, on 01-12-07)

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY
Cornerstone: Occupational Radiation Safety

2PS2 Radioactive Material Processing and Transmission (71122.02)

a. Inspection Scope (71122.02)

The most recent radio-chemical radioactive waste stream analyses were reviewed for appropriate use in classifying waste shipments for transport in accordance with 10 CFR 61.55, which included: chemical wastes, liquid radwaste filter media, ultrasonic resin cleanup wastes, reactor water cleanup sludge, dry active waste, bead resin, and various mechanical filter wastes.

On November 29, 2001, the final loading, vehicle inspection, placarding and marking of radioactive laundry shipment No. 01-108 was observed with respect to the requirements of 10 CFR Parts 20, 61, and 71 and 49 CFR Parts 170-189.

The following radioactive shipment records were reviewed for compliance with 10 CFR Parts 20, 61, and 71 and 49 CFR Parts 170-189.

Shipment No.	01-108	Laundry	shipped 11/29/01
	01-107	CFS filters	shipped 11/12/01
	01-77	Filters & DAW	shipped 06/27/01
	01-73	RWCU	shipped 06/07/01
	01-67	LRW filter media	shipped 05/14/01
	01-40	MSRVs (8)	shipped 03/27/01
	00-119	Bead resins	shipped 12/14/00
	00-90	Irradiated reactor hardware	shipped 08/18/00
	00-10	Phosphoric acid	shipped 02/16/00

PPL's oversight of the radwaste transportation program was reviewed through a review of quality assurance radwaste processing vendor audits and quality control inspection reports associated with selectively sampled radioactive material and radioactive waste shipment records. Quality assurance audit no. 99-019, "Solid Radioactive Waste Process Control Program," dated 1/31/00, was reviewed to determine if the audit fulfilled the biennial audit requirement of the radwaste transportation program as specified in the Process Control Program (PCP).

The inspector reviewed nineteen Condition Reports (CRs) relating to the processing and shipping of radioactive wastes and to the control of personnel exposure and work activities in the radiologically controlled area to evaluate PPL's threshold for identifying and resolving problems in implementing the radwaste transportation and the radiation protection programs. The CRs were evaluated against the criteria contained in the PCP, 10 CFR Parts 20, 61, and 71 and 49 CFR Parts 170-189. Included in this review

were CR Nos. 240064, 246856, 266603, 269824, 276708, 325173, 342051, 362945, 239714, 241305, 245766. 333458, 366761, 366568, 362130, 360770, 359218, 367922, 368894.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

.1 Reactor Safety Indicators

a. Inspection Scope

The inspectors reviewed PPL's performance indicator (PI) data to verify whether the PI data was accurate and complete. The inspectors examined selected samples of PI data, PI data summary reports, cornerstone assessment reports, and plant records, which included selected Technical Specification limiting condition for operation logs, emergency diesel generator start logs, licensee event reports, and condition reports for the previous twelve quarters (previous 4 months for Unplanned Scrams and Unplanned Power Changes). In addition, the inspectors interviewed the responsible system engineers. The inspectors compared the PI data against the guidance contained in Nuclear Energy Institute (NEI) 99-02, revision 1, "Regulatory Assessment Performance Indicator Guideline." The following indicators and PPL documents were included in this review:

NRC Performance Indicators

- Unplanned Scrams per 7000 Critical Hours
- Scrams With Loss of Normal Heat Removal
- Unplanned Power Changes per 7000 Critical Hours
- Emergency AC Power System Unavailability
- High Pressure Coolant Injection (HPCI) System Unavailability
- Reactor Core Isolation Cooling (RCIC) System Unavailability

PPL Documents

- NDAP-QA-0737, "Regulatory Performance Assessment"
- LI-00-018, "Preparation of Performance Indicator Data, NRC Submittals, and Cornerstone Assessment Reports"

b. Findings

No findings of significance were identified.

.2 Occupational Exposure Control Effectiveness Indicator

a. Inspection Scope

The inspector reviewed implementation of PPL's Occupational Exposure Control Effectiveness PI Program to verify whether occurrences meeting the criteria specified in NEI 99-02, revision 1, "Regulatory Assessment Performance Indicator Guideline," were identified and reported as Performance Indicator occurrences. Specifically, the inspector reviewed Condition Reports and other pertinent documents, for occurrences involving locked high radiation areas, very high radiation areas, and unplanned personnel exposures covering the fourth quarter 2000 through the third quarter 2001, against the specified criteria.

b. Findings

No findings of significance were identified.

.3 Physical Protection Indicators

a. Inspection Scope

The inspectors reviewed PPL's PI data to verify whether the PI data was accurate and complete. The inspectors examined PI data, PI data summary reports, safeguards events logs, security incident reports, security compensatory systems logs, site access services performance indicator logs, and licensee event reports for the previous four quarters. The inspectors compared the PI data against the guidance contained in NEI 99-02, revision 1, "Regulatory Assessment Performance Indicator Guideline." The following indicators were included:

NRC Performance Indicators

- Protected Area Security Equipment
- Personnel Screening Program Performance
- Fitness-for-Duty Program Performance

PPL Documents

- SI-SSM-009, "Security Performance Indicator Assessment"
- SA-SAI-008, "Site Access Services Performance Indicators"
- CR 364442, "Reviews Indicate Problems with Management of FFD Program"
- CR 367143, "Review FFD Program against 10 CRF 26"

b. Findings

No findings of significance were identified.

4OA5 Other

.1 Institute of Nuclear Power Operations (INPO) Report Review

The inspectors reviewed the Susquehanna INPO Evaluation Interim Report, dated October 31, 2001. No significant safety issues were identified requiring further NRC follow-up.

4OA6 Meetings

.1 Exit Meeting Summary

On January 3, 2002, the resident inspectors presented the inspection results to Mr. B. Shriver, Vice President - Nuclear Site Operations, and other members of PPL's staff, who acknowledged the findings.

The inspectors asked PPL whether any items discussed during the exit meeting should be considered proprietary. No proprietary information was identified.

ATTACHMENT 1**a. List of Items Opened, Closed and Discussed**Opened

None

Opened and Closed

None

Closed

None

Discussed

None

b. List of Documents Reviewed

(as listed in body of report)

c. List of Acronyms

CFR	Code of Federal Regulations
CFS	Condensate Filtration System
CR	Condition Report
CRD	Control Rod Drive
DAW	Dry Active Waste
ESW	Emergency Service Water
FPRR	Fire Protection Review Report
FSAR	[SSES] Final Safety Analysis Report
HPCI	High Pressure Coolant Injection
INPO	Institute of Nuclear Power Operations
LRW	Liquid Radioactive Waste
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PCP	Process Control Program
PI	Performance Indicator
PPL	PPL Susquehanna, LLC
QA	Quality Assurance
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RHRSW	Residual Heat Removal System Service Water
RMCS	Reactor Manual Control System

RPIS	Rod Position Indication System
RPS	Reactor Protection System
RWCU	Reactor Water Cleanup
SSC	Structure, System, or Component
SSES	Susquehanna Steam Electric Station
TRM	Technical Requirements Manual
TS	Technical Specification
WO	Work Order