January 11, 2001

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

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION
NRC INSPECTION REPORT 05000387/2000-006, 05000388/2000-006

Dear Mr. Byram:

On December 1, 2000, the NRC completed a team inspection at the Susquehanna Steam Electric Station. The enclosed report presents the results of that inspection. The results were discussed with Mr. George Jones, Vice President Engineering, and other members of your staff, on December 1, 2000.

This inspection was an examination of activities conducted under your license as related to the identification and resolution of problems, and compliance with the Commission's rules and regulations, and with the conditions of your license. Within these areas, the inspection consisted of an examination of selected procedures and records, observation of activities, and interviews with personnel.

On the basis of the samples selected for review, the team concluded that, in general, problems were properly identified, evaluated and corrected. Significant issues were appropriately addressed and improvements in trending to identify repeat problems were noted. However, the team identified examples in which the Susquehanna staff was not effective in preventing repetitive problems associated with relay failures. The associated extent of condition reviews were not thorough and corrective actions were narrowly focused.

The team identified two green findings associated with preventing recurrence of equipment problems. One finding, which was also determined to be a violation of NRC requirements, related to an unsupported cause determination for significant conditions adverse to quality. The second finding involved the evaluation of corrective actions after subsequent relay failures, including a failure that resulted in tripping of the main turbine electro-hydraulic control pump on two occasions. While this was a non-safety related component, this failure affected two cornerstones in the reactor oversight program (initiating events and mitigating systems).

In accordance with Section VI.A of the Enforcement Policy, issued on May 1, 2000 (65FR25368), the violation was not cited due to the very low safety significance and because the findings were entered into your corrective action program. If you contest this Non-Cited Violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the United States Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Susquehanna facility.

In accordance with 10CFR2.790 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 the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Wayne D. Lanning, Director
Division of Reactor Safety

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

Enclosure: NRC Inspection Report 05000387/2000-006, 0500388/2000-006
Attachments: (1) NRC's Revised Reactor Oversight Process
(2) List of Documents Reviewed

cc w/encl:
B. L. Shriver, Vice President - Nuclear Site Operations
G. T. Jones, Vice President - Nuclear Engineering and Support
R. Ceravolo, General Manager - SSES
R. M. Peal, Manager, Nuclear Training
G. D. Miller, General Manager - Nuclear Assurance
R. R. Sgarro, Supervisor, Nuclear Licensing - SSES
M. M. Golden, Manager - Nuclear Security
P. Nederostek, Nuclear Services Manager, General Electric
J. McCarthy, Manager, Nuclear Plant Services
A. M. Male, Manager, Quality Assurance
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Commonwealth of Pennsylvania

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No:	05000387, 05000388
License No:	NPF-14, NPF-22
Report No:	05000387/2000-006, 05000388/2000-006
Licensee:	Pennsylvania Power & Light Company 2 North Ninth Street Allentown, PA 18101
Facility:	Susquehanna Steam Electric Station
Location:	Post Office Box 35 Berwick, PA 18603
Dates:	November 13 - December 1, 2000
Inspectors:	Barry S. Norris, Senior Reactor Inspector Doug A. Dempsey, Reactor Inspector Jason C. Jang, Operations Engineer Sean E. Peters, Reactor Inspector (in training) John E. Richmond, Resident Inspector
Approved By:	David C. Lew, Chief Performance Evaluation Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000387-00-06, 05000387-00-06; on 11/13-12/01/2000; PPL Susquehanna, LLC, Susquehanna Steam Electric Station Units 1 and 2; Annual baseline inspection of the Identification and Resolution of Problems; Findings in evaluation of issues and effectiveness of corrective actions.

The inspection was conducted by three regional inspectors and one resident inspector. This inspection identified 2 green findings. The first finding was categorized as a Non-Cited Violation. The second finding was not a violation but was indicative of an inadequate evaluation of a significant condition adverse to quality. The significance of the issues is indicated by their color (green, white, yellow, red) and was determined by the Significance Determination Process (SDP). (Refer to Attachment 1)

Identification and Resolution of Problems:

The team concluded, based on the samples reviewed, that the implementation of the corrective action program at Susquehanna was adequate. Generally, the Susquehanna staff appropriately identified and entered problems into the condition report (CR) system. There was a low threshold for initiation of CRs. A recent initiative was a focused review of the CR database to identify adverse trends in performance. CRs were generally classified at the correct significance level and the actions identified on the CRs were generally adequate. The engineering and maintenance backlogs appeared to be adequately managed. The depth of the PPL analysis for the apparent and root causes of problems were generally appropriate. However, the team noted that the cause determination for certain relay failures was unsupported. The team also noted a separate example where corrective actions were not re-evaluated when subsequent relay failures occurred.

Cornerstone: Mitigation Systems and Barrier Integrity

- Green. The inspectors identified a Non-Cited Violation of 10CFR50, Appendix B, Criterion XVI, due to an inadequate determination of the cause of a significant condition adverse to quality. Specifically, the cause identified by PPL of MDR relay failures, a significant condition adverse to quality, in the containment radiation monitoring system was unsupported. The risk of this finding was determined to be low since the frequency of the relay failures is unlikely to affect more than one equipment component at a time, the failed relays have been replaced, and surveillance tests periodically demonstrate the relays will perform their function.

Cornerstones: Initiating Events and Mitigation Systems

- Green. The inspectors identified a finding regarding the effectiveness of corrective actions for breaker over-current protection relays. In 1998, PPL established a relay replacement schedule for over-current protection relays due to a manufacturing defect. PPL did not re-evaluate the effectiveness of the relay replacement schedule following two electro-hydraulic control (EHC) system pump trips due to over-current protection relay failures. This condition is more than minor because the EHC pump malfunction could contribute to the likelihood of a reactor trip, and since EHC is required to maintain the turbine bypass valves open, it could affect a mitigating system used to remove reactor core decay heat. The risk of this finding was determined to be low since multiple mitigating systems (high pressure injection system, low pressure injection system and automatic depressurization system) remained available to respond to a transient. The EHC system is not safety-related and no violations of NRC requirements were identified.

Report Details

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems

.1 Effectiveness of Problem Identification

a. Inspection Scope

The team evaluated the condition reports listed in Attachment 2. The review also included maintenance work orders, operator workarounds, temporary modifications, maintenance and engineering backlogs, security and radiological logs, security incident reports and the disposition of selected operating experience (OE) events and notifications. The team also interviewed the plant staff and management.

The team reviewed quality assurance (QA) audit and surveillance reports, departmental self-assessments, an internal analysis of the corrective action program, and third-party reviews of licensee performance. The review was to determine whether the assessment results were consistent with NRC findings, to determine if assessment results were entered into the licensee's corrective action program, and to determine if corrective actions were completed to resolve identified program deficiencies.

b. Findings

Generally, the Susquehanna staff appropriately identified and entered problems into the condition report (CR) system. There was a low threshold for initiation of CRs. A recent initiative was a focused review of the CR database to identify adverse trends in performance. However, the team noted one example of minor significance where additional equipment problems were identified by PPL during performance of maintenance, but the problems were not entered into the CR program. Specifically, during relay replacement, maintenance technicians identified to the system engineer that two of the relays being replaced appeared to be defective. No CR was initiated for the two defective relays, nor was a change made to the original CR to document or evaluate the additional relay failures. PPL stated that the additional relay failures will be evaluated by CR 279040.

.2 Prioritization and Evaluation of Issues

a. Inspection Scope

The inspectors reviewed the CRs listed in Attachment 2 to assess the appropriateness of the licensee's classification of the significance level, cause determination and the extent of condition review. The inspectors also assessed PPL's review of the CRs for operability, reportability, and reliability and unavailability within the scope of the Maintenance Rule.

b. Findings

The team concluded that CRs were generally classified at the correct significance level and that Susquehanna staff properly considered operability and reportability requirements. The depth of the PPL analysis for the apparent and root causes of problems were generally adequate. However, the inspectors identified that the determination of the cause of some Potter & Brumfield MDR electrical relay failures was unsupported.

In October 1998, PPL identified that a containment radiation monitor (CRM) primary containment isolation valve (PCIV) failed to close during a surveillance test. The failure to close is a significant condition adverse to quality. PPL evaluated this failure in CR 75924 and determined that a failure of an MDR relay occurred, apparently caused by a manufacturing defect described in NRC Information Notice 92-04.

On April 24, 2000, PPL personnel identified that two Unit 2 PCIVs for the CRM system failed to close during performance of a quarterly surveillance test. These failures are significant conditions adverse to quality. PPL personnel concluded that the valves failure to close was caused by a similar MDR type electrical relay failure. PPL personnel initiated CR 257759 to determine the apparent cause of the relay failure and concluded that the relay failed because of a manufacturing defect described in NRC Information Notice 92-04.

The team concluded PPL's apparent cause determination was not supported. PPL's CR indicated that the failed relays were most likely manufactured between 1991 and 1999. The team noted that the manufacturing defect described in NRC Information Notice 92-04 applied to relays manufactured prior to 1989. Since the failed relays were not of the type described in the NRC Information Notice, there was no basis to conclude that the relay failures were caused by a manufacturing defect and thus PPL cause determinations of significant conditions adverse to quality were unsupported.

The team noted that a consequence of the unsupported cause determination occurred in August 2000, when a similar MDR relay failure caused a short term loss of shutdown cooling (SDC) during a plant outage. PPL personnel had secured the "A" loop of residual heat removal (RHR) for SDC and attempted to start the "B" loop of RHR for SDC. The pumps in the "B" loop failed to start, and plant personnel returned the "A" loop to service forty-four minutes later to restore SDC. PPL evaluations indicated that without SDC, the time to exceed technical specification temperature limitations of 200F was approximately 2.9 hours. The PPL evaluation of the RHR system MDR relay failure was in progress during the inspection and included a failure analysis of the relay by an independent laboratory. The team observed that the in-progress evaluation included a review of associated preventative maintenance, environmental qualification program, and usage of this relay type in other systems in the plant. PPL's actions for this significant condition adverse to quality relay failure appeared to be systematically attempting to find the cause of the failure.

PPL's failure to determine the cause of significant conditions adverse to quality, specifically the MDR relay failures in October 1998 and April 2000, is a violation of 10 CFR 50, Appendix B, Criterion XVI, in that 10 CFR 50, Appendix B, Criterion XVI requires, in part, that for significant conditions adverse to quality, measures shall be taken to determine the cause of the condition. This issue was documented in PPL's corrective action program as CR 298892. This issue is considered more than minor since, for both relay failures, the cause of the relay failures were not determined, and contributed to a similar relay failure that resulted in a loss of shutdown cooling for a short period of time when it was required. The relay failures affect the mitigating systems and barrier integrity cornerstones. Nevertheless, the risk of this condition was determined to be low since the frequency of the relay failures is unlikely to affect more than one equipment component at a time, the failed relays have been replaced, and surveillance tests periodically demonstrate the relays will perform their function. Therefore this issue has been determined to have very low risk significance (Green) in accordance with the NRC Reactor Safety and Shutdown Operations SDP. This violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy, issued May 1, 2000 (65FR25368). **(NCV 50-388/2000-006-01).**

The team also noted that during an activity to the replace the CRM failed relay, there was an inadvertent actuation of protective circuitry. The cause of this invalid actuation signal was the inadvertent contact of some loose wiring inside the panel by technicians. The associated CR did not address the cause of the loose wiring and the corrective actions to check the wiring in two other panels was subsequently extended until 2002 without understanding the potential causes.

.3 Effectiveness of Corrective Actions

a. Inspection Scope

The inspectors reviewed the corrective actions with respect to PPL cause evaluations. The review also included an assessment of the backlog of corrective actions, including the maintenance and engineering backlogs, to determine if any actions, individually or collectively, represented an increased risk due to the delay of implementation.

b. Findings

The team determined that the corrective actions identified on the CRs were generally adequate. The engineering and maintenance backlogs appeared to be adequately managed. However, the team noted that some corrective actions were not effective in regard to the failure of breaker over-current protection relays. PPL did not re-evaluate corrective actions when repeated failures of ABB/ITE breaker over-current protection relays occurred on equipment affecting risk. Additionally, the team observed that in evaluating this problem, PPL did not identify all relay failures that had occurred in the last two years.

On November 3, 1999, the Unit 1 main turbine electro-hydraulic control (EHC) "A" pump tripped. The "B" EHC pump started automatically and maintained EHC header pressure.
The pump trip was caused by a failed over-current protection relay associated with the EHC pump motor breaker that was manufactured by ABB/ITE. PPL replaced the relay and returned the "A" pump to service two days later. The team noted that some balance

of plant equipment, including a running EHC pump, had previously tripped in January 1999, due the failure of an ABB/ITE over-current relay in a load center feeder breaker. This was documented in CR 87595.

PPL initiated CR 211944 (level 2) to evaluate the EHC pump motor over-current protection relay failure and concluded that the apparent cause appeared to be the same as previously determined in a 1998 evaluation. In 1998 PPL identified six failures of ABB/ITE over-current relays and, utilizing a failure analysis completed by the vendor, determined the cause to be related to the continuity in solder joints on the relay circuit board. Approximately three hundred and fifty of these relays are installed in both safety-related and non-safety applications at Units 1 and 2. PPL proposed corrective actions to replace the relays on most safety related breakers in the short term and, for the balance of safety and non-safety related breakers, proposed to replace the associated relays in conjunction with the next regularly scheduled eight year preventive maintenance (PM) task for each breaker. At the time of the inspection the team noted that about one third of the total population of relays had been replaced. The schedule to replace the remaining relays, associated with mostly non-safety related relays, extended over the next five years.

The team observed that PPL identified twelve relay failures in 1998 and 1999, and four relay failures in 2000. However, the team concluded that PPL did not re-evaluate the effectiveness of the relay replacement schedule to prevent recurrence of the problem considering the risk significance to the plant of these additional relay failures. Specifically, in CR 211944 PPL did not reconsider the relay replacement schedule as a result of the EHC pump motor failure to start in November 1999. This condition is more than minor because the EHC pump malfunction has a credible impact on safety. An EHC pump trip could contribute to the likelihood of a reactor trip and, since EHC is required to maintain the turbine bypass valves open, it could affect a mitigating system available to remove reactor core decay heat. Since this condition could impact the initiating event and mitigating systems cornerstones, the NRC considered the attendant risk using an SDP Phase 2 evaluation. Since multiple mitigating systems (high pressure injection system, low pressure injection system and automatic depressurization systems) remained available to respond to a transient, this issue has been determined to have very low risk significance (Green). The EHC system is not safety-related and no violations of NRC requirements were identified. This issue was entered in PPL's corrective action program as CR 298615.

PPL initiated level 2 CR 211944 in November 1999 to evaluate the tripping of an EHC pump motor. CR 211944 identified five relay failures in 1998 and 1999; however the team noted twelve relay failures occurred in 1998 and 1999. While the relay failures not mentioned in CR 211944 were identified with CRs, the team concluded the evaluation PPL completed under CR 211944 to be weak in that it did not consider all similar relay failures that had occurred in the past years.

.4 Assessment of Safety-Conscious Work Environment

a. Inspection Scope

The inspectors interviewed plant personnel to determine if people were hesitant to use the CR system to identify safety problems.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. George Jones, Vice President Engineering, and other members of licensee management, at the conclusion of the inspection on December 1, 2000. The licensee acknowledged the findings presented.

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

ATTACHMENT 1
NRC's REVISED 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.

ATTACHMENT 2

PARTIAL LIST OF PERSONNEL CONTACTED

Susquehanna:

B. Shriver - Vice President, Nuclear Site Operations
G. Jones - Vice President, Nuclear Engineering & Support
R. Anderson - General Manager, Operations
G. Castleberry - Manager, Special Projects (Corrective Action Program manager)
M. Rochester - Employee Concerns Program Representative, Site
W. Rhoades - Employee Concerns Program Representative, Allentown
R. Ceravolo - General Manager, Maintenance
G. Miller - General Manager, Nuclear Assurance
A. Male - Manager, Quality Assurance

NRC:

A. Blamey - Resident Inspector
S. Hansell - Senior Resident Inspector
D. Lew - Branch Chief, Performance Evaluation

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

none

Opened & Closed

50-388/2000-006-01	NCV	10CFR50, Appendix B, Criterion XVI requires corrective actions to preclude recurrence for significant conditions adverse to quality. Contrary to this PPL failed to identify the cause of relay failures in the CRM system on October 1998 and April 2000 to preclude recurrence of a subsequent relay failure affecting the RHR system. (IR Section 4OA2.2)

LIST OF ACRONYMS

CFR	Code of Federal Regulations
COLR	Core Operating Limits Report
CR	Condition Report
ESF	Engineered Safety Function
LER	Licensee Event Report
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
QA	Quality Assurance
RCA	Root Cause Analysis
ST	Surveillance Test
TS	Technical Specification

LIST OF DOCUMENTS REVIEWED

PROCEDURES

IC-DC-100	Transmitter/Converter Calibration/Calibration Check Procedure, Rev. 10
NASI-00-400	NAS Audit Log and Corrective Action Tracking System (CATS), Rev. 0
NASI-00-501	Assessment Project Plans, Rev. 0
NASI-00-503	Process Analysis Assessment, Rev. 0
NASI-00-507	Corrective Action Process Effectiveness Assessment, Rev. 1
NASP-00-501	Conduct of Assessment Projects, Rev. 0
NASP-QA-401	Internal Audits, Rev. 4
NASP-QA-600	Quality Surveillance Program, Rev. 1
NDAP-00-0109	Employee Concerns Program, Rev. 3
NDAP-00-0110	Nuclear Department Self-Assessment, Rev. 0
NDAP-00-0111	Investigation and Resolution of Alleged Discrimination for Having Engaged in Protected Activities, Rev. 2
NDAP-00-0112	NAS Recommendations, Rev. 0
NDAP-00-0750	Regulatory Commitment / Open Item Management, Rev. 3
NDAP-00-0751	Significant Operating Experience Report (SOER) Review Program, Rev. 1
NDAP-00-1601	Engineering Work Request / Tracking, Rev. 2
NDAP-00-1912	Scheduling and Coordination of Work, Rev. 1
NDAP-QA-0103	Audit Program, Rev. 4
NDAP-QA-0105	NAS-QA Findings, Rev. 1
NDAP-QA-0108	Operational Quality Assurance (OQA) Program Audit of Nuclear Assurance (NAS) Activities, Rev. 3
NDAP-QA-0202	Defective Devices, Rev. 2
NDAP-QA-0312	Control of LCOs, TROs, and Safety Function Determination Program, Rev. 4
NDAP-QA-0413	SSES Maintenance Rule Program, Rev. 4
NDAP-QA-0502	Work Order Process, Rev. 9
NDAP-QA-0543	Routine Task System, Rev. 3
NDAP-QA-0613	Outage Implementation and Assessment, Rev. 3
NDAP-QA-0702	Condition Report, Rev. 8
NDAP-QA-0703	Operability Assessments and Requests for Enforcement Discretion, Rev. 4
NDAP-QA-0720	Station Report Matrix and Reportability Evaluation Guidance, Rev. 6
NDAP-QA-0722	Surveillance Testing Program, Rev. 9
NDAP-QA-0725	Industry Event Review Program, Rev. 4
NDAP-QA-1191	ALARA Program and Policy, Rev. 0
NDAP-QA-1900	Conduct of Work Control Systems, Rev. 1
NDAP-QA-1901	SSES Station Work Management Process, Rev. 1
NSEI-AD-021	NSE Self-Assessment Program, Rev. 1
NTG Guide	Investigator's Guide, dtd 5/15/95
PSP-19	Plant Scheduling Self Assessment, Rev. 0
SI-SO-016	Reporting of Safeguards Events, Rev. 3
SO-253-004	Quarterly SBLC Flow Verification, Rev. 23
WM-WI-026	Effluents Management Self-Assessment Program, Rev. 5

CONDITION REPORTS

063029	096797	202512	207984	216048	236155	242066	248187
088783	096905	202925	209727	221841	237001	243731	249185
091031	096931	204304	209727	224490	237003	243774	249327
091274	098132	204423	211065	224615	237931	243774	249458
091275	187100	204426	211134	227970	238729	243800	252024
091276	188042	204660	211944	228196	239120	243800	260241
091525	194223	205155	212261	230481	240064	244413	261390
092654	199506	206097	213650	232734	240558	244823	261755
092721	200280	206657	214740	233879	240891	245297	264366
095536	200657	206803	214740	234755	242066	246834	264368

266280	273080	280797	286865	292169
266359	273255	280798	287425	292179
269440	273738	281101	288565	298414
269808	275494	281323	290919	
270048	277460	282570	291226	
270933	277874	284650	291367	
271592	279187	284653	291538	
272664	279658	285255	291757	
272928	279975	285996	292153	

NON-CITED VIOLATIONS

1999-03-01	CS quarterly flow surveillance did not meet acceptance criteria
1999-03-02	RHR service water radiation monitor
1999-04-01	MSIV seat leakage
1999-04-02	RHR system injection control valve stem failure
1999-04-03	Failure to make a one hour notification
1999-05-01	SV-15774A primary CIV position indication
1999-05-02	“B” EDG inoperable due to missing / loose hardware
1999-05-03	Safety relief valve acoustic monitor EQ and installation
1999-06-01	Reportability determinations
1999-07-01	Safety function determination of RCIC primary CIV
1999-07-02	Packaging and shipment of radioactive waste
1999-09-01	“A” FW penetration exceeded TS leakage criteria
1999-09-02	HPCI vibration limits
1999-10-01	Failure to follow maintenance procedures
1999-10-02	Exceeding TS 3.7.2 LCO
1999-10-03	Inadequate CAs for secondary containment dampers
1999-11-01	PPL analysis of reactor scram due to MSIV failure
1999-13-01	Delayed operability determination for SLC air sparge
1999-13-02	Inadequate corrective action regarding MRule scope
1999-13-03	Non-conforming material extent of condition
2000-01-01	Fire watch duties for inoperable fire suppression systems
2000-02-01	Unplanned loss of the supplemental DHR system
2000-02-02	Design deficiency of TIP equipment could result in potential release path during DBA
2000-03-01	Actuation of RWCU high differential flow isolation logic during RWCU draining

2000-03-02	Invalid local leak rate tests for testable spectacle flanges
2000-03-03	Failure to control a HRA in accordance with TS 5.7.2.a
2000-04-01	Inadequate off-normal operation procedure for reactor pressure control
2000-04-02	HPCI system post-maintenance testing
2000-04-03	Suppression chamber to drywell vacuum breaker valve multiple test failures
2000-05-01	Failure to demonstrate adequate system performance as required by MRule
2000-05-02	Missed surveillance testing on the H_2O_2 analyzer systems
2000-05-03	Inadequate control of worker overtime
2000-07-01	MSIV total leakage exceeded TS limit
2000-07-02	EAL for RCS leakage change without NRC approval

SECURITY INCIDENT REPORTS

SIR 99-01-10	Compensated Loss of Alarm Capabilities on a vital door
SIR 99-01-19	Lost Keycard
SIR 99-05-11	Lost Keycard
SIR 99-06-02	Loss of the Susquehanna Security Control Center
SIR 00-03-09	Automatic Failure to the Susquehanna Security Control Center

SELF-ASSESSMENTS & THIRD PARTY EVALUATIONS

1999 ALARA Performance Assessment
1999 Comprehensive Cultural Assessment
1999 Internal Dose Control Assessment
1st Quarter 2000 Susquehanna Performance Assessment Report
2nd Quarter 2000 Susquehanna Performance Assessment Report
4th Quarter 1999 Susquehanna Performance Assessment Report
Corrective Action Process Effectiveness Assessment Report, October 1999
Effluent Management Self Assessment, 2nd Quarter 2000
Evaluation for the Performance of Scenario for the 2000 Practice Drill #2
INPO Evaluation of SSES, February 2000
ISEG Project Report 3-00, Surveillance of Plant Maintenance April 2000
ISEG 3-00, Surveillance of Plant Maintenance, April 2000
ISEG 6-00, Unit 2 Loop B Shutdown Cooling Pumps Failed To Start
ISEG 2-00 Summary Assessment Report for Calendar Year 1999
ISEG 6-99, Investigation of Unit 1 Scram of 7/1/99
ISEG 5-00, Operations With Potential for Draining the Reactor Vessel Implications of the RWCU Draining Event of March 27, 2000
ISEG Project Report 2-00, Summary Assessment Report of Calendar Year 1999
ISEG 4-00, Mid-Year Update to Summary Assessment Report
ISEG 9-99, Surveillance of Plant Operations, October 1999
ISEG 8-99, Investigation of Response to ESW Flow Anomaly of 9/20/99
NSE Self-Assessment of Maintenance Rule Program
NSE Self-Assessment of Simplex Problem/Failure Response, September 2000
NSE Self-Assessment of Instructions to System Engineers for Closeout of Modifications, October 2000
NSE Self-Assessment of Roles and Responsibilities, October 2000
OES Second Quarter 2000 Trend Report, PLI-89800
OES Third Quarter 2000 Trend Report, November 2000
Security Self Assessment Report, 1st Quarter 2000
Security Self Assessment Report, 2nd Quarter 2000

Self Assessment for the Corrective Action Process, January 2000
Self-Assessment of Previously Identified Areas for Improvement at SSES, July-August 2000

QUALITY ASSURANCE AUDITS & SURVEILLANCES

Audit 99-003	Radiological Environmental Monitoring Program and Measurement Laboratory Program
Audit 99-005	Chemistry and Effluents Release Program
Audit 99-014	SSES Corrective Action Program Audit
Audit 99-020	Maintenance Program and Maintenance Rule Implementation
Audit 00-005	Offsite Dose Calculation Manual and Meteorological Program
CMAP Audit 00-008	Operational QA Program Audit of PPL NAS
Surveillance 99-052	CR Review for Use-As-Is or Repair Dispositions - 2nd Quarter 1999
Surveillance 99-073	CR Review for Use-As-Is or Repair Dispositions - 5/1/99 - 12/31/99
Surveillance 00-030	Condition Report Program Evaluation - 1/1/00-6/30/00