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 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylv 05000388
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 BYRAM, R.G. Pennsylvania Power & Light Co.

SUBJECT: Advises of planned insp effort resulting from Susquehanna Plant Performance Review (PPR). Details of insp plan for next 6 months encl.

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 TITLE: Systematic Assessment of Licensee Performance (SALP) Report

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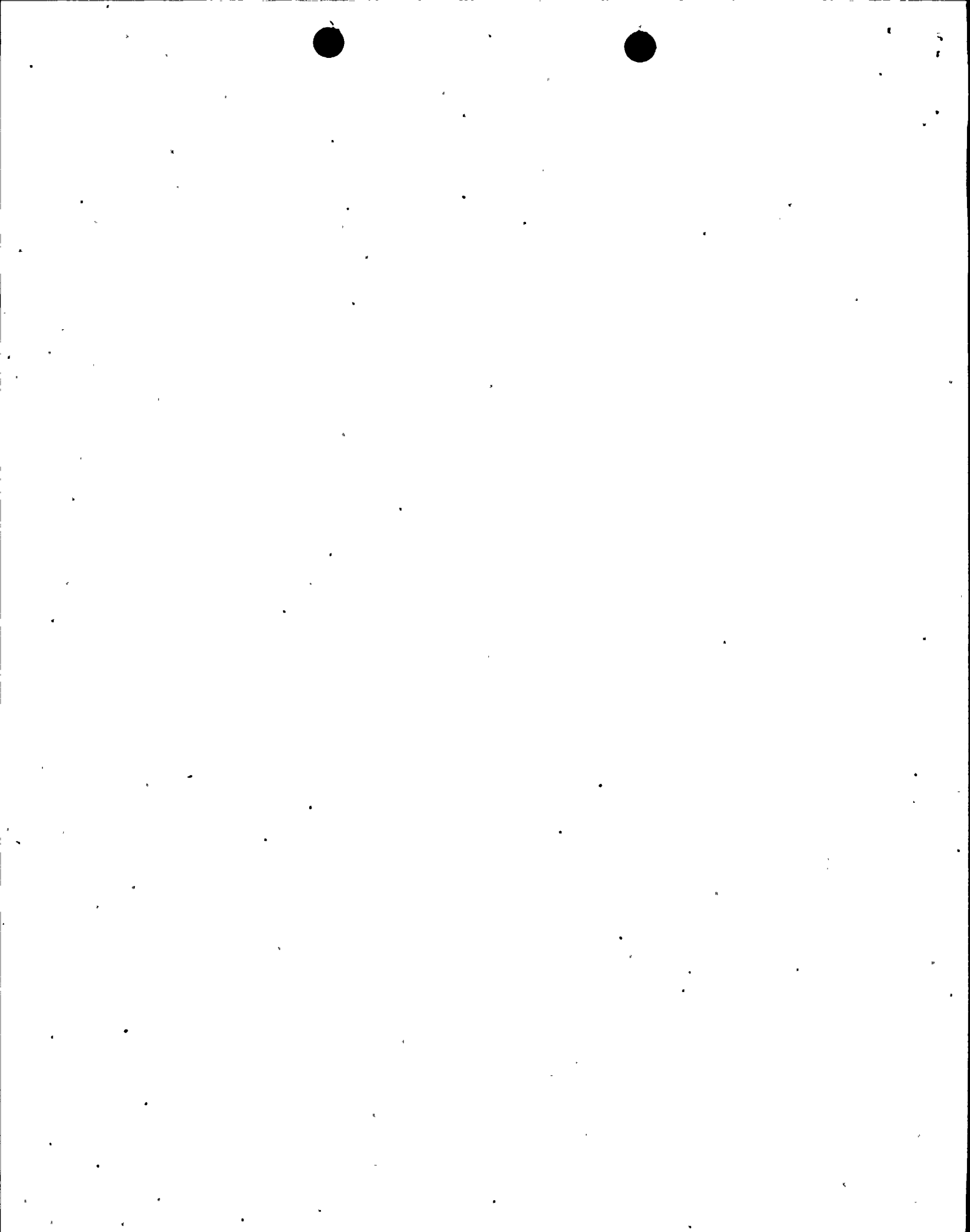
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May 28, 1998

Mr. Robert G. Byram
Senior Vice President - Nuclear
Pennsylvania Power & Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

**SUBJECT: PLANT PERFORMANCE REVIEW (PPR) - SUSQUEHANNA STEAM
ELECTRIC STATION**

Dear Mr. Byram:

On April 30, 1998, the NRC staff completed the semiannual Plant Performance Review (PPR) of the Susquehanna Steam Electric Station. The staff conducts these reviews for all operating nuclear power plants to develop an integrated understanding of safety performance. The results are used by NRC management to facilitate planning and allocation of inspection resources. The PPR for Susquehanna involved the participation of all technical divisions in evaluating inspection results and safety performance information for the period (October 1997 through March 1998). PPRs provide NRC management with a current summary of licensee performance and serve as inputs to the NRC Systematic Assessment of Licensee Performance (SALP) and senior management meeting (SMM) reviews.

Enclosure 1 contains a historical listing of plant issues, referred to as the Plant Issues Matrix (PIM), that were considered during this PPR process to arrive at an integrated view of licensee performance trends. The PIM includes only items from inspection reports or other docketed correspondence between the NRC and Pennsylvania Power and Light Company. The PPR may also have considered some predecisional and draft material that does not appear in the attached PIM, including observations from events and inspections that had occurred since the last NRC inspection report was issued, but had not yet received full review and consideration. This material will be placed in the PDR as part of the normal issuance of NRC inspection reports and other correspondence.

This letter advises you of our planned inspection effort resulting from the Susquehanna PPR review. It is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival onsite. Enclosure 2 details our inspection plan for the next 6 months. Resident inspections are not listed due to their ongoing and continuous nature.

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PDR ADDCK 05000387
Q PDR

Robert G. Byram

2

We will inform you of any changes to the inspection plan. If you have any questions, please contact me at (610) 337-5227.

Sincerely,

Original Signed by:

Clifford J. Anderson, Chief
Projects Branch 4
Division of Reactor Projects

Docket Nos.: 50-387;50-388

Enclosures:

1. Plant Issues Matrix
2. Inspection Plan

cc w/encls:

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Commonwealth of Pennsylvania



Robert G. Byram

3

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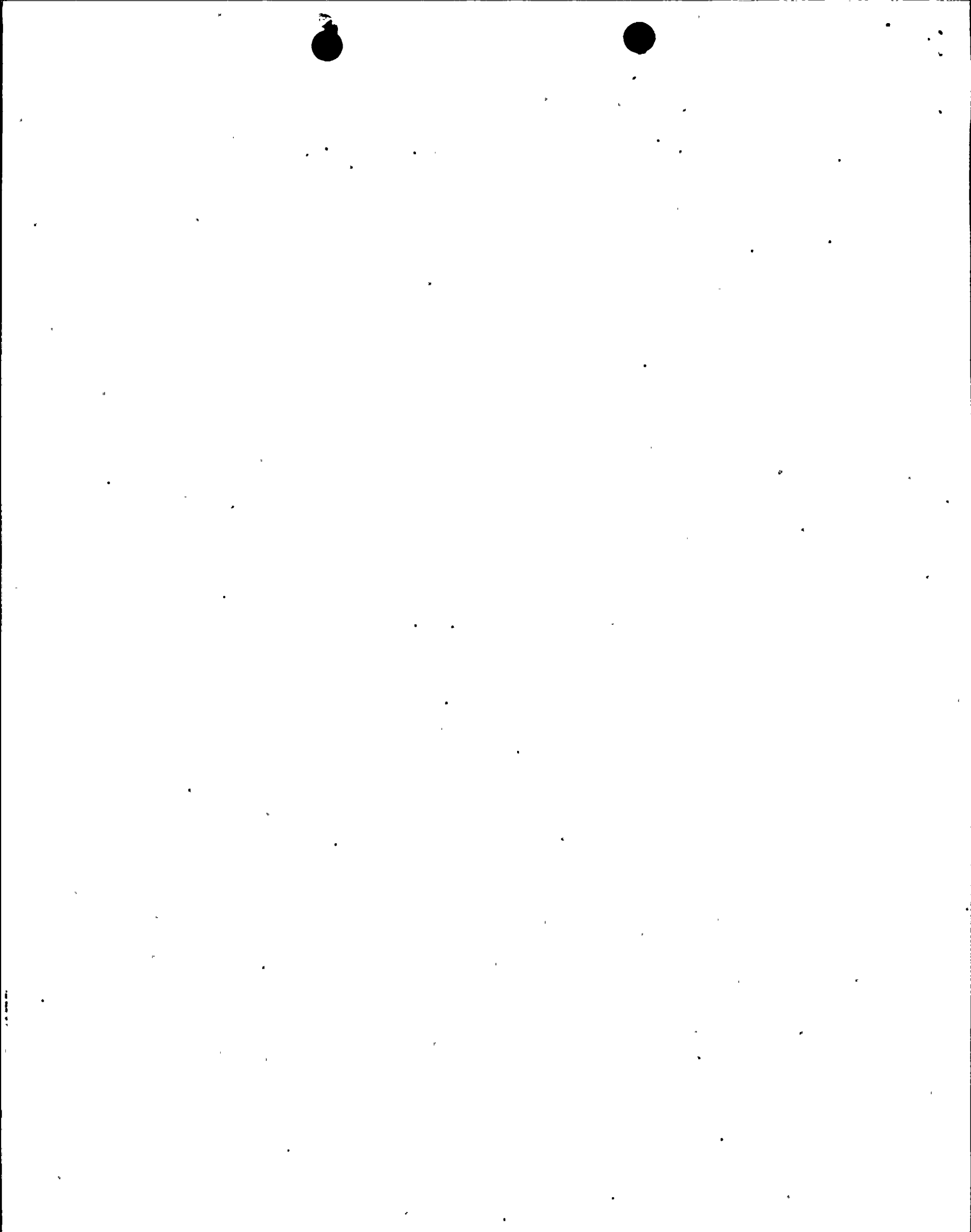
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ENCLOSURE 1

SUSQUEHANNA STEAM ELECTRIC STATION PLANT ISSUES MATRIX (PIM)



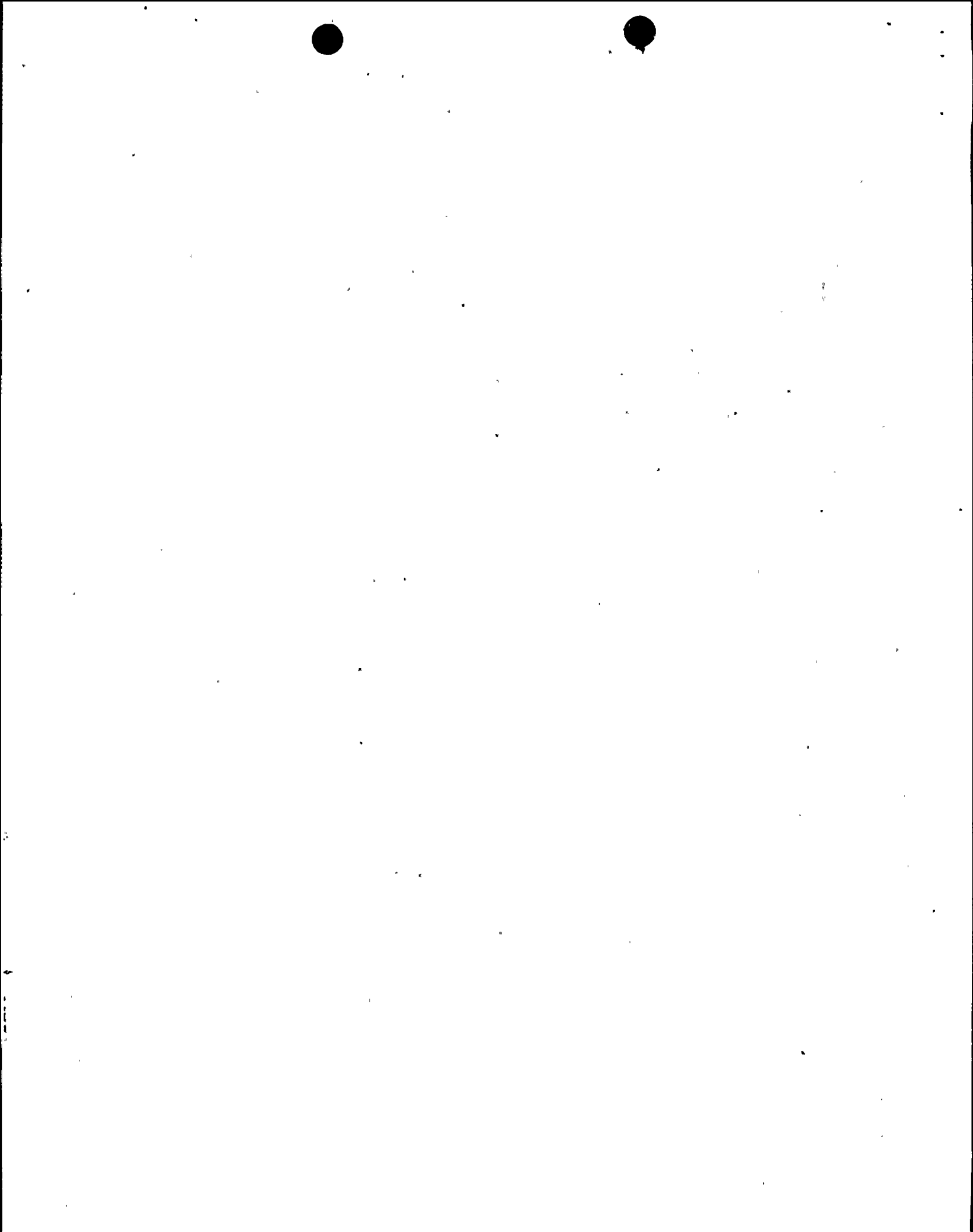
SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

<i>Date</i>	<i>Type</i>	<i>Source</i>	<i>ID</i>	<i>SFA</i>	<i>Code</i>	<i>Item Description</i>
3/16/98	NCV Negative	IR 98-01 NCV 98-01-11 NCV 98-01-12	L	OPS	3A 5C	Auxiliary System Operators were not consistently performing radwaste control room panel alarm tests and Plant Control Operator performance issues were identified regarding performance of main control room annunciator alarm tests in the same time period when VIO 50-387, 388/96-270-01022 was issued. These licensee identified issues are considered non-cited violations.
3/16/98	Negative	IR 98-01	L	OPS	3A 5C	PP&L's corrective actions for three procedure violations, associated with the June 1996 "E" emergency diesel generator circuit breaker misalignment, were acceptable. Corrective actions focused on improving operator performance, management oversight, and independent assessment. Subsequent licensee audits of operator performance were acceptable and appropriate actions were taken to validate and verify the quality of computer data used to assess operator performance.



SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

Date	Type	Source	ID	SFA	Code	Item Description
3/16/98	NCV LER Negative	IR 98-01 NCV 98-01- 03 LER 97-05- 00	L	OPS	2A	<p>On March 25, 1997, while the unit was shut down, chemistry technicians were performing a transfer process from the reactor building ventilation stack monitor to the system particulate iodine noble gas (SPING) system. During the transfer, a spurious reactor building criticality monitor alarmed, requiring the evacuation of the area in which the technicians were working. Upon returning to the area the technicians realized that there had been an approximately 20 minute period that continuous sampling of the reactor building vent was not maintained in accordance with Technical Specification (TS) 3.3.7.11. The licensee determined that the reactor building criticality monitor had drifted low which caused the unanticipated alarm. The inspectors reviewed the Licensee Event Report (LER), inspected the licensee's corrective actions and root cause evaluation, conducted an onsite field inspection and determined that there were no safety consequences associated with the failure to continuously monitor the stack release. There were no safety consequences because the unit was shut down and there was a clear pattern of data established both before and after the missed time period. With respect to the criticality alarm drift, the drift was in the conservative direction, and there was no significant pattern of spurious alarms. This TS violation resulted from circumstances not within reasonable licensee control, in that the criticality alarm failure could not have been avoided within the parameters of the licensee's surveillance program. Therefore, this non-repetitive licensee identified violation is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. This LER is closed.</p>



SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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3/16/98	NCV LER Negative	IR 98-01 NCV 98-01- 02 LER 97-03- 00	L	OPS	3A	On March 20, 1997, a service water radiation monitor was removed from service. Subsequently a service water sample required by TS was not collected and analyzed within the time specified by TS Limiting Condition for Operation (LCO) Action 3.3.7.10. The TS LCO Action states that with less than the minimum required number of radiation monitors operable, the effluent release pathway may continue for up to 30 days provided that, at least once per eight hours grab samples are collected and analyzed for gross radioactivity at a specific limit of detection. The subject sample was taken and analyzed within fifteen minutes of the required eight hour period. The licensee determined that the root cause of the event was personnel error and entered the involved individual in the PP&L performance improvement process. The inspectors performed a summary review of the Licensee Event Report (LER), the associated condition report and its corrective actions. In addition, onsite field inspections were performed. It was determined there was no safety impact from the delay in taking the effluent sample, because the results of the sample were normal and as expected. Therefore, this non-repetitive, licensee identified and corrected violation is being treated as a non-cited violation, consistent with Section VII.B.1 of the NRC Enforcement Policy. This LER is closed.
3/16/98	Positive	IR 98-01	N	OPS	5A 1C	A selection of Plant Operations Review Committee (PORC) and Susquehanna Review Committee (SRC) activities, covering a 3 month period, were reviewed. NRC determined PORC and SRC, in general, conducted in-depth reviews and demonstrated a conservative and safe approach.
3/16/98	Positive	IR 98-01	N	OPS	1C 3B	The inspector concluded that Susquehanna's licensed operator re-qualification training program was satisfactory overall. The written examinations were adequate, but a section for five of six written examinations were weak. Examination administration was good, and operator performance was generally good with some individual operator deficiencies identified for followup.



SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

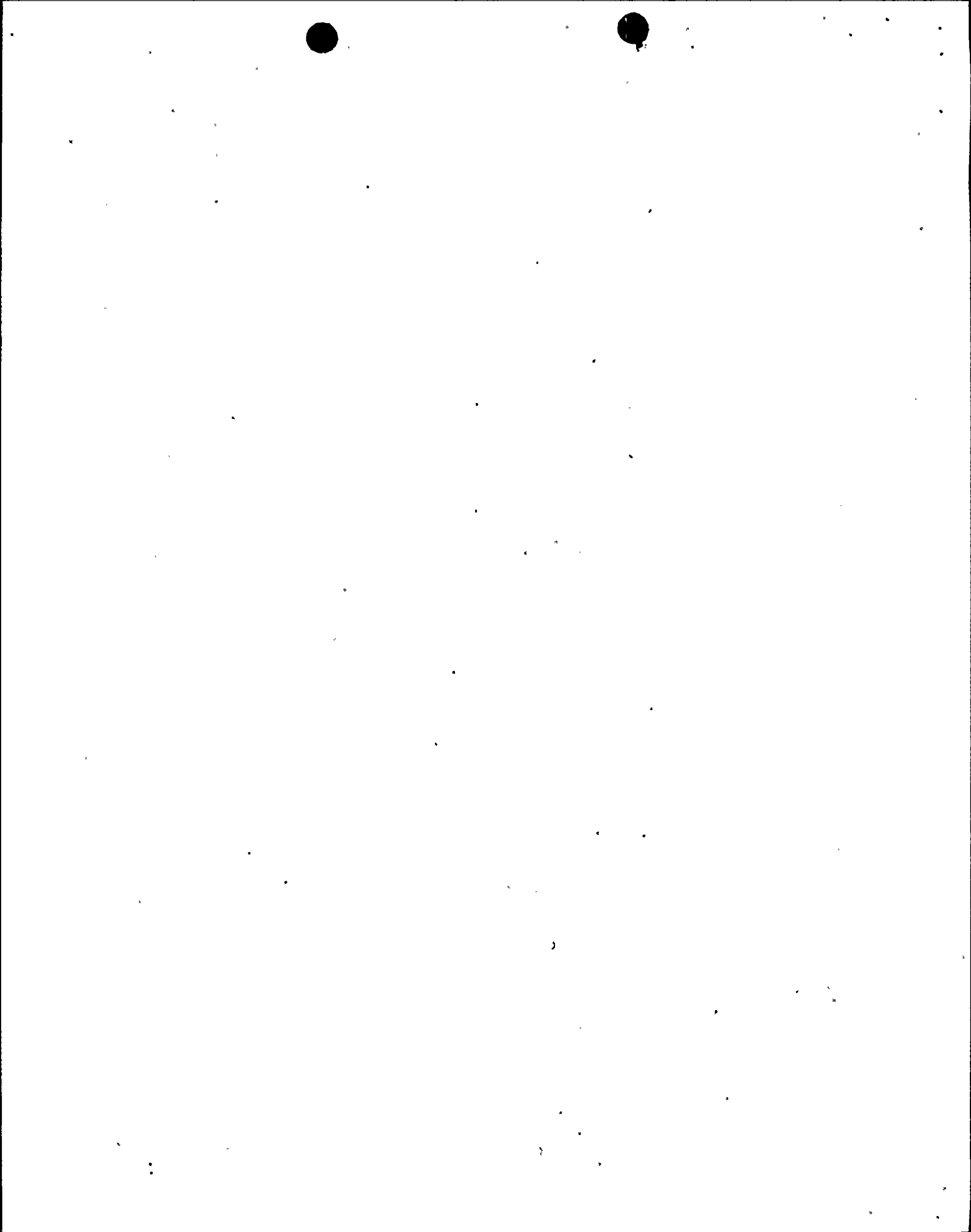
<i>Date</i>	<i>Type</i>	<i>Source</i>	<i>ID</i>	<i>SFA</i>	<i>Code</i>	<i>Item Description</i>
3/16/98	Positive	IR 98-01	N	OPS	4A	The licensee's approach to the establishment of alarm setpoints for safety relief valves (SRVs), compensatory measures for a Notice of Enforcement Discretion on the "S" SRV and the control of SRV operability, were acceptable.
3/16/98	Positive	IR 98-01	N	OPS	1B	Operators were observed to respond well to control room alarmed conditions. Appropriate SSES procedures were adhered to, operability and impact on plant equipment were controlled, and actions were adequately announced and documented. Operators identified a slow speed drift of one reactor recirculation pump, on two separate occasions, and responded well to these anomalies.
3/16/98	Positive	IR 98-01	N	OPS	1A	Operator communications were observed to be clear, concise, formal, and in compliance with SSES operations department procedures. Shift turnovers were detailed and complete. In general, communications between plant control operators and nuclear plant operators were observed to be of good quality.
1/19/98	Negative	IR 97-10	N	OPS	3C 1C	Operator performance was reviewed by direct observations, interviews, and evaluations of PP&L self assessments. The inspectors verified the weaknesses, identified by the PP&L self assessments, that were described as environmental factors. Despite the weaknesses, the inspectors verified current operator performance was very good. PP&L management is establishing general approaches to resolve these weaknesses. The identified weaknesses currently have no apparent impact on the safe operation of SSES.
12/8/97	Positive	IR 97-09	N	OPS	1B	Operators responded well on September 1, 1997, when a feedwater pump minimum flow control valve failed open. The licensee initiated a condition report to review the root cause and work authorizations to perform corrective actions. The inspector reviewed the licensee's corrective actions and found them to be adequate.

SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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12/8/97	Negative	IR 97-09	N	OPS	5A 5B 3B	Several weak initial operability determinations were identified by the inspectors. After discussions with Operations and Nuclear System Engineering personnel, additional information was provided that justified why the equipment was capable of performing its intended safety function. The inspectors noted that PP&L has not provided operability determination training for on shift personnel responsible for initial operability determinations. Operations management is aware of this issue and is planning to enhance training in this area.
12/8/97	Positive	IR 97-09	N	OPS	3A 1A	Licensed operators responded well to specific annunciated plant conditions. Licensed operators were able to clearly describe the reasons for their actions, discuss the impact of their actions upon the safe operation of the units, and fully implement established plant procedures.
10/20/97	Negative	IR 97-07	N	OPS	4B 5B	The initial operability determination for the Unit 2 High Pressure Coolant Injection (HPCI) overspeed trip assembly problem was weak. Nuclear System Engineering personnel overlooked the potential impact on the HPCI injection valve and how this impact could affect the response time to rated flow. PP&L management made a conservative decision to declare HPCI inoperable, pending further evaluation. A subsequent revision of the operability determination provided a good basis for operability. Significant licensee attention was focused on resolution of the problem and the overspeed trip assembly has performed acceptably since the corrective maintenance.

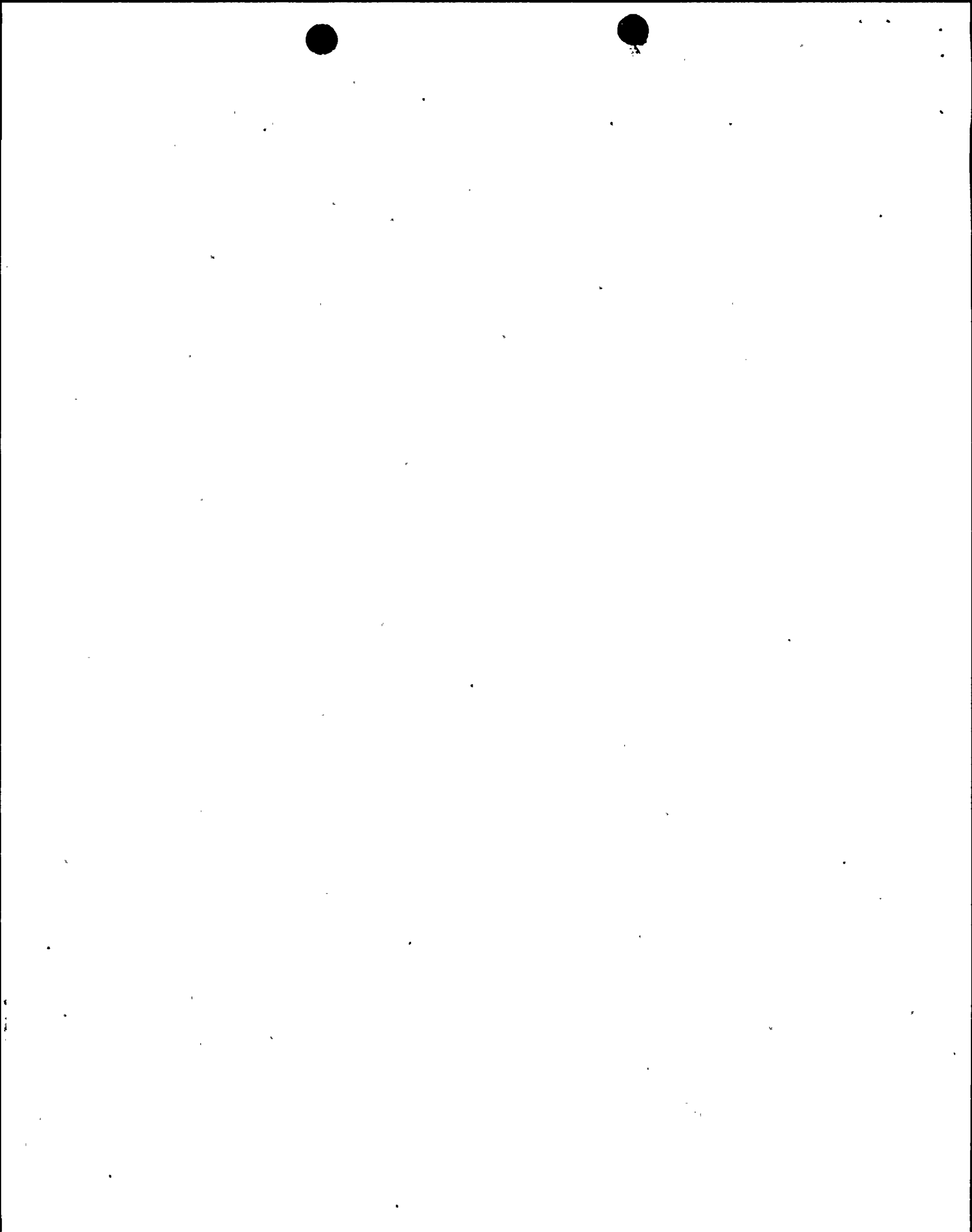
SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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10/20/97	NCV LER Negative	IR 97-07 NCV 97-07- 05 LER 97-15- 00	L	OPS	5A	During a review of procedures as a follow-up to a previous plant event, PP&L determined that the requirement of Technical Specification Table 3.3.7.10-1, ACTION 101 was not being met. ACTION 101, requires a gross radioactivity analysis on liquid effluent grab samples when the associated effluent monitoring instrumentation is not operable to be performed. Performance of gamma isotopic analysis does not meet the verbatim TS requirement since it does not measure gross radioactivity to a sensitivity of 1E-7 microcurie/ml. The cause of the event was determined to be human performance. It was not recognized that a change to the TSs was required since it was viewed that the isotopic analysis was an improved method of analysis. The isotopic analysis is a better analysis in determining radioactivity in effluents. Corrective actions include: procedure changes to require a gross radioactivity analysis along with the isotopic analysis and a revision to the Technical Specifications. This was considered a licensee identified non-cited violation.
10/20/97	Positive	IR 97-07	N	OPS	5C	The resolution of several issues by the PP&L Corrective Action Team (CAT) was direct, safety oriented, and conservative. The issues included loose pole pieces on 4 kv electrical breakers and level indication maintenance on the standby liquid control system.
10/20/97	Positive	IR 97-07	N	OPS	1A 3A	The plant control operators (PCOs) responded well to those alarmed conditions requiring actions. PCOs were able to describe the reasons for their actions and discuss the impact of their actions upon the units. PCO actions were determined to be conservative and in accordance with established plant procedures.
10/20/97	Positive	IR 97-07	S	OPS	1B 5C 3A	A reactor feedwater pump (RFP) minimum flow control valve failed open resulting in a reactor water level induced transient. The Plant Control Operator (PCO) reduced power to approximately 68%, reactor water level was recovered, and the unit was returned to a steady state condition. PCO actions were conservative and in accordance with unit procedures.



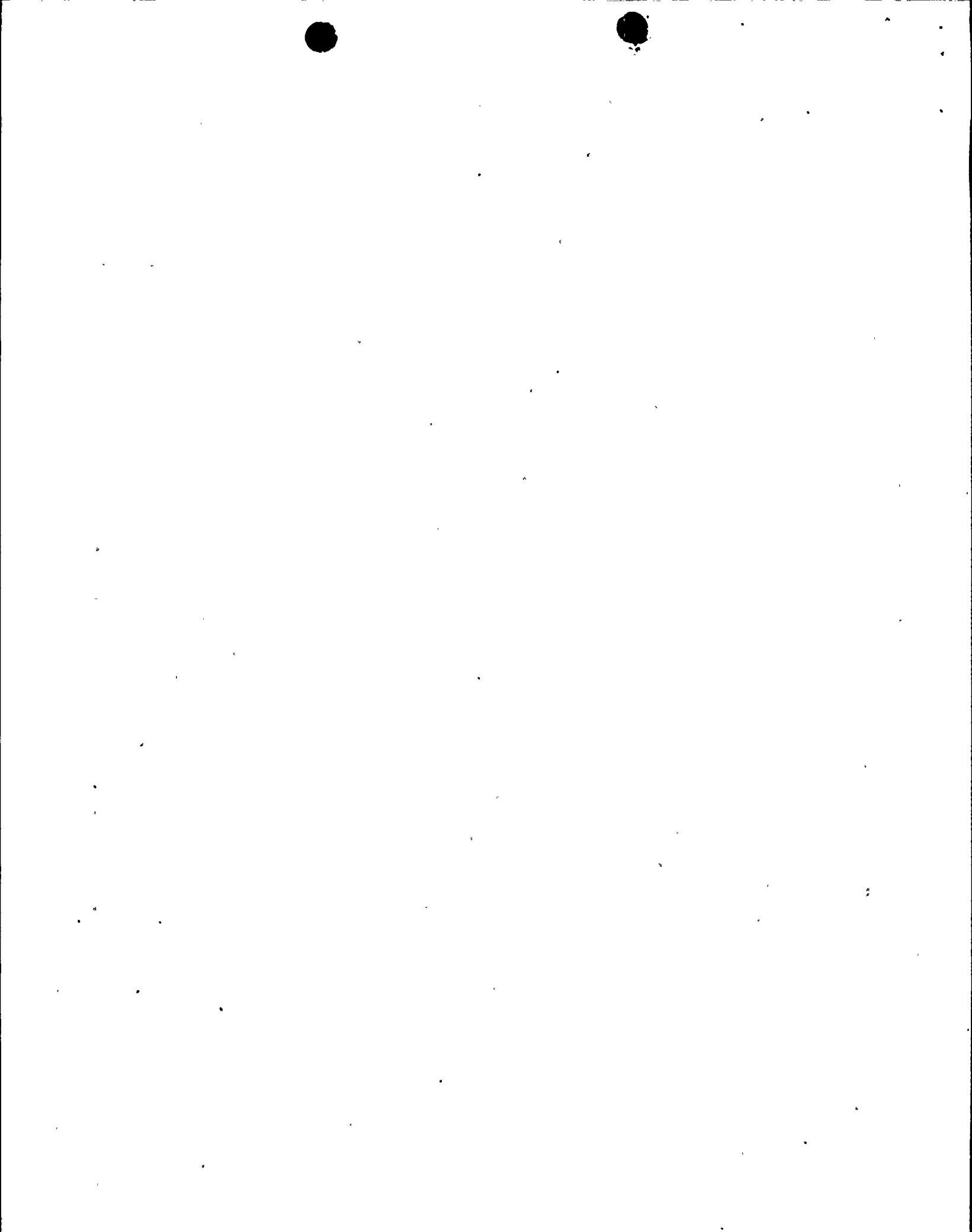
SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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10/20/97	Positive	IR 97-07	N	OPS	1A 5C	PP&L management conservatively opted to shut down Unit 2 in response to an increasing trend of unidentified reactor coolant system leakage before reaching Technical Specification (TS) limits. Good management involvement was observed during preparation for the shutdown and an orderly shutdown was conducted with no significant challenges to the operators.
10/20/97	VIO	IR 97-07 VIO 97-07- 02	N	OPS	1C 3A	On various occasions prior to October 17, 1997, the General Visual Inspections were not performed during operator rounds as specified in Attachment A to procedure OI-AD-016; in that, inspections of all rotating equipment, protective covers on load centers, and all accessible areas of the plant were not performed on every shift.



SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

Date	Type	Source	ID	SFA	Code	Item Description
3/16/98	EEI URI LER	IR 98-01 IR 97-10 URI 97-10-04 LER 97-25-00 EEI 98-01-06 EEI 98-01-07 EEI 98-01-08	N	MAINT	2B 5A	<p>Corrective actions, for a previous NRC violation, identified the Unit 1 standby liquid control (SLC) system was potentially inoperable and may not have been capable of fulfilling a safety function needed to shut down the reactor in the event of an accident. A maintenance work practice and a non-specific procedure appear to have resulted in both Unit 1 SLC pump accumulators being inoperable at the same time. This condition existed for an indeterminate period of time between September 9, 1997, and November 25, 1997. PP&L is continuing to reanalyze the SLC system design, to determine if depressurized accumulators would have prevented the SLC system from performing its safety function. Pending additional licensee information, this issue is being followed as an unresolved item.</p> <p>Update from IR 98-01: NRC review of additional information, regarding the Unit 1 SLC system operability, between September 10, 1997, and November 25, 1997, identified three apparent violations. The apparent violations contributed to the SLC system being degraded and potentially inoperable. These apparent violations are being considered as escalated enforcement items (EEIs), in accordance with the NRC Enforcement Policy. Unresolved item 50-387/97-10-04 is closed and the following three EEIs are opened:</p> <p>EEI 98-01-06: In 1995 and 1996, standby liquid control accumulators were found below the acceptable pressure range specified by procedure and no Condition Report was initiated as required for the conditions adverse to quality.</p> <p>EEI 98-01-07: Procedures controlling the standby liquid control system maintenance were not adequate to ensure the accumulator charging valve cap was installed in accordance with the vendor's instructions.</p> <p>EEI 98-01-08: The standby liquid control pumps being tested in a condition that was</p>



SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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3/16/98	Negative	IR 98-01	N	MAINT	3C 5C	The licensee implemented several actions, in response to NRC and SSES self assessment identified issues, in the maintenance and work control programs. The performance issues include, in part, work control effectiveness, outstanding work backlog, and maintenance activity control. These actions have not been in place for a sufficient period of time to show improvement in the maintenance area.
3/16/98	Negative	IR 98-01	S	MAINT	2A 3A	The "B" Emergency Diesel Generator (EDG) test run was discontinued following receipt of an unexpected turbocharger lube oil low pressure alarm. The cause was adequately identified, and the EDG was repaired and returned to service within the time period allowed by Technical Specification. Overall, maintenance activities were adequate.
3/16/98	Positive	IR 98-01	N	MAINT	3A 3B	The surveillance activities observed were adequately performed and appropriately controlled. The activities were accomplished by qualified and trained personnel. No violations of NRC requirements were identified.
3/16/98	Positive	IR 98-01	N	MAINT	3A 3B	Four planned maintenance activities, reviewed during this period, were found to be appropriately conducted and controlled. Interviews with maintenance personnel showed the individuals involved in these activities were knowledgeable, appropriately qualified, and capable of explaining their activities.
3/16/98	Negative	IR 98-01	S	MAINT	2A 1B	A PP&L management decision, to reduce power in response to a main generator isophase bus duct cooler leak, was well communicated within the operations department and was conservative. The licensee initiated appropriate corrective actions, no violations of NRC requirements occurred, and the failure was documented for maintenance rule tracking purposes.
1/19/98	Positive	IR 97-10	N	MAINT	3A 3B	The surveillance activities observed were adequately performed and appropriately controlled. The surveillance activities were determined to have been accomplished by qualified and trained personnel. No violations of NRC requirements were identified.

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1/19/98	Positive	IR 97-10	N	MAINT	3A 3B	The planned maintenance activities, reviewed during this period, were found to be appropriately conducted and controlled. Interviews with maintenance personnel showed the individuals involved in the maintenance activities to be knowledgeable and capable of explaining their activities. No violations of NRC requirements were identified.
12/8/97	VIO LER	IR 97-09 VIO 97-09- 02 LER 97-06- 00	N	MAINT	2B 3A	In March 1997, maintenance procedures for the replacement of the bonnet vent line for reactor recirculation valve HV-2F031B failed to ensure the vent line support configuration was not altered from its original design. As a result, excessive vibration during power operation caused a weld on the bonnet vent line to crack, resulting in a loss of reactor coolant. The failure to provide adequate procedures for control of safety related maintenance is identified as a violation. This item closed IFI 50-387/97-07-01.
12/8/97	Positive	IR 97-09	N	MAINT	2B 3A	The surveillance activities observed were adequately performed and appropriately controlled. No violations of NRC requirements were identified.
12/8/97	Positive	IR 97-09	N	MAINT	2B 3A	Seven of the eight planned maintenance activities reviewed during this period were found to be appropriately conducted and controlled. In one instance, informal drawings were used during corrective maintenance on non-safety related equipment. This activity had no impact on safety related equipment and no violation of NRC requirements occurred.
12/8/97	Negative	IR 97-09	S	MAINT	2A	A problem occurred with the level control valve for the "4C" feedwater heater. A power reduction to 80% was directed by procedures after preparations for corrective maintenance on the control valve caused an automatic an automatic isolation of the steam supply to the feedwater heater.

SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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10/20/97	NCV Negative	IR 97-07 NCV 97-07-07	N	MAINT	5C	Corrective actions for a safety related check valve deficiency, identified in 1994, did not address generic implications. In 1996, the same condition was identified on a different valve and, in this case, the planned actions to prevent recurrence were appropriate. However, the administrative process to implement and track these actions was not initiated. These two corrective action problems are considered a violation of minor significance because this had no impact on safety.
10/20/97	NOED LER Negative	IR 97-07 IR 97-09 LER 97-20-00	S	MAINT	2B 1C	PP&L requested enforcement discretion for TS requirements concerning a failed acoustic position indicator for the "S" Safety Relief Valve. PP&L requested the enforcement discretion to avoid an undesirable transient as the result of forcing compliance with a license condition. The NRC approved PP&L's request after determining the action involved minimal or no safety impact and had no adverse radiological impact on public health and safety.
10/20/97	Positive	IR 97-07	N	MAINT	5B 5C	The licensee's corrective actions in response to an interrupted cool down of the "C" Emergency Diesel Generator (EDG) were adequate. The interrupted cool down did not affect the operability of the EDG.
10/20/97	Positive	IR 97-07	N	MAINT	3B	The maintenance task certification matrix and its implementation were adequate to control the assignment of qualified workers to safety related maintenance activities. No violation of NRC requirements was identified.
10/20/97	Positive	IR 97-07	N	MAINT	3A 1C 3B	Susquehanna surveillance activities, observed during this inspection period, were well performed, described and controlled by detailed Susquehanna procedures, and performed by well trained, experienced and capable technicians/operators.

SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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10/20/97	Positive	IR 97-07	N	MAINT	3A 3B	The work authorization (WA) activities observed during this inspection period were, in general, well performed. The WAs described and controlled maintenance activities with adequate, but in some cases general, procedures. The maintenance activities were implemented by well trained and experienced maintenance technicians, and resulted in equipment being returned to service in good condition.
10/20/97	VIO	IR 97-07 VIO 97-07- 06	N	MAINT	2B 3A	Susquehanna procedures for control of SBLC maintenance were inadequate in that the procedures did not control the activities such that the system remained in an analyzed configuration. The unanalyzed configuration had the potential to negatively affect the performance of this safety related system. PP&L allowed maintenance work to proceed on the "A" Standby Liquid Control (SBLC) pump nitrogen accumulator without evaluating whether the activity would affect operability. After the question of operability impact was raised by the NRC, an initial operability determination by the Shift Technical Advisor was weak because it did not address known technical issues with the potential to affect operability. The failure to provide adequate procedures for control of maintenance on safety related equipment is a violation of TSs.

SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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3/16/98	NOED VIO LER	IR 98-01 IR 97-06 VIO 97-04-01 LER 97-13-00	S	ENG	4C	On June 19, 1997, while both units were operating at 100% power, the licensee determined that the testing methodology used for activated carbon samples was different than that required by Technical Specification (TS). The licensee received a Notice of Enforcement Discretion to operate until it accomplished the required testing. VIO 50-387,388/97-04-01 and a notice of enforcement discretion were issued to the licensee. The licensee responded to the violation in PP&L letter PLA-4666, dated September 4, 1997, and affected adequate corrective actions which included a TS change, procedure changes, and technician training. VIO 50-387,388/97-04-01 was closed in inspection report 50-387,388/97-06, through onsite field inspection activities. This LER is closed.
3/16/98	NOED URI LER	IR 98-01 URI 98-01-09 LER 98-02-00	L	ENG	4C 5A	On February 2, 1998, SSES requested and received a Notice of Enforcement Discretion (NOED) for containment penetration leak rate tests that were not performed when required. The licensee's request and immediate corrective actions for the issues were adequate. The licensee's initial NOED commitments were verified to be complete and an unresolved item was opened, pending information on the circumstances which led to this event.



SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

Date	Type	Source	ID	SFA	Code	Item Description
3/16/98	NCV URI Negative	IR 98-01 IR 97-07 NCV 98-01-10 URI 97-07-09	N	ENG	4C	<p>PP&L failed to perform a 10 CFR 50.59 safety evaluation prior to opening a plant equipment hatch assumed to be closed by the tornado design basis analysis. This condition existed for an extended period before identification by the NRC. Subsequently, plant equipment hatches have been verified to be in the condition assumed by the tornado analysis (shut) and are now being administratively controlled. PP&L's evaluation to determine whether an unreviewed safety question existed with the hatch open is expected in January 1998 and will be reviewed to determine the safety significance of this violation. In the interim, this item is being tracked as an unresolved item.</p> <p>Update from IR 98-01: The inspectors identified a floor hatch in the reactor building which was maintained open for many years. In response to the inspectors questions, PP&L determined the site tornado analysis assumed the hatch was closed. No safety evaluation was performed prior to placing the hatch in other than the analyzed position. A subsequent PP&L calculation determined the result of the tornado analysis was not adversely affected by hatch position. The failure to perform a safety evaluation prior to changing the hatch position was a violation of minor significance and is being treated as a non-cited violation.</p>
3/16/98	Negative	IR 98-01	N	ENG	4A	<p>NRC identified three control room annunciators which alarm after TS Limiting Condition for Operation (LCO) action levels are exceeded. The issue was discussed with operations management and it was determined the general issue of annunciator conservatism, including LCO action statement start time, was being addressed in the PP&L corrective action system. Several examples of unalarmed TS entries were identified by the NRC, but no violations of the TS allowed outage time were identified.</p>

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1/19/98	NCV Negative	IR 97-10 NCV 97-10- 05	N	ENG	4B 1A	The "E" Emergency Diesel Generator (EDG) tripped on high jacket water temperature, as designed, during a surveillance test. Prior to the surveillance, the Emergency Service Water (ESW) supply valve failed to stroke open under dynamic conditions and was not noticed by the operators. Post maintenance testing for a previous maintenance activity failed to verify the valve would function under the expected operational conditions. Although the inadequate post maintenance test of the valve had the potential to impact safety related equipment, the "E" EDG was not aligned to a safety-related bus at the time of the event, there was no effect on the operating units, and no damage to the EDG occurred. The licensee identified failure to provide adequate post maintenance testing for safety related equipment is considered a non-cited violation.
12/8/97	Positive	IR 97-09	L	ENG	5A 4B	PP&L identified a potential non-conservatism in the vendor supplied methodology used to establish minimum critical power ratio (MCPR) limits for single loop operation. The identification of this issue by PP&L was viewed as a positive indication of the level of scrutiny being given to fuel related calculations. The inspector verified that conservative interim corrective actions have been implemented for Susquehanna pending the resolution of the potential issue, by the NRC Office of Nuclear Reactor Regulation.

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12/8/97	URI Negative	IR 97-09 URI 97-09-06	N	ENG	5B 5C	Susquehanna emergency diesel generator (EDG) frequency TS surveillance requirements were compared to emergency core cooling system (ECCS) design basis assumptions. EDG frequency is proportional to ECCS pump speed which determines post accident ECCS injection flow rates. When the lowest EDG frequency allowed by TS is overlaid onto Susquehanna design basis ECCS pump performance assumptions, the results are non conservative, because there are situations in which calculations show ECCS pumps can not provide the required post accident injection flow. However, actual EDG frequency variation, as shown by test data, is significantly better than that allowed by TSs, and when actual frequency test data is overlaid with design ECCS pump performance assumptions, the ECCS flow rates are shown to be adequate and safe. Resolution of the non-conservative TS surveillance criteria will be tracked as an unresolved item.
12/8/97	URI Negative	IR 97-09 URI 97-09-03 URI 97-09-04 URI 97-09-05	N	ENG	5B 5C	PP&L identified three conflicts between the feedwater penetration isolation valve configuration and the licensing basis. Although these issues were placed in PP&L's corrective action process, the NRC questioned the need for licensing actions and more timely corrective action. The three issues involve 1) the failure to test certain feedwater containment isolation valves in accordance with 10 CFR 50 Appendix J, 2) the acceptability of the reactor water clean up isolation valve configuration as an alternative to 10 CFR 50 Appendix A design requirements, and 3) the consequential failure of a feedwater isolation valve during a feedwater line break event and compliance with 10 CFR 50 Appendix A design requirements. These issues remain unresolved pending additional information from PP&L.

SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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10/20/97	NCV LER Positive	IR 97-07 NCV 97-07- 03 LER 97-10- 00	L	ENG	4C 5A	During a 1997 procedure review, the licensee discovered reactor water level instruments were in-operable, during a 1996 Unit 1 hydrostatic pressure test, without performing the required Technical Specification actions. The cause was determined to be a personnel error, made during a previous procedure revision. The inspectors reviewed the corrective actions and found them to be adequate. This licensee identified and corrected violation is being treated as a non-cited violation consistent with Section VII.B.1 of the NRC Enforcement Policy.
10/20/97	Negative	IR 97-07	N	ENG	5B 5C 2A	The engineering corrective actions for problems with the Unit 1 RCIC drain pot level switch were not timely. This allowed continuous degradation of the drain line and a continuous alarmed condition for over ten months after it caused a forced shutdown. A modification to replace the drain pot level switch was completed and has been effective in restoring the normal operation of the RCIC system.
10/20/97	VIO	IR 97-07 VIO 97-07- 10	N	ENG	4C	PP&L failed to perform a 10 CFR 50.59 safety evaluation prior to placing a floating service platform on the spray pond that serves as the ultimate heat sink for both Susquehanna units. This condition existed for an extended period before identification by the NRC. PP&L has yet to perform an evaluation to determine whether an unreviewed safety question existed with the platform on the spray pond. Subsequently, the spray pond was verified to be in the condition assumed by the Final Safety Analysis (the platform was removed). Analysis of the spray pond design basis and evaluation of the potential USQ will be reviewed with the response to this violation.
10/20/97	Positive	IR 97-07	N	ENG	4A	A review of the Susquehanna responses to 10 CFR 50.63, Station Blackout (SBO) rule was conducted. The licensee installed an auxiliary diesel power source to increase the SBO coping duration of its 125 Vdc batteries from approximately 5-hours to greater than 8-hours. The NRC safety evaluation report concluded that Susquehanna must meet a 4-hour coping duration. Therefore, the inspectors concluded that there was no current regulatory requirement for the licensee to maintain the auxiliary power source.

SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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10/20/97	NCV Negative	IR 97-07 NCV 97-07- 08	N	ENG	5B 2A	In February 1997, PP&L identified that the "A" Control Structure (CS) chiller would not automatically start as designed and took immediate actions to correct the problem. However, PP&L initially failed to recognize this condition as outside the plant's design basis, as described in the Final Safety Analysis Report. After identification by the NRC, PP&L initiated a Condition Report, determined the condition was reportable, and submitted a Licensee Event Report as required. Corrective actions for both the technical problem and the failure to recognize the condition outside the design basis were implemented by PP&L. In this case, the failure to report a condition outside the design basis within 30 days of discovery is characterized as a non-cited violation.
10/20/97	Positive	IR 97-07	N	ENG	4C	The erosion control program portion of engineering corrective actions for an indicated high level in a reactor core isolation cooling (RCIC) drain pot was determined to be outstanding.

SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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3/16/98	Positive	IR 98-01	N	PS	5A 5B 5C	The condition reporting system was effectively used to identify, evaluate, and resolve radiological control program deficiencies.
3/16/98	Positive	IR 98-01	N	PS	2A	Housekeeping and material conditions of plant structures and equipment were good.
3/16/98	Positive	IR 98-01	N	PS	2A	Health physics equipment and facilities were well maintained.
3/16/98	Positive	IR 98-01	N	PS	2B 3C 5A	A strong commitment to reducing plant contamination was evidenced by the reduction of recoverable-contaminated areas in 1997 from 9.4 to 6.2 percent and performance of a self-assessment in contamination controls.
3/16/98	Positive	IR 98-01	N	PS	1C	The ALARA organization was effectively evaluating and implementing radiation dose reduction measures and the health physics staff effectively used the employee ALARA concern program. Although ALARA initiatives to minimize the radiological impact of hydrogen water chemistry (HWC) appeared comprehensive including the implementation of condensate filtration, shielding up-grades, contingencies for chemical decontamination, and improvements in work practices and scheduling, continued vigilance to assess and mitigate the radiological impact of HWC is warranted.
1/19/98	NCV Negative	IR 97-10 NCV 97-10- 06	N	PS	1C	Implementation of the licensee's site access authorization (AA) and Fitness-for-Duty (FFD) programs were reviewed. A failure to allow an individual to review the psychological information contained in his file is considered a violation of NRC regulations of minor significance and is being treated as a non-cited violation.

SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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12/8/97	Positive	IR 97-09	N	PS	1A 2A	The licensee maintained an effective security program. Management support was evident. Quality assurance audits were thorough and in-depth. Alarm station operators were knowledgeable and alert. Security equipment was tested and maintained in accordance with the security plan and security training was performed in accordance with the training and qualification plan. The provisions for land vehicle control measures satisfy regulatory requirements and licensee commitments.
10/30/97	Positive	IR 97-08	N	PS	1C	Good communications throughout the emergency response facilities and with the Commonwealth of Pennsylvania.
10/30/97	Positive	IR 97-08	N	PS	3A	Good command and control in all emergency response facilities.
10/30/97	Positive	IR 97-08	N	PS	3B 3A	The overall performance of the emergency response organization was good. Simulated events were accurately diagnosed, proper mitigation actions were performed, emergency declarations were timely and accurate, and off-site agencies were notified promptly. No exercise weaknesses, safety concerns, or violations of NRC requirements were observed.
10/20/97	Positive	IR 97-07	N	PS	5C	An evaluation of condition reports (CRs), from the Unit 2 eighth refueling outage, concluded that there was no continuing trends regarding inadequate frisking practices with hand held monitors. The licensee's initial corrective actions for the identified weaknesses in the three CRs inspected were adequate.

SUSQUEHANNA 1 & 2 PLANT ISSUES MATRIX

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10/20/97	Positive	IR 97-07	N	PS	1C	The licensee's programmatic response to a potential fire in the control room was reviewed and determined to rely on off normal procedures which require the manual initiation of a CO2 fire protection system and the immediate evacuation of the control room. The controls established by the licensee to ensure that control room operators do not require the use of self contained breathing apparatus (SCBA), during a fire and/or habitability problem in the control room. These controls were determined to be adequate.
10/20/97	NCV LER Positive	IR 97-07 NCV 97-07- 04 LER 97-16- 00	L	PS	5A	PP&L determined that the monthly surveillance to inspect fire hose stations had not been completed within the frequency as required per TS Surveillance Requirement 4.7.6.5.a. TSs require inspection of the fire hose stations listed in Table 3.7.6.5-1 at least once per 31 days. The frequency for performing this surveillance including the grace period was exceeded seven (7) times since January 1995. In addition, while reviewing other surveillances that used a fixed schedule, it was determined that the 6-month surveillance of fire hydrants had exceeded its frequency, including the grace period on one occasion since January 1995. The cause of the event was determined to be that the scheduling tool used to track these surveillances used a fixed date each month for the determination of the start of the surveillance instead of calculating the start date from when the surveillance was last performed. Corrective actions include: revising the method of tracking these surveillances and discussion of this event with appropriate plant personnel. This was considered a licensee identified non-cited violation.



ABBREVIATIONS USED IN PIM TABLE

ALARA	As-Low-As-Reasonably-Achievable
CO2	Carbon Dioxide
CR	Condition Reports
CS	Control Structure
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
HWC	Hydrogen Water Chemistry
LER	Licensee Event Report
NRC	Nuclear Regulatory Commission
PCO	Plant Control Operator
RCIC	Reactor Core Isolation Cooling
SBLC	Standby Liquid Control
TS	Technical Specification
VIO	Violation

GENERAL DESCRIPTION OF PIM TABLE COLUMNS

Date	The actual date of an event or significant issue for those items that have a clear date of occurrence (mainly LERs), the date the source of the information was issued (such as for EALs), or the last date of the inspection period (for IRs).
Type	The categorization of the item or finding - see the Type / Findings Type Code table, below.
Source	The document that describes the findings: LER for Licensee Event Reports, EAL for Enforcement Action Letters, or IR for NRC Inspection Reports.
ID	Identification of who discovered issue: N for NRC; L for Licensee; or S for Self Identifying (events).
SFA	SALP Functional Area Codes: OPS for Operations; MAINT for Maintenance; ENG for Engineering; and PS for Plant Support.
Code	Template Code - see table below.
Item Description	Details of NRC findings on LERs that have safety significance (as stated in IRs), findings described in IR Executive Summaries, and amplifying information contained in EALs.

TYPE / FINDINGS CODES

ED	Enforcement Discretion - No Civil Penalty
Strength	Overall Strong Licensee Performance
Weakness	Overall Weak Licensee Performance
EEL *	Escalated Enforcement Item - Waiting Final NRC Action
VIO	Violation Level I, II, III, or IV
NCV	Non-Cited Violation
DEV	Deviation from Licensee Commitment to NRC
Positive	Individual Good Inspection Finding
Negative	Individual Poor Inspection Finding
LER	Licensee Event Report to the NRC
URI **	Unresolved Item from Inspection Report
Licensing	Licensing Issue from NRR
MISC	Miscellaneous - Emergency Preparedness Finding (EP), Declared Emergency, Nonconformance Issue, etc. The type of all MISC findings are to be put in the Item Description column.

TEMPLATE CODES

1	Operational Performance: A - Normal Operations; B - Operations During Transients; and C - Programs and Processes
2	Material Condition: A - Equipment Condition or B - Programs and Processes
3	Human Performance: A - Work Performance; B - Knowledge, Skills, and Abilities / Training; C - Work Environment
4	Engineering/Design: A - Design; B - Engineering Support; C - Programs and Processes
5	Problem Identification and Resolution: A - Identification; B - Analysis; and C - Resolution

NOTES:

* EEIs are apparent violations of NRC requirements that are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action" (Enforcement Policy), NUREG-1600. However, the NRC has not reached its final enforcement decision on the issues identified by the EEIs and the PIM entries may be modified when the final decisions are made. Before the NRC makes its enforcement decision, the licensee will be provided with an opportunity to either (1) respond to the apparent violation or (2) request a predecisional enforcement conference.

** URIs are unresolved items about which more information is required to determine whether the issue in question is an acceptable item, a deviation, a nonconformance, or a violation. However,

the NRC has not reached its final conclusions on the issues, and the PIM entries may be modified when the final conclusions are made.

ENCLOSURE 2

SUSQUEHANNA INSPECTION PLAN FOR JUNE 1998 THROUGH OCTOBER 1998

Inspection	Program Area/Title	Planned Dates	Type Inspection/Comments
IP 62706	Maintenance Rule Team	6/8/98	Mandatory Team
IP 92904	Followup to Fire Protection	6/29/98	Regional Initiative
IP 82701	Operational Readiness of the Emergency Preparedness Program	7/13/98	Core
IP 86750	Solid Radwaste Management and Transportation of Radioactive Materials	8/17/98	Core
IP 37001 IP 40500 IP 93809	Engineering Team	9/14/98 9/28/98	Core
IP 83750	Operational Radiation Exposure-Non Outage	9/21/98	Core
IP 84750	Environmental	10/5/98	Core
IP 62707	Maintenance Observation	11/16/98	Regional Initiative
IP 84750	Effluents	11/30/98	Core

Legend

- IP - Inspection Procedure
- TI - Temporary Instruction
- Core Inspection - Minimum NRC Inspection Program (mandatory at all plants)
- Regional Initiative - Additional Inspection Effort Planned by Region I

