

ATTACHMENT 1
AIT CHARTER

April 8, 1994

MEMORANDUM FOR: Marvin W. Hodges, Director, Division of Reactor Safety

FROM: Thomas T. Martin, Regional Administrator

SUBJECT: AUGMENTED TEAM INSPECTION CHARTER FOR THE
REVIEW OF THE SALEM UNIT NO.1 REACTOR SCRAM
AND LOSS OF PRESSURIZER STEAM BUBBLE

On April 7, 1994, Salem Unit No. 1 reactor scrammed from 25% power during maneuvers to shut the plant down. Subsequent to the reactor scram, the plant experienced a series of safety injections which resulted in loss of the pressurizer steam bubble and normal pressure control. In addition to the reactor trip and safety injection, certain valves that are required to operate, failed to close. Because of multiple failures in safety related systems during the event and possible operator errors, per M.C. 325, Paragraph 05.02, Item a, I have determined that an Augmented Inspection Team (AIT) should be initiated to review the causes and safety implications associated with these malfunctions.

The Division of Reactor Safety (DRS) is assigned the responsibility for the overall conduct of this augmented inspection. Robert Summers is appointed as the AIT leader. Other AIT members are identified in Enclosure 2. The Division of Reactor Projects is assigned the responsibility for resident and clerical support as necessary; and the coordination with other NRC offices, as appropriate. Further, the Division of Reactor Safety, in coordination with DRP is responsible for the timely issuance of the inspection report, the identification and processing of potentially generic issues, and the identification and completion of any enforcement action warranted as a result of the team's review.

Enclosure 1 represents the charter for the AIT and details the scope of the inspection. The inspection shall be conducted in accordance with NRC Management Directive 8.3, NRC inspection Manual 0325, inspection Procedure 93800, Regional Office Instruction 1010.1 and this memorandum.

ORIGINAL SIGNED BY:
William F. Kane for
Thomas T. Martin
Regional Administrator

Enclosures:

1. Augmented Inspection Team Charter
2. Team Composition

A1-1

0/29

ENCLOSURE 1

AUGMENTED INSPECTION TEAM CHARTER

The general objectives of this AIT are to:

1. Conduct a thorough and systematic review of the circumstances surrounding the reactor scram at Salem Unit No. 1 on April 7, 1994 and the resulting loss of the pressurizer steam bubble.
2. Assess the operators' actions preceding and subsequent to the reactor scram. Develop a sequence of events and events causal factor analysis for the plant and operators' responses and human factors associated with the event. Compare the expected plant response to the actual plant responses.
3. Review the licensee's event classification and notifications for appropriate responses.
4. Assess the safety significance of the event and communicate to the regional and headquarters management the facts and safety concerns related to problem identified.
5. Examine the equipment failures and identify associated root causes.
6. Determine if any design vulnerabilities or deficiencies exist that warrant prompt action.
7. Prepare a report documenting the results of this review for the Regional Administrator within thirty days of the completion of the inspection.

Schedule:

The AIT shall be dispatched to Salem so as to arrive and commence the inspection on April 8, 1994. During the site portion of the inspection resident and clerical support is available.

ENCLOSURE 2

TEAM COMPOSITION

The assigned team members are as follows:

Team Manager:	Wayne Hodges, DRS
Onsite Team Leader:	Robert Summers, DRP
Onsite Team Members:	Steve Barr, DRP
	Scott Stewart, DRS
	Larry Scholl, DRS
	Warren Lyon, NRR
	Iqbal Ahmed, NRR
	John Kauffman, AEOD
	Richard Skokowski, DRS *
	Howard Rathbun, NRR
New Jersey State Observer	Richard Pinney

* added later

ATTACHMENT 2

PLEASE REFER TO THE DOCKET ROOM FOR THIS ATTACHMENT

ATTACHMENT 4
SEQUENCE OF EVENTS

DETAILED SEQUENCE OF EVENTS

April 7, 1994

Pre-transient initial conditions: Unit 1 power at 73%, rod control in manual.

0730 12A circulator out of service for waterbox cleaning.

1016 13B circulating water pump emergency trip on travelling screen differential pressure; 13A, 13B and 12B travelling screens all clog and eventually go out of service.

1027 13A circulating water pump trips on high screen differential pressure.

1032 Unit 1 operating crew initiated a plant power reduction from approximately 650 MWe at 1% power per minute initially (up to this point, plant power had decreased from 800 MWe due to an increase in condenser back pressure). Subsequently, operators increased the reduction rate to as high as 8% per minute.

1034 Operators attempt to restart 12A circulating water pump; pump immediately trips due to pump circuit breaker not being fully racked in.

1039 P-8 permissive (reactor trip on low coolant flow in a single loop) reset (blocked) at 36% reactor power.

By this time, all circulating water pumps except 12B have tripped; 13A and 13B are restarted, but by 10:46 they have tripped again, leaving 12B as the only circulator in service.

1043 P-10 permissive (power range low setpoint reactor trip and intermediate range reactor trip and rod stop) reset (reinstalled) at 10% reactor power.

At about this time, the Nuclear Shift Supervisor (NSS) directs the Reactor Operator (RO) at the rod control panel to go to the electrical distribution panel to perform group bus transfers.

1044 Turbine load at 80 MWe, RCS temperature at 531 degrees F. Low-low T_{ave} bistable setpoint Tech Spec allowable value ≥ 541 degrees F, therefore low-low T_{ave} bistables trip.

ATTACHMENT 4
SEQUENCE OF EVENTS

- 1045 The NSS begins to withdraw rods, and then the RO is directed by the NSS to return to the rod control panel and withdraws rods to restore RCS temperature - rods pulled 35 steps, from step 55 to step 90 on control rod bank D.
- 1047 Reactor power increases from 7% to 25% due to the outward rod motion - reactor trips at 25% power range low setpoint. This is a "reactor startup" nuclear instrument (NI) trip. The NI "intermediate range" 20% power rod stop and 25% power reactor trip did not actuate.
- 1047 Automatic safety injection (SI) on high steam flow coincident with low-iow T_{ave} . All ECCS pumps start, ECCS flow paths functional, main feedwater regulating valves close.
- No "first-out" alarm was received for the SI. SI signal received on SSPS logic channel "A" only.
- 1049 Operators enter EOP-Trip 1 procedure.
- 1053 Operators manually initiate main feedwater isolation.
- 1058 Operators manually initiate main steam isolation (only 2 of 4 main steam isolation valves closed at the time of the auto-initiation of SI).
- Operators manually trip main feed pumps.
- 1100 Licensee declared an Unusual Event, based on: "Manual or Auto ECCS actuation with discharge to vessel"
- 1105 EOP exit-step 36 directs operators to reset SI; operator notices SI logic channel "B" was already reset (indicated that "B" channel had not auto-initiated) and a flashing light on the RP4 panel (indicated SI logic channel disagreement).
- 1118 Pressurizer PORVs (PR-1 and PR-2) subsequently periodically auto open on high pressurizer pressure (indicated pressurizer was filling to solid condition).

ATTACHMENT 4
SEQUENCE OF EVENTS

During recovery, steam generator atmospheric relief valves open several times to control secondary temperature and pressure.

Number 11 and/or Number 13 steam generator safety valves open, causing RCS cooldown (by this time T_{ave} had increased to about 552 degrees F). This indicated that the steam generator atmospheric relief valves were not properly controlling pressure.

- 1126 Second actual automatic safety injection - initiated by low pressurizer pressure (low pressurizer pressure trip setpoint = >1765 psig, allowable ≥ 1755 psig). Low pressurizer pressure due to RCS cooldown (due to steam generator code safety valve going open).

Second auto SI received on SSPS logic channel "B" only. Operators initiate a manual SI just after auto SI, in response to the rapidly decreasing RCS pressure.

- 1141 While resetting the second SI, operator notices that RP4 panel lights indicate SI logic channels in agreement (i.e., light no longer flashing).

Technical Specification Action Statement (TSAS) 3.0.3 entered due to two blocked auto SI trains.

- 1149 Pressurizer relief tank (PRT) rupture disk ruptures (pressurizer was either solid or nearly solid after the first auto-initiated SI at 1047, and the second auto-initiated SI resulted in sufficient relief of RCS to the PRT to raise level and pressure until rupture disk blew).

- 1316 Alert declared. This was done to ensure proper technical staff was available. Licensee staff recognized that TSAS 3.0.3 could not be met for inoperable SI logic channels. The operators were also concerned about how to properly restore the pressurizer to normal pressure and level control from solid RCS conditions and wanted sufficient engineering support.

- 1336 The NRC entered the monitoring phase of the Normal Response Mode of the NRC Incident Response Plan. NRC Region I activated and staffed their Incident Response Center, with support provided by NRC headquarters personnel.

- 1410 The Technical Support Center was staffed to assist control room operators with recovery of normal RCS pressure and level control.

- 1511 Operators restore pressurizer bubble.

- 1630 Pressurizer level restored to 50%, level control returned to auto. EOPs exited, IOP-6

ATTACHMENT 4
SEQUENCE OF EVENTS

(Hot Standby to Cold Shutdown) procedure entered

1715 Plant cooldown initiated.

2020 Alert terminated.

April 8, 1994

0106 Mode 4 (Hot shutdown) entered.

1124 Mode 5 (Cold shutdown) entered.

ATTACHMENT 5
LIST OF ACRONYMS

AIT	Augmented Inspection Team
CDF	core damage frequency
CETPS	core exit thermocouple processing system
CW	circulating water
DNBR	departure from nucleate boiling ratio
EPRI	Electric Power Research Institute
ESF	engineered safety features actuation
FSAR	Final Safety Analysis Report
GL	generic letter
IPE	Individual Plant Evaluation
LOCA	loss of coolant accident
MPA	multi-plant action
NRC	Nuclear Regulatory Commission
NRR	NRC's Office of Nuclear Reactor Regulation
PRA	probabilistic risk assessment
PRT	pressurizer relief tank
PORV	pressure operated relief valve
PR...	PR1, PR2 are pressurizer PORVs; PR3 - PR5 are pressurizer safety valves
RCP	reactor coolant pump
RCS	reactor coolant system
RHR	residual heat removal
RVLIS	Reactor Vessel Level Indication System
RV	reactor vessel
SCM	subcooling margin
SER	safety evaluation report
SG	steam generator
SI	safety injection actuation
SIS	safety injection system
SSPS	solid state protection system
SW	service water
VCT	volume control tank

ATTACHMENT 6
EXIT MEETING ATTENDEES

NAME TITLE

Nuclear Regulatory Commission (NRC)

Iqbal Ahmed	Senior Electrical Engineer, NRR
Stephen Barr	AIT Assistant Team Leader, Division of Reactor Projects (DRP)
M. Wayne Hodges	Director, Division of Reactor Safety (DRS)
John Kauffman	Senior Reactor Systems Engineer, AEOD
Warren Lyon	Senior Reactor Systems Engineer, NRR
Larry Scholl	Reactor Engineer, DRS
Richard Skokowski	Reactor Engineer, DRS
J. Scott Stewart	Reactor Engineer - Examiner, DRS
Robert Summers	AIT Team Leader, DRP
Edward Wenzinger	Chief, Projects Branch No. 2, DRP

Public Service Electric and Gas Company (PSE&G)

R. Dougherty	Senior Vice President - Electrical
J. Hagan	Vice President, Nuclear Operations & General Manager, Salem Operations
S. LaBruna	Vice President, Nuclear Engineering
S. Miltenberger	Vice President and Chief Nuclear Officer
F. Thomas	Manager, Nuclear Licensing

**ATTACHMENT 7
FIGURES**

- FIGURE 1 - PORV Design Drawing
- FIGURE 2 - RCS Pressure Response
- FIGURE 3 - Salem and Hope Creek CW and SW Layout
- FIGURE 4 - Salem CW Drawing
- FIGURE 5 - Salem SW Drawing
- FIGURE 6 - Hope Creek SW Drawing

PLEASE REFER TO DOCKET ROOM TO ATTACHMENT 7

ENCLOSURE 2

PLEASE REFER TO DOCKET ROOM FOR ENCLOSURE 2

ATTACHMENT 3
CONFIRMATORY ACTION LETTER

April 8, 1994

Docket No. 50-272
License No. DPR-70
CAL No. 1-94-005

Mr. Steven E. Miltenberger
Vice President and Chief Nuclear Officer
Public Service Electric and Gas Company
P.O. Box 236
Hancock's Bridge, New Jersey 08038

Dear Mr. Miltenberger:

SUBJECT: CONFIRMATORY ACTION LETTER 1-94-005

On April 7 and 8, 1994, in telephone discussions, William Kane, Deputy Regional Administrator, informed Mr. Joseph Hagan, Acting General Manager, Salem Nuclear Generating Station, of our decision to dispatch an Augmented Inspection Team (AIT) to review and evaluate the circumstances and safety significance of the Unit 1 reactor trip and safety injection that occurred on April 7, 1994. The event was complex and may have involved personnel error, equipment failure, or a combination of both. The AIT was initiated because of the complexity of the event, the uncertainty of the root causes of some of the conditions and equipment problems encountered during the event, concerns relative to the proper functioning of engineered safety features, and possible generic implications. The AIT, led by Mr. Robert Summers of our office, is expected to commence their activities at the Salem Nuclear Generating Station on April 8, 1994.

In response to our request, Mr. Hagan agreed to place Salem Unit 1 in a cold shutdown condition and maintain that condition until the AIT acquired all the information needed for their assessment and was satisfied that any necessary corrective measures have or would be taken; and that your staff would take actions to:

1. Assure that the AIT Leader is cognizant of, and agrees to, any resumption of activities that involve the operation, testing, maintenance, repair, and surveillance of any equipment, including protection logic or associated components, which failed to properly actuate in response to the reactor trip and safety injection(s) of April 7, 1994.
2. Assemble or otherwise make available for review by the AIT, all documentation

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**ATTACHMENT 3
CONFIRMATORY ACTION LETTER**

(including analyses, assessments, reports, procedures, drawings, personnel training and qualification records, and correspondence) that have pertinence to the equipment problems leading up to the reactor trip and safety injection(s), and subsequent operator response and recovery actions.

3. Assemble or otherwise make available for review by the AIT, all equipment, assemblies, and components that were associated with the problems encountered during the events leading up to, and subsequent to the reactor trip and safety injection(s).
4. Make available for interview by the AIT, all personnel that were associated with, or have information or knowledge that pertains to the problems encountered during the events leading up to, and subsequent to the reactor trip and safety injection(s).
5. Gain my agreement prior to commencing any plant startup.

Pursuant to Section 182 of the Atomic Energy Act, 42 U.S.C. 2232, and 10 CFR 2.204, you are hereby required to:

1. Notify me immediately if your understanding differs from that set forth above.
2. Notify me, if for any reason, you require modification of any of these agreements.

Issuance of this Confirmatory Action Letter does not preclude issuance of an Order formalizing the above commitments or requiring other actions on the part of the licensee, nor does it preclude the NRC from taking enforcement action if violations of NRC regulatory requirements are identified through the actions of the AIT. In addition, failure to take the actions addressed in the Confirmatory Action Letter may result in enforcement action.

The responses directed by this letter are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. 96-511. In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be placed in the NRC Public Document Room. We appreciate your cooperation in this matter.

Sincerely,
ORIGINAL SIGNED BY:
William F. Kane for:

Thomas T. Martin
Regional Administrator

ATTACHMENT 3
CONFIRMATORY ACTION LETTER

cc:

J.J.Hagan, Acting General Manager - Salem Operations
C. Schaefer, External Operations - Nuclear, Delmarva Power & Light Co.
S. LaBruna, Vice President - Engineering
R. Hovey, General Manager - Hope Creek Operations
F. Thomson, Manager, Licensing and Regulation
R. Swanson, General Manager - QA and Nuclear Safety Review
J. Robb, Director, Joint Owner Affairs
A. Tapert, Program Administrator
R. Fryling, Jr., Esquire
M. Wetterhahn, Esquire
P. J. Curham, Manager, Joint Generation Department,
Atlantic Electric Company
Consumer Advocate, Office of Consumer Advocate
William Conklin, Public Safety Consultant, Lower Alloways Creek Township
K. Abraham, PAO (2)
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
State of New Jersey

ENCLOSURE 3

June 24, 1994

Docket No. 50-272

Mr. Anthony J. McMahon
Acting Assistant Director
Radiation Protection Element
State of New Jersey Department
of Environmental Protection and Energy
CN 415
Trenton, N.J. 08625-0415

Dear Mr. McMahon:

**SUBJECT: CORRESPONDENCE DATED MAY 20, 1994 REGARDING SALEM
UNIT 1 AUGMENTED INSPECTION TEAM**

The purpose of this letter is to thank you for forwarding the assessment of the AIT activities that were observed by your representatives and to address the concerns you raise in the subject letter. We were pleased with the generally favorable remarks you made regarding the conduct of the AIT.

Your letter provided three issues for our consideration, which you did not believe were being addressed at the time of the AIT. You are correct in that the AIT did not address these issues. Our plans are outlined below.

Your first issue addressed past industry experience related to spurious high steam flow signals and raised a concern about PSE&G's ability to evaluate such industry experience. In reply, the AIT did not assess this issue directly. Also, while the PSE&G independent investigation did address operating experience feedback, no assessment of this specific issue was made. Therefore, NRC will follow up on this issue during a future inspection and will ensure that the findings are documented in an inspection report. More generally, the AIT finding regarding the vulnerability of the high steam flow instruments is being reviewed by NRC management for possible generic communications to the industry.

Your second issue addressed the trouble and urgent trouble alarms received on the emergency diesel generator (EDG) following the first safety injection actuation on April 7, 1994, and raised two concerns regarding: operators learning to cope with existing problems; and, distraction of operators by nuisance alarms during emergency situations. In reply, the AIT did not specifically review the causes of the EDG alarms. The alarms were investigated by the licensee and the findings of that investigation were discussed with the NRC. The cause of the urgent trouble alarm was a defective air receiver outlet low pressure switch, which was replaced. The cause(s) of the other trouble alarms was not identified; but, additional future monitoring of these alarms during EDG starts is planned. Future NRC inspections will evaluate the licensee efforts to identify the specific cause(s) of the trouble alarms. Regarding your concern about operators

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learning to cope with existing problems, the AIT does address this issue for different examples of pre-existing equipment problems. This matter will be followed up as a result of the AIT findings. Regarding your other concern about the potential distraction of operators during emergency conditions, NRC agrees that this should be avoided, if possible. Our view is that all indicators, including alarms, should be assumed to be correct and appropriately responded to. If the alarming condition is subsequently found to be defective, then appropriate corrective actions should be taken. In this case, corrective actions have been taken for the urgent trouble alarm. If future testing identifies the cause(s) of the other trouble alarms, we will ensure appropriate corrective actions by the licensee are taken.

Your final issue addressed a perception involving an apparent inconsistency in statements made by NRC senior management regarding "long-standing cultural and equipment problems at Salem Units 1 and 2," and the results of the previous two SALP's. The NRC reviews licensee performance on a continual basis. This is accomplished through SALP, through routine assessments in support of NRC Senior Management Meetings and through inspections. The SALP, by its nature is a very broad and performance-based assessment, but is focused on performance observed during the SALP period. The conclusions drawn in the SALPs were based on information gathered during their respective SALP periods. Recent NRC findings, including the AIT findings, and discussions by NRC management are factors that are considered in our current assessment. These findings, as well as other information that NRC management gathers through inspection and licensing activities and management reviews that occur periodically, are all appropriately considered in the continual NRC assessment of performance. We would expect to include the results of our current assessment in the next SALP report. We understand how your review of the past SALP reports can lead to the perception you developed. Although infrequent, it is not uncommon that we would also see differences between past SALP assessments and current performance of licensees. Those differences have typically resulted either from significant changes in the licensee's processes or organization, or from more defined insights gained by us through our ongoing programs. In the case of Salem, I suggest both circumstances were at work. If you would like to discuss this process further, we would be glad to do so.

Both this letter and your letter, dated May 20, 1994, will be enclosed with the transmittal letter forwarding the results of the AIT inspection to PSE&G. In accordance with the provision of the MOU between NRC and the State of New Jersey, both these letters will be placed in the Public Document Room.

Once again, thank you for your assessment and observations. If you have any questions, please contact me at (610) 337-5080 or Mr. Edward Wenzinger at (610) 337-5225.

Sincerely,

ORIGINAL SIGNED BY:

James T. Wiggins, Acting Director
Division of Reactor Safety

Mr. Anthony J. McMahon

A7-5

cc:

Public Document Room (PDR)

Local Public Document Room (LPDR)

Nuclear Safety Information Center (NSIC)

NRC Resident Inspector

State of New Jersey



State of New Jersey
 Department of Environmental Protection and Energy
 Division of Environmental Safety, Health
 and Analytical Programs
 Radiation Protection Programs
 CN 415
 Trenton, N.J. 08625-0415
 Tel (609) 987-6389
 Fax (609) 987-6390

Robert C. Shinn, Jr.
 Commissioner

May 20, 1994

Mr. James T. Wiggins, Acting Director
 Division of Reactor Safety
 U.S. Nuclear Regulatory Commission
 475 Allendale Road
 King of Prussia, PA 19406

Dear Mr. Wiggins:

Subject: Salem Unit 1 Augmented Inspection Team

In accordance with the provisions of the July 1987 Memorandum of Understanding between the Nuclear Regulatory Commission (NRC) and the New Jersey Department of Environmental Protection and Energy (DEPE), the DEPE is providing feedback regarding the April 7, 1994 Alert at Salem Unit 1 and the subsequent NRC Augmented Inspection Team (AIT). As you know, the New Jersey DEPE's Bureau of Nuclear Engineering (BNE) observed part of the performance of the AIT. In keeping with the spirit of the agreement between the DEPE and the NRC, the DEPE will not disclose its inspection observations to the public until the NRC releases its final AIT report.

This participation was especially valuable for our nuclear engineering staff. It allowed us to gain immediate understanding of the actual events and plant conditions leading to the Alert declaration on April 7. This information has been shared with DEPE management. Our representatives were impressed with the diligence of the AIT members and their ability to expeditiously sift through a complex series of events. The AIT Team Leader was extremely cooperative and open to our representatives' questions and concerns. All team members had inquisitive attitudes, allowing for effective information gathering from PSE&G and analysis within the team.

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We are continuing to review all available information concerning the Alert. Overall, the information we have seen is consistent with our observations of the AIT. The May 10, 1984 internal memorandum from Mr. Martin, NRC Regional Administrator, to Mr. Taylor, NRC Executive Director of Operations, clearly described the chain of events and the results of the operator interviews. We have two specific subjects we have not seen addressed in the information made available to date and we have one general concern.

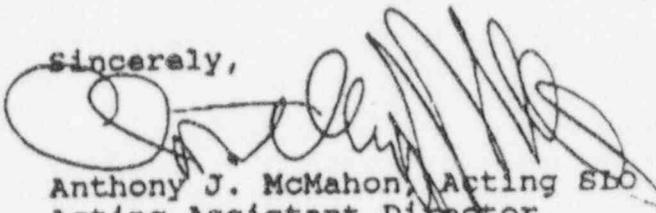
First, the NRC and PSE&G have stated that spurious high steam flow signals have been experienced before at Salem Units 1 and 2. We understand that other Westinghouse units have experienced this problem as well. We are concerned that these past spurious signals have not been shared within the industry or if it was shared, there may be a weakness in PSE&G's ability to evaluate industry experience. If the AIT is not assessing this matter, we recommend follow-up through the inspection process.

Second, following the first safety injection on April 7, operators reported that trouble alarms were received on all three diesel-generators and an urgent trouble alarm was received on one of the diesel-generators. An SRO was dispatched to the diesel-generators. He found all diesels operating properly and reset the alarm which was attributed to low starting air pressure. We recognize this is unrelated to the events that led to the declaration of the Alert. However, it may indicate that a problem exists with the diesel-generators that operators have learned to cope with. Certainly, responding to an urgent trouble alarm in an emergency situation is a distraction that should be avoided.

Third, our general concern involves an apparent inconsistency in statements made by NRC senior management and the results of the previous two SALP periods. NRC has expressed concern with long-standing cultural and equipment problems at Salem Units 1 and 2. The results of the previous SALP reports are not consistent with these observations. In fact the latest SALP report indicates some improvement. We are concerned over the effectiveness of the SALP process to reflect the true assessment of this utility's performance. Perhaps we could discuss this issue at an appropriate time.

If you have any questions, please contact me at
(609) 987-2189.

Sincerely,

A handwritten signature in black ink, appearing to read 'Anthony J. McMahon', written over the word 'Sincerely,'.

Anthony J. McMahon, Acting SLO
Acting Assistant Director,
Radiation Protection Element,
DEPE

c: Kent Tosch, Manager, DEPE
Dave Chawaga, SLO, NRC

Attachment: DEPE/NRC MOU



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
831 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

Richard T. Dawling, Ph.D., P.E.
Commissioner
Department of Environmental
Protection
401 East State Street
CN 402
Trenton, New Jersey 08625

Dear Commissioner Dawling:

This letter is to confirm the general agreement reached as the result of our meetings with Dr. Berkowitz and his staff regarding the surveillance of the nuclear power plants operating in New Jersey. During those meetings we agreed that there was a need to have a more formal way of coordinating NRC and State activities related to plant operations and that the Department of Environmental Protection's Bureau of Nuclear Engineering (BNE) will be the interface with the NRC on a day-to-day basis.

The areas addressed by this letter are:

1. State attendance at NRC meetings with licensees relative to licensee performance, including; enforcement conferences, plant inspections and licensing actions.
2. NRC and BNE exchanges of information regarding plant conditions or events that have the potential for or are of safety significance.

We agree that New Jersey officials may attend, as observers, NRC enforcement conferences and NRC meetings with licensees, including Systematic Assessment of Licensee Performance (SALP) reviews, with respect to nuclear power plants operating in New Jersey (PSE&G, GPUN). We shall give timely notification to the BNE of such meetings, including the issues expected to be addressed. Although I do not expect such cases to arise frequently, we must reserve the right to close any enforcement conference that deals with highly sensitive safeguards material or information that is the subject of an ongoing investigation by the NRC Office of Investigation (OI), where the premature disclosure of information could jeopardize effective regulatory action. In such cases, we would brief you or your staff after the enforcement conference and would expect the State to maintain the confidentiality of the briefing.

With regard to NRC inspections at nuclear power plants in New Jersey, we agree that the BNE staff may accompany NRC inspectors to observe inspections. To the extent practicable, NRC will advise the State sufficiently in advance of our inspections such that State inspectors can make arrangements to attend. In order to assure that those inspections are effective and meet our mutual needs, I suggest the following guidelines:

1. The State of New Jersey will make arrangements with the licensee to have New Jersey participants in NRC inspections trained and badged at each nuclear plant for unescorted access in accordance with utility requirements.
2. The State will give NRC adequate prior notification when planning to accompany NRC inspectors on inspections.
3. Prior to the release of NRC inspection reports, the State will exercise discretion in disclosing to the public its observations during inspections. When the conclusions or observations made by the New Jersey participants are substantially different from those of the NRC inspectors, New Jersey will make their observations available in writing to the NRC and the licensee. It is understood that these communications will become publicly available along with the NRC inspection reports.

With regard to communications, we agree to the following:

1. The NRC shall transmit technical information to BNE relative to plants within New Jersey concerning operations, design, external events, etc.; for issues that either have the potential for or are of safety significance,
2. The NRC shall transmit all Preliminary Notifications related to nuclear plant operations for New Jersey facilities to the BNE routinely.
3. The BNE shall communicate to the NRC any concern or question regarding plant conditions or events, and any State information about nuclear power plants.

Please let me know if these agreements are satisfactory to you.

Sincerely,

W.T. Russell
 William T. Russell
 Regional Administrator



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

ENCLOSURE 3

Docket No. 50-272

JUN 24 1994

Mr. Anthony J. McMahon
Acting Assistant Director
Radiation Protection Element
State of New Jersey Department
of Environmental Protection and Energy
CN 415
Trenton, N.J. 08625-0415

Dear Mr. McMahon:

**SUBJECT: CORRESPONDENCE DATED MAY 20, 1994 REGARDING SALEM
UNIT 1 AUGMENTED INSPECTION TEAM**

The purpose of this letter is to thank you for forwarding the assessment of the AIT activities that were observed by your representatives and to address the concerns you raise in the subject letter. We were pleased with the generally favorable remarks you made regarding the conduct of the AIT.

Your letter provided three issues for our consideration, which you did not believe were being addressed at the time of the AIT. You are correct in that the AIT did not address these issues. Our plans are outlined below.

Your first issue addressed past industry experience related to spurious high steam flow signals and raised a concern about PSE&G's ability to evaluate such industry experience. In reply, the AIT did not assess this issue directly. Also, while the PSE&G independent investigation did address operating experience feedback, no assessment of this specific issue was made. Therefore, NRC will follow up on this issue during a future inspection and will ensure that the findings are documented in an inspection report. More generally, the AIT finding regarding the vulnerability of the high steam flow instruments is being reviewed by NRC management for possible generic communications to the industry.

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