



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

August 28, 1992

Docket Nos. 50-272/311

Mr. Steven E. Miltenberger
Vice President and Chief Nuclear
Officer
Public Service Electric & Gas
Company
Post Office Box 236
Hancocks Bridge, New Jersey 08038

Dear Mr. Miltenberger:

SUBJECT: EMERGENCY TECHNICAL SPECIFICATION CHANGE FOR PRESSURIZER LEVEL
INSTRUMENTS, SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2
(TAC NOS. M84346 AND M84347)

The Commission has issued the enclosed Amendment Nos. 135 and 114 to Facility Operating License Nos. DPR-70 and DPR-75 for the Salem Nuclear Generating Station, Unit Nos. 1 and 2. These amendments consist of changes to the Technical Specifications (TS) in response to your application dated August 26, 1992. They were prepared and issued on an emergency basis to avoid a shutdown.

These amendments incorporate a portion of a Westinghouse Owners' Group topical report (WCAP-10271 and supplements) that, among other things, provide for longer surveillance intervals and change the action requirements for a failed channel. The NRC staff has reviewed the WCAP and has issued a Safety Evaluation Report.

The staff reviewed your request and concluded that you provided a sufficient basis for finding that the situation could not have been avoided by prior application. Therefore, in accordance with 10 CFR 50.91(a)(5), a valid emergency existed.

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at

Mr. Steven E. Miltenberger

- 2 -

August 28, 1992

A copy of the Safety Evaluation is also enclosed. Notice of Issuance of Amendment to Facility Operating License and Final Determination of No Significant Hazards Consideration and Opportunity for Hearing will be included in the Commission's Bi-weekly Federal Register Notice.

Sincerely,

/s/

Jose A. Calvo, Assistant Director
for Region I Reactors
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 135 to License No. DPR-70
- 2. Amendment No. 114 to License No. DPR-75
- 3. Safety Evaluation

cc w/enclosures:
See next page

DISTRIBUTION w/enclosures:

Docket File	MO'Brien(2)	CGrimes, 11E21	JWhite, RGN-I
NRC & Local PDRs	JStone	SNewberry	CHehl, RGN-I
PDI-2 Reading	OGC	ACRS(10)	
SVarga	DHagan, 3206	OPA	
JCalvo	GHill(8), P1-22	OC/LFMB	
CMiller	Wanda Jones, 7103	EWenzinger, RGN-I	

*See previous concurrence

per tel con C. Hehl.

with comment, or draft added.

OFC	: PDI-2/LA	: PDI-2/PM	: OGC*	: PDI-2/D	: Region I	: STCB
NAME	: MO'Brien	: JStone	: EHoller	: CMiller	: CHEHL	: SNewberry
DATE	: 8/27/92	: 8/28/92	: 8/27/92	: 8/27/92	: 8/27/92	: 8/28/92

OFC	: ADRI:DRP
NAME	: JACalvo
DATE	: 8/28/92

DOCUMENT NAME: A:SA84346.AMD

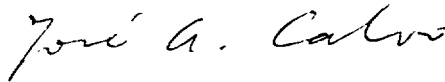
Mr. Steven E. Miltenberger

- 2 -

August 28, 1992

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Sincerely,



Jose A. Calvo, Assistant Director
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Office of Nuclear Reactor Regulation

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1. Amendment No. 135 to
License No. DPR-70
2. Amendment No. 114 to
License No. DPR-75
3. Safety Evaluation

cc w/enclosures:
See next page

Mr. Steven E. Miltenberger
Public Service Electric & Gas
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Salem Nuclear Generating Station,
Units 1 and 2

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Public Service Commission of Maryland
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ATTN: Chief Engineer
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Baltimore, MD 21202-3486



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

PUBLIC SERVICE ELECTRIC & GAS COMPANY

PHILADELPHIA ELECTRIC COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-272

SALEM NUCLEAR GENERATING STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 135
License No. DPR-70

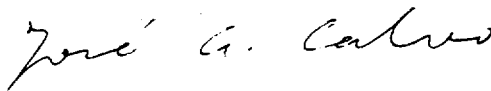
1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by the Public Service Electric & Gas Company, Philadelphia Electric Company, Delmarva Power and Light Company and Atlantic City Electric Company (the licensees) dated August 26, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-70 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 135, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Jose A. Calvo, Assistant Director
for Region I Reactors
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 28, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 135

FACILITY OPERATING LICENSE NO. DPR-70

DOCKET NO. 50-272

Revise Appendix A as follows:

Remove Pages

3/4 3-3
3/4 3-6
3/4 3-11

Insert Pages

3/4 3-3
3/4 3-6
3/4 3-11

TABLE 3.3-1 (Continued)
REACTOR TRIP SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NUMBER OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
11. Pressurizer Water Level--High	3	2	2	1,2	6 #
12. Loss of Flow - Single Loop (Above P-8)	3/loop	2/loop in any operating loop	2/loop in each operating loop	1	7#
13. Loss of Flow - Two Loops (Above P-7 and below P-8)	3/loop	2/loop in two operating loops	2/loop in each operating loop	1	7#
14. Steam Generator Water Level-- Low-Low	3/loop	2/loop in any operating loops	2/loop in each operating loop	1,2	7#
15. Steam/Feedwater Flow Mismatch and Low Steam Generator Water Level	2/loop-level and 2/loop- flow mismatch	1/loop-level coincident with 1/loop-flow mismatch in same loop	1/loop-level and 2/loop- flow mismatch or 2/loop- level and 1/loop-flow mismatch	1,2	7#
16. Undervoltage - Reactor Coolant Pumps	4-1/bus	1/2 twice	3	1	6
17. Underfrequency - Reactor Coolant Pumps	4-1/bus	1/2 twice	3	1	6

TABLE 3.3-1 (Continued)

- ACTION 3 -** With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement and with the THERMAL POWER level:
- a. Below P-6, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint.
 - b. Above P-6 but below 5% of RATED THERMAL POWER, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above 5% of RATED THERMAL POWER.
 - c. Above 5% of RATED THERMAL POWER, POWER OPERATION may continue.
- ACTION 4 -** With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement and with the THERMAL POWER level:
- a. Below P-6, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint.
 - b. Above P-6, operation may continue.
- ACTION 5 -** With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1 or 3.1.1.2, as applicable, within 1 hour and at least once per 12 hours thereafter.
- ACTION 6 -** With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
- a. The inoperable channel is placed in the tripped condition within 6 hours.
 - b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1.
- ACTION 7 -** With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed until performance of the next required CHANNEL FUNCTIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour.
- ACTION 8 -** NOT USED

TABLE 4.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. Manual Reactor Trip Switch	N.A.	N.A.	S/U(9)	N.A.
2. Power Range, Neutron Flux	S	D(2), M(3) and Q(6)	M	1, 2
3. Power Range, Neutron Flux, High Positive Rate	N.A.	R(6)	M	1, 2
4. Power Range, Neutron Flux, High Negative Rate	N.A.	R(6)	M	1, 2
5. Intermediate Range, Neutron Flux	S	R(6)	S/U(1)	1, 2 and
6. Source Range, Neutron Flux	S(7)	R(6)	M and S/U(1)	2, 3, 4, 5 a
7. Overtemperature ΔT	S	R	M	1, 2
8. Overpower ΔT	S	R	M	1, 2
9. Pressurizer Pressure--Low	S	R	M	1, 2
10. Pressurizer Pressure--High	S	R	M	1, 2
11. Pressurizer Water Level--High	S	R	Q	1, 2
12. Loss of Flow - Single Loop	S	R	M	1



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PUBLIC SERVICE ELECTRIC & GAS COMPANY

PHILADELPHIA ELECTRIC COMPANY

DELMARVA POWER AND LIGHT COMPANY

ATLANTIC CITY ELECTRIC COMPANY

DOCKET NO. 50-311

SALEM NUCLEAR GENERATING STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 114
License No. DPR-75

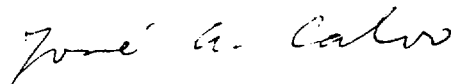
1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for amendment filed by the Public Service Electric & Gas Company, Philadelphia Electric Company, Delmarva Power and Light Company and Atlantic City Electric Company (the licensees) dated August 26, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-75 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 114, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Jose A. Calvo, Assistant Director
for Region I Reactors
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 28, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 114

FACILITY OPERATING LICENSE NO. DPR-75

DOCKET NO. 50-311

Revise Appendix A as follows:

Remove Pages

3/4 3-3
3/4 3-6
3/4 3-11

Insert Pages

3/4 3-3
3/4 3-6
3/4 3-11

**TABLE 3.3 (Continued)
REACTOR TRIP SYSTEM INSTRUMENTATION**

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NUMBER OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
11. Pressurizer Water Level --High	3	2	2	1,2	6 #
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14. Steam Generator Water Level--Low-Low	3/loop	2/loop in any operating loops	2/loop in each operating loop	1,2	7 #
15. Steam/Feedwater Flow Mismatch and Low Steam Generator Water Level	2/loop-level and 2/loop-flow mismatch	1/loop-level coincident with 1/loop-flow mismatch in same loop	1/loop-level and 2/loop-flow mismatch or 2/loop-level and 1/loop-flow mismatch	1,2	7 #
16. Undervoltage-Reactor Coolant Pumps	4-1/bus	1/2 twice	3	1	6
17. Underfrequency-Reactor Coolant Pumps	4-1/bus	1/2 twice	3	1	6

Salem - Unit 2

3/4 3-3

Amendment No. 114

TABLE 3.3-1 (Continued)

- ACTION 3 -** With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement and with the THERMAL POWER level:
- a. Below P-6, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint.
 - b. Above P-6, but below 5% of RATED THERMAL POWER, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above 5% of RATED THERMAL POWER.
 - c. Above 5% of RATED THERMAL POWER, POWER OPERATION may continue.
 - d. Above 10% of RATED THERMAL POWER, the provisions of Specification 3.0.3 are not applicable.
- ACTION 4 -** With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement and with the THERMAL POWER level:
- a. Below P-6, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint.
 - b. Above P-6, operation may continue.
- ACTION 5 -** With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1 or 3.1.1.2, as applicable, within 1 hour and at least once per 12 hours thereafter.
- ACTION 6 -** With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
- a. The inoperable channel is placed in the tripped condition within 6 hours.
 - b. The Minimum Channel OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1.
- ACTION 7 -** With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed until performance of the next required CHANNEL FUNCTIONAL TEST provided the inoperable channel is placed in the tripped condition with 1 hour.

TABLE 4.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
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3. Power Range, Neutron Flux, High Positive Rate	N.A.	R(6)	M	1, 2
4. Power Range, Neutron Flux, High Negative Rate	N.A.	R(6)	M	1, 2
5. Intermediate Range, Neutron Flux	S	R(6)	S/U(1)	1, 2 and *
6. Source Range, Neutron Flux	S(7)	R(6)	M and S/U(1)	2, 3, 4, 5 and *
7. Overtemperature ΔT	S	R	M	1, 2
8. Overpower ΔT	S	R	M	1, 2
9. Pressurizer Pressure--Low	S	R	M	1, 2
10. Pressurizer Pressure--High	S	R	M	1, 2
11. Pressurizer Water Level--High	S	R	Q	1, 2
12. Loss of Flow - Single Loop	S	R	M	1



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 135 AND 114 TO FACILITY OPERATING
LICENSE NOS. DPR-70 AND DPR-75
PUBLIC SERVICE ELECTRIC & GAS COMPANY
PHILADELPHIA ELECTRIC COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY
SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2
DOCKET NOS. 50-272 AND 50-311

1.0 INTRODUCTION

By letter dated August 26, 1992, the Public Service Electric & Gas Company, Philadelphia Electric Company, Delmarva Power and Light Company and Atlantic City Electric Company (the licensees) submitted a request for changes to the Salem Nuclear Generating Station, Unit Nos. 1 and 2, Technical Specifications (TS). The requested changes would revise Salem Unit 1 and 2 Technical Specification Sections 3/4.3.1 reactor trip system (RTS) as follows:

1. Limiting Condition for Operation 3.3.1.1

A. Table 3.3-1

- 1) (Units 1 and 2) Functional Unit 11. Change applicable ACTION from 7 (present) to 6 (proposed).
- 2) (Units 1 and 2) ACTION 6. Change the time an inoperable channel may be maintained in an untripped condition from 1 (present) to 6 (proposed) hours. Allow placing the inoperable channel in bypass while testing another channel in the same function, instead of placing the tested channel in bypass. Change the time an inoperable channel may remain in bypass to support testing another channel in the same function from 2 (present) to 4 (proposed) hours.

B. Table 4.3-1

- 1) (Units 1 and 2) Functional Unit 11. Change CHANNEL FUNCTIONAL TEST frequencies from monthly (present) to quarterly (proposed).

2.0 EVALUATION

Many utilities expressed concern over the level of testing and maintenance requirements, and their impact on plant operation, particularly in instrumentation systems. The Westinghouse Owners' Group (WOG) initiated a program to respond to these concerns, by developing a justification for revising generic and plant-specific instrumentation TS. This program is documented in WCAP-10271 and its supplements, and referred to as the Technical Specification Optimization Program (TOPS).

Many operating plants experienced inadvertent reactor trips and safeguards actuations while performing instrumentation surveillances. These actions resulted in unnecessary plant transients and safety system challenges. Plant personnel devote a significant amount of time and effort to performing, documenting, reviewing, and tracking required surveillance activities. Many of these surveillances are unwarranted due to the high level of equipment reliability. An opportunity for significant benefits existed through revised instrumentation test and maintenance requirements.

The NRC staff issued a Safety Evaluation Report (SER) for WCAP-10271 and supplement 1 in a letter dated February 21, 1985. The SER approved quarterly testing, 6 hours to place a failed channel in a tripped condition, and increased AOT for testing RTS analog channels.

Increasing the RTS surveillance test intervals (STIs) minimizes the potential number of inadvertent reactor trips. Less frequent surveillance testing is estimated to result in 0.5 fewer inadvertent reactor trips per unit, per year. Increasing the STIs enhances the operational effectiveness of plant personnel. Reducing the amount of time devoted to surveillance testing allows manpower reallocation to tasks such as preventive maintenance. Increased allowed outage times (AOTs) result in fewer human factors errors, since more time is allotted to perform corrective actions.

WCAP-10271 results indicate that the reduction in testing frequency and the increase in maintenance AOTs do not adversely affect public health and safety. The proposed changes will reduce the number of inadvertent reactor trips and support better utilization of plant resources.

In a telephone conversation with PSE&G on August 28, 1992, they confirmed that pressure level instrument drift had not been experienced. Therefore, extending the STI from monthly to quarterly would not cause the instruments to exceed the drift tolerance. In addition, the setpoint methodology used at Salem, Units 1 and 2 properly account for drift associated with extended STIs.

The proposed change to ACTION 6 also affects the following FUNCTIONAL UNITS of Table 3.3-1:

9. Pressurizer Pressure-Low
10. Pressurizer Pressure-High
16. Undervoltage-Reactor Coolant Pumps
17. Underfrequency-Reactor Coolant Pumps

Plant modifications are not required to implement the requested changes. WCAP-10271 allows testing of the operable channels in the bypass mode. Salem, Units 1 and 2 do not have the capability of testing the operable channels without first bypassing the inoperable channel, with the exception of the Containment Pressure High-High channels.

The staff finds the proposed changes to the STI, AOT, and ACTION requirements to be in accordance with the staff's SER for WCAP-10271 and Supplement 1 and is, therefore, acceptable.

3.0 EMERGENCY CIRCUMSTANCES

In PSE&G's August 26, 1992 letter, they requested that their application for the license amendments be processed as involving exigent circumstances. Because only three days are available to issue the amendments, the staff is processing the amendments as an emergency change per 10 CFR 50.91(a)(5).

PSE&G entered Limiting Condition (LCO) 3.3.1.1 functional unit 11 on August 13, 1992, at 2026 hours. Pressurizer level channel 3 was declared inoperable because it was out of specification low when compared to the other two level channels. (CHANNEL CHECK)

PSE&G has been experiencing difficulties (channel checks) with this channel since early August 1992. In early August, Instrument and Control (I&C) personnel satisfactorily performed a channel calibration on this channel. The calibration data indicated a 200 millivolts (low) discrepancy.

On August 13, 1992, the channel was declared inoperable due to failing its channel check. I&C personnel found the channel 90 millivolts high. The channel was satisfactorily recalibrated; however, the TS action statement was not exited. At this time, a channel check indicated a good correlation (within 3% as required by TS) with channel 1 (of pressurizer level), but marginally met the required band for channel 2. PSE&G (I&C) supervision decided to perform a sensor calibration on channel 2 to ensure that it was not the source of problem. However, while preparing for this sensor calibration, channel 3 drifted out of specification.

PSE&G I&C supervision and Technical Department System Engineering opted to replace the transmitter circuit boards with new ones prior to recalibrating channel 3. Channel 3 could not be satisfactorily calibrated with the new circuit boards. The old circuit boards were re-installed; however, the channel still could not be calibrated.

PSE&G decided to replace the channel 3 level transmitter and sought Westinghouse's assistance.

NOTE: All pressurizer level transmitters had been replaced during the past refueling outage as required by NRC Bulletin 90-01. In addition, the bellows assembly was also replaced.

During the transmitter replacement, the reference sealed leg must be drained. Prior to draining the reference leg, the bellows must be protected by inserting a protection device which will prevent the bellows from collapsing. During this evolution, it was noted that the bellows assembly (Pressurizer level channel 3) was collapsed, indicating either a leak in the bellows or a loss of filled fluid.

With the new transmitter installed, and vendor support, a series of tests were conducted. A Westinghouse standard pressure test on the bellows was conducted. This test pressurizes the bellows to about 15 psi and it is maintained for about 6 to 7 hours. At the conclusion of the pressure test, the line is evacuated to check for vacuum loss. No leaks were identified. The reference leg was then filled with deaerated demineralized water and the bellows housing is installed. A depth test of the bellows was performed followed by an external pressure test (up to 3000 psi). This pressure is left on for approximately 1/2 to 1 hour. At the conclusion of the test, the line is depressurized and a second depth test is performed. This second measurement indicated approximately a 1/4th of an inch depression, which is indicative of a potential small leak on the bellows assembly.

PSE&G is presently replacing the bellows assembly. The bellows are located approximately 100 ft. from the transmitter on elevation 150 ft. of the Pressurizer. Work at this particular location has been restricted due to heat stress considerations, and has significantly hampered the ability of PSE&G to accomplish this work.

PSE&G has indicated that with Westinghouse assistance, it is aggressively pursuing the bellows assembly replacement.

At midnight on August 29, 1992, pressurizer level channel 1 becomes overdue for its channel functional test. Because of the present TS surveillance requirement, Salem Unit 1 will have to shut down since it can not perform the required surveillance without incurring a reactor trip. Unit 2 has been included to keep consistency between the two Salem units.

The staff has reviewed the circumstances associated with PSE&G's request for an emergency TS change. The staff has concluded that this condition could not have reasonably been foreseen because of the problems experienced in calibrating the instrument and apparent equipment failures.

4.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility in accordance with the amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

The licensee proposed that the proposed TS change did not involve a significant hazards consideration, stating as follows:

"The proposed Technical Specification changes:

1. Do not involve a significant increase in the probability or consequences of an accident previously evaluated.

SERs issued for WCAP-10271, WCAP-10271 Supplement 1, WCAP-10271 Supplement 2 and WCAP-10271 Supplement 2 Revision 1, document the determination that the proposed changes are within acceptable limits. Implementation of the proposed changes decreases the total Reactor Protection System (RPS) yearly availability, primarily due to less frequent surveillance testing. Decreased availability causes a higher probability of Anticipated Transient Without Scram (ATWS), with an associated increase in the core melt contribution resulting from an ATWS. Decreased ESFAS availability slightly increases the CDF [core damage frequency]. The proposed changes result in a significant reduction in the core melt probability from inadvertent reactor trips. This reduction is primarily attributable to less frequent surveillance testing.

The reduction in inadvertent reactor trip core melt frequency is large enough to counter the increase in ATWS core melt probability, resulting in an overall reduction in total core melt probability.

The WOG determined values for the increase in CDF were documented in the WCAP, and independently verified by Brookhaven National Laboratory, as part of an NRC Staff audit and sensitivity analysis. Based on the small increase in CDF compared to the range of uncertainty, the increase is considered acceptable. (*) Salem Functional Unit 9, evaluated on a plant-specific basis, falls within the same criteria and is considered acceptable. (*) Not applicable to functional unit 11.

Therefore, it may be concluded that the proposed changes do not increase the severity or consequences of an accident previously evaluated. The proposed changes do affect the probability of RPS failure, but do not alter the manner in which protection is afforded, nor the manner in which limiting criteria are established.

2. Do not create the possibility of a new or different kind of accident from any previously evaluated.

The proposed changes do not involve hardware modifications or result in changes to RPS provided plant protection. RPS functionally is not altered. Therefore, it may be concluded that the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. Do not involve a significant reduction in a margin of safety.

The proposed changes do not alter the manner in which Safety Limits, Limiting Safety System Setpoints, or Limiting Conditions for Operation are determined. The impact of reduced testing is a longer time interval over which instrument uncertainties (e.g., drift) may act.

Experience indicates that the initial uncertainty assumptions are valid for reduced testing.

Therefore, it may be concluded that the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above discussion, the staff concludes that this amendment meets the criteria and therefore, does not involve a significant hazards consideration.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State official was notified of the proposed issuance of the amendments. The State official had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has made a final no significant hazards finding with respect to this amendment. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

7.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) the amendment does not (a) significantly increase the probability or consequences of an accident previously evaluated, (b) increase the possibility of a new or different kind of accident from any previously evaluated or (c) significantly reduce a safety margin and, therefore, the amendment does not involve a significant hazards consideration; (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; and (3) such activities will be conducted in compliance with the Commission's regulations, and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: J. C. Stone

Date: August 28, 1992