May 3, 1988

Docket Nos. 50-387/388

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Mr. Harold W. Keiser
Senior Vice President-Nuclear
Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

Dear Mr. Keiser:

SUBJECT: TECHNICAL SPECIFICATION CHANGES RELATED TO RADIOLOGICAL EFFLUENT MONITORING AND COOLING TOWER BLOWDOWN INSTRUMENTATION (TAC NOS. 66925 and 66926)

RE: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

The Commission has issued the enclosed Amendment No. 80 to Facility Operating License No. NPF-14 and Amendment No. 46 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2. These amendments are in response to your letter dated December 15, 1987.

These amendments revise the Technical Specification related to operation of effluent monitor and sampling pump, anc cooling tower blowdown instrumentation.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Biweekly Federal Register Notice.

Sincerely,

/S/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 80 to License No. NPF-14
2. Amendment No. 46 to License No. NPF-22
3. Safety Evaluation

cc w/enclosures:
See next page

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PDR ADOCK 05000387
P PDR

PDI-2/LA	PDI-2/PM	PDI-2/D	OGC	PRPB
MO'Brien	MThadani:mr	WButler		OLynch
4/ /88	4/15/88	5/3/88	4/28/88	4/15/88

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

May 3, 1988

Docket Nos. 50-387/388

Mr. Harold W. Keiser
Senior Vice President-Nuclear
Pennsylvania Power and Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

Dear Mr. Keiser:

SUBJECT: TECHNICAL SPECIFICATION CHANGES RELATED TO RADIOLOGICAL EFFLUENT MONITORING AND COOLING TOWER BLOWDOWN INSTRUMENTATION (TAC NOS. 66925 and 66926)

RE: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

The Commission has issued the enclosed Amendment No. 80 to Facility Operating License No. NPF-14 and Amendment No. 46 to Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2. These amendments are in response to your letter dated December 15, 1987.

These amendments revise the Technical Specifications related to operation of effluent monitor and sampling pump, and cooling tower blowdown instrumentation.

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Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 80 to License No. NPF-14
2. Amendment No. 46 to License No. NPF-22
3. Safety Evaluation

cc w/enclosures:
See next page

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

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-387

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 80
License No. NPF-14

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:

   A. The application for the amendment filed by the Pennsylvania Power & Light Company, dated December 15, 1987 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 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 the Facility Operating License No. NPF-14 is hereby amended to read as follows:

   (2) Technical Specifications and Environmental Protection Plan

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 80 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PP&L shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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P PDR

3. This license amendment is effective upon issuance, and is to be implemented prior to Unit 2 startup (currently scheduled for May, 1988) following second refueling and inspection outage.

FOR THE NUCLEAR REGULATORY COMMISSION

/S/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 3, 1988

Previously concurred*

PDI-2/LA	PDI-2/PM*	OGC*	PDI-2/D* WB
MO'Brien	MThadani:mr	APH	WButler
/ /88	04/15/88	04/25/88	5/3/88

3. This license amendment is effective upon issuance, and is to be implemented prior to Unit 2 startup (currently scheduled for May, 1988) following second refueling and inspection outage.

FOR THE NUCLEAR REGULATORY COMMISSION

Walter R. Butler

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 3, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 80

FACILITY OPERATING LICENSE NO. NPF-14

DOCKET NO. 50-387

Replace the following pages of the Appendix A Technical Specifications with enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. The overleaf page is provided to maintain document completeness.*

REMOVE	INSERT
3/4 3-81	3/4 3-81*
3/4 3-82	3/4 3-82
3/4 3-83	3/4 3-83
3/4 3-84	3/4 3-84

INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.7.10 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3.7.10-1 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined in accordance with the methodology and parameters described in the Offsite Dose Calculation Manual (ODCM).

APPLICABILITY: At all times.

ACTION:

a. With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required by the above specification, immediately suspend the release of radioactive liquid effluents monitored by the affected channel or declare the channel inoperable.

b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3.7.10-1. Restore the inoperable instrumentation to OPERABLE status within the time specified in the ACTION or explain why this inoperability was not corrected in a timely manner in the next Semiannual Radioactive Effluent Release Report.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.10 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations at the frequencies shown in Table 4.3.7.10-1.

TABLE 3.3.7.10-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	ACTION
1. GROSS RADIOACTIVITY MONITORS PROVIDING AUTOMATIC TERMINATION OF RELEASE		
a. Liquid Radwaste Effluent Line*	1	100
2. GROSS RADIOACTIVITY MONITORS NOT PROVIDING AUTOMATIC TERMINATION OF RELEASE		
a. Service Water System Effluent Line	1	101
b. RHR Service Water System Effluent Line	1/loop	101
3. FLOW RATE MEASUREMENT DEVICES		
a. Liquid Radwaste Effluent Line	1	102
b. Cooling Tower Blowdown**	1	102

*OPERABILITY of this monitor includes the proper functioning of the discharge valve interlocks (sample pump low flow, high radiation alarm, and radiation monitor failure).

**OPERABILITY of this device includes the proper functioning of the Liquid Radwaste Effluent Line discharge valve interlock (i.e. cooling tower blowdown low flow).

TABLE 3.3.7.10-1 (Continued)

ACTION 100 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement:

a. If effluent releases are necessary, they may continue for up to 14 days provided that prior to initiating a release:

1. At least two independent samples are analyzed in accordance with Specification 4.11.1.1.1, and

2. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge line valving;

Otherwise, suspend release of radioactive effluents via this pathway.

b. If effluent releases are not occurring and the cause of the inoperable channel is a discharge valve interlock in an off-normal condition or not functioning, maintain at least one isolation valve closed between each source of release and the liquid radwaste discharge valves.

ACTION 101 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided that, at least once per 8 hours, grab samples are collected and analyzed for gross radioactivity (beta or gamma) at a limit of detection of at least 10^{-7} microcurie/mL.

ACTION 102 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement:

a. If effluent releases are necessary, they may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours during actual releases. Pump curves generated in situ may be used to estimate flow.

b. If effluent releases are not occurring and the cause of the inoperable channel is the discharge valve interlock in an off-normal condition or not functioning, maintain at least one isolation valve closed between each source of release and the liquid radwaste discharge valves.

TABLE 4.3.7.10-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST
1. GROSS RADIOACTIVITY MONITORS PROVIDING AUTOMATIC TERMINATION OF RELEASE				
a. Liquid Radwaste Effluent Line	P	P	R(3)	Q(1)
2. GROSS RADIOACTIVITY MONITORS NOT PROVIDING AUTOMATIC TERMINATION OF RELEASE				
a. Service Water System Effluent Line	D	M	R(3)	Q(2)
b. RHR Service Water System Effluent Line	D	M	R(3)	Q(2)
3. FLOW RATE MEASUREMENT DEVICES				
a. Liquid Radwaste Effluent Line	D(4)	N.A.	R	Q
b. Cooling Tower Blowdown	D(4)	N.A.	R	Q

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

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-388

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 46
License No. NPF-22

1. The Nuclear Regulatory Commission (the Commission or the NRC) having found that:

   A. The application for the amendment filed by the Pennsylvania Power & Light Company, dated December 15, 1987 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 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 the Facility Operating License No. NPF-22 is hereby amended to read as follows:

   (2) Technical Specifications and Environmental Protection Plan

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 46 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. PP&L shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective upon issuance, and is to be implemented prior to Unit 2 startup (currently scheduled for May, 1988) following second refueling and inspection outage.

FOR THE NUCLEAR REGULATORY COMMISSION

/S/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Charges to the Technical
Specifications

Date of Issuance: May 3, 1988

Previously concurred*

PDI-2/LA	PDI-2/PM*	OGC*	PDI-2/D*
MO'Brien	MThadani:mr	APH	WButler
/ /88	04/15/88	04/25/88	5/3/88

3. This license amendment is effective upon issuance, and is to be implemented prior to Unit 2 startup (currently scheduled for May, 1988) following second refueling and inspection outage.

FOR THE NUCLEAR REGULATORY COMMISSION

Walter R. Butler

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 3, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 46

FACILITY OPERATING LICENSE NO. NPF-22

DOCKET NO. 50-388

Replace the following pages of the Appendix A Technical Specifications with enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. The overleaf page is provided to maintain document completeness.*

REMOVE	INSERT
3/4 3-83	3/4 3-83
3/4 3-84	3/4 3-84
3/4 3-85	3/4 3-85
3/4 3-86	3/4 3-86*

TABLE 3.3.7.10-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	ACTION
1.	GROSS RADIOACTIVITY MONITORS PROVIDING AUTOMATIC TERMINATION OF RELEASE		
	a. Liquid Radwaste Effluent Line*	1	100
2.	GROSS RADIOACTIVITY MONITORS NOT PROVIDING AUTOMATIC TERMINATION OF RELEASE		
	a. Service Water System Effluent Line	1	101
	b. RHR Service Water System Effluent Line	1/loop	101
3.	FLOW RATE MEASUREMENT DEVICES		
	a. Liquid Radwaste Effluent Line	1	102
	b. Cooling Tower Blowdown**	1	102

*OPERABILITY of this monitor includes the proper functioning of the discharge valve interlocks (sample pump low flow, high radiation alarm, and radiation monitor failure).

**OPERABILITY of this device includes the proper functioning of the Liquid Radwaste Effluent Line discharge valve interlock (i.e. cooling tower blowdown low flow).

TABLE 3.3.7.10-1 (Continued)

ACTION STATEMENTS

ACTION 100 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement:

a. If effluent releases are necessary, they may continue for up to 14 days provided that prior to initiating a release:

1. At least two independent samples are analyzed in accordance with Specification 4.11.1.1.1, and

2. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge line valving;

Otherwise, suspend release of radioactive effluents via this pathway.

b. If effluent releases are not occurring and the cause of the inoperable channel is a discharge valve interlock in an off-normal condition or not functioning, maintain at least one isolation valve closed between each source of release and the liquid radwaste discharge valves.

ACTION 101 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided that, at least once per 8 hours, grab samples are collected and analyzed for gross radioactivity (beta or gamma) at a limit of detection of at least 10^{-7} microcurie/mL.

ACTION 102 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement:

a. If effluent releases are necessary, they may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours during actual releases. Pump curves generated in situ may be used to estimate flow.

b. If effluent releases are not occurring and the cause of the inoperable channel is the discharge valve interlock in an off-normal condition or not functioning, maintain at least one isolation valve closed between each source of release and the liquid radwaste discharge valves.

TABLE 4.3.7.10-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST
1. GROSS RADIOACTIVITY MONITORS PROVIDING AUTOMATIC TERMINATION OF RELEASE				
a. Liquid Radwaste Effluent Line	P	P	R(3)	Q(1)
2. GROSS RADIOACTIVITY MONITORS NOT PROVIDING AUTOMATIC TERMINATION OF RELEASE				
a. Service Water System Effluent Line	D	M	R(3)	Q(2)
b. RHR Service Water System Effluent Line	D	M	R(3)	Q(2)
3. FLOW RATE MEASUREMENT DEVICES				
a. Liquid Radwaste Effluent Line	D(4)	N.A.	R	Q
b. Cooling Tower Blowdown	D(4)	N.A.	R	Q

TABLE 4.3.7.10-1 (Continued)

TABLE NOTATION

(1) The CHANNEL FUNCTIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occur if any of the following conditions exists:

1. Instrument indicates measured levels above the alarm/trip setpoint.
2. Circuit failure.
3. Instrument indicates a downscale failure.

(2) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:

1. Instrument indicates measured levels above the alarm setpoint.
2. Circuit failure.
3. Instrument indicates a downscale failure.
4. Instrument controls not set in operate mode.

(3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration shall be used.

(4) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once per 24 hours on days on which continuous, periodic, or batch releases are made.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 80 TO FACILITY OPERATING LICENSE NO. NPF-14 AND

AMENDMENT NO. 46 TO FACILITY OPERATING LICENSE NO. NPF-22

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NOS. 50-387 AND 50-388

SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

1.0 INTRODUCTION

By letter dated December 15, 1987, Pennsylvania Power & Light Company (the licensee) requested amendments to Facility Operating License Nos. NPF-14 and NPF-22 for the Susquehanna Steam Electric Station (SSES), Units 1 and 2. The proposed amendments would revise (1) the Technical Specification Table 3.3.7.10-1 footnote marked *, and (2) reflect changes due to modification of Unit 1 and Unit 2 cooling tower blowdown instrumentation.

Presently, the Table 3.3.7.10-1 footnote * requires that if any discharge valve interlock is in off-normal condition or is not functioning, the monitor and the sample pump must be put in operation. As a result, during periods of no radiological effluent releases, the current Technical Specifications may require extended operation of the monitor and sampling pump. Frequent and extended operation in this manner could jeopardize the operability of the radiation monitoring system. The cooling tower low flow interlock of Technical Specification Table 3.3.7.10-1 is to be revised to reflect modification to the Unit 1 and Unit 2 blowdown flow instrumentation.

2.0 EVALUATION

The licensee has provided the following safety evaluation in support of the proposed changes in items (1) and (2).

Item (1) The licensee states that the proposed rewording is appropriate and safe for the following reasons:

a. The cooling tower blowdown low flow interlock is associated with the devices which monitor Unit 1 and Unit 2 cooling tower blowdown flow, and therefore should be required to support Instrument 3b. Currently, it is grouped with the interlocks associated with the sample pump and radiation monitor in 1a because it has a similar function in that it provides automatic closure signals to the liquid radwaste discharge valves; this function is not being changed. The effect of this change is to force ACTION 102:

> "With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours during actual releases. Pump curves generated in situ may be used to estimate flow."

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instead of ACTION 100:

"With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases may continue for up to 14 days provided that prior to initiating a release:

a. At least two independent samples are analyzed in accordance with Specification 4.11.1.1.1, and

b. At least two technically qualified members of the Facility Staff independently verify the release rate calculations and discharge line valving;

Otherwise, suspend release of radioactive effluents via this pathway."

This is acceptable because the subject interlocks require input from the flow instrumentation required by 3b to perform their function, and this instrumentation is intended by the Technical Specifications to be governed by ACTION 102. Currently, however, it is by default governed by ACTION 100 because of its impact on the functioning of the interlocks. It is logical that the cooling tower blowdown flow interlocks should have less restrictive remedial requirements than the interlocks which are associated with the radiation monitor because it is inherently safer to have an inoperable interlock on dilution flow with operable interlocks on radiation than vice versa.

b. The monitor and sample pump are currently required via footnote * to be in operation when any interlock is malfunctioning. This is inappropriate from a human factors viewpoint because remedial actions do not belong in footnotes.

More importantly, however, it is an undesirable action because it is required even when releases are not occurring, and this could jeopardize system reliability and operability by forcing extended dry operation of the pump. Proposed ACTIONS 100 and 102 have been written to address the appropriate actions under release and non-release conditions. When releases are occurring, the existing ACTION is applied in each case; therefore, no change is proposed for this situation. However, when releases are not occurring, rather than operating the sample pump and monitor, the following ACTION is proposed:

"if effluent releases are not occurring and the cause of the inoperable channel is a discharge valve interlock in an off-normal condition or not functioning, maintain at least one isolation valve closed between each source of release and the liquid radwaste discharge valves."

This action ensures that a second valve to maintain isolation redundancy would be closed should either discharge isolation valve inadvertently open due to the failed interlock; this obviates the need to ensure the monitor and sample pump are running in order to monitor an inadvertent release.

c. Editorial changes to rename Instrument 3b in Table 3.3.7.10-1 and 4.3.7.10-1 "Cooling Tower Blowdown" are also proposed.

d. Footnote * in Table 4.3.7.10-1 is inappropriate as a consequence of the newly proposed action statements discussed in b above. Formerly, the Technical Specifications required a remedial action to be taken (i.e., monitor and sample pump operation via footnote 4 in Table 3.3.7.10-1) when any interlock was malfunctioning. This "action", in order to be valid, was forced to be periodically surveilled via the daily Channel Check required by footnote * in Table 4.3.7.10-1. This is no longer necessary because the monitor/sample pump operation requirement has been deleted in favor of providing assurance of redundant isolation via upstream valves. Footnote * has therefore been deleted.

Based on the information presented above, the changes to the Technical Specifications in support of Item 1 will improve the safe operation of Susquehanna SES.

The staff concurs with the above safety analysis provided by the licensee for item 1. The staff finds that (1) ACTION 100 unnecessarily results in greater restriction on operation of cooling tower blowdown system flow interlocks than is presently required for radiation monitor interlocks, and (2) the deletion of the requirement in footnote * will not adversely affect the safe discharge of radioactive effluents in the cooling tower blowdown flow. Therefore, the changes proposed under item 1 are acceptable.

Item (2) The licensee states that the wording of the Technical Specification 3.3.7.10 is inefficient and proposes the following analysis to support replacing the requirement of footnote * by the requirement in footnote **.

The Technical Specifications (Section 3.3.7.10) requires that instrument alarm/trip setpoints be determined in accordance with the methodology and parameters described in the Offsite Dose Calculation Manual (ODCM). Section 2.0 of the ODCM indicates that the minimum dilution flow required to support a liquid effluent release is 5000 gpm.

The present hardware configuration (i.e. one flow switch for each unit) allows for release from liquid radwaste when either unit's flow exceeds 5000 gpm. The normal blowdown rate during two unit operation is 2500-3500 gpm per unit. This means that blowdown flow in one unit must be increased to 5000 gpm while discharging from radwaste. This logic is inefficient, since during two unit operation, the combined blowdown flow is normally in excess of 5000 gpm, and this meets the ODCM criteria.

The proposed modification will continue to use 5000 gpm for the minimum blowdown flow permissive to ensure that minimum dilution flow is available prior to allowing the radwaste discharge valves to be opened. However, implementation of the 5000 gpm minimum will allow contribution from both cooling towers during two unit operation.

The physical change to the plant relies on an electronic summer and a single flow switch provides the interlock function.

Based on this description of the modification, it is proposed that the description of the interlocks currently provided in footnote * be revised under new footnote ** to describe a single cooling tower blowdown low flow interlock.

This change is editorial in nature and will not pose any adverse impact on the safe operation of Susquehanna SES.

Based on the above analysis of the proposed changes, none of the regulatory criteria relied upon in the previous staff evaluation has been adversely affected.

The staff finds the proposed modification acceptable, and concurs with the licensee that the proposed change to the Technical Specifications meets the ODCM criteria for dilution flow requirements. The proposed change is, therefore, acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that these amendments involve 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 previously issued a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet 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 nor environmental assessment need be prepared in connection with the issuance of these amendments.

4.0 CONCLUSION

The Commission made a proposed determination that these amendments involve no significant hazards consideration which was published in the Federal Register (53 FR 9510) on March 23, 1988 and consulted with the State of Pennsylvania. No public comments were received, and the Commonwealth of Pennsylvania did not have any comments.

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security nor to the health and safety of the public.

Principal Contributor: Mohan C. Thadani

Dated: May 3, 1988