

Docket File



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

April 20, 1993

Docket Nos. 50-352
and 50-353

Mr. George A. Hunger, Jr.
Director-Licensing, MC 52A-5
Philadelphia Electric Company
Nuclear Group Headquarters
Correspondence Control Desk
P.O. Box No. 195
Wayne, Pennsylvania 19087-0195

Dear Mr. Hunger:

SUBJECT: LIMERICK GENERATING STATION, UNITS 1 AND 2, REVISION TO SURVEILLANCE REQUIREMENTS FOR STAND-BY LIQUID CONTROL SYSTEM (TAC NOS. M85636 AND M85637)

The Commission has issued the enclosed Amendment No. 61 to Facility Operating License No. NPF-39 and Amendment No. 26 to Facility Operating License No. NPF-85 for the Limerick Generating Station, Units 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated April 3, 1992, as supplemented January 12, 21 and 22, 1993.

These amendments provide a revision to the TS Surveillance Requirements for the Standby Liquid Control (SLC) system to substitute the pertinent requirements from the draft improved Standard TS provided in NUREG-1433. Specifically, these amendments provide more flexibility with respect to verifying system operability by establishing focus on verifying that the temperature of the sodium pentaborate solution is above the point where it would precipitate out of solution, rather than the various means of achieving this result.

On January 29, 1993, we issued Amendment No. 59 to Facility Operating License No. NPF-39 and Amendment No. 24 to Facility Operating License No. NPF-85 for the Limerick Generating Station, Units 1 and 2. These amendments provided a one-time only revision of the TS Surveillance Requirements for the SLC system, based on the initial request of April 3, 1992.

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Mr. George A. Hunger, Jr.

- 2 -

April 20, 1993

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/

Frank Rinaldi, Acting Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 61 to License No. NPF-39
Amendment No. 26 to License No. NPF-85
- 2. Safety Evaluation

cc w/enclosures:
See next page

DISTRIBUTION

Docket File	MO'Brien(2)	CGrimes, 11E21	CAnderson, RGN-I
NRC & Local PDRs	FRinaldi/JShea	RJones	CMoon, 11E21
PDI-2 Reading	OGC	ACRS(10)	
SVarga	DHagan, 3206	OPA	
JCalvo	GHill(4), P1-22	OC/LFMB	
CMiller	Wanda Jones, 7103	EWenzinger, RGN-I	

*Previously Concurred

OFC	: PDI-2/IR	: PDI-2/PM	: OTSB*	: SRXB*	: OGC*	: PDI-2/D	:
NAME	: MO'Brien	: FRinaldi:rb	: CGrimes	: RJones	: MYoung	: CMiller	:
DATE	: 3/23/93	: 04/09/93	: 03/27/93	: 04/13/93	: 4/10/93	:	:

Mr. George A. Hunger, Jr.

- 2 -

April 20, 1993

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NAME	:MO'Brien	:FRinaldi/JShea	:CGrimes	:RJones	:MYoung	:CMiller
DATE	:3/23/93	:04/09/93	:03/27/93	:04/13/93	:4/13/93	:

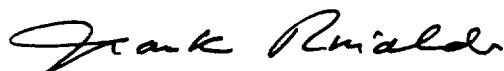
Mr. George A. Hunger, Jr.

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April 20, 1993

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Frank Rinaldi, Acting Project Manager
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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1. Amendment No. 61 to
License No. NPF-39
Amendment No. 26 to
License No. NPF-85
2. Safety Evaluation

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See next page

Mr. George A. Hunger, Jr.
Philadelphia Electric Company

Limerick Generating Station,
Units 1 & 2

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

PHILADELPHIA ELECTRIC COMPANY

DOCKET NO. 50-352

LIMERICK GENERATING STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 61
License No. NPF-39

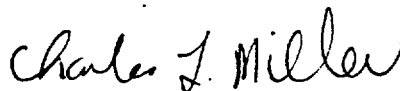
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Philadelphia Electric Company (the licensee) dated April 3, 1992, as supplemented January 12, 21 and 22, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as 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;
 - 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. NPF-39 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 61, are hereby incorporated into this license. Philadelphia Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION



Charles L. Miller, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the
Technical Specifications

Date of Issuance: April 20, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 61

FACILITY OPERATING LICENSE NO. NPF-39

DOCKET NO. 50-352

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised page is identified by Amendment number and contains vertical lines indicating the area of change.

Remove

3/4 1-19
3/4 1-20

Insert

3/4 1-19*
3/4 1-20

REACTIVITY CONTROL SYSTEMS

3/4.1.5 STANDBY LIQUID CONTROL SYSTEM

LIMITING CONDITION FOR OPERATION

3.1.5 The standby liquid control system, consisting of a minimum of two pumps and corresponding flow paths, shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 5*

ACTION:

- a. In OPERATIONAL CONDITION 1 or 2:
 1. With only one pump and corresponding explosive valve OPERABLE, restore one inoperable pump and corresponding explosive valve to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.
 2. With the standby liquid control system otherwise inoperable, restore the system to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours.
- b. In OPERATIONAL CONDITION 5*:
 1. With only one pump and corresponding explosive valve OPERABLE, restore one inoperable pump and corresponding explosive valve to OPERABLE status within 30 days or insert all insertable control rods within the next hour.
 2. With the standby liquid control system otherwise inoperable, insert all insertable control rods within 1 hour.

SURVEILLANCE REQUIREMENTS

4.1.5 The standby liquid control system shall be demonstrated OPERABLE:

- a. At least once per 24 hours by verifying that:
 1. The temperature of the sodium pentaborate solution is within the limits of Figure 3.1.5-1.
 2. The available volume of sodium pentaborate solution is at least 4537 gallons.
 3. The temperature of the pump suction piping is greater than or equal to 70°F.

*With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 31 days by:
1. Verifying the continuity of the explosive charge.
 2. Determining by chemical analysis and calculation* that the available weight of sodium pentaborate is greater than or equal to 5389 lbs; the concentration of sodium pentaborate in solution is less than or equal to 13.8% and within the limits of Figure 3.1.5-1 and; the following equation is satisfied:

$$\frac{C}{13\% \text{ wt.}} \times \frac{Q}{86 \text{ gpm}} \geq 1$$

where

C = Sodium pentaborate solution (% by weight)

Q = Two pump flowrate, as determined per surveillance requirement 4.1.5.c.

3. Verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.
- c. Demonstrating that, when tested pursuant to Specification 4.0.5, the minimum flow requirement of 41.2 gpm per pump at a pressure of greater than or equal to 1190 psig is met.
- d. At least once per 18 months during shutdown by:
1. Initiating at least one of the standby liquid control system loops, including an explosive valve, and verifying that a flow path from the pumps to the reactor pressure vessel is available by pumping demineralized water into the reactor vessel. The replacement charge for the explosive valve shall be from the same manufactured batch as the one fired or from another batch which has been certified by having one of that batch successfully fired. All injection loops shall be tested in 3 operating cycles.
 2. Verify all heat-traced piping between storage tank and pump suction is unblocked.**

*This test shall also be performed anytime water or boron is added to the solution or when the solution temperature drops below 70°F, within 24 hours after water or boron addition or solution temperature is restored.

**This test shall also be performed whenever suction piping temperature drops below 70°F, within 24 hours after solution temperature is restored.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

PHILADELPHIA ELECTRIC COMPANY
DOCKET NO. 50-353
LIMERICK GENERATING STATION, UNIT 2
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 26
License No. NPF-85

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Philadelphia Electric Company (the licensee) dated April 3, 1992, as supplemented January 12, 21 and 22, 1993, 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;
 - 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. NPF-85 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 26 , are hereby incorporated into this license. Philadelphia Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Charles L. Miller

Charles L. Miller, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the
Technical Specifications

Date of Issuance: April 20, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 26

FACILITY OPERATING LICENSE NO. NPF-85

DOCKET NO. 50-353

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised page is identified by Amendment number and contains vertical lines indicating the area of change.

Remove

3/4 1-19
3/4 1-20

Insert

3/4 1-19*
3/4 1-20

3/4.1.5 STANDBY LIQUID CONTROL SYSTEM

LIMITING CONDITION FOR OPERATION

3.1.5 The standby liquid control system, consisting of a minimum of two pumps and corresponding flow paths, shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 5*

ACTION:

- a. In OPERATIONAL CONDITION 1 or 2:
 1. With only one pump and corresponding explosive valve OPERABLE, restore one inoperable pump and corresponding explosive valve to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.
 2. With the standby liquid control system otherwise inoperable, restore the system to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours.
- b. In OPERATIONAL CONDITION 5*:
 1. With only one pump and corresponding explosive valve OPERABLE, restore one inoperable pump and corresponding explosive valve to OPERABLE status within 30 days or insert all insertable control rods within the next hour.
 2. With the standby liquid control system otherwise inoperable, insert all insertable control rods within 1 hour.

SURVEILLANCE REQUIREMENTS

4.1.5 The standby liquid control system shall be demonstrated OPERABLE:

- a. At least once per 24 hours by verifying that:
 1. The temperature of the sodium pentaborate solution is within the limits of Figure 3.1.5-1.
 2. The available volume of sodium pentaborate solution is at least 4537 gallons.
 3. The temperature of the pump suction piping is greater than or equal to 70°F.

*With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 31 days by:
1. Verifying the continuity of the explosive charge.
 2. Determining by chemical analysis and calculation* that the available weight of sodium pentaborate is greater than or equal to 5389 lbs; the concentration of sodium pentaborate in solution is less than or equal to 13.8% and within the limits of Figure 3.1.5-1 and; the following equation is satisfied:
$$\frac{C}{13\% \text{ wt.}} \times \frac{Q}{86 \text{ gpm}} \geq 1$$
where
C = Sodium pentaborate solution (% by weight)
Q = Two pump flowrate, as determined per surveillance requirement 4.1.5.c.
 3. Verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.
- c. Demonstrating that, when tested pursuant to Specification 4.0.5, the minimum flow requirement of 41.2 gpm per pump at a pressure of greater than or equal to 1190 psig is met.
- d. At least once per 18 months during shutdown by:
1. Initiating at least one of the standby liquid control system loops, including an explosive valve, and verifying that a flow path from the pumps to the reactor pressure vessel is available by pumping demineralized water into the reactor vessel. The replacement charge for the explosive valve shall be from the same manufactured batch as the one fired or from another batch which has been certified by having one of that batch successfully fired. All injection loops shall be tested in 3 operating cycles.
 2. Verify all heat-treated piping between storage tank and pump suction is unblocked.**

*This test shall also be performed anytime water or boron is added to the solution or when the solution temperature drops below 70°F, within 24 hours after water or boron addition or solution temperature is restored.

**This test shall also be performed whenever suction piping temperature drops below 70°F, within 24 hours after solution temperature is restored.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 61 AND 26 TO FACILITY OPERATING
LICENSE NOS. NPF-39 AND NPF-85
PHILADELPHIA ELECTRIC COMPANY
LIMERICK GENERATING STATION, UNITS 1 AND 2
DOCKET NOS. 50-352 AND 50-353

1.0 INTRODUCTION

By letter dated January 12, 1993, Philadelphia Electric Company (PECo or the licensee) submitted a modification to their initial request of April 3, 1992, for changes to the Technical Specifications (TS) for the Limerick Generating Station, Units 1 and 2. The proposed changes will revise the TS Surveillance Requirements (SR) for the Standby Liquid Control (SLC) system. Specifically, they will substitute the pertinent requirements of the NRC draft improved Standard TS, provided in NUREG-1433, in place of the current requirements. Additional information was provided in their submittals of January 21 and 22, 1993. The requested changes will provide more flexibility with respect to verifying the SLC system operability. The revised SRs will rely on the monitoring of the temperature of the sodium pentaborate solution in order to assure that it is above the point where it would precipitate out of solution, rather than specifying specific means of achieving this result. The supplemental letters provide clarifying information that does not change the initial April 3, 1993 request, as modified by the January 12, 1993 submittal.

2.0 DISCUSSION

The current TS SRs do not permit removing the heat tracing system or storage tank heaters from service without declaring the SLC system inoperable. When the SLC system is declared inoperable as a result of removing the heat tracing system or storage tank heaters from service, the plant must be placed in a hot shutdown condition unless the heat tracing system or storage tank heaters are returned to service within 8 hours. In addition, TS SRs require that SLC fluid be pumped from the storage tank to the test tank every 18 months to determine if any heat traced piping is blocked. This flow test is also required when the heat tracing system is found to be inoperable. Following this test, portions of the system must be drained and flushed with demineralized water prior to restoring the system to operation. As a result of this flushing, over 1000 gallons of waste water is generated requiring a significant amount of manpower to ensure the proper disposal of this waste water.

Current TS SR 4.1.5.a.3 requires that the SLC system be demonstrated operable at least once per 24 hours by verifying that the heat tracing circuit installed on the pump suction piping is operable by determining that the temperature of the pump suction piping is greater than or equal to 70 degrees F. In addition, the current SR 4.1.5.d.2 stipulates that at least once per 18 months all heat traced piping be verified to be unblocked by pumping from the SLC storage tank to the test tank, and then draining and flushing the piping with demineralized water. Furthermore, current SR 4.1.5.d.3 requires that at least once per 18 months, the SLC storage tank heaters (i.e., "A" and "B") be demonstrated operable by verifying the expected temperature rise of the sodium pentaborate solution in the storage tank after the heaters are energized.

In the April 3, 1992 letter, the licensee proposed to change SR 4.1.5.a.3 such that the SLC system will be demonstrated operable once per 24 hours by simply verifying that the pump suction piping temperature is equal to or greater than 70 degrees F, rather than by verifying heat tracing operability. In addition, the licensee proposed to revise the 18-month SR 4.1.5.d.2 to verify that the pump suction piping is unblocked by pumping from the SLC storage tank to test drums, rather than the test tank, and also proposed to change the 18-month SR 4.1.5.d.3 to demonstrate that only the "A" storage tank heater is operable, rather than both heaters. The staff approved this request in Amendment 59 to the Facility Operating License No. NPF-39 and Amendment No. 24 to Facility Operating License No. NPF-85.

The current licensee's request is a result of the staff's request to PECO for consideration of the pertinent sections of the SLC system SRs stated in the NRC draft improved Standard TS (STS), as documented in NUREG-1433. These requirements provide more flexibility with respect to verifying system operability. This approach focuses on verifying that the temperature of the sodium pentaborate solution is above the point where it would precipitate out of solution, rather than the various means of achieving this result.

The licensee has proposed to: 1) change TS 4.1.5.a.3 from requiring that the SLC system heat tracing circuit be demonstrated operable, to requiring that the temperature of each SLC pump suction piping be greater than or equal to 70 degrees F; 2) add, "within 24 hours after water or boron addition or solution temperature is restored" to the footnote for TS SR 4.1.5.b.2; 3) Revise TS SR 4.1.5.d.2 and associated footnote to require that all heat traced piping between the SLC system storage tank and SLC system pump suction piping is verified to be unblocked, and that this verification shall also be performed whenever SLC system pump suction piping temperature drops below 70 degrees F, within 24 hours after solution temperature is restored; and 3) revise TS SR 4.1.5.d.3 to require that only the "A" storage tank heater be demonstrated operable by deleting the requirement to demonstrate that the SLC system storage tank heaters are operable.

3.0 EVALUATION

The design of the SLC system is mainly described in Sections 7.4.1.2, 9.3.5, and 15.8.3.5 of the Updated Final Safety Analysis Report (UFSAR). The SLC system provides a redundant, independent, and alternate method of making the reactor core subcritical, and maintaining it subcritical, as the reactor cools. The system makes possible an orderly and safe shutdown in the event that not enough control rods can be inserted into the reactor core to accomplish normal shutdown. The normal reactivity control systems are the Control Rod Drive (CRD) system or the Alternate Rod Insertion (ARI) system. The SLC system is designed to compensate for the positive reactivity effects associated with a reactor shutdown from rated full power to a cold shutdown condition at any time during core life.

To satisfy this design objective, a solution containing boron is injected into the reactor core. The boron absorbs thermal neutrons and, when present in sufficient concentration in the reactor, will cause the reactor to become subcritical. This neutron absorber solution is an aqueous solution of sodium pentaborate and is stored in a storage tank. The saturation temperature of the sodium pentaborate solution is approximately 60 degrees F at the recommended concentration of 13.4%. The boron injection capacity of the system also meets the requirements of 10 CFR 50.62, "Requirements for the Reduction of Risk from Anticipated Transients Without Scram (ATWS) Events for Light-Water-Cooled Nuclear Power Plants."

The equipment containing the sodium pentaborate solution is installed in an area where the ambient air temperature is maintained within the range of 65 degrees F to 104 degrees F. An electrical resistance heating system containing two heaters provides a heat source which maintains the temperature of solution in the storage tank between 75 degrees F and 85 degrees F to prevent precipitation of the sodium pentaborate from the solution. Each of the two (2) heaters is powered from a separate Class 1E power supply. However, only one (1) heater is necessary for maintaining storage tank temperature. The second heater provides a backup heating source and is used primarily during mixing operations. In addition, heat tracing with automatic temperature control provides a heating source for the pump suction piping between the storage tank and pump inlet to prevent precipitation of sodium pentaborate in the suction piping. This piping heat tracing system is nonsafety-related and does not receive electrical power from a safety-related power supply. The heat tracing is provided because the sodium pentaborate solution, at its maximum concentration of 13.8%, has the potential to precipitate out of solution if the temperature falls below approximately 61 degrees F.

Current TS SR 4.1.5.a.3 requires that the pump suction line temperature be checked once per 24 hours to verify the operability of the heat tracing. Since the ambient temperature is almost always above the low temperature setpoint of 73 degrees F for automatic heat tracing initiation, this SR does not serve its intended purpose. Instead, this SR actually serves to demonstrate SLC system operability by verifying the suction line temperature

is such that no sodium pentaborate could have precipitated from solution. The proposed change to this SR will more clearly state the safety-related function without requiring operability of the nonsafety-related heat tracing. The heat tracing system design and operation will remain the same upon implementation of this proposed change.

The licensee stated that administrative controls will be instituted to require operations personnel to check heat tracing operability if a low temperature condition is detected in the SLC pump suction piping. This will help ensure that the heat tracing is available when required. Implementation of these administrative controls will provide an opportunity for plant personnel to take compensatory measures such as adding temporary heat tracing as opposed to initiating shutdown of the unit.

The current TS SR 4.1.5.d.2 requires that, at least once per 18 months, the heat traced piping be checked to verify that it is unblocked by pumping the sodium pentaborate solution from the SLC storage tank to the test tank, and then draining and flushing the associated piping with demineralized water. This action is also required when the heat tracing circuits have been found to be inoperable. Performance of this test procedure produces a considerable amount of waste solution and injects sodium pentaborate solution into the piping system, which requires flushing to prevent precipitation. The proposed change to the SR will allow this test to be performed; however, rather than pumping from the storage tank to the test tank, the solution will be pumped from the storage tank to a test drain. This would reduce the amount of piping and equipment subjected to the flow of the sodium pentaborate solution and the subsequent required flushing. Accordingly, the result of performing the proposed SR would be equivalent to performing the current SR; affected heat traced piping would continue to be verified unblocked. The revised SR deleted the prescribed method specified in the current TS, and thereby allows flexibility in the methods employed to perform this SR verification. The revised SR, also includes a clarification of the period during which this SR is required to be performed if the piping temperature drops below the low temperature limit (i.e., 70 F).

The current TS SR 4.1.5.d.3 requires that, at least once per 18 months, both SLC storage tank heaters (i.e., the "A" and "B" heaters) be demonstrated operable by verifying the expected temperature rise of the sodium pentaborate solution after the heaters are energized. The proposed SR changes include deletion of the required demonstration of the SLC system storage tank heater operability. This proposed change is based upon the ultimate objective of determining SLC system operability as a function of the temperature of the sodium pentaborate solution in the storage tank, which the TS will continue to require to be checked daily, and not on the method of achieving this verification.

The storage tank heaters are the "A" heater, a 10KW cycling heater (i.e., controlling solution temperature between 75 degrees F and 85 degrees F), and the "B" heater, a 40 KW manually operated heater used primarily during solution mixing activities. The storage tanks are located within heated

spaces of the reactor enclosure that are normally maintained at or above the "A" heater low temperature activation setpoint of 75 degrees F. Furthermore, low storage tank solution temperature (i.e., 70 F) is alarmed in the main control room.

In addition, the proposed SR changes include clarification of the period within which the verification of solution concentration is required to be performed after water or boron is added to the storage tank, or if the solution temperature drops below 70 degrees F. This clarification is based on the recognition of realistic time limits to perform actions to preclude precipitation of the sodium pentaborate.

Therefore, we have concluded that the proposed change to the SR for determining pump suction line temperature is a more direct means of verifying SLC system operability and is found acceptable. The proposed change to the SR concerning the flow blockage test will allow flexibility in the determination of the flow path to be used, while assuring proper SLC system operability. The proposed deletion of the SR that required both SLC storage tank heaters be demonstrated to be operable is acceptable, since the other SRs assure the required temperature of the sodium pentaborate solution in the storage tank to ensure SLC system operability. Further, all of the proposed changes follow the applicable requirements of NRC improved STS (NUREG-1433).

An editorial change was made to the licensee's incoming technical specifications with concurrence of the licensee for clarification and consistency. It did not affect the no significant hazards consideration determination.

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change the surveillance requirements. The NRC staff has determined that the 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 the amendments involve no significant hazards consideration, and there has been no public comment on such finding (58 FR 12265). Accordingly, the 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 or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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