

June 16, 1989

Docket No.: 50-352

Mr. George A. Hunger, Jr.
Director-Licensing
Philadelphia Electric Company
Correspondence Control Desk
P. O. Box 7520
Philadelphia, Pennsylvania 19101

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Dear Mr. Hunger:

SUBJECT: INCREASE IN SPRAY POND LEVEL (TAC NO. 69855)

RE: LIMERICK GENERATING STATION, UNIT 1

The Commission has issued the enclosed Amendment No. 25 to Facility Operating License No. NPF-39 for the Limerick Generating Station, Unit 1. This amendment consists of changes to the Technical Specifications (TSS) in response to your application dated September 14, 1988.

This amendment changes the Unit 1 Technical Specifications to increase the minimum level of water that must be maintained in the spray pond to support operation of Unit 2.

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

Sincerely,

Original signed by
Richard J. Clark

Richard J. Clark, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:

- Amendment No. 25 to License No. NPF-39
- Safety Evaluation

cc w/enclosures:
See next page

[TAC NO. 69855]

PDI-2/D
WButler
6/15/89

PDI-2/PM
RClark:m
06/01/89

OGC
6/08/89

PDI-2/D
WButler
6/16/89

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

June 16, 1989

Docket No.: 50-352

Mr. George A. Hunger, Jr.
Director-Licensing
Philadelphia Electric Company
Correspondence Control Desk
P. O. Box 7520
Philadelphia, Pennsylvania 19101

Dear Mr. Hunger:

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RE: LIMERICK GENERATING STATION, UNIT 1

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

Sincerely,

A handwritten signature in cursive script that reads "Richard J. Clark".

Richard J. Clark, Project Manager
Project Directorate I-2
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 25 to License No. NPF-39
2. Safety Evaluation

cc w/enclosures:
See next page

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

Limerick Generating Station
Units 1 & 2

cc:

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

PHILADELPHIA ELECTRIC COMPANY

DOCKET NO. 50-352

LIMERICK GENERATING STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 25
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 September 14, 1988, 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. 25, are hereby incorporated into this license. Philadelphia Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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PDR ADOCK 05000352
P PNU

3. This license amendment is effective upon issuance of an operating license to Limerick Generating Station, Unit No. 2.

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: June 16, 1989

PDI-2/PM
MO/Br/15
6/15/89

PDI-2/PM
RCIark:MP
06/01/89

OGC
6/08/89

PDI-2/D
WButler
6/16/89

3. This license amendment is effective upon issuance of an operating license to Limerick Generating Station, Unit No. 2.

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: June 16, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 25

FACILITY OPERATING LICENSE NO. NPF-39

DOCKET NO. 50-352

Replace the following page of the Appendix A Technical Specifications with the attached page. The revised page is identified by Amendment number and contains vertical lines indicating the area of change. Overleaf page is provided to maintain document completeness.*

Remove

3/4 7-5
3/4 7-6

Insert

3/4 7-5
3/4 7-6*

PLANT SYSTEMS

ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.1.3 The spray pond shall be OPERABLE with:

- a. A minimum pond water level at or above elevation 250' 10" Mean Sea Level, (single-unit operation) and
- b. A pond water temperature of less than or equal to 88°F.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4, 5, and *.

ACTION:

With the requirements of the above specification not satisfied:

- a. In OPERATIONAL CONDITION 1, 2, or 3, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
- b. In OPERATIONAL CONDITION 4 or 5, declare the RHRSW system and the emergency service water system inoperable and take the ACTION required by Specifications 3.7.1.1 and 3.7.1.2.
- c. In Operational Condition *, declare the emergency service water system inoperable and take the ACTION required by Specification 3.7.1.2. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.1.3 The spray pond shall be determined OPERABLE:

- a. By verifying the pond water level to be greater than its limit at least once per 24 hours.
- b. By verifying the water surface temperature (within the upper two feet of the surface) to be less than or equal to 88°F:
 1. at least once per 4 hours when the spray pond temperature is greater than or equal to 80°F; and
 2. at least once per 2 hours when the spray pond temperature is greater than or equal to 85°F; and
 3. at least once per 24 hours when the spray pond temperature is greater than 82°F.
- c. By verifying all piping above the frost line is drained within 1 hour after being used.

*When handling irradiated fuel in the secondary containment.

PLANT SYSTEMS

3/4.7.2 CONTROL ROOM EMERGENCY FRESH AIR SUPPLY SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.2 Two independent control room emergency fresh air supply system subsystems shall be OPERABLE.

APPLICABILITY: All OPERATIONAL CONDITIONS and *.

ACTION:

- a. In OPERATIONAL CONDITION 1, 2, or 3 with one control room emergency fresh air supply subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In OPERATIONAL CONDITION 4, 5, or *:
 1. With one control room emergency fresh air supply subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days or initiate and maintain operation of the OPERABLE subsystem in the radiation isolation mode of operation.
 2. With both control room emergency fresh air supply subsystems inoperable, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.
- c. The provisions of Specification 3.0.3 are not applicable in Operational Condition *.

SURVEILLANCE REQUIREMENTS

4.7.2 Each control room emergency fresh air supply subsystem shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying the control room air temperature to be less than or equal to 85°F effective temperature.
- b. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the subsystem operates with the heaters OPERABLE.
- c. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the subsystem by:
 1. Verifying that the subsystem satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 3000 cfm \pm 10%.

*When irradiated fuel is being handled in the secondary containment.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 25 TO FACILITY OPERATING LICENSE NO. NPF-39

PHILADELPHIA ELECTRIC COMPANY

LIMERICK GENERATING STATION, UNIT 1

DOCKET NO. 50-352

1.0 INTRODUCTION

By letter dated September 14, 1988, Philadelphia Electric Company (the licensee) requested an amendment to Facility Operating License No. NPF-39 for the Limerick Generating Station, Unit 1. The proposed amendment would change the Unit 1 Technical Specifications (TSs) to increase the minimum level of water that must be maintained in the spray pond to support operation of Unit 2.

2.0 DISCUSSION

At the Limerick site, there is a large spray pond located just north of the two cooling towers on the hill above the plant. The spray pond is the ultimate heat sink (UHS) for the plant. The spray pond serves the safety-related functions of providing cooling water and acting as a heat sink for the Emergency Service Water (ESW) system and the Residual Heat Removal Service Water (RHRSW) system during accident conditions. The UHS is designed to provide sufficient cooling water to the ESW and RHRSW systems, permitting simultaneous safe shutdown and cooldown of both units, and maintaining them in a safe shutdown condition. Further system description, design and operation information can be found in the Limerick Generating Station Final Safety Analysis Report (FSAR) Section 9.2.6.

For two-unit operation, the minimum volume of water which must be maintained in the spray pond is 28.92×10^6 gallons. Given the size and shape of the spray pond, this volume of water will be available if the water level is maintained at 250'10" (above mean sea level). The analysis supporting 250'10" is presented in FSAR Section 9.2.6 and demonstrates the ability of the spray pond to provide a 30-day cooling supply below the maximum pond temperature limit without make-up or blowdown, considering the design basis heat input and meteorological conditions. The NRC approval of the spray pond is set forth in SER Section 9.2.5 (NUREG 0991) and Supplements 3 and 4. For one-unit operation, the TS limit was set to 250'0", a value lower than what is required for two-unit operation to avoid the unnecessary operating restrictions which may result from having to maintain an excess spray pond volume. Construction of Limerick Unit 2 is nearing completion. Once Unit 2 is operating, the

minimum water level that must be maintained in the spray pond has to be increased to the level approved for two-unit operation. The change to the TSs proposed by the licensee is to increase the minimum water level in the TSs from the present 250'0" to 250'10". This change would not be required and, thus, would not go into effect until Limerick Unit 2 is issued an operating license.

3.0 EVALUATION

A spray pond level of 250'10" reflects the minimum two unit volume requirement of 28.92×10^6 gallons. The analysis supporting 250'10" is presented in FSAR Section 9.2.6 and demonstrates the ability of the spray pond to provide a 30-day cooling supply below the maximum pond temperature limit without make-up or blowdown, considering the design basis heat input and meteorological conditions. The NRC previously reviewed and approved this in SER section 9.2.5 (NUREG 0991) and Supplements 3 and 4. For one unit operation, the Technical Specification limit was set at a value lower than what is required for two unit operation to avoid the unnecessary operating restrictions which might result from having to maintain an excess spray pond volume.

The increase in pond level to meet the proposed TS minimum level will not affect the design flood calculation. The original spray pond maximum water elevation calculations were done modelling the spray pond full to its spillway elevation (251'0"), then adding a probable maximum precipitation event, causing water to spill from the emergency spillway. Therefore, this change will not adversely affect safety. The minimum level of 250'10" was previously reviewed by the staff and determined to comply with all the design requirements of the Standard Review Plan. The proposed change to the TSs is to reflect what the staff has approved for two unit operation and is acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change 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 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 previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 nor environmental assessment need be prepared in connection with the issuance of this amendment.

5.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (54 FR 7640) on February 22, 1989 and consulted with the State of Pennsylvania. No public comments were received and the State 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 this amendment will not be inimical to the common defense and the security nor to the health and safety of the public.

Principal Contributor: Dick Clark

Dated: June 16, 1989