

Mr. George A. Hunger,  
Director-Licensing, MC-2A-1  
PECO Energy Company  
Nuclear Group Headquarters  
Correspondence Control Desk  
P.O. Box No. 195  
Wayne, PA 19087-0195

June 22, 1995

SUBJECT: ISSUANCE OF AMENDMENTS - LIMERICK GENERATING STATION, UNITS 1 AND 2  
(TAC NOS. M90375, M90376, M90516, AND M90517)

Dear Mr. Hunger:

The Commission has issued the enclosed Amendment No. 95 to Facility Operating License No. NPF-39 and Amendment No. 59 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 (TS) in response to one item in your application dated August 31, 1994.

These amendments permit the operability of one Low Pressure Coolant Injection subsystem of Residual Heat Removal while the subsystem is aligned and operating in the Shutdown Cooling Mode during Operational Conditions (OPCONs) 4 and 5. These amendments address Section 4, "Permit Operability of Low Pressure Coolant Injection While Aligned to Shutdown Cooling (TSCR 94-42-0)," of your August 31, 1994 TS change request submittal.

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

Docket Nos. 50-352/50-353

Enclosures:

1. Amendment No. 95 to License No. NPF-39  
Amendment No. 59 to License No. NPF-85
2. Safety Evaluation

cc w/encls:

See next page

DISTRIBUTION:

Docket File	MO'Brien	CGrimes
PUBLIC	FRinaldi/JShea	RJones
PDI-2 Reading	OGC	ACRS(4)
SVarga	OPA	OC/LFDCB
JZwolinski	GHill(4)	CAnderson, RGN-I
JStolz	TLiu	*See Previous Concurrence

OFC	:PDI-2/LA	:PDI-2/PM*	:PDI-2/PM*	:SRXB*	:OGC*	:PDI-2/D*	:
NAME	:MO'Brien	:TLiu:rb	:FRinaldi	:RJones	:RBachmann	:JStolz	:
DATE	:06/13/95	:06/13/95	:06/13/95	:06/20/95	:06/16/95	:06/21/95	:

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OFC :PDI-2/LA :PDI-2/PM\* :PDI-2/PM\* :SRXB\* :OGC\* :PDI-2/D\* :

NAME :MO'Brien :TLiu:rb :FRinaldi :RJones :RBachmann :JStolz :

DATE : *6/22* /95 :06/13/95 :06/13/95 :06/20/95 :06/16/95 :06/21/95 :



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

June 22, 1995

Mr. George A. Hunger, Jr.  
Director-Licensing, MC 62A-1  
PECO Energy Company  
Nuclear Group Headquarters  
Correspondence Control Desk  
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Wayne, PA 19087-0195

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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, appearing to read "Frank Rinaldi".

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

Docket Nos. 50-352/50-353

Enclosures:

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2. Safety Evaluation

cc w/encls:  
See next page

Mr. George A. Hunger, Jr.  
PECO Energy Company

Limerick Generating Station,  
Units 1 & 2

cc:

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Sanatoga, Pennsylvania 19464

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Nuclear Review Board  
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National Energy Committee  
Sierra Club  
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State College, PA 16803

Chairman  
Board of Supervisors  
of Limerick Township  
646 West Ridge Pike  
Linfield, PA 19468



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. 95  
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 August 31, 1994, 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.

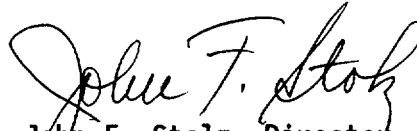
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-39 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 95, 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



John F. Stolz, 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: June 22, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 95

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 pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove

3/4 5-6

3/4 5-7

Insert

3/4 5-6

3/4 5-7

EMERGENCY CORE COOLING SYSTEMS

3/4 5.2 ECCS - SHUTDOWN

LIMITING CONDITION FOR OPERATION

---

3.5.2 At least two of the following shall be OPERABLE:

- a. Core spray system (CSS) subsystems with a subsystem comprised of:
  1. Two OPERABLE CSS pumps, and
  2. An OPERABLE flow path capable of taking suction from at least one of the following water sources and transferring the water through the spray sparger to the reactor vessel:
    - a) From the suppression chamber, or
    - b) When the suppression chamber water level is less than the limit or is drained, from the condensate storage tank containing at least 135,000 available gallons of water, equivalent to a level of 29 feet.
- b. Low pressure coolant injection (LPCI) system subsystems with a subsystem comprised of:
  1. One OPERABLE LPCI pump, and
  2. An OPERABLE flow path capable of taking suction from the suppression chamber and transferring the water to the reactor vessel.\*\*

APPLICABILITY: OPERATIONAL CONDITIONS 4 and 5\*.

ACTION:

- a. With one of the above required subsystems inoperable, restore at least two subsystems to OPERABLE status within 4 hours or suspend all operations with a potential for draining the reactor vessel.
- b. With both of the above required subsystems inoperable, suspend CORE ALTERATIONS and all operations with a potential for draining the reactor vessel. Restore at least one subsystem to OPERABLE status within 4 hours or establish SECONDARY CONTAINMENT INTEGRITY within the next 8 hours.

\*The ECCS is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded, the spent fuel pool gates are removed, and water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.

\*\*One LPCI subsystem may be considered OPERABLE during alignment and operation for decay heat removal if capable of being manually realigned and not otherwise inoperable.



## EMERGENCY CORE COOLING SYSTEMS

### SURVEILLANCE REQUIREMENTS

---

4.5.2.1 At least the above required ECCS shall be demonstrated OPERABLE per Surveillance Requirement 4.5.1.\*

4.5.2.2 The core spray system shall be determined OPERABLE at least once per 12 hours by verifying the condensate storage tank required volume when the condensate storage tank is required to be OPERABLE per Specification 3.5.2a.2.b).

\*One LPCI subsystem may be considered OPERABLE during alignment and operation for decay heat removal if capable of being manually realigned and not otherwise inoperable.



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. 59  
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 August 31, 1994, 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.

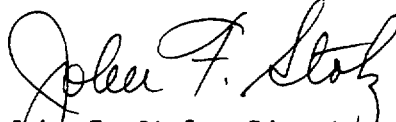
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-85 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 59, 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



John F. Stolz, 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: June 22, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 59

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 pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove

3/4 5-6

3/4 5-7

Insert

3/4 5-6

3/4 5-7

## EMERGENCY CORE COOLING SYSTEMS

### 3/4 5.2 ECCS - SHUTDOWN

#### LIMITING CONDITION FOR OPERATION

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3.5.2 At least two of the following shall be OPERABLE:

- a. Core spray system (CSS) subsystems with a subsystem comprised of:
  1. Two OPERABLE CSS pumps, and
  2. An OPERABLE flow path capable of taking suction from at least one of the following water sources and transferring the water through the spray sparger to the reactor vessel:
    - a) From the suppression chamber, or
    - b) When the suppression chamber water level is less than the limit or is drained, from the condensate storage tank containing at least 135,000 available gallons of water, equivalent to a level of 29 feet.
- b. Low pressure coolant injection (LPCI) system subsystems with a subsystem comprised of:
  1. One OPERABLE LPCI pump, and
  2. An OPERABLE flow path capable of taking suction from the suppression chamber and transferring the water to the reactor vessel.\*\*

APPLICABILITY: OPERATIONAL CONDITIONS 4 and 5\*.

#### ACTION:

- a. With one of the above required subsystems inoperable, restore at least two subsystems to OPERABLE status within 4 hours or suspend all operations with a potential for draining the reactor vessel.
- b. With both of the above required subsystems inoperable, suspend CORE ALTERATIONS and all operations with a potential for draining the reactor vessel. Restore at least one subsystem to OPERABLE status within 4 hours or establish SECONDARY CONTAINMENT INTEGRITY within the next 8 hours.

\*The ECCS is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded, the spent fuel pool gates are removed, and water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.

\*\*One LPCI subsystem may be considered OPERABLE during alignment and operation for decay heat removal if capable of being manually realigned and not otherwise inoperable.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS

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4.5.2.1 At least the above required ECCS shall be demonstrated OPERABLE per Surveillance Requirement 4.5.1.\*

4.5.2.2 The core spray system shall be determined OPERABLE at least once per 12 hours by verifying the condensate storage tank required volume when the condensate storage tank is required to be OPERABLE per Specification 3.5.2a.2.b).

\*One LPCI subsystem may be considered OPERABLE during alignment and operation for decay heat removal if capable of being manually realigned and not otherwise inoperable.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 95 AND 59 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 August 31, 1994, the Philadelphia Electric Company (the licensee) submitted a request for changes to the Limerick Generating Station, Units 1 and 2, Technical Specifications (TS). The requested changes would permit the operability of one Low Pressure Coolant Injection (LPCI) subsystem of Residual Heat Removal (RHR) while the subsystem is aligned and operating in the Shutdown Cooling Mode during Operational Conditions (OPCONs) 4 and 5. These amendments address Section 4 of the licensee's August 31, 1994 submittal, "Permit Operability of Low Pressure Coolant Injection While Aligned to Shutdown Cooling." There are two remaining items to this application.

2.0 EVALUATION

The licensee proposed to add a footnote to Limiting Condition for Operation 3.5.2.b.2 and Surveillance Requirements (SR) 4.5.2.1 with the statement, "One LPCI subsystem may be considered OPERABLE during alignment and operation for decay heat removal if capable of being manually realigned and not otherwise inoperable," applicable for OPCONs 4 and 5.

Currently, the LPCI mode of RHR at LGS, Units 1 and 2, is an automatic Emergency Core Cooling system (ECCS) function during OPCONs 4 and 5. The proposed change involves permitting the operability of one LPCI subsystem while the components of that subsystem are aligned and operating in the Shutdown cooling mode of RHR, provided all other components of that subsystem are operable and can be manually realigned from the Main control Room if necessary. The licensee stated that the reactor operator has sufficient time during OPCONs 4 and 5 to perform the manual LPCI alignment from the Main Control Room, since the reactor decay heat loads and temperatures are significantly reduced from those parameters analyzed for OPCON 1. The LGS Updated Final Safety Analysis Report (UFSAR) Section 6.3 states based on the conditions of OPCON 1, two loops of core Spray and one loop of LPCI are the minimum required low pressure ECCS. In addition, when the unit is in OPCON 4 or 5, cold shutdown would have already been obtained, eliminating the high temperatures of OPCON 1. Hence, the cooler reactor inventory eliminates the loss of coolant potential from depressurization and the inventory flashing to steam. There will be no physical changes made to plant equipment, nor will there be any change in the method of their operation.

The licensee performed an evaluation for the need that calls for manual realignment of the pump minimum flow path since operating in Shutdown Cooling normally results in the isolation of the pump minimum flow path to prevent inadvertent draining of the reactor vessel. When reactor pressure is low enough to allow immediate injection to the reactor vessel without a minimum flow path, the associated pump is still operable during OPCONs 4 and 5. When the reactor pressure may not be low enough to allow injection, the RHR system will not be aligned for Shutdown Cooling in some OPCON 4 situations, since the reactor vessel pressure will be greater than the RHR "cut-in" permissive pressure. Currently, LGS Administrative Controls are in place to realign RHR to the LPCI mode for planned pressure increases.

The proposed TS change is in accordance with SR 3.5.2.4 of NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4," dated September 1992. The staff agrees that the proposed change does not involve any physical changes of plant equipment nor the method of operation. Based on the above evaluation, the staff considers the proposed change to be acceptable.

### 3.0 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.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes 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 (59 FR 55884). 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.

### 5.0 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.

Principal Contributor: T. Liu

Date: June 22, 1995