June 16, 1998

Mr. Garrett D. Edwards Director-Licensing, MC 62A-1 PECO Energy Company Nuclear Group Headquarters Correspondence Control Desk P.O. Box No. 195 Wayne, PA 19087-0195

SUBJECT: LIMERICK GENERATING STATION, UNITS 1 AND 2 (TAC NOS. MA0690 AND MA0691)

Dear Mr. Edwards:

The Commission has issued the enclosed Amendment No.₁₂₉ to Facility Operating License No. NPF-39 and Amendment No. 90 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 January 27, 1998.

These amendments revise Table 3.6.3-1 of the TSs by removing the isolation time for the high pressure coolant injection turbine exhaust valves and adding a notation that the isolation time is not required. Your application for these amendments was technically correct and addressed the relevant issues.

A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly <u>Federal Register</u> notice.

This completes our effort on this issue and we are, therefore, closing out TAC Nos. MA0690 and MA0691.

Sincerely,

Bartholomew C. Buckley, Senior Project Manager Project Directorate I-2 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

DFOI

Docket Nos. 50-352/353

Enclosures: 1. Amendment No¹²⁹to

- License No. NPF-39
- 2. Amendment No. 90to
- License No. NPF-85 3. Safety Evaluation

cc w/encls: See next page

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UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 16, 1998

Mr. Garrett D. Edwards Director-Licensing, MC 62A-1 PECO Energy Company Nuclear Group Headquarters Correspondence Control Desk P.O. Box No. 195 Wayne, PA 19087-0195

SUBJECT: LIMERICK GENERATING STATION, UNITS 1 AND 2 (TAC NOS. MA0690 AND MA0691)

Dear Mr. Edwards:

The Commission has issued the enclosed Amendment No.129 to Facility Operating License No. NPF-39 and Amendment No. 90 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 January 27, 1998.

These amendments revise Table 3.6.3-1 of the TSs by removing the isolation time for the high pressure coolant injection turbine exhaust valves and adding a notation that the isolation time is not required. Your application for these amendments was technically correct and addressed the relevant issues.

A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly <u>Federal Register</u> notice.

This completes our effort on this issue and we are, therefore, closing out TAC Nos. MA0690 and MA0691.

Sincerely,

Bartholomen C. Buckley

Bartholomew C. Buckley, Senior Project Manager Project Directorate I-2 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Docket Nos. 50-352/353

Enclosures: 1. Amendment No¹²⁹to License No. NPF-39

- 2. Amendment No.90 to License No. NPF-85
- 3. 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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Chairman Board of Supervisors of Limerick Township 646 West Ridge Pike Linfield, PA 19468 Chief-Division of Nuclear Safety PA Dept. of Environmental Resources P.O. Box 8469 Harrisburg, PA 17105-8469

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Dr. Judith Johnsrud National Energy Committee Sierra Club 433 Orlando Avenue State College, PA 16803



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. 129 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 January 27, 1998, 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.

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9806190273 980616 PDR ADOCK 05000352 P PDR PDR 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. 129, 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.

2.

This license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

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Robert A. Capra, Director Project Directorate I-2 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

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Attachment: Changes to the Technical Specifications

Date of Issuance: June 16, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 129

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	•	Insert
3/4 6-27		3/4 6-27
3/4 6-43a		3/4 6-43a

TABLE 3.6.3-1 (Continued)

PART A - PRIMARY CONTAINMENT ISOLATION VALVES

PENETRATION NUMBER	FUNCTION	INBOARD ISOLATION BARRIER	OUTBOARD ISOLATION BARRIER	MAX.ISOL. TIME.IF APP. <u>(SEC)(26)</u>	ISOL. SIGNAL(S), IF APP. <u>(20)</u>	NOTES	P&ID
204A(B)	RHR PUMP TEST LINE AND CONTAINMENT COOLING		HV51-125A(B)	180		29,35	51
205A(B)	SUPPRESSION POOL SPRAY		HV51-1F027A(B)	45	C,G	11	51
206A(B,C,D)	CS PUMP SUCTION		HV52-1F001A (B,C,D)	160		29,35	52
207A(B)	CS PUMP TEST AND FLUSH		HV52-1F015A(B)	23	C,G	35	52
208B	CS PUMP MINIMUM RECIRC		HV52-1F031B	45	LFCH	29,35	52
209	HPCI PUMP SUCTION		HV55-1F042	160	L,LA	35	55
210	HPCI TURBINE EXHAUST		HV55-1F072	N/A		29,35,36	55
212	HPCI PUMP TEST AND, FLUSH		HV55-1F071	40	B,H	35	55
214	RCIC PUMP SUCTION		HV49-1F031	60		29,35	49
215	RCIC TURBINE EXHAUST		HV49-1F060	80		29,35	49
216	RCIC MINIMUM FLOW		HV49-1F019	8	LFRC	35	49

LIMERICK - UNIT 1

TABLE 3.6.3-1 PRIMARY CONTAINMENT ISOLATION VALVES NOTATION

NOTES (Continued)

- 35. These valves are in lines that are below the minimum water level in the suppression pool, are part of closed systems outside primary containment, and are in portions of lines which a water seal will be present following an accident. Therefore, 10CFR50, Appendix J, Type C testing is not required.
- 36. This is a remote manual isolation valve. Valve stroke time does not provide an input to the Safety Analysis. Therefore, verification of isolation time is not required. Valve performance is monitored in accordance with Technical Specification 4.0.5.

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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. 90 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 January 27, 1998, 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.

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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. 90, are hereby incorporated in the 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 and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

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Robert A. Capra, Director Project Directorate I-2 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

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Attachment: Changes to the Technical Specifications

Date of Issuance: June 16, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 90

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.

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Remove		Insert
3/4 6-27 3/4 6-43a		3/4 6-27 3/4 6-43a

TABLE 3.6.3-1 (Continued)

PART A - PRIMARY CONTAINMENT ISOLATION VALVES

INIT O	PENETRATION NUMBER	FUNCTION	INBOARD ISOLATION BARRIER	OUTBOARD ISOLATION BARRIER	MAX.ISOL. TIME.IF APP. <u>(SEC)(26)</u>	ISOL. SIGNAL(S), IF APP. <u>(20)</u>	NOTES	P&ID
	204A(B)	RHR PUMP TEST LINE AND CONTAINMENT COOLING		HV51-225A(B)	180		29,36	51
	205A(B)	SUPPRESSION POOL SPRAY		HV51-2F027A(B)	45	C,G	11	51
	206A(B,C,D)	CS PUMP SUCTION		HV52-2F001A (B,C,D)	160		29,36	52
_	207A(B)	CS PUMP TEST AND FLUSH		HV52-2F015A(B)	23	C,G	36	52
2	208B	CS PUMP MINIMUM RECIRC		HV52-2F031B	45	LFCH	29,36	52
ח 4	209	HPCI PUMP SUCTION		HV55-2F042	160	L,LA	36	55
	210	HPCI TURBINE EXHAUST		HV55-2F072	N/A		29,36,37	55
	212	HPCI PUMP TEST AND FLUSH		HV55-2F071	40	B,H	36	55
A 30.5	214	RCIC PUMP SUCTION		HV49-2F031	60		29,36	49
7	215	RCIC TURBINE EXHAUST		HV49-2F060	80		29,36	49
+	216	RCIC MINIMUM FLOW		HV49-2F019	8	LFRC	36	49

LIMERICK - UNIT

TABLE 3.6.3-1 PRIMARY CONTAINMENT ISOLATION VALVES NOTATION

NOTES (Continued)

- 36. These valves are in lines that are below the minimum water level in the suppression pool, are part of closed systems outside primary containment, and are in portions of lines which a water seal will be present following an accident. Therefore, 10CFR50, Appendix J, Type C testing is not required.
- 37. This is a remote manual isolation valve. Valve stroke time does not provide an input to the Safety Analysis. Therefore, verification of isolation time is not required. Valve performance is monitored in accordance with Technical Specification 4.0.5.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 129 AND 90 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 27, 1998, the Philadelphia Electric Company (the licensee) submitted a request for changes to the Limerick Generating Station (LGS), Units 1 and 2, Technical Specifications (TSs). The proposed changes remove the maximum isolation time for the high pressure coolant injection (HPCI) turbine exhaust containment isolation valve HV-55-1F072 (LGS, Unit 1) and isolation valve HV-55-2F072 (LGS, Unit 2) from Table 3.6.3-1, "Part A - Primary Containment Isolation Valves," of the LGS, Units 1 and 2 TS, respectively, and add a notation that the isolation time is not required. Both valves cited above will be identified as HV-55-1(2)F072 henceforth in this safety evaluation.

2.0 BACKGROUND

Section 182a of the Atomic Energy Act of 1954, as amended (the "Act") requires applicants for nuclear power plant operating licenses to include TSs as part of the license. The Commission's regulatory requirements related to the content of TSs are set forth in 10 CFR 50.36. That regulation requires that the TSs include items in five specific categories, including (1) safety limits, limiting safety system settings and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. The regulation does not specify the particular requirements to be included in the TSs.

The Commission, however, provided guidance for the contents of TSs in its "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors," which was published in the <u>Federal Register</u> at 58 FR 39132 (July 22, 1993). The Commission indicated therein that compliance with its Final Policy Statement satisfies Section 182a of the Act. Criteria for the content of TSs were subsequently incorporated into 10 CFR 50.36, cf. 60 FR 36953 (July 19, 1995). In particular, the Commission indicated that certain items could be removed from the TSs, consistent with the standard enunciated in *Portland General Electric Co.* (Trojan Nuclear Plant), ALAB-531, 9 NRC 263, 273 (1979). In that case, the Atomic Safety and Licensing Appeal Board indicated that "technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations upon reactor operation is deemed necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety."



The four criteria defined by 10 CFR 50.36 for determining whether a particular matter is required to be included in the TS limiting conditions for operations, are as follows:

- (1) Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary;
- (2) a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
- (3) a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
- (4) a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

Existing TS requirements which fall within or satisfy any of the above criteria must be retained in TSs; those requirements which do not fall within or satisfy these criteria may be removed from the TS.

3.0 EVALUATION

The maximum isolation time for the HPCI Turbine Exhaust Valve is not a criteria for safety limits delineated in 10 CFR 50.36(c)(1), nor does it meet the criteria for Limiting Conditions for Operation delineated in 10 CFR 50.36(c)(2)(ii)(a)-(d).

Removal of specific maximum isolation times and closure stroke verification for remote manual isolation valves from the TSs is consistent with Improved Standard Technical Specifications (NUREG-1433, Rev. 1). Improved Standard TS generic Primary Containment Isolation Valves (PCIV) surveillance requirements are limited to verifying isolation stroke times only for PCIVs receiving automatic isolation signals. The safety-related HPCI system operation occurs with valves HV-55-1(2) F072 passively open. In addition, NRC Generic Letter 91-08, "Removal of Component Lists from Technical Specifications," states that "The removal of valve closure times that are included in some plant TS would not alter the TS requirement to verify that the valve stroke times are within their limits. Therefore, removal of these closure times is acceptable."

HPCI valves HV-55-1(2)F072 are 12-inch, normally open valves that provide remote manual isolation to containment penetration 210. The subject valves are not required to respond to any analyzed accidents or transients.

The maximum isolation time is not a structure, system, or component and is not installed instrumentation. Therefore, 10 CFR 50.36(c)(2)(ii)(a), (c), and (d) do not require its inclusion in the TS. With respect to 10 CFR 50.36(c)(2)(ii)(b), the maximum isolation time for these valves is not a safety analysis limit associated with any design basis accident (loss-of-coolant accident/loss-of-offsite power), station blackout or fire safe shutdown analysis. The maximum time established for these valves is based on standard valve design practices and is used to establish Inservice Test (IST) Program performance criteria. The LGS IST program will still

maintain an IST basis maximum time for HV-55-1(2)F072 to establish action and alert levels for valve performance monitoring. These performance-based values, in conjunction with diagnostic test criteria, are used for motor operated valve (MOV) material condition monitoring and trending. Therefore, eliminating the subject maximum isolation time requirement from the TSs will not increase the probability of malfunction of the valves since the principal means of monitoring valve performance remains unchanged.

These values are capable of performing the remote manual function described in the Safety Analysis Report. Check values 055-1(2)F021, upstream of HV-55-1(2)F072, function to prevent gross suppression pool water leakage to the HPCI turbine exhaust lines.

Given the assured 30-day water seal and design features of the HPCI system, containment leakage through this valve and associated penetration is not associated with any accident or radiological release analysis. Since the exhaust lines are submerged beneath the minimum Suppression Pool water level and the HPCI system is a closed system outside Primary Containment, containment bypass leakage is not a concern.

HV-55-1(2)F072 provide a system design feature to isolate a potential containment leak path. Any leakage through this path will be monitored and contained in the HPCI pump room. These turbine exhaust lines are classified as a moderate energy fluid system, and a crack in these lines is the only postulated event. Pipe breaks of the applicable piping are beyond design bases. Leakage of these lines can be remotely isolated from the control room if a pipe crack occurred during normal plant operation. Manual isolation of HV-055-1(2)F072 occurs procedurally when HPCI is no longer needed and when plant parameters indicate there is leakage into the HPCI room. These valves would only be manually closed under events where there was a need to isolate HPCI from suppression pool water inventory based on plant indications which are entry conditions for LGS Special Event procedure SE 4-1, "Reactor Enclosure Flooding," LGS Transient Response Implementation Plan procedures T-250, "Remote manual Primary Containment Isolations," or T-260, "Reactor Vessel Venting." Each of these procedures may ultimately require isolation of the HPCI turbine exhaust lines by manually closing HV-055-1(2)F072. Given that these procedurally mandated valve isolations are all via remote manual means, valve isolation time is not a critical parameter requiring specific acceptance criteria.

The integrity of the suppression pool water supply is ensured by the general plant design of water sealed penetrations both with and without successful isolation of this single remote manual isolation valve. The penetration is water sealed from the containment atmosphere and there is no driving force for a water leak without containment being pressurized. This is the expected condition under which LGS Special Event procedure SE 4-1, "Reactor Enclosure Flooding," is entered. Following an accident when HPCI is no longer needed, containment may be slightly pressurized to 10 psig or less, causing suppression pool water to press into the HPCI exhaust line. Check valves 055-1(2)F021 provide the normal and immediate leakage barrier. A gross release of suppression pool water is prevented by HV-55-1(2)F072 and 55-1(2)F021 check valves, intact HPCI exhaust lines, or ultimately by the containment of water within the HPCI room.

Based on the staff's evaluation set forth above, the proposed removal of the maximum isolation time for valves HV-55-1(2)F072 from Table 3.6.3-1 of the LGS TSs does not meet the 10 CFR 50.36 criteria and is, therefore, acceptable.

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 a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the 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 (63 FR 11921). 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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Principal Contributor: B. Buckley

Date: June 16, 1998