



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 19, 1995

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

SUBJECT: ISSUANCE OF AMENDMENTS - LIMERICK GENERATING STATION, UNITS 1 AND 2
(TAC NOS. M90385 AND M90386)

Dear Mr. Hunger:

The Commission has issued the enclosed Amendment No. 92 to Facility Operating License No. NPF-39 and Amendment No. 56 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 your application dated August 23, 1994.

These amendments remove the 125/250 Vdc Class 1E Battery Load Cycle Table from TS, and rephrase the surveillance requirements to be consistent with NUREG-1433, "Standard Technical Specifications." You are requested to notify the NRC when these amendments have been implemented. The requirement affects nine or fewer respondents and, therefore, is not subject to the Office of Management and Budget Review under P.L. 96-511.

This letter also corrects Amendments 71 and 34, dated June 28, 1994, changing the surveillance requirement intervals from 24 months to 18 months. Amendments 71 and 34 inadvertently did not include changes to surveillance requirement intervals. These changes are reflected on Pages 3/4 8-11, 3/4 8-12, and B 3/4 8-2 for Units 1 and 2.

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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,

/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. 92 to License No. NPF-39
Amendment No. 56 to License No. NPF-85
- 2. Safety Evaluation

cc w/encl: See next page

DISTRIBUTION:

Docket File	MO'Brien(2)	CGrimes			
PUBLIC	FRinaldi	CBerlinger			
PDI-2 Reading	JShea	ACRS(4)			
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JZwolinski	OPA	CAAnderson, RGN-I			
JStolz	GHill(2)	TLiu			
<i>MS for 4/20/95</i>					
OFC	:PDI-2/LA	:PDI-2/PE	:PDI-2/PM	:EELB	:OGC
<i>MS for 5/22/95</i>					
NAME	:MO'Brien	:TLiu:tlc	:FRinaldi	:CBerlinger:	:JStolz
<i>NOTE</i>					
DATE	: 5/18/95	: 5/18/95	: 5/18/95	: 6/1/95	: 6/5/95
					: 6/16/95

W/changes to SE + FRN

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FILENAME: LI90385.AMD

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G. Hunger, Jr.

- 2 -

June 19, 1995

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

Sincerely,



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. 92 to
License No. NPF-39
Amendment No. 56 to
License No. NPF-85
2. Safety Evaluation

cc w/encl: See next page

Mr. George A. Hunger, Jr.
PECO Energy 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. 92
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 23, 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. 92, 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 and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate 1-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment: Changes to the
Technical Specifications

Date of Issuance: June 19, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 92

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 8-11

3/4 8-12

B 3/4 8-2

Insert

3/4 8-11

3/4 8-12

B 3/4 8-2

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 92 days and within 7 days after a battery discharge with battery terminal voltage below 105 volts or battery overcharge with battery terminal voltage above 150 volts, by verifying that:
1. The parameters in Table 4.8.2.1-1 meet the Category B limits,
 2. There is no visible corrosion at either terminals or connectors, or the connection resistance of these items is less than 150×10^{-6} ohm, and
 3. The average electrolyte temperature of each sixth cell is $\geq 60^\circ\text{F}$.
- c. By verifying that:
1. At least once per 18 months the cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration,
 2. At least once per 18 months the cell-to-cell and terminal connections are clean, tight, free of corrosion and coated with anticorrosion material,
 3. At least once per 18 months the resistance of each cell-to-cell and terminal connection is less than or equal to 150×10^{-6} ohm excluding cable intercell connections, and
 4. At least once per 24 months the battery chargers will supply the currents listed below at a minimum of 132 volts for at least 8 hours.

<u>Charger</u>	<u>Current (Amperes)</u>
1BCA1	300
1BCA2	300
1BCB1	300
1BCB2	300
1BCC	75
1BCD	75

- d. At least once per 24 months by verifying that either:
1. The battery capacity is adequate to supply and maintain in OPERABLE status the required emergency loads for the design duty cycle when subjected to a battery service test, or
 2. The battery capacity is adequate to supply a dummy load equivalent to the required emergency loads for the design cycle when subjected to a battery service test.

SURVEILLANCE REQUIREMENTS (Continued)

- e. At least once per 60 months by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. At this once per 60 month interval, this performance discharge test may be performed in lieu of the battery service test (Specification 4.8.2.1.d).

- f. At least once per 18 months performance discharge tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating.

BASESA.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

"Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," Revision 1, August 1977 except for paragraphs C.2.a(3), C.2.c(1), C.2.c(2), C.2.d(3) and C.2.d(4), and the periodic testing will be performed at least once per 24 months. The exceptions to Regulatory Guide 1.108 allow for gradual loading of diesel generators during testing and decreased surveillance test frequencies (in response to Generic Letter 84-15).

The surveillance requirements for demonstrating the OPERABILITY of the units batteries are in accordance with the recommendations of Regulatory Guide 1.129 "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants," February 1978 and IEEE Std 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations," except that certain tests will be performed at least once every 24 months.

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage on float charge, connection resistance values and the performance of battery service and discharge tests ensures the effectiveness of the charging system, the ability to handle high discharge rates and compares the battery capacity at that time with the rated capacity.

Table 4.8.2.11 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and 0.015 below the manufacturer's full charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than 0.020 below the manufacturer's full charge specific gravity with an average specific gravity of all the connected cells not more than 0.010 below the manufacturer's full charge specific gravity, ensures the OPERABILITY and capability of the battery.

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8.2.1-1 is permitted for up to 7 days. During this 7-day period: (1) the allowable value for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than 0.020 below the manufacturer's recommended full charge specific gravity ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity, ensures that an individual cell's specific gravity will not be more than 0.040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; and (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function.



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. 56
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 23, 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. 56, 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 and shall be implemented within 30 days.

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 19, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 56

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 8-11

3/4 8-12

B 3/4 8-2

Insert

3/4 8-11

3/4 8-12

B 3/4 8-2

SURVEILLANCE REQUIREMENTS (Continued)

- b. At least once per 92 days and within 7 days after a battery discharge with battery terminal voltage below 105 volts or battery overcharge with battery terminal voltage above 150 volts, by verifying that:
 - 1. The parameters in Table 4.8.2.1-1 meet the Category B limits,
 - 2. There is no visible corrosion at either terminals or connectors, or the connection resistance of these items is less than 150×10^{-6} ohm, and
 - 3. The average electrolyte temperature of each sixth cell is $\geq 60^{\circ}\text{F}$.
- c. By verifying that:
 - 1. At least once per 18 months the cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration,
 - 2. At least once per 18 months the cell-to-cell and terminal connections are clean, tight, free of corrosion and coated with anticorrosion material,
 - 3. At least once per 18 months the resistance of each cell-to-cell and terminal connection is less than or equal to 150×10^{-6} ohm excluding cable intercell connections, and
 - 4. AT least once per 24 months the battery chargers will supply the currents listed below at a minimum of 132 volts for at least 8 hours:

<u>Charger</u>	<u>Current (Amperes)</u>
2BCA1	300
2BCA2	300
2BCB1	300
2BCB2	300
2BCC	75
2BCD	75

- d. At least once per 24 months by verifying that either:
 - 1. The battery capacity is adequate to supply and maintain in OPERABLE status the required emergency loads for the design duty cycle when subjected to a battery service test, or
 - 2. The battery capacity is adequate to supply a dummy load equivalent to the required emergency loads for the design cycle when subjected to a battery service test.

SURVEILLANCE REQUIREMENTS (Continued)

- e. At least once per 60 months by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. At this once per 60 month interval, this performance discharge test may be performed in lieu of the battery service test (Specification 4.8.2.1.d).
- f. At least once per 18 months performance discharge tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 90% of the manufacturer's rating.

ELECTRICAL POWER SYSTEMS

BASES

A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

Supplies, "March 10, 1971, Regulatory Guide 1.137 "Fuel-Oil Systems for Standby Diesel Generators," Revision 1, October 1979 and Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," Revision 1, August 1977 except for paragraphs C.2.a(3), C.2.c(1), C.2.c(2), C.2.d(3) and C.2.d(4), and the periodic testing will be performed at least once per 24 months. The exceptions to Regulatory Guide 1.108 allow for gradual loading of diesel generators during testing and decreased surveillance test frequencies (in response to Generic Letter 84-15).

The surveillance requirements for demonstrating the OPERABILITY of the units batteries are in accordance with the recommendations of Regulatory Guide 1.129 "Maintenance Testing and Replacement of Large Lead Storage Batteries for Nuclear Power Plants," February 1978 and IEEE Std 450-1980, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations," except that certain tests will be performed at least once every 24 months.

Verifying average electrolyte temperature above the minimum for which the battery was sized, total battery terminal voltage on float charge, connection resistance values and the performance of battery service and discharge tests ensures the effectiveness of the charging system, the ability to handle high discharge rates and compares the battery capacity at that time with the rated capacity.

Table 4.8.2.1-1 specifies the normal limits for each designated pilot cell and each connected cell for electrolyte level, float voltage and specific gravity. The limits for the designated pilot cells float voltage and specific gravity, greater than 2.13 volts and 0.015 below the manufacturer's full charge specific gravity or a battery charger current that had stabilized at a low value, is characteristic of a charged cell with adequate capacity. The normal limits for each connected cell for float voltage and specific gravity, greater than 2.13 volts and not more than 0.020 below the manufacturer's full charge specific gravity with an average specific gravity of all the connected cells not more than 0.010 below the manufacturer's full charge specific gravity, ensures the OPERABILITY and capability of the battery.

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8.2.1-1 is permitted for up to 7 days. During the 7-day period: (1) the allowable value for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than 0.020 below the manufacturer's recommended full charge specific gravity ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity, ensures that an individual cell's specific gravity will not be more than 0.040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; and (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 92 AND 56 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 23, 1994, the Philadelphia Electric Company (the licensee) submitted a request for changes to the Limerick Generating Station (LGS), Units 1 and 2, Technical Specifications (TS). The requested changes remove the 125/250 Vdc Class 1E Battery Load Cycle Table from TS, and rephrase the surveillance requirements to be consistent with NUREG-1433, "Standard Technical Specifications." The licensee also requested correction of Amendments 71 and 34, dated June 28, 1994, to change the surveillance requirement intervals from 24 months to 18 months. Amendments 71 and 34 incorrectly changed certain surveillance requirement intervals. These corrections are reflected on Pages 3/4 8-11, 3/4 8-12, and B 3/4 8-2 for Units 1 and 2.

2.0 EVALUATION

The licensee has proposed the following changes to the affected TS Surveillance Requirements (SR):

- (1) Revise the wording of SR 4.8.2.1.d.1 to be consistent with SR 3.8.4.7 in NUREG-1433,
- (2) Remove the 125/250 Vdc Class 1E Load Cycle Table and the associated battery information from SR 4.8.2.1.d.2.
- (3) Revise the Bases page B 3/4 8-2 accordingly to reflect the changes described in (1) and (2).

The first change does not alter the intent of SR 4.8.2.1.d.1, and is consistent with NUREG-1433. The second change removes the 125/250 Vdc Class 1E Battery Load Cycle Table, which is also found in the LGS Updated Final Safety Analysis Report (UFSAR) Section 8.3. The UFSAR and the implementing surveillance test procedures are controlled and maintained by the requirements of 10 CFR 50.59, and are subject to the licensee's change control process in the Administrative Controls Section of LGS TS Section 6.0.

The third change is only editorial and thus is acceptable. These changes are consistent with the guidelines contained in NUREG-1433, and therefore, the staff finds the proposed changes acceptable.

In addition, the staff finds that correction of changes to the TS which were inadvertently made upon issuance of Amendments 71 and 34, is appropriate.

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 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 51624). 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 19, 1995