

November 2, 1994

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: SNUBBER FUNCTIONAL TEST INTERVAL, LIMERICK GENERATING STATION,
UNITS 1 AND 2 (TAC NOS. M90433 AND M90434)

Dear Mr. Hunger:

The Commission has issued the enclosed Amendment No. 81 to Facility Operating License No. NPF-39 and Amendment No. 42 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 September 16, 1994.

These amendments extend the snubber functional testing interval from 18-month (± 25 percent) to 24-month (± 25 percent), and increase the sample plan size from 10 percent to 13.3 percent. The combination of these two changes will ensure that the entire population of snubbers will be tested in a 15-year period.

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:
Frank Rinaldi, 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 No.81 to License No. NPF-39
Amendment No. 42 to License No. NPF-85
- 2. Safety Evaluation

cc w/encls: See next page

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Docket File	MO'Brien(2)	CGrimes, 11E21
PUBLIC	FRinaldi/JShea	RWessman
PDI-2 Reading	OGC	ACRS(10)
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DATE	: 11/2/94	: 11/1/94	: 10/12/94	: 10/13/94	: 11/2/94	:

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P PDR

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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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. 50-352/353

- Enclosures: 1. Amendment No. 81 to
License No. NPF-39
Amendment No. 42 to
License No. NPF-85
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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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. 81
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 16, 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.

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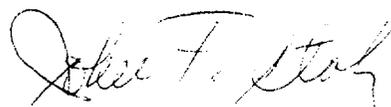
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-39 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 81, 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: November 2, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 81

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 7-13

3/4 7-13

B 3/4 7-3

B 3/4 7-3

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

e. Functional Tests

At least once per 24 months a representative sample of each type of snubber shall be tested using the following sample plans. The sample plan(s) shall be selected for each type prior to the test period and cannot be changed during the test period. The NRC Regional Administrator shall be notified in writing of the sample plan(s) selected for each type prior to the test period or the sample plan(s) used in the prior test period shall be implemented:

- 1) At least 13.3% of the total population of a snubber type shall be functionally tested. For each snubber of that type that does not meet the functional test acceptance criteria of Specification 4.7.4f., an additional sample of at least $1/2$ the size of the initial sample shall be tested until the total number tested is equal to the initial sample multiplied by the factor, $1+C/2$, where C is the total number of unacceptable snubbers or until all the snubbers of that type have been tested; or
- 2) A representative sample of 37 snubbers of a snubber type shall be functionally tested in accordance with Figure 4.7.4-1. "C" is the total number of snubbers of that type found not meeting the acceptance requirements of Specification 4.7.4f. The cumulative number of snubbers of the type tested is denoted by "N". If at any time the point plotted falls in the "Accept" region, testing of snubbers of that type may be terminated. When the point plotted lies in the "Continue Testing" region, additional snubbers of that type shall be tested until the point falls in the "Accept" region, or all the snubbers of that type have been tested.

PLANT SYSTEMS

BASES

SNUBBERS (Continued)

To provide assurance of snubber functional reliability one of two functional testing methods is used with the stated acceptance criteria:

1. Functionally test 13.3% sample of a type of snubber with an additional 1/2 sample tested for each functional testing failure, or
2. Functionally test 37 snubbers and determine sample acceptance using Figure 4.7.4-1.

Functional Testing sample plans are based on ASME/ANSI OMc-1990 Addenda to ASME/ANSI OM-1987, Part 4.

Figure 4.7.4-1 was developed using "Wald's Sequential Probability Ratio Plan" as described in Quality Control and Industrial Statistics" by Acheson J. Duncan.

Permanent or other exemptions from the surveillance program for individual snubbers may be granted by the Commission if a justifiable basis for exemption is presented and, if applicable, snubber life destructive testing was performed to qualify the snubbers for the applicable design conditions at either the completion of their fabrication or at a subsequent date. Snubbers so exempted shall be listed in the list of individual snubbers indicating the extent of the exemptions.

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (i.e., newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc.). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life.

3/4.7.5 SEALED SOURCE CONTAMINATION

The limitations on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium. This limitation will ensure that leakage from byproduct, source, and special nuclear material sources will not exceed allowable intake values. Sealed sources are classified into three groups according to their use, with surveillance requirements commensurate with the probability of damage to a source in that group. Those sources which are frequently handled are required to be tested more often than those which are not. Sealed sources which are continuously enclosed within a shielded mechanism, i.e., sealed sources within radiation monitoring devices, are considered to be stored and need not be tested unless they are removed from the shielded mechanism.



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. 42
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 September 16, 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.

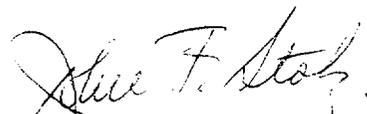
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-85 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 42, 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: November 2, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 42

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 7-13

B 3/4 7-3

Insert

3/4 7-13

B 3/4 7-3

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

e. Functional Tests

At least once per 24 months a representative sample of each type of snubber shall be tested using the following sample plans. The sample plan(s) shall be selected for each type prior to the test period and cannot be changed during the test period. The NRC Regional Administrator shall be notified in writing of the sample plan(s) selected for each type prior to the test period or the sample plan(s) used in the prior test period shall be implemented:

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PLANT SYSTEMS

BASES

SNUBBERS (Continued)

To provide assurance of snubber functional reliability one of two functional testing methods is used with the stated acceptance criteria:

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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. 81 AND 42 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 September 16, 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 would revise TS Surveillance Requirement (SR) 4.7.4.e, and the associated Bases Section 3/4.7.4, to extend the snubber functional testing interval from 18 months (± 25 percent) to 24 months (± 25 percent), and increase the sample plan size, as described in SR 4.7.4.e.1, from 10 percent to 13.3 percent.

2.0 EVALUATION

The current LGS, Units 1 and 2, TS SR 4.7.4.e requires that at least every 18 months a representative sample of each type of snubber be tested using either of the sample plans described in TS Sections 4.7.4.e.1 or 4.7.4.e.2. These sample plans are used to determine the population of snubbers or compensating struts that will be tested for functionality during the testing interval. TS Section 4.7.4.e.1 identifies the testing requirements for a percent of the total population of snubbers and compensating struts, while TS Section 4.7.4.e.2 establishes the representative sample size of 37 restraints.

These functional tests incorporate the recommendations of the American Society of Mechanical Engineers (ASME) and the American Nuclear Standards Institute (ANSI) Operations and Maintenance (OM) standards for snubber and compensating strut testing. Amendments Nos. 54 and 19 to LGS, Units 1 and 2, Facility Operating License Nos. NPF-39 and NPF-85, endorsed ASME/ANSI OM-1990 Addenda to ASME/ANSI OM-1987, Part 4, "Examination and Performance Testing of Nuclear Power Plant Dynamic Restraints." However, the staff did not approve the extension of the restraints' functional testing interval from 18 months to 24 months in conjunction with a 10 percent sample plan size.

Based on available results from testing data, the staff determined that a 15-year period can be accepted as the expected service life for most snubbers, particularly those exposed to a harsh environment. The 18-month period and the 10 percent sample plan size was considered acceptable, because it meant that all snubbers in the plant were likely to be functionally tested every 15 years.

However, the 24-month period and the 10 percent sample plan size would not achieve this goal.

The staff has recently approved, based on the recommendations of Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," TS amendments authorizing changes in the frequency of various SRs to accommodate the outages dictated by the new 24-month fuel cycle. Therefore, the licensee has proposed to revise the sample plan size to assure that all the snubbers in the plant would be functionally tested every 15 years. The licensee has determined that a change in the sample plan size from 10 percent to 13.3 percent would assure that all snubbers in the plant would be tested every 15 years for the requested testing frequency interval of 24 months. The staff concurs with the licensee's determination and finds that the proposed TS changes are acceptable to the staff.

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 amendment changes 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 50019). 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: F. Rinaldi

Date: November 2, 1994