

JUN 10 1985

Docket No. 50-352

Mr. Edward G. Bauer, Jr.  
Vice President & General Counsel  
Philadelphia Electric Company  
2301 Market Street  
Philadelphia, Pennsylvania 19101

Dear Mr. Bauer:

SUBJECT: LIMERICK GENERATING STATION, UNIT 1 DRAFT LICENSE

Enclosed is a revised draft copy of the full power license for Limerick Unit 1. It is provided for your information and comment to ensure that it accurately reflects the commitments required of you as described in the FSAR, SER and other documentation.

We request that you examine the draft license and provide any comments in writing at the earliest practical time.

Should you have questions regarding this draft license, please contact the Limerick Project Manager Robert E. Martin at (301) 492-4937.

Sincerely,

Original signed by:

Thomas M. Novak, Assistant Director  
for Licensing  
Division of Licensing

Enclosure: As stated

cc: See next page

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PDR ADOCK 05000352  
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OFFICE	LB#2/DL/PM	LB#2/DL/RC	ADAL/DL				
SURNAME	PLM:m	WButler	TMNovak				
DATE	06/8/85	06/10/85	06/11/85				



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

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Sincerely,

A handwritten signature in dark ink, appearing to read "Tom Novak", is written over the typed name.

Thomas M. Novak, Assistant Director  
for Licensing  
Division of Licensing

Enclosure: As stated

cc: See next page

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

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PHILADELPHIA ELECTRIC COMPANY  
DOCKET NO 50-352  
LIMERICK GENERATING STATION, UNIT 1  
FACILITY OPERATING LICENSE

License No. NPF-39

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application for license filed by Philadelphia Electric Company (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the Limerick Generating Station, Unit 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-106 and the application, as amended, the provisions of the Act and the regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D. below);
  - D. There is reasonable assurance: (i) that the activities authorized by this operating license 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 set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below);
  - E. The licensee is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
  - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;
  - G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;

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- H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-39, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and
  - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Based on the foregoing findings, the Partial Initial Decisions issued by the Atomic Safety and Licensing Board dated March 8, 1983, August 29, 1984, and May 2, 1985, and the Licensing Board Orders dated May 9, 1985 and May 24, 1985 and the Decision of the Appeal Board dated September 26, 1984, regarding this facility, and approval by the Nuclear Regulatory Commission at a meeting on June 10, 1985 the license for Fuel Loading and Low Power Testing, License No. NPF-27, issued on October 26, 1984, is superseded by Facility Operating License NPF-39 hereby issued to the Philadelphia Electric Company (the licensee), to read as follows:
- A. This license applies to the Limerick Generating Station, Unit 1, a boiling water nuclear reactor and associated equipment, owned by Philadelphia Electric Company. The facility is located on the licensee's site in Montgomery and Chester Counties, Pennsylvania on the banks of the Schuylkill River approximately 1.7 miles southeast of the city limits of Pottstown, Pennsylvania and 21 miles northwest of the city limits of Philadelphia, Pennsylvania, and is described in the licensee's Final Safety Analysis Report, as supplemented and amended, and in the licensee's Environmental Report-Operating License Stage, as supplemented and amended.
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Philadelphia Electric Company:
    - (1) Pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in Montgomery and Chester Counties, Pennsylvania, in accordance with the procedures and limitations set forth in this license;
    - (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and to use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;



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- (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
  - (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
  - (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below) and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level  
The licensee is authorized to operate the facility at reactor core power levels not in excess of 3293 megawatts thermal (100% rated power) in accordance with the conditions specified herein.
  - (2) Deferred Items  
The items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.
  - (3) Technical Specifications and Environmental Protection Plan  
The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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(4) Fire Protection (Section 9.5, SSER-2)

- a. The licensee shall maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility through Revision 34 and as approved in the SER through Supplement 2, and in the Fire Protection Evaluation Report through Revision 6, subject to provisions b and c below.
- b. The licensee shall make no change to features of the approved fire protection program which would decrease the level of fire protection in the plant without prior approval of the Commission. To make such a change the licensee must submit an application for license amendment pursuant to 10 CFR 50.90.
- c. The licensee may make changes to features of the approved fire protection program which do not decrease the level of fire protection without prior Commission approval after such features have been installed as approved, provided such changes do not otherwise involve a change in a license condition or technical specification or result in an unreviewed safety question (see 10 CFR 50.59). However, the licensee shall maintain, in an auditable form, a current record of all such changes including an evaluation of the effects of the change on the fire protection program and shall make such records available to NRC inspectors upon request. All changes to the approved program made without prior Commission approval shall be reported to the Director of the Office of Nuclear Regulation, together with supporting analyses, annually.

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\*The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.



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- d. The licensee shall provide a stairway for fire brigade access from the turbine building to the Unit 1 cable spreading room via the Unit 2 cable spreading room and the static inverter room prior to startup following the first refueling outage.

(5) Qualification of Personnel (Section 13.1.2.2, SER)

The licensee shall have on each shift operators that meet the requirements described in Attachment 2.

(6) Emergency Response Capabilities (Generic Letter 82-33, Supplement 1 to NUREG-0737)

(a) Detailed Control Room Design Review

Task Analysis and Control Room Inventory (Section 18, SSER-3)

The results from the Limerick plant specific task analysis to identify control room operator tasks and information/control requirements for emergency operations, including a complete description of the method, data, and documentation, shall be completed and reported to the staff by the end of June 1985. This effort shall also include a comparison of the display and control requirements with a control room inventory to identify missing displays and controls.

(b) Safety Parameter Display System

The licensee shall have the Safety Parameter Display System operable within 30 days after the completion of the 100-Hour Warranty Run at 100 percent of rated power.

(7) Post - Fuel Loading Initial Test Program (Section 14, SER)

Any changes to the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

(8) Inservice Inspection Program (Section 5.2.4.3 and 6.6.3, SER and SSER-3)

The licensee shall submit the inservice inspection program by October 26, 1985 for NRC staff review and approval.

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(9) Salem ATWS Event, Generic Letter 83-28 (Section 15.8, SSER-2)

The licensee shall implement the requirements of Generic Letter 83-28 on a schedule which is consistent with that given in its November 10, 1983, and May 8, 1984 letters as supplemented by its letter of June , 1985.  
[Subject to change]

(10) Turbine System Maintenance Program (Section 3.5.1.3, SER)

The licensee shall submit a turbine system maintenance program by October 26, 1987. Prior to review and approval of that program by the NRC staff, the licensee shall volumetrically inspect all low pressure turbine rotors at the second refueling outage and every other (alternate) refueling outage thereafter.

(11) Reactor Enclosure Cooling Water and Chilled Water Isolation Valves (Section 6.2.4.2, SER and SSER-3)

The licensee shall, prior to startup following the first refueling outage, provide automatic and diverse isolation signals to the reactor enclosure cooling water in board and outboard isolation valves in the supply and return lines to the recirculation pumps and the drywell chilled water outboard isolation valves in the supply and return lines.

(12) Remote Shutdown System (Sections 7.1.4.4, 7.4.2.3, SER and Section 7.4.2.3, SSER-3 and SSER-5)

The licensee shall, prior to startup following the first refueling outage, have completed modifications to the existing remote shutdown system to provide a redundant safety-related method of achieving safe shutdown conditions without lifting leads or adding jumpers.

The modifications to be completed shall be those described in the licensee's letters dated April 18 and 22, 1985 which allow for the operation of the B RHR pump, the B RHR SW pump and the B ESW pump from the respective pump breaker compartments by the installation of transfer switches. The licensee shall perform necessary tests prior to startup following the first refueling outage to demonstrate the operability of the modified system.

(13) Operation with Partial Feedwater Heating at End-of-Cycle (Section 15.0, SER)

The facility shall not be operated with partial feedwater heating for the purpose of extending the normal fuel cycle.

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(14) Hydrogen Recombiner Isolation (Section 6.2.4.2, SER and SSER-1 and SSER-3)

The licensee shall, prior to startup following the first refueling outage, install and test an additional automatic isolation valve in each of the hydrogen recombinder lines penetrating the primary containment.

(15) Refueling Floor Volume Connection to Standby Gas Treatment System (Section 6.2.3, SSER-2 and SSER-3)

Prior to any movement of irradiated fuel within the refueling floor volume the licensee shall complete and test all modifications required to connect the refueling floor volume to standby gas treatment system. During the interim period, the licensee shall not remove the reactor pressure vessel head prior to the NRC staff review and approval.

(16) Emergency Planning

Procedures Subject to 44 CFR Part 350

In the event the NRC finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 CFR Part 350, is an indication that a major substantial problem exists in achieving or maintaining an adequate state of emergency preparedness, the provisions of 10 CFR Section 50.54(s)(2) will apply.

- D. The facility requires exemptions from certain requirements of 10 CFR Part 50. These include (a) exemption from General Design Criteria (GDC) 61 of Appendix A, operation of that portion of the standby gas treatment system (SGTS) that serves the refueling area until the first refueling (Section 6.2.3 of SSER-2 and SSER-3), (b) exemption from GDC-56 of Appendix A, the requirement for additional automatic containment isolation valves for the hydrogen recombinder lines and the requirement for automatic isolation of existing isolation valves in the Drywell Chilled Water (DCW) and the Reactor Enclosure Cooling Water (RECW) systems until prior to startup following the first refueling outage (Section 6.2.4.2 of the SER, SSER-1 and SSER-3), (c) exemption from GDC-19 of Appendix A, as related to the requirement for redundant remote shutdown capability (Section 7.4.2.3 of SSER-3 and SSER-5), (d) exemption

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from the requirement of paragraph III.D.2.(b)(ii) of Appendix J, the testing of containment air locks at times when the containment integrity is not required (Section 6.2.6.1 of the SER and SSER-3), (e) exemption for the requirements of paragraphs II.H.4. and III.C.2 of Appendix J, the leak rate testing of the Main Steam Isolation Valves (MSIVs) at the peak calculated containment pressure, Pa, and exemption from the requirements of paragraph III.C.3 of Appendix J that the measured MSIV leak rates be included in the summation for the local leak rate test (Section 6.2.6.1 of SSER-3), (f) exemption from the requirement of paragraphs II.H.1 and III.B.2 of Appendix J, the local leak rate testing of the Traversing Incore Probe Shear Valves (Section 6.2.6.2 of the SER and SSER-3), (g) a one-time exemption from the requirement of Appendix J to perform local leak rate testing on seven Residual Heat Removal Relief Valves (Section 6.2.6.1 of SSER-3) and (h) exemption from requirement of 10 CFR Part 50.44, the inerting of containment six months after initial criticality (Section 6 of SSER-5). These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Therefore these exemptions are hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

The Atomic Safety and Licensing Board has, in Orders dated May 9, 1985 and May 24, 1985 (ASLBP No. 81-465-07 OL), granted an exemption, pursuant to 10 CFR 50.47(c)(1), from the requirement of 10 CFR 50.47(a) and (b) for a period of time any potential contentions of the inmates of the State Correctional Institute of Graterford, Pennsylvania are considered by the Board. The Board concluded that the issuance of a full power license to the Applicant during the exemption will not be inimical to the common defense and security or to the health and safety of the public. Consequently, the Board authorized the issuance of a full power license.

- E. The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans, including all amendments and revisions made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p), which are part of the license. These plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Limerick Generating Station Physical Security Plan," "Limerick Generating Station Plant Security Personnel Training and Qualification Plan," and "Limerick Generating Station Safeguards Contingency Plan."

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- F. Except as otherwise provided in the Technical Specifications or Environmental Protection Plan, the licensee shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within 24 hours to the NRC Operations Center via the Emergency Notification System with written followup within thirty days in accordance with the procedures described in 10 CFR 50.73(b), (c), and (e).
- G. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.
- H. This license is effective as of the date of issuance and shall expire at midnight on October 26, 2024

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Attachments/Appendices:

- 1. Attachments 1-2
- 2. Appendix A - Technical Specifications (NUREG- )
- 3. Appendix B - Environmental Protection Plan

Date of Issuance:

ATTACHMENT 1  
To-NPF 39

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The attachment identifies items which must be completed to the satisfaction of the staff in accordance with the operational modes or conditions identified below.

1. OUTSTANDING ITEM TO BE ACCOMPLISHED PRIOR TO INITIALLY INERTING THE CONTAINMENT AS REQUIRED BY TECHNICAL SPECIFICATIONS 3/4.6.6.3 AND 3/4.10.5
  - a. Complete the modifications to the liquid nitrogen vaporization facility and the containment inerting system described in the licensee's letter dated September 26, 1984 or alternate modifications determined acceptable following an evaluation per 10 CFR 50.59 (IE bulletin 84-01)  
  
In the event alternate modifications are used, describe these modifications and their supporting bases in a report to NRC Region I within thirty days of their implementation.
2. OUTSTANDING ITEMS TO BE CORRECTED BY THE FIRST REFUELING OUTAGE
  - a. Seal the conduits to instruments in the pipe tunnel. (Inspection Report 50-352/84-27, Item 04)
  - b. Complete the actions for Construction Deficiency Report (84-00-10 "Water accumulation in diesel fuel oil tanks.")
  - c. Incorporate environmental qualification requirements into the preventive maintenance program to provide for timely overhaul/replacement of components. (Inspection Report 50-352/85-03, Item 9)



ATTACHMENT 2  
To NPF-39

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This attachment identifies the shift operating staff experience requirements.

At all times the plant is in an operating condition other than cold shutdown or refueling, the licensee shall have a licensed senior operator on each shift who has had at least six months of hot operating experience on a same type plant, including at least six weeks at power levels greater than 20% of full power, and who has had startup and shutdown experience. For those shifts where such an individual is not available on the plant staff, an advisor shall be provided who has had at least four years of power plant experience, including two years of nuclear plant experience, and who has had at least one year of experience on shift as a licensed senior operator at a similar type facility. Advisors, as a minimum, shall be trained on plant procedures, technical specifications and plant systems, and shall be examined on these topics at a level sufficient to assure familiarity with the plant. These advisors or suitably qualified replacements shall be retained until at least one of the senior operators on each shift has the required experience. The NRC shall be notified at least 30 days prior to the release of any special assigned advisors.