

UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, DC 20545  
ENERGY NUCLEAR GENERATION COMPANY\*  
And ENTERY NUCLEAR OPERATIONS, INCORPORATED  
(PILGRIM NUCLEAR POWER STATION)  
DOCKET NO. 50-293  
FACILITY OPERATING LICENSE

License No. DPR-35

The Atomic Energy Commission (the Commission) having found that:

- a. Except as stated in condition 5, construction of the Pilgrim Nuclear Power Station (the facility) has been substantially completed in conformity with the application, as amended, the Provisional Construction Permit No. CPPR-49, the provisions of the Atomic Energy Act of 1954, as amended (the Act), and the rules and regulations of the Commission as set forth in Title 10, Chapter 1, CFR; and
- b. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission; and
- c. There is reasonable assurance (i) that the activities authorized by the 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 rules and regulations of the Commission; and
- d. The Entergy Nuclear Generation Company (Entergy Nuclear) is financially qualified and Entergy Nuclear Operations, Inc. (ENO) is technically and financially qualified to engage in the activities authorized by this operating license, in accordance with the rules and regulations of the Commission; and
- e. Entergy Nuclear and ENO have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements" of the Commission's regulations; and
- f. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public; and
- g. In accordance with the requirements of Appendix D to 10 CFR Part 50, the operating license should be issued subject to conditions for protection of the environment set forth herein.

Facility Operating License No. DPR-35, dated June 8, 1972, issued to the Boston Edison Company (Boston Edison) is hereby amended in its entirety, pursuant to an Initial Decision dated September 13, 1972, by the Atomic Safety and Licensing Board, to read as follows:

\*The Nuclear Regulatory Commission approved the transfer of the license from Boston Edison Company to Entergy Nuclear Generation Company on April 29, 1999.

1. This license applies to the Pilgrim Nuclear Power Station, a single cycle, forced circulation, boiling water nuclear reactor and associated electric generating equipment (the facility), owned by Entergy Nuclear and operated by ENO. The facility is located on the western shore of Cape Cod Bay in the town of Plymouth on the Entergy Nuclear site in Plymouth County, Massachusetts, and is described in the "Final Safety Analysis Report," as supplemented and amended.
2. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Entergy Nuclear:
  - A. Pursuant to the Section 104b of the Atomic Energy Act of 1954, as amended (the Act) and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," a) Entergy Nuclear to possess and use and b) ENO to possess, use, and operate the facility as a utilization facility at the designated location on the Pilgrim site;
  - B. ENO, pursuant to the Act and 10 CFR 70, to receive, possess, and 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;
  - C. ENO, pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source or 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;
  - D. ENO, 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
  - E. ENO, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
3. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations; 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Sections 50.54 and 50.59 of 10 CFR Part 50 and Section 70.32 of 10 CFR Part 70; 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 below:
  - A. Maximum Power Level  
ENO is authorized to operate the facility at steady state power levels not to exceed 1998 megawatts thermal.

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Records

ENO shall keep facility operating records in accordance with the requirements of the Technical Specifications.

D. Equalizer Valve Restriction - DELETED

E. Recirculation Loop Inoperable

The reactor shall not be operated with one recirculation loop out of service for more than 24 hours. With the reactor operating, if one recirculation loop is out of service, the plant shall be placed in a hot shutdown condition within 24 hours unless the loop is sooner returned to service.

F. Fire Protection

ENO shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility and as approved in the SER dated December 21, 1978 as supplemented subject to the following provision:

ENO may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

G. Physical Protection

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 amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10CFR73.55 (51FR27817 and 27822) and to the authority of 10CFR50.90 and 10CFR50.54(p). The plans, which contain Safeguards Information protected under 10CFR73.21, are entitled: "Pilgrim Nuclear Power Station Physical Security Plan," with revisions submitted through September 18, 1987; "Pilgrim Nuclear Power Station Guard Training and Qualification Plan," with revisions submitted through September 24, 1984; and "Pilgrim Nuclear Power Station Safeguards Contingency Plan," with revisions submitted through February 15, 1984. Changes made in accordance with 10CFR73.55 shall be implemented in accordance with the schedule set forth therein.

I. Post-Accident Sampling System, NUREG-0737, Item II.B.3, and Containment Atmospheric Monitoring System, NUREG-0737, Item II.F.1(6)

The licensee shall complete the installation of a post-accident sampling system and a containment atmospheric monitoring system as soon as practicable, but no later than June 30, 1985.

J. Additional Conditions

The Additional Conditions contained in Appendix B, as revised through Amendment No. 177, are hereby incorporated into this license. ENO shall operate the facility in accordance with the Additional Conditions.

K. Conditions Related to the Sale and Transfer

(1) For purposes of ensuring public health and safety, Entergy Nuclear shall provide decommissioning funding assurance of no less than \$396 million, after payment of any taxes, in the decommissioning trust fund for Pilgrim upon the transfer of the Pilgrim licenses to Entergy Nuclear.

(2) Entergy Nuclear shall maintain the decommissioning trust funds in accordance with the Order, the related Safety Evaluation dated April 29, 1999, and the related application for approval of the transfer.

(3) Entergy Nuclear shall provide a Provisional Trust fund in the amount of \$70 million, after payment of any taxes, in the Provisional Trust for Pilgrim upon the transfer of the Pilgrim licenses to Entergy Nuclear. The Provisional Trust shall be established and maintained in conformance with the representations made in the application for approval of the transfer.

**APPENDIX A**  
**TO**  
**FACILITY OPERATING LICENSE DPR-35**  
**TECHNICAL SPECIFICATION AND BASES**  
**FOR**  
**PILGRIM NUCLEAR POWER STATION**  
**PLYMOUTH, MASSACHUSETTS**  
**ENTERGY NUCLEAR and ENTERGY NUCLEAR OPERATIONS, INCORPORATED**

APPENDIX B

ADDITIONAL CONDITIONS

OPERATING LICENSE NO. DPR-35

Entergy Nuclear Operations, Inc. shall comply with the following conditions on the schedules noted below:

<u>Amendment Number</u>	<u>Additional Conditions</u>	<u>Implementation Date</u>
177	The licensee is authorized to relocate certain Technical Specifications requirements to licensee-controlled documents. Implementation of this amendment shall include relocation of various sections of the technical specifications to the appropriate documents as described in the licensee's application dated September 19, 1997, and in the staff's safety evaluation attached to this amendment.	The amendment shall be implemented within 30 days from July 31, 1998, except that the licensee shall have until the next scheduled Updated Final Safety Analysis Report (UFSAR) update to incorporate the UFSAR relocations.

**MATERIALS LICENSE**

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	In accordance with the letter dated February 13, 2002,
1. Entergy Nuclear Operations Incorporated	3. License number 20-07626-04 is amended in its entirety to read as follows:
2. 600 Rocky Hill Road Plymouth, Massachusetts 02360-5599	4. Expiration date February 28, 2003
	5. Docket No. 030-34378 Reference No.

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Any byproduct material with atomic numbers 1 through 83 inclusive	A. Contamination on reactor components	A. 30 millicuries per nuclide and 3 curies total
B. Any byproduct, source or special nuclear material with atomic numbers 84 through 96	B. Contamination on reactor components	B. 10 microcuries per nuclide and 100 microcuries total
C. Chromium 51	C. Contamination on reactor components	C. 75 millicuries
D. Manganese 54	D. Contamination on reactor components	D. 150 millicuries
E. Iron 55	E. Contamination on reactor components	E. 1620 millicuries
F. Iron 59	F. Contamination on reactor components	F. 45 millicuries
G. Cobalt 58	G. Contamination on reactor components	G. 45 millicuries
H. Cobalt 60	H. Contamination on reactor components	H. 830 millicuries
I. Nickel 63	I. Contamination on reactor components	I. 65 millicuries

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

20-07626-04

Docket or Reference Number

030-34378

Amendment No. 03

- |                                                       |                                        |                                                                                |
|-------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------|
| 6. Byproduct, source, and/or special nuclear material | 7. Chemical and/or physical form       | 8. Maximum amount that licensee may possess at any one time under this license |
| J. Cesium 137                                         | J. Contamination on reactor components | J. 130 millicuries                                                             |
| K. Plutonium 241                                      | K. Contamination on reactor components | K. 95 microcuries                                                              |

9. Authorized use:

A. through K. Decontamination, repair and testing of reactor components.

**CONDITIONS**

10. Licensed material may be used only at temporary job sites of the licensee anywhere in the United States where the Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.
11. A. Licensed material shall be used by, or under the supervision of, John C. Wend.  
B. The Radiation Safety Officer for this license is John C. Wend.
12. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material so that at no time is a quantity of radioactive material is possessed in excess of a quantity which requires consideration of the need for an emergency plan for responding to a release of licensed material in accordance with 10 CFR 30.72.
13. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
20-07626-04Docket or Reference Number  
030-34378

Amendment No. 03

14. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Application dated March 12, 1990
  - B. Letter received May 5, 1992
  - C. Letter dated February 21, 1995
  - D. Letter received December 23, 1998
  - E. Letter dated September 29, 1999
  - F. Letter dated October 5, 1999
  - G. Letter dated October 7, 1999
  - H. Letter dated February 13, 2002

For the U.S. Nuclear Regulatory Commission

Date \_\_\_\_\_

By \_\_\_\_\_

Sattar Lodhi, Ph.D.  
Nuclear Materials Safety Branch 2  
Region I  
King of Prussia, Pennsylvania 19406