



Entergy Nuclear Operations, Inc.
1340 Echelon Parkway
Jackson, MS 39213
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Mandy K. Halter
Director, Nuclear Licensing

10 CFR 50.90

2.19.007

February 8, 2019

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Supplement to Technical Specifications Proposed Change - Permanently
Defueled Technical Specifications

Pilgrim Nuclear Power Station
Docket No. 50-293
Renewed License No. DPR-035

- REFERENCES:
1. Letter, Entergy Nuclear Operations, Inc. to NRC, "Technical Specifications Proposed Change – Permanently Defueled Technical Specifications" dated September 13, 2018 (Letter Number: 2.18.034) (ML18260A085)
 2. Letter, Entergy Nuclear Operations, Inc. to NRC, "Application for Order Consenting to Direct and Indirect Transfers of Control of Licenses and Approving Conforming License Amendment; and Request for Exemption from 10 CFR 50.82(a)(8)(i)(A)" dated November 16, 2018 (Letter Number 2.18.067) (ML18320A031)

Dear Sir or Madam:

In accordance with Title 10 Code of Federal Regulations (CFR) 50.90, Entergy Nuclear Operations, Inc. (Entergy) proposed an amendment to Renewed Facility Operating License (OL) DPR-35 for Pilgrim Nuclear Power Station (PNPS). This proposed license amendment revised the OL and the associated Technical Specifications (TS) to Permanently Defueled Technical Specifications (PDTS) consistent with the permanent cessation of reactor operation and permanent defueling of the reactor (Reference 1).

In Reference 2, Entergy submitted an Application for Order Consenting to Direct and Indirect Transfers, of Control of Licenses and Approving Conforming License Amendment to Holtec Decommissioning International and Holtec Pilgrim LLC. The purpose of this letter is to update the OL and associated TS to reflect the proposed change in ownership from Entergy Nuclear Generation Company and Entergy to Holtec Decommissioning International and Holtec Pilgrim LLC. The administrative changes are reflected in the attachments to this letter. In the event

ADD
NR

that Reference 2 is not approved by the U. S. Nuclear Regulatory Commission, then this Supplement will be withdrawn.

Entergy has reviewed the administrative changes to the retyped pages and determined that the conclusion in the September 13, 2018 (Reference 1), letter that the proposed changes do not involve a significant hazards consideration is not changed.

In accordance with 10 CFR 50.91, a copy of this application, with attachments, will be provided to the Commonwealth of Massachusetts.

Attachment 1 to this letter provides a markup of the changes to the OL and PDTS. Attachment 2 contains the retyped OL and PDTS pages reflecting the changes described above.

There are no new regulatory commitments made in this letter.

If you have any questions on this transmittal, please contact Mr. Peter J. Miner at (508) 830-7127.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on February 8, 2019.

Sincerely,



Mandy K. Halter

MKH/rmc

Attachments:

1. Markups of the Proposed Operating License and Permanently Defueled Technical Specifications
2. Retyped Operating License and Permanently Defueled Technical Specifications Pages

cc: USNRC Regional Administrator, Region I
USNRC Project Manager, Pilgrim
USNRC Resident Inspector, Pilgrim
Planning and Preparedness Section Chief, Massachusetts Emergency Management Agency
Director, Massachusetts Department of Public Health, Radiation Control Program

Attachment 1

Letter Number 2.19.007

Markups of the Proposed Operating License and Permanently Defueled Technical Specifications

HOLTEC PILGRIM, LLC And HOLTEC
DECOMMISSIONING INTERNATIONAL

~~ENERGY NUCLEAR GENERATION COMPANY *~~

And ~~ENERGY NUCLEAR OPERATIONS, INC.~~

(PILGRIM NUCLEAR POWER STATION)

DOCKET NO. 50-293

RENEWED FACILITY OPERATING LICENSE

Renewed License No. DPR-35

The Nuclear Regulatory Commission (the Commission) has found that:

- ~~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~~
- ~~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~~
- There is reasonable assurance (i) that the activities authorized by the renewed 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
- ~~The Energy Nuclear Generation Company (Energy Nuclear) is financially qualified and Energy Nuclear Operations, Inc. (ENO) is technically and financially qualified to engage in the activities authorized by this renewed operating license, in accordance with the rules and regulations of the Commission; and~~
- Energy 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
- The issuance of this renewed operating license will not be inimical to the common defense and security or to the health and safety of the public; and
- After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the issuance of this renewed operating license (subject to the condition for protection of the environment set forth herein) is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements of said regulations have been satisfied; and
- ~~Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under~~

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

Amendment No. XXX

~~10 CFR 54.21(a)(1); and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(e), such that there is reasonable assurance that the activities authorized by the renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations.~~

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:

1. This renewed operating 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 ~~Energy Nuclear~~ and operated by ~~ENO~~. The facility is located on the western shore of Cape Cod Bay in the town of Plymouth on the ~~Energy 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 ~~Energy 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) ~~Energy 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;

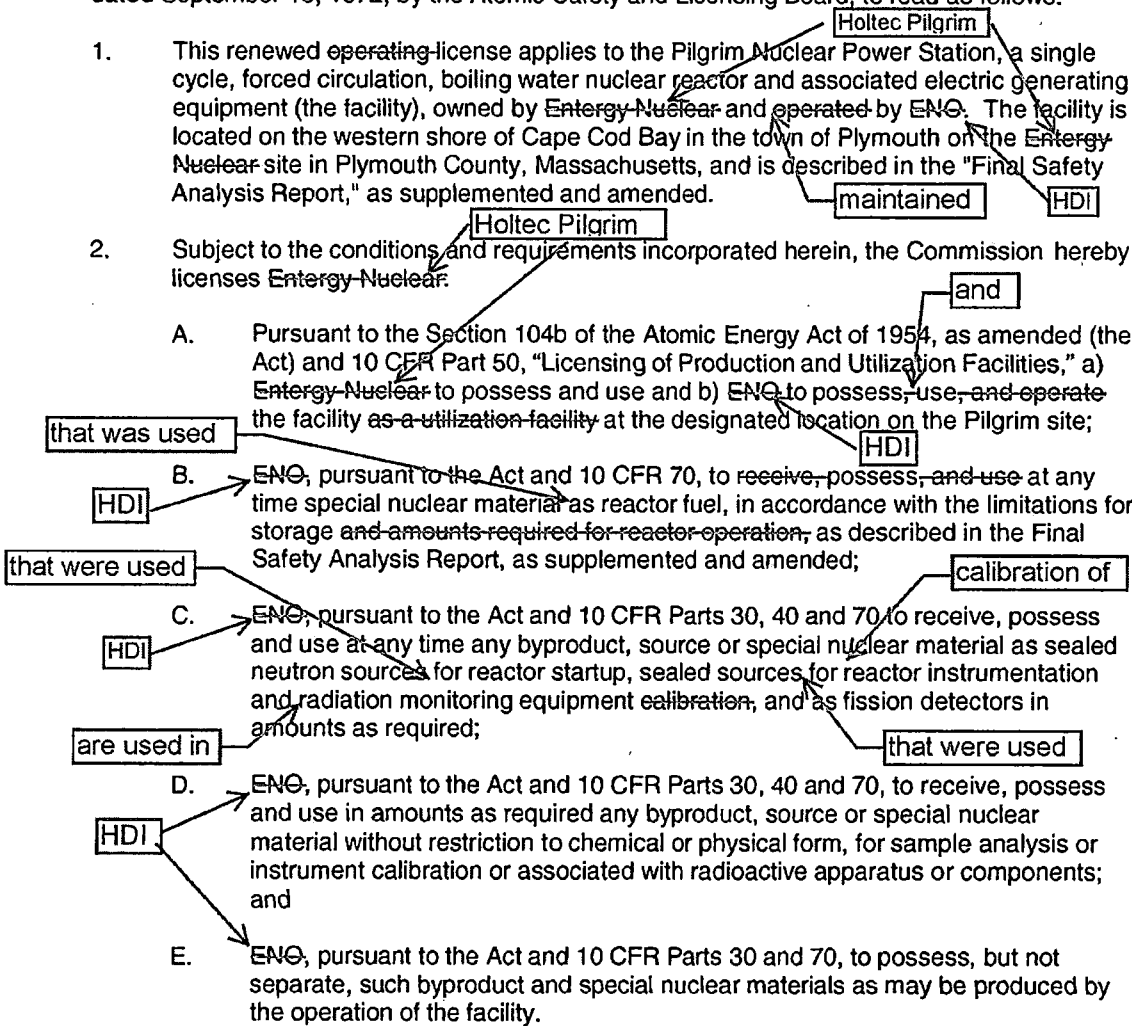
B. ~~ENO~~, pursuant to the Act and 10 CFR 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

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 renewed operating 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 ← **DELETED**

~~ENO is authorized to operate the facility at steady-state power levels not to exceed 2028 megawatts thermal.~~

B. Technical Specifications **###** replaced with the Permanently Defueled Technical Specifications

~~The Technical Specifications contained in Appendix A, as revised through Amendment No. 247, are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.~~

C. Records **maintain** Permanently Defueled

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

D. Equalizer Valve Restriction - DELETED

E. Recirculation Loop Inoperable - DELETED

F. Fire Protection ← **DELETED**

~~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, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Pilgrim Nuclear Power Station Physical Security, Training and Qualification, and Safeguards Contingency Plan, Revision 0" submitted by letter dated October 13, 2004, as supplemented by letter dated May 15, 2006.

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The licensee's CSP was approved by License Amendment No. 236, as supplemented by changes approved by Amendment Nos. 238, 241, 244, and 247.

DELETED

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

~~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.~~

DELETED

I. ~~Additional Conditions~~

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

J. 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 \$200 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, 1989, 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.~~

Deleted

~~(4) Entergy Nuclear shall have access to a contingency fund of not less than fifty million dollars (\$50m) for payment, if needed, of Pilgrim operating and maintenance expenses, the cost to transition to decommissioning status in the event of a decision to permanently shut down the unit, and decommissioning costs. Entergy Nuclear will take all necessary steps to ensure that access to these funds will remain available until the full amount has been exhausted for the purposes described above. Entergy Nuclear shall inform the Director, Office of Nuclear Regulation, in writing, at such time that it utilizes any of these contingency funds. This provision does not affect the NRC's authority to assure that adequate funds will remain available in the plant's separate decommissioning fund(s), which Entergy Nuclear shall maintain in accordance with NRC regulations. Once the plant has been placed in a safe shutdown condition following a decision to decommission, Entergy Nuclear will use any remainder of the \$50m contingency fund that has not been used to safely operate and maintain the plant to support the safe and prompt decommissioning of the plant, to the extent such funds are needed for safe and prompt decommissioning.~~

(5) The Decommissioning Trust agreement(s) shall be in a form which is acceptable to the NRC and shall provide, in addition to any other clauses, that:

Holtec Pilgrim, Holtec
Decommissioning
International

a) Investments in the securities or other obligations of ~~Energy Nuclear, Energy Corporation~~, their affiliates, subsidiaries or associates, or their successors or assigns shall be prohibited. In addition, except for investments tied to market indexes or other non-nuclear sector mutual funds, investments in any entity owning one or more nuclear power plants is prohibited.

b) The Director, Office of Nuclear Reactor Regulation, shall be given 30 days prior written notice of any material amendment to the trust agreement(s).

K. Mitigation Strategy License Condition

Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

- (a) Fire fighting response strategy with the following elements:
 - 1. Pre-defined coordinated fire response strategy and guidance
 - 2. Assessment of mutual aid fire fighting assets
 - 3. Designated staging areas for equipment and materials
 - 4. Command and control
 - 5. Training of response personnel
- (b) Operations to mitigate fuel damage considering the following:
 - 1. Protection and use of personnel assets
 - 2. Communications
 - 3. Minimizing fire spread
 - 4. Procedures for implementing integrated fire response strategy
 - 5. Identification of readily-available pre-staged equipment
 - 6. Training on integrated fire response strategy
 - 7. Spent fuel pool mitigation measures
- (c) Actions to minimize release to include consideration of:
 - 1. Water spray scrubbing
 - 2. Dose to onsite responders

L. The licensee shall implement and maintain all Actions required by Attachment 2 to NRC Order EA-06-137, issued June 20, 2006, except the last action that requires incorporation of the strategies into the site security plan, contingency plan, emergency plan and/or guard training and qualification plan, as appropriate.

DELETED

M. ~~Upon implementation of Amendment No. 231 adopting TSTF 448, Revision 3, the determination of control room envelope (CRE) unfiltered air leakage required by SF 4.7.6.2.c in accordance with TS 5.5.8.c.(i), the assessment of CRE habitability as required by Specification 5.5.8.c.(ii), and the measurement~~

of CRE pressure as required by Specification 5.5.8.d shall be considered met as follows:

- (a) ~~The first performance of SP 4.7.2.6.5.c in accordance with Specification 5.5.8.c.(i) shall be within the specified frequency of 6 years, plus the 18-month allowance as defined by SURVEILLANCE INTERVAL measured from December 5, 2005, the date of the most recent successful tracer gas test, as stated in Entergy's letter "Follow-Up Response to NRC Generic Letter 2003-01" (EN0-2.06.019), dated March 20, 2006, or within 18 months if the time period since the most recent successful tracer gas test is greater than 6 years.~~
- (b) ~~The first performance of the periodic assessment of CRE habitability Specification 5.5.8.c.(ii) shall be within 3 years, plus the 9-month allowance of SURVEILLANCE INTERVAL as measured from December 5, 2005, the date of the most recent successful tracer gas test, as stated in Entergy's letter "Follow-Up Response to NRC Generic Letter 2003-01" (EN0-2.06.019), dated March 20, 2006, or within 9 months if the time period since the most recent successful tracer gas test is greater than 3 years.~~
- (c) ~~The first performance of the periodic measurement of CRE pressure, Specification 5.5.8.d shall be within 24 months, plus the 180-day allowance of the SURVEILLANCE INTERVAL as measured from the date of the most recent successful pressure measurement test or within 180 days if not performed previously.~~

DELETED

4. ~~This license is subject to the following condition for the protection of the environment: Boston Edison shall continue, for a period of five years after initial power operation of the facility, an environmental monitoring program similar to that presently existing with the Commonwealth of Massachusetts (and described generally in Section C-III of Boston Edison's Environmental Report, Operating License Stage dated September, 1970) as a basis for determining the extent of station influence on marine resources and shall mitigate adverse effects, if any, on marine resources.~~

DELETED

5. ~~Boston Edison has not completed as yet construction of the Rad Waste Solidification System and the Augmented Off Gas System. Limiting conditions concerning these systems are set forth in the Technical Specifications.~~

DELETED

6. ~~Pursuant to Section 105e(8) of the Act, the Commission has consulted with the Attorney General regarding the issuance of this operating license. After said consultation, the Commission has determined that the issuance of this license, subject to the conditions set forth in this subparagraph 6, in advance of consideration of and findings with respect to matters covered in Section 105c of the Act, is necessary in the public interest to avoid unnecessary delay in the operation of the facility. At the time this operating license is being issued an antitrust proceeding has not been noticed. The Commission, accordingly, has made no determination with respect to matters covered in Section 105c of the Act, including conditions, if any, which may be appropriate as a result of the outcome of any antitrust proceeding. On the basis of its findings made as a result of an antitrust proceeding, the Commission may continue this license as issued, rescind this license or amend this license to include such conditions as the Commission~~

~~deems appropriate. Boston Edison and others who may be affected hereby are accordingly on notice that the granting of this license is without prejudice to any subsequent licensing action, including the imposition of appropriate conditions, which may be taken by the Commission as a result of the outcome of any antitrust proceeding. In the course of its planning and other activities, Boston Edison will be expected to conduct itself accordingly.~~

7. ~~The information in the FSAR supplement, submitted pursuant to 10 CFR 54.21(d), as supplemented by Commitments Nos. 3, 8, 9, 13, 15, 18, 19, 21, 22, 24, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36, 37, 39, 40, 46, 51, and 52 of Appendix A of NUREG-1891, "Safety Evaluation Report Related to the License Renewal of Pilgrim Nuclear Power Station" dated June 2007, as supplemented, is henceforth part of the FSAR which will be updated in accordance with 10 CFR 50.71(e). In addition, the licensee shall incorporate into its FSAR the "Description of Program" from Table 3.0-1 "FSAR Supplement for Aging Management of Applicable Systems" of License Renewal Interim Staff Guidance LR-ISC-2011-05 "Ongoing Review of Operating Experience."~~

The licensee may make changes to the programs and activities described in the FSAR supplement and Commitments Nos. 3, 8, 9, 13, 15, 18, 19, 21, 22, 24, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36, 37, 39, 40, 46, 51, and 52 of Appendix A of NUREG-1891, as supplemented, provided the licensee evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

DELETED

8. ~~The licensee's FSAR supplement submitted pursuant to 10 CFR 54.21(d), as revised during the license renewal application review process, and as supplemented by Commitments Nos. 3, 8, 9, 13, 15, 18, 19, 21, 22, 24, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36, 37, 39, 40, 46, 51, and 52 of Appendix A of NUREG-1891, as supplemented, along with the FSAR description regarding consideration of operating experience for license renewal aging management programs in Condition 7 above, describes certain future programs and activities to be completed before the period of extended operation. The licensee shall complete these activities no later than June 8, 2012, and shall notify the NRC in writing when implementation of these activities is complete.~~

DELETED

9. ~~Capsule withdrawal schedule—For the renewed operating license term, all capsules in the reactor vessel that are removed and tested must meet the requirements of American Society for Testing and Materials (ASTM) E-185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal schedule, including spare capsules, must be approved by the staff prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the staff, as required by 10 CFR Part 50, Appendix H.~~

until the Commission notifies the licensee in writing that the license is terminated

- 8 -

10. This license is effective as of the date of issuance and shall expire ~~June 8, 2032~~.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signature on File

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Permanently Defueled

Attachments:
Appendix A - Technical Specifications
(Radiological)
~~Appendix B - Additional Conditions~~
Date of Issuance: ~~May 29, 2012~~

TBD

NOTE THAT THE FOLLOWING INCORPORATES AMENDMENT 246 - ADMINISTRATIVE CHANGES DUE TO PERMANENT SHUTDOWN BECAUSE IT WILL BE IMPLEMENTED PRIOR TO THE IMPLEMENTATION DATE OF THIS AMENDMENT - THIS NOTE WILL NOT BE INCLUDED IN THE RETYPED TECHNICAL SPECIFICATIONS

PERMANENTLY DEFUELED

APPENDIX A
TO
FACILITY OPERATING LICENSE DPR-35
TECHNICAL SPECIFICATION AND BASES
FOR S
PILGRIM NUCLEAR POWER STATION
PLYMOUTH, MASSACHUSETTS
~~ENERGY NUCLEAR and ENERGY NUCLEAR OPERATIONS, INC.~~

Holtec Pilgrim, LLC and Holtec Decommissioning International

4.0 DESIGN FEATURES

4.1 Site Location

Holtec Pilgrim

Pilgrim Nuclear Power Station is located on the western shore of Cape Cod Bay in the Town of Plymouth, Plymouth County, Massachusetts and contains approximately 517 acres owned by Entergy Nuclear as shown on FSAR Figures 2.2-1 and 2.2-2. The site boundary is posted and a perimeter security fence provides a distinct security boundary for the protected area of the station.

The reactor (center line) is located approximately 1800 feet from the nearest property boundary.

4.2 Deleted

Not Used

4.3 Fuel Storage

SPENT

4.3.1 Criticality

4.3.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. Fuel assemblies having a maximum k-infinity of 1.32 for standard core geometry, calculated at the burnup of maximum bundle reactivity, and an average U-235 enrichment of 4.6 % averaged over the axial planar zone of highest average enrichment; and
- b. $K_{eff} \leq 0.95$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in Section 10.3.5 of the FSAR.

the applicable section

(continued)

Attachment 2

Letter Number 2.19.007

Retyped Operating License and Permanently Defueled Technical Specifications Pages

HOLTEC PILGRIM, LLC
And HOLTEC DECOMMISSIONING INTERNATIONAL
(PILGRIM NUCLEAR POWER STATION)
DOCKET NO. 50-293
RENEWED FACILITY LICENSE
Renewed License No. DPR-35

The Nuclear Regulatory Commission (the Commission) has found that:

- a. DELETED
- b. The facility will be maintained 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 renewed 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. Holtec Pilgrim, LLC (Holtec Pilgrim) is financially qualified and Holtec Decommissioning International (HDI) is technically and financially qualified to engage in the activities authorized by this renewed license, in accordance with the rules and regulations of the Commission; and
- e. Holtec Pilgrim and HDI 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 renewed license will not be inimical to the common defense and security or to the health and safety of the public; and
- g. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the issuance of this renewed license (subject to the condition for protection of the environment set forth herein) is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements of said regulations have been satisfied.
- h. DELETED

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:

1. This renewed 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 Holtec Pilgrim and maintained by HDI. The facility is located on the western shore of Cape Cod Bay in the town of Plymouth on the Holtec Pilgrim 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 Holtec Pilgrim:
 - 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) Holtec Pilgrim to possess and use and b) HDI to possess and use the facility at the designated location on the Pilgrim site;
 - B. HDI, pursuant to the Act and 10 CFR 70, to possess at any time special nuclear material that was used as reactor fuel, in accordance with the limitations for storage as described in the Final Safety Analysis Report, as supplemented and amended;
 - C. HDI, 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 that were used for reactor startup, sealed sources that were used for calibration of reactor instrumentation and are used in radiation monitoring equipment, and as fission detectors in amounts as required;
 - D. HDI, 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. HDI, 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 renewed 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. DELETED

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. ###, are hereby replaced with the Permanently Defueled Technical Specifications. The licensee shall maintain the facility in accordance with the Permanently Defueled Technical Specifications.

C. Records

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

D. DELETED

E. DELETED

F. DELETED

G. Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contain Safeguards Information protected under 10 CFR 73.21, is entitled: "Pilgrim Nuclear Power Station Physical Security, Training and Qualification, and Safeguards Contingency Plan, Revision 0" submitted by letter dated October 13, 2004, as supplemented by letter dated May 15, 2006.

The licensee shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The licensee's CSP was approved by License Amendment No. 236, as supplemented by changes approved by Amendment Nos. 238, 241, 244, and 247.

H. DELETED

I. DELETED

J. Conditions Related to the Sale and Transfer

(1) DELETED

(2) DELETED

(3) DELETED

(4) DELETED

(5) The Decommissioning Trust agreement(s) shall be in a form which is acceptable to the NRC and shall provide, in addition to any other clauses, that:

a) Investments in the securities or other obligations of Holtec Pilgrim, Holtec Decommissioning International, their affiliates, subsidiaries or associates, or their successors or assigns shall be prohibited. In addition, except for investments tied to market indexes or other non-nuclear sector mutual funds, investments in any entity owning one or more nuclear power plants is prohibited.

b) The Director, Office of Nuclear Reactor Regulation, shall be given 30 days prior written notice of any material amendment to the trust agreement(s).

K. Mitigation Strategy License Condition

Develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

- (a) Fire fighting response strategy with the following elements:
 - 1. Pre-defined coordinated fire response strategy and guidance
 - 2. Assessment of mutual aid fire fighting assets
 - 3. Designated staging areas for equipment and materials
 - 4. Command and control
 - 5. Training of response personnel
- (b) Operations to mitigate fuel damage considering the following:
 - 1. Protection and use of personnel assets
 - 2. Communications
 - 3. Minimizing fire spread
 - 4. Procedures for implementing integrated fire response strategy
 - 5. Identification of readily-available pre-staged equipment
 - 6. Training on integrated fire response strategy
 - 7. Spent fuel pool mitigation measures
- (c) Actions to minimize release to include consideration of:
 - 1. Water spray scrubbing
 - 2. Dose to onsite responders

L. The licensee shall implement and maintain all Actions required by Attachment 2 to NRC Order EA-06-137, issued June 20, 2006, except the last action that requires incorporation of the strategies into the site security plan, contingency plan, emergency plan and/or guard training and qualification plan, as appropriate.

M. DELETED

4. DELETED

- 5. DELETED
- 6. DELETED
- 7. The information in the FSAR supplement, submitted pursuant to 10 CFR 54.21(d), as supplemented by Commitments Nos. 3, 8, 9, 13, 15, 18, 19, 21, 22, 24, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36, 37, 39, 40, 46, 51, and 52 of Appendix A of NUREG-1891, "Safety Evaluation Report Related to the License Renewal of Pilgrim Nuclear Power Station" dated June 2007, as supplemented, is henceforth part of the FSAR which will be updated in accordance with 10 CFR 50.71(e).

The licensee may make changes to the programs and activities described in the FSAR supplement and Commitments Nos. 3, 8, 9, 13, 15, 18, 19, 21, 22, 24, 25, 26, 27, 28, 30, 31, 33, 34, 35, 36, 37, 39, 40, 46, 51, and 52 of Appendix A of NUREG-1891, as supplemented, provided the licensee evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

- 8. DELETED
- 9. DELETED
- 10. This license is effective as of the date of issuance and until the Commission notifies the licensee in writing that the license is terminated.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signature on File

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Attachment:
Appendix A – Permanently Defueled Technical Specifications
(Radiological)
Date of Issuance: TBD

APPENDIX A
TO
FACILITY LICENSE DPR-35
PERMANENTLY DEFUELED TECHNICAL SPECIFICATIONS AND BASES
FOR
PILGRIM NUCLEAR POWER STATION
PLYMOUTH, MASSACHUSETTS
Holtec Pilgrim, LLC and Holtec Decommissioning International

4.0 DESIGN FEATURES

4.1 Site Location

Pilgrim Nuclear Power Station is located on the western shore of Cape Cod Bay in the Town of Plymouth, Plymouth County, Massachusetts and contains approximately 517 acres owned by Holtec Pilgrim as shown on FSAR Figures 2.2-1 and 2.2-2. The site boundary is posted and a perimeter security fence provides a distinct security boundary for the protected area of the station.

The reactor (center line) is located approximately 1800 feet from the nearest property boundary.

4.2 Not Used

4.3 Spent Fuel Storage

4.3.1 Criticality

4.3.1.1 The spent fuel storage racks are designed and shall be maintained with:

- a. Fuel assemblies having a maximum k-infinity of 1.32 for standard core geometry, calculated at the burnup of maximum bundle reactivity, and an average U-235 enrichment of 4.6 % averaged over the axial planar zone of highest average enrichment; and
- b. $K_{\text{eff}} \leq 0.95$ if fully flooded with unborated water, which includes an allowance for uncertainties as described in the applicable section of the FSAR.

4.3.2 Drainage

The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 115 ft.

4.3.3 Capacity

The spent fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 3859 fuel assemblies.

4.3.4 Heavy Loads

- a. Loads in excess of 2000 lb. shall be prohibited from travel over fuel assemblies in the spent fuel storage pool with the exception that heavy load handling over irradiated fuel in the Multi-Purpose Canister is permitted using a single-failure-proof handling system.
- b. No fuel which has decayed for less than 200 days shall be stored in racks within an arc described by the height of the cask around the periphery of the leveling platform during cask handling operations in the spent fuel pool or when a cask is in the spent fuel pool.