



Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
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Plymouth, MA 02360

Brian R. Sullivan
Site Vice President

2.18.062

December 14, 2018

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

SUBJECT: Request for Rescission of Commission Order Modifying Licenses with
Regard to Reliable Spent Fuel Pool Instrumentation (Order EA-12-051)

Pilgrim Nuclear Power Station
Docket No. 50-293
Renewed License No. DPR-35

- REFERENCES:**
1. NRC Order Number EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Instrumentation, dated March 12, 2012 (ML2056A044)
 2. Entergy Letter to NRC (Pilgrim Letter 2.15.051), Pilgrim Nuclear Power Station's Notification of Full Compliance with Order EA-12-051, Order Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation, dated July 17, 2015 (ML15209A606)
 3. Entergy Letter to NRC (Pilgrim Letter 2.15.080), Notification of Permanent Cessation of Power Operations, dated November 10, 2015 (ML15328A053)

Dear Sir or Madam:

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued order EA-12-051 (Reference 1) to Pilgrim Nuclear Power Station (PNPS) that directed PNPS to install additional Spent Fuel Pool (SFP) level instrumentation. Specific requirements of the Order are contained in Reference 1.

In accordance with the Order implementation schedule specified in Reference 1, PNPS achieved full compliance with the Order on May 20, 2015. In Reference 2, PNPS provided the required report of full compliance with Order EA-12-051 and the associated Final Integrated Plan describing the SFP instrumentation installed at PNPS.

In Reference 3, Entergy notified the NRC of plans to permanently shut down PNPS and cease operation no later than June 1, 2019.

ADD
NRR

The purpose of this letter is to request rescission of the Order upon docketing of the Title 10 Code of Federal Regulations (CFR) 50.82(a)(1) certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel. The attachment to this letter provides the good cause justification for this request.

This letter contains no new regulatory commitments.

If you have any questions or require additional information, 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 December 14, 2018.

Sincerely,

A handwritten signature in black ink, appearing to read 'BRS', with a long horizontal flourish extending to the right.

Brian R. Sullivan

BRS/rmc

Attachments:

1. Request for Rescission of Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order EA-12-051)

cc: Mr. David C. Lew
Regional Administrator, Region I
U. S. Nuclear Regulatory Commission
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406-2713

Mr. John Lamb, Senior Project Manager
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
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NRC Senior Resident Inspector
Pilgrim Nuclear Power Station

Mr. John Giarrusso, Jr.
Planning, Preparedness and Nuclear Section Chief
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Mr. John Priest, Director
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Attachment 1

Letter Number 2.18.062

Request for Rescission of Commission Order Modifying Licenses with Regard to Reliable Spent
Fuel Pool Instrumentation (Order EA-12-051)

(3 Pages)

I. Proposed Order Rescission

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued Order EA-12-051, "Order to Modify Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation" (Reference 1) to Entergy Nuclear Operations, Inc. (Entergy) for Pilgrim Nuclear Power Station (PNPS). In accordance with the Order implementation schedule specified in Reference 1, PNPS achieved full compliance with the Order on May 20, 2015. In Reference 2, Entergy provided the required report of full compliance with Order EA-12-051. In Reference 3, the NRC verified that PNPS had adequately installed reliable water-level measurement instrumentation in the Spent Fuel Pool (SFP), and determined that PNPS was in compliance with NRC Order EA-12-051.

In Reference 4, Entergy notified the NRC of plans to permanently shut down PNPS and cease operation no later than June 1, 2019. In accordance with Section IV of the Order, Entergy hereby submits a request that Order EA-12-051 be rescinded for PNPS upon docketing of the Title 10 Code of Federal Regulations (CFR) 50.82(a)(1) certifications for permanent cessation of operation and permanent removal of fuel from the reactor vessel.

II. Basis for Rescission Request

Section IV of the Order provides the NRC's Director of the Office of Nuclear Reactor Regulation the authority to relax or rescind any or all of the conditions of the Order upon demonstration by the licensee of good cause.

By letter dated November 10, 2015, (Reference 4) Entergy notified the NRC of plans to permanently shut down PNPS and cease operation no later than June 1, 2019.

Section III of the Order states that the Commission determined that all power reactor licensees and construction permit holders must have a reliable means of remotely monitoring wide-range SFP levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. This statement forms the basis of the Order and reflects the need to effectively deploy limited resources to mitigate very low frequency events with the potential to challenge both the reactor and SFP. With reliable indication of the SFP coolant level, the plant staff can determine when to deploy resources to the SFP and avoid unnecessary deployment of personnel to monitor SFP level.

Upon docketing of the 10 CFR 50.82(a)(1) certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel, the 10 CFR Part 50 license will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel. The safety of the irradiated fuel in the SFP will be the primary safety function for site personnel. Thus, the basis for the Order will no longer apply to PNPS.

III. Spent Fuel Pool Level Indication

PNPS SFP level instrument loops incorporate two permanently installed, physically independent, and physically separated loops (with loop separation in accordance with existing plant design basis requirements). Displays are installed in the control room. The level sensor's range is approximately between elevations 117 feet and 93 feet. The top of the fuel assemblies stored in the fuel racks is approximately 93 feet. For reference, the refueling floor level is at elevation 117 feet. The SFP water level is monitored, and high and low level is alarmed. In addition to the instrumentation available for monitoring pool level, the level can also be observed locally from the refueling floor. Based on the above description there is adequate indication available to determine the level in the SFP.

IV. Conclusion

Upon docketing of the 10 CFR 50.82(a)(1) certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel, the 10CFR50 license will no longer authorize operation of the reactor or emplacement or retention of fuel into the reactor vessel. Since PNPS is permanently shutting down and defueling, no additional fission products will be generated from the plant after shutdown and the decay heat load on the spent fuel will continue to decline.

After the station is permanently shut down and the reactor permanently defueled, the requirements of the Order are unnecessary. In the unlikely event of a challenge to the safety of fuel stored in the SFP, plant staff would not be required to prioritize event mitigation and recovery actions; the focus of the staff would be the SFP condition. Thus, the basis for the Order will no longer apply to the configuration of PNPS. The evaluation that PNPS has performed demonstrates good cause to support Entergy's request that the Order be rescinded in its entirety upon docketing of the 10 CFR 50.82(a)(1) certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel.

Based on the above, the Director, Office of Nuclear Reactor Regulation is requested to rescind Order EA-12-051 for PNPS upon docketing of the 10 CFR 50.82(a)(1) certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel.

References:

1. NRC Order Number EA-12-051, Order Modifying Licenses with Regard to Reliable Spent Fuel Instrumentation, dated March 12, 2012 (ML2056A044)
2. Entergy Letter to NRC (Pilgrim Letter 2.15.051) Pilgrim Nuclear Power Station's Notification of Full Compliance with Order EA-12-051, Order Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation, dated July 17, 2015 (ML15209A606)
3. NRC Letter Pilgrim Nuclear Power Station – Safety Evaluation Regarding Implementation of Mitigating Strategies and Reliable Spent Fuel Pool Instrumentation Related to Orders EA-12-049 and EA-12-051 (TAC Nos. MF0777 and MF0778), dated March 3, 2016 (ML16008B077)
4. Entergy Letter to NRC (Pilgrim Letter 2.15.080) Notification of Permanent Cessation of Power Operations, dated November 10, 2015 (ML15328A053)