UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

March 1, 2017

Mr. John Dent
Site Vice President
Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360-5508

SUBJECT: ANNUAL ASSESSMENT LETTER FOR PILGRIM NUCLEAR POWER STATION (REPORT 05000293/2016006)

Dear Mr. Dent:

The U.S. Nuclear Regulatory Commission (NRC) has completed its end-of-cycle performance assessment of Pilgrim Nuclear Power Station (Pilgrim), reviewing performance indicators (PIs), inspection results, and enforcement actions from January 1, 2016 through December 31, 2016. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. The NRC concluded that overall performance at your facility preserved public health and safety.

The NRC determined the performance at Pilgrim remains in Column 4, or the Multiple/Repetitive Degraded Cornerstone Column, of the NRC's Reactor Oversight Process (ROP) Action Matrix in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program. As described in the mid-cycle assessment letter dated September 1, 2015 (ML15243A259[1]), this was due to the issuance of an additional White finding in the Mitigating Systems cornerstone while Pilgrim was in the Degraded Cornerstone Column (Column 3) of the ROP Action Matrix for more than five consecutive quarters. While the plant remains in Column 4, the NRC will continuously assess Pilgrim's performance to evaluate the need for additional regulatory action up to and including moving the plant to the Unacceptable Performance Column (Column 5), and issuing a shutdown order. To date our inspection and assessment have determined that Pilgrim continues to operate safely, and at this time additional regulatory action beyond Column 4 is not required.

The NRC is in the midst of performing the Inspection Procedure (IP) 95003 inspection, as required for all Column 4 plants. The inspection is being conducted in three phases ('A' through 'C') (ML15352A128). The Phase 'A' and 'B' inspections are complete (ML16060A018 and ML16144A027). These inspections reviewed aspects of the Pilgrim corrective action program and determined that Pilgrim continued to operate safely, that continued operation was acceptable, and that additional regulatory action was not required. Phase 'C' of the inspection is currently in progress.

[1] The designation in parentheses refers to an Agencywide Documents Access and Management System (ADAMS) Accession Number. Documents referenced in this letter are publicly available using the Accession Number in ADAMS.

The Phase 'C' inspection team completed three weeks of onsite inspection on January 13, 2017, and is currently finalizing the inspection results. The report is expected to be issued in the spring of 2017 and a public exit meeting will be conducted prior to issuing the report. The results of the Phase 'C' inspection will support the documentation of a Confirmatory Action Letter and the assessment of the need for additional regulatory action. The Confirmatory Action Letter will document the licensee's commitments, including those in its performance improvement plan that, as determined by the results of the IP 95003 inspection, are needed to ensure adequate protection of the public health and safety. The NRC will then conduct follow-up inspections to ensure adequate actions are taken to complete the commitments from the Confirmatory Action Letter.

In accordance with IMC 0305, as the inspection and assessment of Pilgrim's performance in Column 4 continues, the NRC may take additional regulatory actions as warranted. IMC 0305 also provides a number of regulatory tools to ensure sufficient oversight of performance while in Column 4. NRC senior management will continue to conduct quarterly reviews of Pilgrim performance to assess the effectiveness of improvement efforts and to assess whether additional regulatory action is warranted. The NRC added resources to support additional inspection at the Pilgrim site, and has also engaged, and will continue to engage, Entergy Nuclear Operations, Inc. (Entergy) with more frequent site visits.

The enclosed inspection plan lists the inspections scheduled through December 31, 2018. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last twelve months of the inspection plan are tentative and may be revised. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include the plan for security-related inspections, which will be sent via separate, non-publicly available correspondence.

In addition to the baseline inspections, the NRC will conduct IP 60855.1, "Operation of an ISFSI Independent Spent Fuel Storage Installation at Operating Plants." Additionally, NRC staff will perform Temporary Instruction 2515-192, "Inspection of the Licensee's Interim Compensatory Measures Associated with the Open Phase Condition (OPC) Design Vulnerabilities in Electric Power Systems."

From January 1 to December 31, 2016, the NRC issued one Severity Level III traditional enforcement violation associated with willfulness and impeding the regulatory process. Therefore, the NRC plans to conduct IP 92702, "Follow-up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, Confirmatory Orders, and Alternative Dispute Resolution Confirmatory Orders," to follow-up on this violation.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Please contact Arthur Burritt at (610) 337-5069 with any questions you have regarding this letter.

Sincerely,

/RA/

Daniel H. Dorman
Regional Administrator

Docket No. 50-293
License No. DPR-35

Enclosure:
Pilgrim Inspection/Activity Plan

cc w/encl: Distribution via ListServ

SUBJECT: ANNUAL ASSESSMENT LETTER FOR PILGRIM NUCLEAR POWER STATION (REPORT 05000293/2016006) DATED MARCH 1, 2017

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ADAMS Accession Number: **ML17059B917**

☑ SUNSI Review		☑ Non-Sensitive ☐ Sensitive		☑ Publicly Available ☐ Non-Publicly Available	
OFFICE	RI/DRP	RI/DRP	RI/DRP	RI/ORA	
NAME	SHaney	ABurritt	MScott/DLP for	DDorman	
DATE	2/22/17	2/21/17	2/23/17	2/27/17	

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Pilgrim
Inspection / Activity Plan
01/01/2017 - 12/31/2018

Unit Number	Planned Dates Start	End	Inspection Activity	Title	No. of Staff on Site
			2/27EXM	**- PILGRIM INITIAL OL EXAM**	**4**
1	01/30/2017	02/05/2017	U01945	FY17-PILGRIM INITIAL OPERATOR LICENSING EXAM	
1	02/27/2017	03/03/2017	U01945	FY17-PILGRIM INITIAL OPERATOR LICENSING EXAM	
			95003	**- 95003 PHASE C**	**22**
1	01/09/2017	01/13/2017	IP 95003	Inspection For Repetitive Degraded Cornerstones, Multiple Degraded Cornerstones, Multiple Yellow Inp	
1	01/09/2017	01/13/2017	IP 9500302	Guidance for Conducting an Independent NRC Safety Culture Assessment	
			92702	**- IP 92702**	**1**
1	02/27/2017	03/03/2017	IP 92702	Followup On Corrective Actions For Violations And Deviations	
			7111108G	**- INSERVICE INSPECTION**	**1**
1	04/17/2017	04/21/2017	IP 7111108G	Inservice Inspection Activities - BWR	
			71124	**- IP71124.01 .02 .03 .04 HP INSPECT**	**1**
1	04/24/2017	04/27/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	04/24/2017	04/27/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1	04/24/2017	04/27/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	04/24/2017	04/27/2017	IP 71124.04	Occupational Dose Assessment	
			71124.08	**- RADWASTE**	**1**
1	06/05/2017	06/09/2017	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			7111111B	**- PILGRIM REQUAL INSP W/ P/F RESULTS**	**2**
1	09/04/2017	09/08/2017	IP 7111111A	Licensed Operator Requalification Program - Annual Review	
1	09/04/2017	09/08/2017	IP 7111111B	Licensed Operator Requalification Program	
			7111121M	**- DESIGN BASES ASSURANCE INSPECTION (TEAM)**	**6**
1	07/31/2017	08/04/2017	IP 7111121M	Component Design Bases Inspection (Teams)	
1	08/14/2017	08/18/2017	IP 7111121M	Component Design Bases Inspection (Teams)	
			71124	**- 71124.06 RETS**	**1**
1	08/07/2017	08/11/2017	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
			71152B	**- PI&R BIENNIAL**	**5**
1	09/11/2017	09/15/2017	IP 71152B	Problem Identification and Resolution	
1	09/25/2017	09/29/2017	IP 71152B	Problem Identification and Resolution	
			71124	**- 71124.07 REMP**	**1**
1	09/18/2017	09/21/2017	IP 71124.07	Radiological Environmental Monitoring Program	
			71124	**- 71151 PI VERIFY 71124.01 .02 .03 .06 .07**	**1**
1	11/27/2017	11/30/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	11/27/2017	11/30/2017	IP 71124.02	Occupational ALARA Planning and Controls	

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Pilgrim
Inspection / Activity Plan
01/01/2017 - 12/31/2018

Unit Number	Planned Dates Start	End	Inspection Activity	Title	No. of Staff on Site
			71124	**- 71151 PI VERIFY 71124.01 .02 .03 .06 .07**	**1**
1	11/27/2017	11/30/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	11/27/2017	11/30/2017	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	11/27/2017	11/30/2017	IP 71124.07	Radiological Environmental Monitoring Program	
1	11/27/2017	11/30/2017	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1	11/27/2017	11/30/2017	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			EP	**- EP PROGRAM INSPECTION**	**1**
1	11/27/2017	12/01/2017	IP 7111402	Alert and Notification System Testing	
1	11/27/2017	12/01/2017	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1	11/27/2017	12/01/2017	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1	11/27/2017	12/01/2017	IP 71151	Performance Indicator Verification	
			71124.01	**- 01 EXPOSURE CONTROL**	**1**
1	04/09/2018	04/12/2018	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
			ISFSI	**- ISFSI LOADING CAMPAIGN INSPECTION**	**3**
1	07/09/2018	07/13/2018	IP 60855	Operation Of An ISFSI	
1	07/09/2018	07/13/2018	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			EP	**- EP EXERCISE INSPECTION**	**4**
1	11/05/2018	11/09/2018	IP 7111401	Exercise Evaluation	
1	11/05/2018	11/09/2018	IP 71151	Performance Indicator Verification	
			7111105X	**- TRIENNIAL FIRE PROTECTION**	**4**
1	10/22/2018	10/26/2018	IP 7111105X	Fire Protection - NFPA 805 (Triennial)	
1	11/05/2018	11/09/2018	IP 7111105X	Fire Protection - NFPA 805 (Triennial)	
			71124	**- IP 71151 PI VERIFY IP 71124.01 RAD HAZ**	**1**
1	11/26/2018	11/29/2018	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	11/26/2018	11/29/2018	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1	11/26/2018	11/29/2018	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	

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