



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

August 31, 2016

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

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR PILGRIM NUCLEAR POWER
STATION (REPORT 05000293/2016005)**

Dear Mr. Dent:

On August 9, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Pilgrim Nuclear Power Station (Pilgrim). The NRC reviewed the most recent quarterly performance indicators in addition to inspection results and enforcement actions from July 1, 2015, through June 30, 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 determined the performance at Pilgrim during the most recent quarter was within the Repetitive Degraded Cornerstone Column (Column 4) of the NRC's Reactor Oversight Process (ROP) Action Matrix as defined in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program." This resulted from 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, as described in the mid-cycle assessment letter dated September 1, 2015 (ML15243A259¹). The NRC also determined that Pilgrim continues to operate safely, and additional regulatory actions beyond those prescribed for plants in Column 4 are not required at this time. There have been no risk-significant events, equipment failures, or inspection findings since Pilgrim's entry into Column 4. During the last assessment period, the NRC had identified a cross-cutting theme in Problem Identification and Resolution in accordance with IMC 0305 because the inspectors had identified 13 findings with a cross-cutting aspect in this area. In the current assessment cycle this cross-cutting theme no longer exists.

As a result of Pilgrim's entry into Column 4, in addition to ROP baseline inspections, the NRC must complete a supplemental inspection in accordance with Inspection Procedure (IP) 95003, "Supplemental Inspection for Repetitive Degraded Cornerstones, Multiple Degraded Cornerstones, Multiple Yellow Inputs or One Red Input." Based on the corrective action program weaknesses that resulted in Pilgrim's entry into Column 4, the scope of this

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.

supplemental inspection at Pilgrim is focused on the corrective action program and safety culture assessment (reference sections 02.02 and 02.07 through 02.09 of IP 95003). The scope also includes the Reactor Safety Strategic Performance Area, with focus on the key attributes of human performance, procedure quality, and equipment performance (reference sections 02.03c, 02.03d and 02.03e of IP 95003).

In a letter dated December 18, 2015 (ML15352A128), the NRC informed you of its intent to conduct the IP 95003 inspection in three phases ('A' through 'C'). The Phase 'A' and 'B' portions of this inspection are complete (ML16060A018 and ML16144A027). These inspections reviewed aspects of the Pilgrim corrective action program to determine whether continued operation of Pilgrim was acceptable or additional regulatory action was needed to arrest declining performance. Based on the overall results of these inspections, the NRC concluded that Pilgrim continued to operate safely. We plan to conduct Phase 'C' of the inspection, which will complete our review of the IP 95003 inspection scope described above, once you have informed us of your readiness.

In the interim, in addition to the aforementioned phased approach of IP 95003, IMC 0305 provides a number of regulatory tools to ensure increased oversight to monitor for any additional performance decline. For instance, NRC senior management has been conducting quarterly reviews of Pilgrim performance, with a particular focus on monitoring for additional performance decline. The NRC has added additional inspection resources and has engaged Entergy Nuclear Operations, Inc. (Entergy) with more frequent site visits. The Commission met with Entergy to discuss Entergy's performance improvement plan at the Commission public meeting held on June 2, 2016. As our assessment of the plant's performance in Column 4 continues, the NRC may take additional regulatory actions as warranted, including additional supplemental inspections, a demand for information, or issuance of an order, up to and including a plant shutdown.

The enclosed inspection plan lists the inspections scheduled through June 30, 2018. Routine inspections performed by resident inspectors are not included in the inspection plan. In addition, the NRC plans to conduct IP 60855.1, "Operation of an Independent Spent Fuel Storage Installation at Operating Plants," at your facility. The inspections listed during the last half of the inspection period in the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. 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 security-related inspections, which will be sent via separate, non-publicly available correspondence.

From July 1, 2015, to June 30, 2016, the NRC issued a Severity Level III traditional enforcement violation to Pilgrim for falsified fire watches. In accordance with IMC 0305, "Operating Reactor Assessment Program," Section 13.02.b, the NRC will follow up on the Severity Level III violation through IP 92702, "Follow-up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, Confirmatory Orders, and Alternative Dispute Resolution Confirmatory Orders."

In Staff Requirements Memorandum – SECY 16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," (ML16104A158) the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle

J. Dent

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assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct assessment reviews and communicate changes in the assessment of licensee performance quarterly, and will also issue end-of-cycle assessment letters.

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

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DOCUMENT NAME: S:\ROP Assessment Meetings\ROP-17 Mid-Cycle Review\Branch 5\Pilgrim\ROP-17 Pilgrim MC Assessment Letter_final.docx

ADAMS Accession No. **ML16239A119**

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DRP	RI/DRP	RI/DRP	RI/ORA	
NAME	JVazquez	ABurritt	MScott w/edits	DDorman	
DATE	8/17/16	8/15/16	8/15/16	8/22/16	

Pilgrim
Inspection / Activity Plan
07/01/2016 - 06/30/2018

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			7111107T - TRIENNIAL HEAT SINK		1
1	07/18/2016	07/22/2016	IP 7111107T	Heat Sink Performance	
			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	
			ISFSI - ISFSI LOADING CAMPAIGN INSPECTION		2
1	09/26/2016	09/30/2016	IP 60855	Operation Of An ISFSI	
1	09/26/2016	09/30/2016	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			EP - EP EXERCISE EVALUATION		4
1	11/14/2016	11/18/2016	IP 7111401	Exercise Evaluation	
			71124 - 71151 PI VERIFY 71124.01EXPCONT05RAD MON		1
1	11/28/2016	11/30/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	11/28/2016	11/30/2016	IP 71124.05	Radiation Monitoring Instrumentation	
1	11/28/2016	11/30/2016	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1	11/28/2016	11/30/2016	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			7111108G - INSERVICE INSPECTION		1
1	04/17/2017	04/21/2017	IP 7111108G	Inservice Inspection Activities - BWR	
			71124 - 71124.01 RAD HAZARD AND 71124.02 ALARA		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	
			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	
			71124 - RAD HAZ- ALARA- AIRBORNE-DOSIMETRY		1
1	06/05/2017	06/09/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	06/05/2017	06/09/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1	06/05/2017	06/09/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	06/05/2017	06/09/2017	IP 71124.04	Occupational Dose Assessment	
			7111111B - PILGRIM REQUAL INSP W/ P/F RESULTS		2
1	09/04/2017	09/08/2017	IP 7111111B	Licensed Operator Requalification Program	
			7111121 - CDBI		6
1	07/31/2017	08/04/2017	IP 7111121	Component Design Bases Inspection	
1	08/14/2017	08/18/2017	IP 7111121	Component Design Bases Inspection	
1	08/28/2017	09/01/2017	IP 7111121	Component Design Bases Inspection	

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

Enclosure

Pilgrim
Inspection / Activity Plan
07/01/2016 - 06/30/2018

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			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 TEAM INSPECTION		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 VERIFY71124.02ALARA06RETS07REMP		1
1	11/20/2017	11/23/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1	11/20/2017	11/23/2017	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	11/20/2017	11/23/2017	IP 71124.07	Radiological Environmental Monitoring Program	
1	11/20/2017	11/23/2017	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1	11/20/2017	11/23/2017	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	

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