



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I**  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 5, 2012

Mr. Robert Smith  
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 05000293/2011001)**

Dear Mr. Smith:

On February 14, 2012, the U. S. Nuclear Regulatory Commission (NRC) staff completed its end-of-cycle performance review of the Pilgrim Nuclear Power Station (Pilgrim). The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from January 1, 2011 through December 31, 2011. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. This performance review and enclosed inspection plan do not include security information. A separate letter will include the NRC's assessment of your performance in the Security Cornerstone and its security-related inspection plan.

The NRC determined the performance at Pilgrim during the most recent quarter was within the Regulatory Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix based on one finding originating in the third quarter of 2011 having low to moderate safety significance (White) in the Initiating Events Cornerstone. The finding involved the failure of Pilgrim personnel to implement conduct of operations and reactivity control standards and procedures during a reactor startup on May 10, 2011, which contributed to an unrecognized subcriticality followed by an unrecognized return to criticality and subsequent reactor scram.

As a result of our review of Pilgrim's performance, we plan to conduct a supplemental inspection using NRC Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," when your staff has notified us of your readiness for this inspection. This inspection procedure is conducted to provide assurance that the root cause and contributing causes of risk significant performance issues are understood, the extent of condition is identified, and the corrective actions are sufficient to prevent recurrence.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through June 30, 2013. Routine inspections performed by resident inspectors are not included in the inspection plan. In addition to the baseline inspections, the NRC will perform Temporary Instruction (TI) 2516/001, "Review of License Renewal Activities," in April 2012. Further, the NRC will perform TI 2515/182, "Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping," in June 2012. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the mid-

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.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management 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 Dr. Ronald R. Bellamy at (610) 337-5200 with any questions you have regarding this letter.

Sincerely,

*/RA/*

John R. Tappert, Acting Director  
Division of Reactor Projects

Docket Nos. 50-293  
License Nos. DPR-35

Enclosure: Pilgrim Inspection/ Activity Plan

cc w/encl: Distribution via ListServ

R. Smith

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John R. Tappert, Acting Director  
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ADAMS ACCESSION NUMBER: **ML12061A235**

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## Pilgrim

## Inspection / Activity Plan

01/01/2012 - 06/30/2013

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
1	02/13/2012	02/17/2012	<b>71124</b>	<b>- RADIATION SAFETY INSPECTION</b>	1
			IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	02/13/2012	02/17/2012	IP 71124.02	Occupational ALARA Planning and Controls	
1	04/16/2012	04/20/2012	<b>TI251601</b>	<b>- TI2516/001 REVIEW LR ACTIVITY</b>	6
			IP 2516/001	Review of License Renewal Activities	
1	04/30/2012	05/04/2012	IP 2516/001	Review of License Renewal Activities	
1	05/14/2012	05/18/2012	<b>71124</b>	<b>- RADIATION SAFETY INSPECTION</b>	1
			IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	05/14/2012	05/18/2012	IP 71124.04	Occupational Dose Assessment	
1	06/11/2012	06/15/2012	<b>TI 182</b>	<b>- DEGRADATION OF UNDERGROUND PIPING</b>	1
			IP 2515/182	Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping	
1	08/13/2012	08/17/2012	<b>71124</b>	<b>- RADIATION SAFETY INSPECTION</b>	1
			IP 71124.05	Radiation Monitoring Instrumentation	
1	08/13/2012	08/17/2012	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	10/01/2012	12/31/2012	<b>92702</b>	<b>- FOLLOWUP TO CONFIRMATORY ORDER (QA/QC)</b>	1
			IP 92702	Followup On Corrective Actions For Violations And Deviations	
1	10/22/2012	10/26/2012	<b>TRI F1</b>	<b>- TRIENNIAL FIRE PROTECTION INSPECTION</b>	7
			IP 7111105T	Fire Protection [Triennial]	
1	11/05/2012	11/09/2012	IP 7111105T	Fire Protection [Triennial]	
1	11/05/2012	11/09/2012	<b>71124</b>	<b>- RADIATION SAFETY INSPECTION</b>	1
			IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	11/05/2012	11/09/2012	IP 71124.07	Radiological Environmental Monitoring Program	
1	11/05/2012	11/09/2012	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1	11/12/2012	11/16/2012	<b>EP EX</b>	<b>- EP EXERCISE EVALUATION</b>	5
			IP 7111401	Exercise Evaluation	
1	11/12/2012	11/16/2012	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	02/11/2013	02/15/2013	<b>71124</b>	<b>- RADIATION SAFETY INSPECTION</b>	1
			IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	02/11/2013	02/15/2013	IP 71124.02	Occupational ALARA Planning and Controls	
1	03/04/2013	03/08/2013	<b>71124.08</b>	<b>- RADWASTE</b>	1
			IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
1	04/22/2013	04/26/2013	<b>711108G</b>	<b>- INSERVICE INSPECTION</b>	1
			IP 711108G	Inservice Inspection Activities - BWR	

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

Pilgrim

Inspection / Activity Plan

01/01/2012 - 06/30/2013

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**71124 - RADIATION SAFETY INSPECTION**

1	05/13/2013	05/17/2013	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	1
1	05/13/2013	05/17/2013	IP 71124.04	Occupational Dose Assessment	

**711107T - TRIENNIAL HEAT SINK**

1	06/03/2013	06/07/2013	IP 711107T	Heat Sink Performance	1
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