



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

March 5, 2012

Mr. Anthony Vitale
Vice-President, Operations
Entergy Nuclear Operations, Inc.
Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, MI 49043-9530

**SUBJECT: ANNUAL ASSESSMENT LETTER FOR PALISADES NUCLEAR PLANT
(REPORT 05000255/2011007)**

Dear Mr. Vitale:

On February 15, 2012, the NRC staff completed its end-of-cycle performance review of the Palisades Nuclear Plant. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions for the period 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 the Palisades Nuclear Plant during the most recent quarter, the fourth quarter, was within the Degraded Cornerstone Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because of one Yellow finding and one White finding in the Initiating Events Cornerstone. The Yellow finding is associated with the loss of one direct current (DC) bus that occurred on September 25, 2011, which resulted in a complicated reactor trip. The White finding is associated with the failure of service water pump 'P-7C' due to intergranular stress corrosion cracking that occurred on a pump shaft coupling on August 9, 2011. Therefore, the NRC plans to conduct a supplemental inspection using Inspection Procedure (IP) 95002, "Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area," when your staff has notified us, in writing, of your readiness for this inspection. One additional White finding was identified in the Mitigating Systems Cornerstone related to the Turbine Driven Auxiliary Feedwater pump failure to run during a surveillance test on May 10, 2011. The failure was due to the actuation of the mechanical overspeed mechanism due, in part, to incorrect greasing of a piece of the mechanism (the knife edge). Therefore, we plan to conduct a supplemental inspection using IP 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," when your staff has notified us, in writing, of your readiness for this inspection. These supplemental inspections are in addition to ROP baseline inspections at your facility.

In addition, during this assessment cycle, the Unplanned Scrams per 7000 Critical Hours PI turned White due to four unplanned scrams occurring in 2011 (January 22, September 16, September 25, and December 14). Due to one of these scrams being related to the previously mentioned Yellow finding, the White PI will not be considered in the Action Matrix since both have the same underlying cause. Not counting one scram would result in the PI being Green. This is consistent with Inspection Manual Chapter (IMC) 0305 paragraph 11.03 (double counting for findings and PIs).

During this assessment period the NRC staff has identified three substantive cross-cutting issues (SCCIs) in the area of human performance (HP) with cross-cutting themes in the aspects of Conservative Assumptions (H.1(b)), Documentation/Procedures (H.2(c)), and Oversight (H.4(c)). There were 22 findings documented with cross-cutting aspects in the HP area during calendar year 2011. Of these 22 findings, four shared a common cross-cutting aspect of Conservative Assumptions, four findings with Documentation/Procedures, and five findings with an Oversight aspect. The themes of Conservative Assumptions and Documentation/Procedures had previously been identified during the 2011 mid-cycle assessment. At that point, the NRC had determined that SCCIs associated with H.1(b) and H.2(c) did not exist based on the limited time since completion of the root cause and the actions that had already been taken. However, in the two most recent quarters there have been two additional findings for each aspect; therefore, your staff's effort and progress in addressing these themes has not been effective in addressing the themes. Regarding the theme in H.4(c), the NRC staff has noted that the issue started to develop early in the first quarter of 2011, and the actions taken have not yet proven to be effective as evidenced by the addition of two additional findings during the third Quarter of 2011. The SCCIs will remain open until the number of findings in the H.2(c), H.4(c), and H.1(b) aspects are reduced, and you demonstrate the implementation of effective corrective actions that result in sustained performance improvement in the HP area. You should discuss your plans to address these SCCIs during the end-of-cycle assessment meeting.

The enclosed inspection plan lists the inspections scheduled through June 30, 2013. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last 9 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 addition to the ROP baseline, inspections are planned for Temporary Instruction 2515/182, "Review of the Implementation of the Industry Initiative on Underground Piping and Tanks," IP 71003, "Post-Approval Site Inspection for License Renewal," IP 92703 "Follow-up of Confirmatory Action Letters or Orders," and also Independent Spent Fuel Storage Installation (ISFSI) IP 60855.1, "Operation of an ISFSI at Operating Plants."

A. Vitale

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In accordance with 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 John B. Giessner at 630-829-9619 with any questions you have regarding this letter.

Sincerely,

/RA/

Cynthia D. Pederson
Acting Regional Administrator

Docket Nos. 50-255 and 72-007
License No. DPR-20

Enclosure: Palisades Nuclear Plant Inspection/Activity Plan

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Palisades
Inspection / Activity Plan
01/01/2012 - 06/30/2013

Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End			
		BI PI&R - BIENNIAL PI&R		4
01/30/2012	02/17/2012	IP 71152B	Problem Identification and Resolution	
		BI OLRQ - BIENNIAL REQUAL PROGRAM INSPECTION		3
01/30/2012	02/03/2012	IP 7111111B	Licensed Operator Requalification Program	
		RENEWAL - LICENSE RENEWAL INSPECTION 71103-PHASE 3		2
03/12/2012	03/16/2012	IP 71003	Post-Approval Site Inspection for License Renewal	
		BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
04/16/2012	04/20/2012	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
04/16/2012	04/20/2012	IP 71124.02	Occupational ALARA Planning and Controls	
		BI ISI - INSERVICE INSPECTION		1
04/16/2012	05/11/2012	IP 7111108P	Inservice Inspection Activities - PWR	
		TI-182 - TI-2515/182 PHASE I - BURIED PIPING		1
07/09/2012	07/11/2012	IP 2515/182	Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping	
		BI HS - TRIENNIAL HEAT SINK INSPECTION		2
07/16/2012	07/20/2012	IP 7111107T	Heat Sink Performance	
		BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
07/16/2012	07/20/2012	IP 71124.07	Radiological Environmental Monitoring Program	
07/16/2012	07/20/2012	IP 71151-BI01	Reactor Coolant System Activity	
07/16/2012	07/20/2012	IP 71151-OR01	Occupational Exposure Control Effectiveness	
07/16/2012	07/20/2012	IP 71151-PR01	RETS/ODCM Radiological Effluent	
		BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
07/23/2012	07/27/2012	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
07/23/2012	07/27/2012	IP 71124.04	Occupational Dose Assessment	
		OL PREP - PALISADES INIT PREP - OCTOBER 2012		3
09/10/2012	09/14/2012	W90246	OL - INITIAL EXAM - 2012 JUNE - PALI	
		OL EXAM - PALISADES INIT EXAM - OCTOBER 2012		3
10/01/2012	10/12/2012	W90246	OL - INITIAL EXAM - 2012 JUNE - PALI	
		BI FIRE - FIRE PROTECTION INSPECTION & BAG TRIP		3
10/08/2012	11/09/2012	IP 7111105T	Fire Protection [Triennial]	
		INSP - 92702 FOLLOWUP OF ORDERS		2
10/01/2012	12/31/2012	IP 2515/177	Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal & Containment Spray System	
		BI EPX - EP EXERCISE INSPECTION / PI VERIFICATION		2
10/29/2012	11/02/2012	IP 7111401	Exercise Evaluation	

Palisades
Inspection / Activity Plan
01/01/2012 - 06/30/2013

Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End			
		BI EPX - EP EXERCISE INSPECTION / PI VERIFICATION		2
10/29/2012	11/02/2012	IP 71151	Performance Indicator Verification	
		BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
11/05/2012	11/09/2012	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
11/05/2012	11/09/2012	IP 71124.02	Occupational ALARA Planning and Controls	
		BI MODS - TRIENNIAL PERM MODS/50.59		3
01/07/2013	01/25/2013	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
		ISFSI - ISFSI INSPECTION - SCHEDULE DEPENDENT		1
01/02/2013	02/28/2013	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
		BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
01/14/2013	01/18/2013	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
		BI OLRQ - REQUALIFICATION PROGRAM INSPECTION		1
02/18/2013	02/22/2013	IP 7111111A	Licensed Operator Requalification Program - Annual Review	
		BI RP - RADIATION PROTECTION BASELINE INSPECTION		1
04/01/2013	04/05/2013	IP 71124.05	Radiation Monitoring Instrumentation	

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Sincerely,

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Cynthia D. Pederson
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Letter to A. Vitale from C. Pederson dated March 5, 2012

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