



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

September 4, 2012

Mr. Vito Kaminskas  
Site Vice President  
FirstEnergy Nuclear Operating Company  
Perry Nuclear Power Plant  
P. O. Box 97, 10 Center Road, A-PY-A290  
Perry, OH 44081-0097

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR PERRY NUCLEAR POWER PLANT**

Dear Mr. Kaminskas:

On August 7, 2012, the NRC completed its mid-cycle performance review of the Perry Nuclear Plant. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2011, through June 30, 2012. 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 assessment reflects the integration of the Security Cornerstone into the assessment program.

The NRC determined the performance at Perry Nuclear Plant during the most recent quarter was within the Degraded Cornerstone Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because of one White PI in Occupational Exposure Control Effectiveness and one finding, originating in the second quarter of 2011, having a low-to-moderate safety significance (i.e. White) related to the Occupational Radiation Safety Cornerstone. The Occupational Radiation Safety PI was reported with a total of five occurrences (White) in the second quarter of 2012 putting this in the White region. We understand you are evaluating this indicator as some of the occurrences may be associated with a single event. We will review this evaluation as part of our ROP baseline inspection process. Regardless, Perry will remain in the Degraded Cornerstone Column of the ROP until the successful completion of a supplemental inspection in accordance with Inspection Procedure (IP) 95002, "Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area." In addition, there is one or more greater-than-green Security Cornerstone input(s) as described in Inspection Report Number 05000440/2012406(DRS) dated June 25, 2012.

On August 9, 2012, your staff notified the NRC of your readiness for us to conduct a supplemental inspection to review the actions you have taken to address the performance issues which caused the degraded cornerstone. Therefore, in addition to ROP baseline inspections, the NRC is conducting a supplemental inspection in accordance with IP 95002, beginning on August 27, 2012. The objectives of the Supplemental IP are to provide assurance that the root and contributing causes of the performance issues are understood, to provide assurance that the extent of condition and the extent of cause are identified, to determine if safety culture components caused or significantly contributed to the individual and collective risk-significant performance issues and to provide assurance that corrective actions are sufficient to address the root and contributing causes and prevent recurrence.

Performance at the Perry Nuclear Power Plant during the assessment period continued to exhibit some weaknesses in the area of human performance (HP) with nine findings identified. Although plant work management performance has improved over the period, we have noted occasional challenges caused by HP. Improved performance has been noted in areas where you have completed thorough cause evaluations and taken aggressive corrective actions. In our end-of-cycle performance letter [ML12065A157] dated March 5, 2012, we advised you of substantive cross-cutting issues (SCCIs) in the area of HP with cross-cutting themes in the components of Decision Making, (H.1(b)), and Documentation/Procedures, (H.2(c)). In addition, we advised you that the HP substantive cross-cutting issues would remain open until the number of findings in the H.1(b) and H.2(c) aspects were reduced and you demonstrated the implementation of effective corrective actions that result in sustained performance improvement in the HP area.

Regarding H.1 (b), this SCCI was open through the last assessment period. We have determined, through our baseline inspection process and observations of the programmatic changes you have made with the corrective actions from the root cause evaluation you completed in February of 2012, that your corrective actions on this SCCI have been successful in reducing the findings and addressing the underlying causes. There were two findings in this aspect during this assessment cycle. In addition, there has been sustained performance improvement including several recent examples of conservative decision making by senior management. For these reasons, the SCCI in Decision Making, H.1(b), is closed.

Regarding H.2(c), this SCCI was open for four consecutive assessment periods at the time of the 2011 end-of-cycle assessment. We have determined, through our baseline inspection process and observations in the field of changes implemented by your corrective actions from the root cause evaluation you completed in May of 2012, that your corrective actions have been effective in addressing performance improvement, improving documentation and procedures, and reducing the number of findings related to H.2(c). There were two findings in this HP component during the current assessment cycle, and your actions to ensure implementation of procedural changes through work planning milestone changes have demonstrated improvement in this component of HP. Therefore, the SCCI in Documentation/Procedures, H.2(c), is closed.

The radiation protection program has not demonstrated sustained performance improvements, as problems in occupational radiation safety continue to occur. Radiation safety issues continue to be identified by inspectors and self-revealed to plant staff. Specifically, issues continue to exist regarding the control and access to high radiation areas at the plant. Following the last assessment period, your staff enforced aggressive actions to stabilize and improve performance in this area. These steps initially showed a prompt improvement in this area. For example, during the most recent refueling outage inspection there were no findings involving individual workers entering unauthorized high dose areas. Additionally, the number of personnel contamination events was significantly reduced. However, recent performance indicates that more work needs to be done to ensure that these types of events are arrested. The NRC notes that the radiation protection program should be a continuing focus area for improvement.

The enclosed inspection plan lists the inspections scheduled through December 31, 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 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.

In addition to the ROP baseline and IP 95002 inspections, inspections are planned for Temporary Instruction (TI) 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems"; TI 2515/182, "Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping"; TI 2515/187, "Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walk downs"; TI 2515/188, "Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walk downs"; Independent Spent Fuel Storage Installation (ISFSI) inspections: IP 60854.1, "Preoperational Testing of ISFSIs at Operating Plants"; and IP 60855.1, "Operation of an ISFSI at Operating Plants."

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

Sincerely,

*/RA/*

Charles A. Casto  
Regional Administrator

Docket No. 50-440  
License No. NPF-58

Enclosure: Perry Nuclear Power Plant Inspection/Activity Plan

cc w/encl: Distribution via ListServ

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Letter to V. Kaminskas from C. Casto dated September 4, 2012.

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR PERRY NUCLEAR POWER PLANT

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**Perry**  
**Inspection / Activity Plan**  
**09/01/2012 - 12/31/2013**

Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End			
		<b>ISFSI</b>	<b>- ISFSI INSPECTION - SCHEDULE DEPENDENT</b>	<b>2</b>
08/01/2012	11/30/2012	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
		<b>TI-187</b>	<b>- TI-187 FLOODING WALKDOWN</b>	<b>2</b>
07/01/2012	12/30/2012	IP 2515/187	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns	
		<b>TI-188</b>	<b>- TI-188 SEISMIC WALKDOWN</b>	<b>2</b>
07/02/2012	12/31/2012	IP 2515/187	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns	
		<b>95002</b>	<b>- SUPPLEMENTAL FOR RAD PRO WHITE ISSUE</b>	<b>5</b>
08/27/2012	09/14/2012	IP 95002	Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Perfor	
		<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>
09/24/2012	09/28/2012	IP 2515/185	Follow-up on the Industry's Ground Water Protection Initiative	
09/24/2012	09/28/2012	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
		<b>TI-177</b>	<b>- TEMPORARY INSTRUCTION 2515/177</b>	<b>1</b>
09/17/2012	10/05/2012	IP 2515/177	Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal & Containment Spray System	
		<b>BI EPX</b>	<b>- EP EXERCISE INSPECTION / PI VERIFICATION</b>	<b>2</b>
10/01/2012	10/05/2012	IP 7111401	Exercise Evaluation	
10/01/2012	10/05/2012	IP 71151	Performance Indicator Verification	
		<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>2</b>
10/22/2012	10/26/2012	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
		<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>
10/22/2012	10/26/2012	IP 71124.04	Occupational Dose Assessment	
		<b>BI OLRQ</b>	<b>- BIENNIAL REQUAL PROGRAM INSPECTION</b>	<b>2</b>
12/03/2012	12/07/2012	IP 7111111B	Licensed Operator Requalification Program	
		<b>OL PREP</b>	<b>- PERRY INIT PREP 02/2013</b>	<b>3</b>
02/04/2013	02/08/2013	W90290	OL - INITIAL EXAM - 2013 FEB-MAR - PERRY	
		<b>TI INSP</b>	<b>- TI 182 BURIED PIPING PHASE 2</b>	<b>1</b>
02/04/2013	02/08/2013	IP 2515/182	Review of the Implementation of the Industry Initiative to Control Degradation of Underground Piping	
		<b>OL EXAM</b>	<b>- PERRY INIT EXAM 02/2013</b>	<b>3</b>
02/25/2013	03/08/2013	W90290	OL - INITIAL EXAM - 2013 FEB-MAR - PERRY	
		<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>
03/18/2013	03/22/2013	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
		<b>BI ISI</b>	<b>- INSERVICE INSPECTION</b>	<b>1</b>
03/18/2013	05/29/2013	IP 7111108G	Inservice Inspection Activities - BWR	

**Perry**  
**Inspection / Activity Plan**  
**09/01/2012 - 12/31/2013**

Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End			
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
04/15/2013	04/19/2013	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
		<b>BI MODS - TRIENNIAL PERM MODS/50.59</b>		<b>1</b>
07/08/2013	07/26/2013	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
07/22/2013	07/26/2013	IP 71124.07	Radiological Environmental Monitoring Program	
07/22/2013	07/26/2013	IP 71151-BI01	Reactor Coolant System Activity	
07/22/2013	07/26/2013	IP 71151-OR01	Occupational Exposure Control Effectiveness	
07/22/2013	07/26/2013	IP 71151-PR01	RETS/ODCM Radiological Effluent	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
08/19/2013	08/23/2013	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
		<b>BI EPR - EP ROUTINE INSPECTION / PI VERIFICATION</b>		<b>2</b>
09/16/2013	09/20/2013	IP 7111402	Alert and Notification System Testing	
09/16/2013	09/20/2013	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
09/16/2013	09/20/2013	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
09/16/2013	09/20/2013	IP 71151	Performance Indicator Verification	
		<b>BI PI&amp;R - BIENNIAL PI&amp;R INSPECTION</b>		<b>2</b>
10/21/2013	11/08/2013	IP 71152B	Problem Identification and Resolution	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
10/28/2013	11/01/2013	IP 71124.05	Radiation Monitoring Instrumentation	
		<b>BI OLRQ - REQUALIFICATION PROGRAM INSPECTION</b>		<b>1</b>
12/02/2013	12/06/2013	IP 7111111A	Licensed Operator Requalification Program - Annual Review	