

March 2, 2005

Mr. Richard Anderson  
Vice President  
FirstEnergy Nuclear Operating Company  
Perry Nuclear Power Plant  
P. O. Box 97, A290  
10 Center Road  
Perry, OH 44081

SUBJECT: ANNUAL ASSESSMENT LETTER - PERRY NUCLEAR POWER PLANT  
(REPORT 05000440/200501) AND REQUEST FOR RESPONSE

Dear Mr. Anderson:

On February 8, 2005, the NRC staff completed its end-of-cycle plant performance assessment of the Perry Nuclear Power Plant. The end-of-cycle review for the Perry Nuclear Power Plant involved the participation of all the reactor technical divisions in evaluating performance indicators for the most recent quarter and inspection results for the period from January 1 through December 31, 2004. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility, so that you will have an opportunity to prepare for these inspections, and to inform us of any planned inspections that may conflict with your plant activities. Additionally, this letter confirms the discussion between members of our staffs to have a meeting at 6:00 p.m. (EDT) on Monday, April 4, 2005, at the Quail Hollow Resort in Painesville, Ohio to discuss the Perry Plant End-of-Cycle plant performance assessment. The meeting is open to the public and there will be an opportunity for the public to speak with NRC representatives before the meeting is adjourned.

This performance review and enclosed inspection plan do not include physical protection information. A separate letter designated and marked as "Exempt from Public Disclosure in accordance with 10 CFR 2.390" will include the physical protection review and resultant inspection plan.

Overall, Perry operated in a manner that preserved public health and safety. While Perry met all cornerstone objectives, it remained within the Multiple/Repetitive Degraded Cornerstone Column of the Action Matrix with longstanding issues or significant degradation in safety performance. The Mitigating Systems Cornerstone was degraded with multiple White findings for five consecutive quarters. You were formally notified of the transition to the Multiple/Repetitive Degraded Cornerstone Column of the Action Matrix in our letter dated August 12, 2004.

The first White finding involved the failure of the high pressure core spray (HPCS) pump to start on October 23, 2002. A supplemental inspection, conducted in July 2003 in accordance with Inspection Procedure (IP) 95001, identified significant deficiencies with regard to your extent of condition evaluation which resulted in the finding remaining open. A follow-up IP 95001 supplemental inspection conducted in December 2003 determined that the finding was

adequately addressed. As a result, the finding was removed from the action matrix on December 31, 2003. The second White finding involved the failure of the Division 1 emergency service water pump on September 1, 2003. The third White finding involved air binding of the residual heat removal 'A' and low pressure core spray waterleg pump on August 14, 2003.

As a result of having two or more White findings in the same cornerstone, a supplemental inspection of all three findings was conducted in June 2004 in accordance with IP 95002. Based on the inspection results documented on August 5, 2004 in Inspection Report No. 50-440/2004008, the NRC concluded that the second and third White findings discussed above would remain open due to: (1) your failure to take corrective action to prevent recurrence of a significant condition adverse to quality as evidenced by the repetitive failure of the Division 1 emergency service water pump on May 21, 2004; and (2) the NRC's identification of three findings which confirmed the need for a thorough assessment of the common causes for the second and third White findings.

In response to Perry's entry into the Multiple/Repetitive Degraded Cornerstone, a supplemental inspection is being performed during the first two quarters of calendar year 2005 in accordance with IP 95003. The intent of IP 95003 is to allow the NRC to obtain a comprehensive understanding of the depth and breadth of safety, organizational, and performance issues at facilities where data indicates the potential for serious performance degradation. The objectives of this inspection are to: (1) provide additional information to be used in deciding whether the continued operation of the facility is acceptable and whether additional regulatory actions are necessary to arrest declining performance; (2) provide an independent assessment of the extent of risk significant issues to aid in the determination of whether an acceptable margin of safety exists; (3) independently evaluate the adequacy of programs and processes used to identify, evaluate, and correct performance issues; (4) independently evaluate the adequacy of programs and processes in the affected strategic performance area; and (5) provide insight into the overall root and contributing causes of identified performance deficiencies. The results of this supplemental inspection will be used to evaluate whether corrective actions have been effective to allow us to close the second and third White findings.

With regard to the Emergency Preparedness Cornerstone, there was one White finding and an additional preliminary White finding identified during the assessment period. The first White finding reflected an issue that occurred in April 2003 and the final significance determination was completed in January 2004. The finding involved an undue delay in declaring an actual emergency condition when the shift manager did not properly classify the event in a timely manner in accordance with the licensee's emergency plan following a high radiation alarm on the fuel handling building ventilation exhaust gaseous radiation monitor due to damage to an irradiated fuel rod. A follow-up IP 95001 supplemental inspection conducted in May 2004 determined that the finding was adequately addressed. As a result, the finding was removed from the action matrix on June 30, 2004. The preliminary White finding involved the failure to perform an emergency dose assessment within 15 minutes during an Alert declaration, as required by your emergency plan. This finding is still under review as part of the Significance Determination Process. If this finding results in a White determination, a supplemental IP 95001 inspection of the Emergency Preparedness Cornerstone will be conducted during calendar year 2005.

Additionally, the staff has identified substantive cross-cutting issues in both the areas of Problem Identification and Resolution and Human Performance, the former area having been previously identified to you in our mid-cycle assessment letter dated August 30, 2004.

In the area of Problem Identification and Resolution, there were several findings identified during the assessment period. These include, but are not limited to, the repetitive failure of the Division 1 emergency service water pump, missed opportunities to identify the low pressure core spray/residual heat removal system venting procedure deficiencies, failure to identify fretting on an emergency diesel generator (EDG) fuel oil return line, failure to identify that an auxiliary switch in a control complex chilled water system breaker cubicle was misaligned, and failure to identify a defective latch mechanism on a fire door to an EDG room. Furthermore, the need to perform multiple revisions of root cause evaluations was considered to be indicative of significant organizational deficiencies. We are concerned that these examples continued after we had notified you of this substantive cross-cutting issue in our letter dated August 30, 2004, indicating that your initial efforts to address this issue have not been effective. Specifically, we note that addressing problems with your corrective action program has been a focal point of your performance improvement initiative, yet issues continue to be identified. Therefore, in accordance with the criteria described in NRC Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," Section 0305-06.06.i. "Substantive Cross-Cutting Issues," we are continuing the substantive cross-cutting problem identification and resolution issue. We will continue to assess your performance in this area as part of both the IP 95003 inspection and the baseline inspection program, which includes a Problem Identification and Resolution Inspection to be performed in November 2005. We request that you provide a written response to this substantive cross-cutting issue, including your plans to resolve the issue, and that you discuss your views at the April 4, 2005 public meeting.

In the area of human performance, there were several findings related to personnel performance, with a common theme of failure to follow procedures or inattention to detail. Examples include, but are not limited to, the presence of unattended material in the pool swell region in containment, the failure to follow procedures for evaluating and dispositioning impaired tornado barriers, the improper installation of test equipment that subsequently damaged a valve in the combustible gas control system, the improper installation of scaffolding underneath an annulus exhaust gas treatment system exhaust damper that rendered that train inoperable, and the improper use of the Fix-It-Now process on a containment isolation valve that resulted in inadequate post maintenance testing. We are concerned with your progress in addressing these cross-cutting deficiencies. Similar focused efforts in the area of human performance appear to have been less than effective. Therefore, in accordance with the criteria described in NRC IMC 0305, "Operating Reactor Assessment Program," Section 0305-06.06.i. "Substantive Cross-Cutting Issues," we are opening the substantive cross-cutting human performance issue. Further reduction in the number, significance, and common causality is needed to resolve this issue. We will continue to assess your performance in this area as part of both the IP 95003 inspection and baseline inspection program during 2005.

Additionally, on April 1, 2004, the staff issued a Severity Level III Notice of Violation in accordance with the NRC's Enforcement Policy. The violation concerned FirstEnergy management's failure to adequately oversee a contractor's work hours program in 2001. You took prompt and appropriate corrective actions for this violation.

As explained in IMC 0305, plants in the Multiple/Repetitive Degraded Cornerstone column of the Action Matrix are given consideration at each quarterly performance assessment review for: (1) declaring plant performance to be unacceptable in accordance with the guidance in IMC 0305, Section 0305-06.05.b.5; (2) transferring to the IMC 0350, "Oversight of Operating Reactor Facilities in a Shutdown Condition with Performance Problems" process; and (3) taking additional regulatory actions, as appropriate. Our assessment results to date have concluded that Perry has been operated in a manner that preserved the public health and safety and that the plant will remain in Column IV of the NRC Action Matrix. The NRC will continue to closely monitor Perry performance consistent with the guidelines in IMC 0305.

In accordance with IMC 0305, "Operating Reactor Assessment Program," your plant will be discussed at the upcoming Agency Action Review Meeting. We will notify you via separate correspondence if any agency actions change as an outcome of the meeting.

The enclosure to this letter contains a list of our planned inspection effort resulting from the Perry end-of-cycle review. The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through September 30, 2006. The inspection plan is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival on-site. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the mid-cycle review meeting.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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).

If circumstances arise which cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact Christine Lipa at (630) 829-9619 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

*/RA/*

James L. Caldwell  
Regional Administrator

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

Enclosure: Perry Inspection/Activity Plan

See Attached Distribution

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Sincerely,

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James L. Caldwell  
Regional Administrator

Docket No. 50-440  
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Enclosure: Perry Inspection/Activity Plan

See Attached Distribution

**SEE ATTACHED CONCURRENCES**

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[ROPreports@nrc.gov](mailto:ROPreports@nrc.gov) (inspection reports, final SDP letters, any letter with an IR number)

Institute of Nuclear Power Operations (INPO)

**Perry**  
**Inspection / Activity Plan**  
**03/01/2005 - 09/30/2006**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>95003</b>	<b>- SUPPLEMENTAL IP 95003 PARTS A, B, AND C</b>	<b>9</b>			
1	IP 95003	Inspection For Repetitive Degraded Cornerstones, Multiple Degraded Cornerstones, Multiple		01/03/2005	07/08/2005	Supplemental Progra
	<b>ISI</b>	<b>- ISI INSPECTION</b>	<b>2</b>			
1	IP 7111108G	Inservice Inspection Activities - BWR		03/01/2005	03/04/2005	Baseline Inspections
	<b>OUTAGE</b>	<b>- ALARA AND ACCESS CONTROL</b>	<b>1</b>			
1	IP 7112101	Access Control to Radiologically Significant Areas		02/21/2005	03/04/2005	Baseline Inspections
1	IP 7112102	ALARA Planning and Controls		02/21/2005	03/04/2005	Baseline Inspections
	<b>HEATSKB</b>	<b>- BIENNIAL HEAT SINK INSPECTION</b>	<b>1</b>			
1	IP 7111107B	Heat Sink Performance		04/18/2005	04/22/2005	Baseline Inspections
	<b>71122.02</b>	<b>- TRANSPORTATION AND ACCESS CONTROL</b>	<b>1</b>			
1	IP 7112101	Access Control to Radiologically Significant Areas		08/01/2005	08/05/2005	Baseline Inspections
1	IP 7112202	Radioactive Material Processing and Transportation		08/01/2005	08/05/2005	Baseline Inspections
	<b>71121.02</b>	<b>- ALARA AND ACCESS CONTROL</b>	<b>1</b>			
1	IP 7112102	ALARA Planning and Controls		09/12/2005	09/16/2005	Baseline Inspections
1	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		09/12/2005	09/16/2005	Baseline Inspections
1	IP 71151	Performance Indicator Verification		09/12/2005	09/16/2005	Baseline Inspections
	<b>PI&amp;R</b>	<b>- PROBLEM IDENTIFICATION AND RESOLUTION</b>	<b>3</b>			
1	IP 71152B	Identification and Resolution of Problems		11/28/2005	12/16/2005	Baseline Inspections
	<b>71114</b>	<b>- BASELINE EP INSPECTION</b>	<b>1</b>			
1	IP 7111402	Alert and Notification System Testing		12/05/2005	12/09/2005	Baseline Inspections
1	IP 7111403	Emergency Response Organization Augmentation Testing		12/05/2005	12/09/2005	Baseline Inspections
1	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		12/05/2005	12/09/2005	Baseline Inspections
1	IP 71151	Performance Indicator Verification		12/05/2005	12/09/2005	Baseline Inspections
	<b>SSDPC</b>	<b>- SAFETY SYS DESIGN&amp;PERFORMANCE CAPABILITY</b>	<b>6</b>			
1	IP 7111121	Safety System Design and Performance Capability		01/30/2006	02/17/2006	Baseline Inspections
	<b>ROUTINE</b>	<b>- EFFLUENTS, ACCESS CONTROL</b>	<b>1</b>			
1	IP 7112101	Access Control to Radiologically Significant Areas		01/09/2006	01/13/2006	Baseline Inspections
1	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		01/09/2006	01/13/2006	Baseline Inspections
	<b>ROUTINE</b>	<b>- ACCESS CONTROL, REMP</b>	<b>1</b>			
1	IP 7112101	Access Control to Radiologically Significant Areas		05/15/2006	05/19/2006	Baseline Inspections
1	IP 7112203	Radiological Environmental Monitoring Program		05/15/2006	05/19/2006	Baseline Inspections
	<b>MAINRULE</b>	<b>- MAINTENANCE EFFECTIVENESS INSPECTION</b>	<b>1</b>			
1	IP 7111112B	Maintenance Effectiveness		08/28/2006	09/01/2006	Baseline Inspections
	<b>ROUTINE</b>	<b>- ACCESS CONTL, RADWASTE &amp; TRANSPORTATION</b>	<b>1</b>			
1	IP 7112101	Access Control to Radiologically Significant Areas		09/11/2006	09/15/2006	Baseline Inspections

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



Perry  
Inspection / Activity Plan  
03/01/2005 - 09/30/2006

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start      End	Inspection Type
<b>ROUTINE - ACCESS CONTL, RADWASTE &amp; TRANSPORTATION</b>					
1	IP 7112202	Radioactive Material Processing and Transportation	1	09/11/2006    09/15/2006	Baseline Inspections

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