



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

September 1, 2011

Mr. Mark Bezilla
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 LETTER FOR PERRY NUCLEAR POWER PLANT
05000440/2011006**

Dear Mr. Bezilla:

On August 10, 2011, the NRC completed its mid-cycle performance review of your Perry Nuclear Power Plant. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2010, through June 30, 2011. On August 25, 2011, the NRC issued the "Final Significance Determination of White Finding" letter [ADAMS Accession Number ML112371689] regarding a White finding in the Occupational Radiation Safety Cornerstone. This letter informs you of the NRC's assessment of your facility during the period of July 1, 2010, through June 30, 2011, as a result of our August 10, 2011, assessment and our re-assessment following the issuance of the August 25, 2011, Final Significance Determination letter, and our 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 Perry Nuclear Power Plant during the most recent quarter was within the Degraded Cornerstone Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because of the one finding having a low-to-moderate safety significance (i.e., White) and the Occupational Exposure Control Effectiveness performance indicator crossing the Green-to-White threshold (i.e., greater than two counted occurrences during a four quarter period). The finding and the performance indicator are both in the Occupational Radiation Safety Cornerstone. The White finding occurred in the second quarter of 2011. For the performance indicator, one occurrence was in the fourth quarter of 2010, and three occurrences were in the second quarter of 2011.

Prior to this assessment period's last quarter, all performance indicators were green and all inspection findings had very low (i.e., Green) safety significance. As a result of our assessment of your performance, the NRC plans to conduct, in addition to other inspections, 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.” We will schedule and conduct the inspection after you have completed your investigation on the reasons for the White performance indicator and White finding in the same Cornerstone and after you have advised us that you are ready for the inspection.

The enclosed inspection plan lists the inspections scheduled through December 31, 2012. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine 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.

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”; Independent Spent Fuel Storage Installation (ISFSI) Inspections: IP 60854.1 “Preoperational Testing of ISFSIs at Operating Plants”; IP 60855.1, “Operation of an ISFSI at Operating Plants”; IP 60856.1, “Review of 10 CFR 72.212(b) Evaluations at Operating Plants”; and IP 92702, “Followup on Corrective Actions for Violations and Deviations.” We are also planning on conducting an additional IP 71152B, “Problem Identification and Resolution,” inspection as authorized by Inspection Manual Chapter (IMC) 0305, “Operating Reactor Inspection Program,” Section 10.02.c.5. Your history of past problems with returning to the Licensee Response Column of the Action Matrix during the period of the third quarter of 2003 through the second quarter of 2008 combined with your continued ineffectiveness at addressing NRC-identified cross-cutting issues for the past eight assessment periods, have indicated the need for us to more frequently inspect your processes for identifying and resolving issues.

Performance at the Perry Nuclear Power Plant during the assessment period continued to exhibit weaknesses in the area of human performance. In our end-of-cycle assessment letter [ADAMS ML110620306] dated March 4, 2011, we advised you of a substantive cross-cutting issue (SCCI) in the area of human performance with cross-cutting themes in the components of work planning, (H.3(a)), and documentation/procedures, (H.2(c)). We advised you that the human performance substantive cross-cutting issue would remain open until the number of findings in the H.2(c) and H.3(a) aspects were reduced and you demonstrated the implementation of effective corrective actions that result in sustained performance improvement in the human performance area. We also stated that we would perform Inspection Procedure 92702, “Followup on Corrective Actions for Violations and Deviations,” to evaluate whether adequate corrective actions have been implemented for the human performance substantive cross-cutting issue; verify that the root causes of these issues have been identified; that their generic implications have been addressed; and that your programs and practices have been appropriately enhanced to prevent recurrence. On June 7, 2011, you advised us that you needed additional time to prepare for this inspection and requested rescheduling until later in 2011. As a result, we asked you to provide us a written statement of your readiness for this inspection by October 1, 2011. Since we did not conduct

this inspection, the substantive cross-cutting issue will remain open until conditions specified in our end-of-cycle assessment letter are satisfied. This assessment period is the eighth consecutive assessment period identifying a substantive cross-cutting issue in the human performance area first opened in our March 3, 2008, end-of-cycle assessment letter [ADAMS ML080600303].

Each theme identified in our end-of-cycle assessment letter will now be classified as a separate substantive cross-cutting issue. Inspection Manual Chapter 0305 was recently revised to represent multiple substantive cross-cutting issues in the same cross-cutting area individually and not combined into one overall SCCI for that cross-cutting area. Because of this change, the number of SCCIs documented in this assessment letter changed even though the cross-cutting themes and the NRC's concern with your lack of sustained effectiveness in addressing these themes remain the same. The previous assessment letter documented one SCCI in the area of human performance having two separate themes associated with it. Because the two themes existed and the NRC's concern with addressing these themes remains, this assessment letter documents that two SCCIs remain open. The apparent increase in the number of cross-cutting issues is a result of the new documentation method and not a result of new, additional cross-cutting issues. Closure of each SCCI will be evaluated separately using the criteria specified in our end-of-cycle assessment letter.

In the days following the Fukushima Daiichi nuclear accident in Japan, the Commission directed the staff to establish a senior-level agency task force to conduct a methodical and systematic review of the NRC's processes and regulations to determine whether the agency should make additional improvements to its regulatory system. The NRC has since completed Temporary Instruction (TI) 183, "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event," and TI-184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)" at your facility. Results of these inspections can be found here: <http://www.nrc.gov/japan/japan-activities.html>. Additionally, on May 11, 2011, the agency issued NRC Bulletin 2011-01, "Mitigating Strategies," to confirm compliance with Order EA-02-026, subsequently imposed license conditions, and 10 CFR 50.54(hh)(2), and to determine the status of licensee mitigating strategies programs. On July 12, 2011, the NRC's Task Force made its recommendations to the Commission in its report, "Recommendations for Enhancing Reactor Safety in the 21st Century: The Near-Term Task Force Review of Insights from the Fukushima Daiichi Accident." The NRC is currently reviewing the Task Force's recommendations to determine what additional actions may be warranted.

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).

M. Bezilla

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Please contact Mr. Jamnes L. Cameron at 630-829-9833 with any questions you have regarding this letter.

Sincerely,

/RA/

Mark A. Satorius
Regional Administrator

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

Enclosure: Perry Nuclear Power Plant Inspection/Activity Plan

cc w/encl: Distribution via ListServ

M. Bezilla

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|--------|-----------------|----------|----------|-----------|
| OFFICE | RIII | RIII | RIII | RIII |
| NAME | JRutkowski:dtp* | JCameron | SWest | MSatorius |
| DATE | 08/23/11 | 08/23/11 | 08/30/11 | 08/30/11 |

OFFICIAL RECORD COPY

Letter to M. Bezilla from M. Satorius dated September 1, 2011.

SUBJECT: MID-CYCLE LETTER FOR PERRY NUCLEAR POWER PLANT
05000440/2011006

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Perry
Inspection / Activity Plan
09/01/2011 - 12/31/2012

| Planned Dates | | Inspection Activity | Title | No. of Staff on Site |
|---------------|------------|---------------------|--|----------------------|
| Start | End | | | |
| | | ISFSI | - ISFSI INSPECTION - SCHEDULE DEPENDENT | 1 |
| 05/01/2011 | 12/31/2011 | IP 60854.1 | Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants | |
| | | BI EPR | - EP ROUTINE INSPECTION / PI VERIFICATION | 1 |
| 09/12/2011 | 09/16/2011 | IP 7111402 | Alert and Notification System Testing | |
| 09/12/2011 | 09/16/2011 | IP 7111403 | Emergency Preparedness Organization Staffing and Augmentation System | |
| 09/12/2011 | 09/16/2011 | IP 7111405 | Correction of Emergency Preparedness Weaknesses and Deficiencies | |
| 09/12/2011 | 09/16/2011 | IP 71151 | Performance Indicator Verification | |
| | | BI RP | - RADIATION PROTECTION BASELINE INSPECTION | 1 |
| 09/19/2011 | 09/23/2011 | IP 71124.07 | Radiological Environmental Monitoring Program | |
| 09/19/2011 | 09/23/2011 | IP 71151-BI01 | Reactor Coolant System Activity | |
| | | BI CDBI | - COMPONENT DESIGN BASIS INSP. & TI-177 | 7 |
| 10/31/2011 | 12/02/2011 | IP 2515/177 | Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal & Containment Spray System | |
| 10/31/2011 | 12/02/2011 | IP 7111121 | Component Design Bases Inspection | |
| | | 92702 | - FOLLOWUP TO SSCI - HUMAN PERFORMANCE | 2 |
| 11/14/2011 | 11/18/2011 | IP 92702 | Followup On Corrective Actions For Violations And Deviations | |
| | | BI RP | - RADIATION PROTECTION BASELINE INSPECTION | 1 |
| 11/28/2011 | 12/02/2011 | IP 71124.08 | Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation | |
| | | ISFSI | - ISFSI INSPECTION - SCHEDULE DEPENDENT | 1 |
| 01/01/2012 | 05/31/2012 | IP 60854.1 | Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants | |
| 06/01/2012 | 11/30/2012 | IP 60855.1 | Operation of an Independent Spent Fuel Storage Installation at Operating Plants | |
| | | BI PI&R | - BIENNIAL PI&R INSPECTION | 4 |
| 01/09/2012 | 01/27/2012 | IP 71152B | Problem Identification and Resolution | |
| | | BI RP | - RADIATION PROTECTION BASELINE INSPECTION | 1 |
| 02/06/2012 | 02/10/2012 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 02/06/2012 | 02/10/2012 | IP 71151 | Performance Indicator Verification | |
| | | BI HS | - TRIENNIAL HEAT SINK INSPECTION | 2 |
| 02/27/2012 | 03/02/2012 | IP 7111107T | Heat Sink Performance | |
| | | BI FIRE | - FIRE PROTECTION INSPECTION & BAG TRIP | 3 |
| 03/12/2012 | 04/13/2012 | IP 7111105T | Fire Protection [Triennial] | |
| | | BI RP | - RADIATION PROTECTION BASELINE INSPECTION | 1 |
| 04/16/2012 | 04/20/2012 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| | | BI RP | - RADIATION PROTECTION BASELINE INSPECTION | 1 |
| 07/09/2012 | 07/13/2012 | IP 71124.08 | Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation | |

Perry
Inspection / Activity Plan
09/01/2011 - 12/31/2012

| Planned Dates | | Inspection Activity | Title | No. of Staff on Site |
|---------------|------------|--|---|----------------------|
| Start | End | | | |
| | | BI RP - RADIATION PROTECTION BASELINE INSPECTION | | 1 |
| 09/17/2012 | 09/21/2012 | IP 71124.06 | Radioactive Gaseous and Liquid Effluent Treatment | |
| | | BI EPX - EP EXERCISE INSPECTION / PI VERIFICATION | | 2 |
| 10/01/2012 | 10/05/2012 | IP 7111401 | Exercise Evaluation | |
| 10/01/2012 | 10/05/2012 | IP 71151 | Performance Indicator Verification | |
| | | BI RP - RADIATION PROTECTION BASELINE INSPECTION | | 1 |
| 11/05/2012 | 11/09/2012 | IP 71124.05 | Radiation Monitoring Instrumentation | |
| | | BI OLRQ - BIENNIAL REQUAL PROGRAM INSPECTION | | 2 |
| 12/10/2012 | 12/14/2012 | IP 7111111B | Licensed Operator Requalification Program | |