



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

January 3, 2014

Mr. Ernest Harkness  
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: PERRY NUCLEAR POWER PLANT – NRC PROBLEM IDENTIFICATION  
AND RESOLUTION INSPECTION REPORT 05000440/2013007**

Dear Mr. Harkness:

On November 22, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution biennial inspection at your Perry Nuclear Power Plant. The enclosed inspection report documents the inspection results, which were discussed on November 22, 2013, with you and other members of your staff.

Based on the inspection sample, the inspection team determined that your staff's implementation of the corrective action program supported nuclear safety. In reviewing your corrective action program, the team assessed how well your staff identified problems at a low threshold, your staff's implementation of the station's process for prioritizing and evaluating these problems, and the effectiveness of corrective actions taken by the station to resolve these problems. In each of these areas, the team determined that your staff's performance was adequate to support nuclear safety.

The team also evaluated other processes your staff used to identify issues for resolution. These included your use of audits and self-assessments to identify latent problems and your incorporation of lessons learned from industry operating experience into station programs, processes, and procedures. The team determined that your station's performance in each of these areas supported nuclear safety.

Finally, the team determined that your station's management maintains a safety-conscious work environment adequate to support nuclear safety. Based on the team's observations, your employees are willing to raise concerns related to nuclear safety using at least one of the several means available.

Two NRC-identified findings of very low safety significance (Green) were identified, both of which involved violations of NRC requirements. However, because of their very low safety significance, and because the issues were entered into your Corrective Action Program, the NRC is treating the issues as Non-Cited Violations (NCVs) in accordance with Section 2.3.2 of the NRC Enforcement Policy.

If you contest a violation or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Perry Nuclear Power Plant.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Perry Nuclear Power Plant.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records System (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).

Sincerely,

**/RA/**

Michael A. Kunowski, Chief  
Branch 5  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000440/2013007  
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-440

License No: NPF-58

Report No: 05000440/2013007

Licensee: FirstEnergy Nuclear Operating Company (FENOC)

Facility: Perry Nuclear Power Plant

Location: Perry, OH

Dates: November 4 through November 22, 2013

Inspectors: J. Jandovitz, Project Engineer, Team Lead  
C. Brown, Senior Reactor Inspector  
J. Gilliam, Reactor Engineer  
J. Nance, Resident Inspector

Approved by: Michael Kunowski, Chief  
Branch 5  
Division of Reactor Projects

Enclosure

## **SUMMARY OF FINDINGS**

Inspection Report (IR) 05000440/2013007; 11/04/2013 – 11/22/2013; Perry Nuclear Power Plant; Biennial Problem Identification and Resolution (PI&R) Inspection.

This inspection was performed by three regional-based inspectors and the Perry Nuclear Power Plant resident inspector. Two (Green) findings were identified by the inspectors, both with associated Non-Cited Violations (NCVs) of NRC regulations. The significance of inspection findings are indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated June 2, 2011. Cross-cutting aspects are determined using IMC 0310, "Components Within the Cross Cutting Areas," dated October 28, 2011. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated January 28, 2013. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4.

### **Problem Identification and Resolution**

Based on the samples selected for review, the team concluded that implementation of the corrective action program (CAP) at the Perry Nuclear Power Plant was effective. The licensee had a low stated threshold for identifying problems and entering them in the CAP. Items entered into the CAP were generally screened and prioritized in a timely manner using established criteria, although the team identified timeliness issues for a small percentage of issues. With a few exceptions documented by the team, issues in the CAP were evaluated and corrective actions were generally implemented in a timely manner. The team noted that the licensee reviewed operating experience (OE) for applicability to station activities. Audits and self-assessments were performed at an appropriate level to identify deficiencies. Based on interviews conducted during the inspection, licensee staff expressed freedom to raise nuclear safety concerns and to enter nuclear safety concerns into the CAP.

### **NRC-Identified and Self-Revealed Findings**

#### **Cornerstone: Barrier Integrity**

Green. The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation of Technical Specification 3.4.11, "RCS Pressure and Temperature (P/T) Limits," for failure to comply with reactor pressure vessel pressure/temperature limits. Specifically, in 2011 the inspectors identified the pressure/temperature limits in Technical Specification 3.4.11 only contained values for reactor pressure vessel pressures greater than 0 pounds per square inch gauge. However, between June 2011 and July 2013, the licensee operated the plant with a vacuum in the reactor pressure vessel during 5 cold startups and 1 cooldown. The licensee entered the finding into its corrective action program as Condition Report CR 2013-18689.

The performance deficiency was determined to be more than minor because the finding was associated with the area of Routine Operations Performance within the Human Performance attribute of the Barrier Integrity Cornerstone and had the potential to adversely affect the associated cornerstone objective of providing reasonable assurance that a physical design barrier (reactor coolant system) protects the public from radionuclide releases caused by accidents or events. The finding screened as very low safety significance because it was determined that there was no change in risk due to the performance deficiency. This finding

has a cross-cutting aspect in the area of human performance, resources. Specifically, complete, accurate, and up-to-date procedures were not available to operators to ensure operations within the requirements of Technical Specification 3.4.11, (H.2(c)). (Section 4OA2.1b.(2).1)

Green. The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for failure to promptly correct a non-conservative Technical Specification. Specifically, the inspectors identified on November 14, 2013, that the licensee failed to promptly correct the non-conservative Technical Specification 3.4.11 by not submitting a license amendment request in accordance with NRC Administrative Letter 98-10, which required submittal within 1 year or 1 operating cycle. The licensee had determined Technical Specification 3.4.11, "RCS Pressure and Temperature (P/T) Limits," to be non-conservative on October 16, 2009, and implemented administrative controls as allowed by the Administrative Letter. As of November 14, 2013, the licensee had not submitted the license amendment request, over 4 years and 2 operating cycles after determining the Technical Specification was non-conservative. The licensee entered the finding into the corrective action program as Condition Report CR 2013-18983.

The performance deficiency was determined to be more than minor because the finding was associated with the area of Routine Operations Procedures within the Procedure Quality attribute of the Barrier Integrity Cornerstone and had the potential to adversely affect the associated cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. The finding was screened as very low safety significance because it was determined that operators followed the appropriate reactor coolant system P/T curves even though the Technical Specification was non-conservative. The finding has a cross-cutting aspect in the area of human performance, decision-making, where licensee decisions demonstrate that nuclear safety is an overriding priority. Specifically, from the time of discovery of the non-conservative technical specification until now, various decisions had been made by the licensee that have delayed the timely submittal of the license amendment request (H.1(c)). (Section 4OA2.1b.(3).1)

## **REPORT DETAILS**

### **4. OTHER ACTIVITIES**

#### **4OA2 Problem Identification and Resolution (71152B)**

This inspection constituted one biennial sample of Problem Identification and Resolution (PI&R) as defined in Inspection Procedure (IP) 71152, "Problem Identification and Resolution." Documents reviewed are listed in the Attachment to this report.

##### **.1 Corrective Action Program Effectiveness**

###### **a. Inspection Scope**

The inspectors reviewed the licensee's Corrective Action Program (CAP) implementing procedures and attended CAP meetings to assess the implementation of the CAP by licensee staff. The inspectors also interviewed licensee staff about their use of the CAP.

The inspectors reviewed risk and safety significant issues in the licensee's CAP since the last NRC PI&R inspection in January 2012. The selection of issues ensured an adequate review of issues across NRC cornerstones. The inspectors used issues identified through NRC generic communications, department self-assessments, licensee audits, OE reports, and NRC documented findings. The inspectors reviewed Condition Reports (CRs) that were generated and a selection of completed investigations from the licensee's various investigation methods, including root cause evaluations (RCEs), full apparent cause evaluations (ACEs), limited apparent cause evaluations (LACEs), and common cause analyses (CCAs).

The inspectors selected the station large transformers to review in detail because the system had numerous operational problems, including replacements, in recent years. The intent of the review was to determine whether the licensee staff were properly monitoring and evaluating the performance of this system through effective implementation of station monitoring programs. A five-year review of the Unit 1 main transformer, 1-PY-T, the Unit 1 auxiliary transformer, 110-PY-B, and the Unit 2 start-up transformer, 200-PY-B, was performed. A review of the use of the station maintenance rule program to help identify equipment issues was also conducted.

On September 3, 2013, the NRC issued the Mid-Cycle Assessment Letter for the Perry Nuclear Plant (ADAMS Accession Number ML13246A237). That assessment discussed that continued management attention and focus was needed to address lower level, less risk significant issues involving procedure use and adherence and procedure quality. To further evaluate these issues, this inspection implemented the NRC plan to specifically review the licensee's corrective actions for the extent of cause evaluations completed in response to the 2011 and 2012 White findings in the radiation protection area.

During the reviews, the inspectors determined whether the licensee's actions were in compliance with the licensee's CAP and 10 CFR Part 50, Appendix B requirements. Specifically, the inspectors determined whether licensee personnel were identifying plant issues at the proper threshold, entering the plant issues into the station's CAP in a timely manner, and assigning the appropriate prioritization for resolution of the issues. The inspectors also determined whether the licensee staff assigned the appropriate

investigational method to ensure the correct determination of root, apparent, and contributing causes. The inspectors also evaluated the timeliness and effectiveness of corrective actions for selected issue reports, completed investigations, and NRC previously identified findings that included principally non-cited violations.

b. Assessment

(1) Effectiveness of Problem Identification

Based on the information reviewed, including initiation rates of CRs and interviews, the inspectors concluded that the licensee has an appropriate low threshold for initiating CRs. The number of CAP items generated were distributed across the various departments. The inspectors did not identify any safety significant items that were not entered into the CAP, but noted that various licensee assessments found instances that did not meet licensee expectations for entering issues into the CAP. The inspectors assessed the effectiveness of problem identification as adequate, partially due to the continued expectation that the licensee will continue to perform assessments of the same quality and resulting corrective actions improving the CAP process.

Observations

Since 2012, the inspectors noted that licensee assessments of the CAP, including fleet and oversight assessments, have been self-critical and rated the CAP as marginally effective but with an improving trend. Corrective actions have been developed to improve CAP implementation, but the assessments continue to reveal areas for improvement as late as the 2013 second trimester assessment.

The 2012 NRC Problem Identification and Resolution (PI&R) Inspection Report, 05000440/2012007 (ADAMS Accession Number ML12066A195), noted that issues with the use of work order Work-In-Progress (WIP) logs where the logs included information that should have been included in the CAP, provided technical direction, and that either initiated or stopped work. The inspectors noted improvement during this inspection with one similar WIP log issue that was identified by the licensee.

Review of the CAP performance indicators showed that the number of CRs generated has increased over the last year. Reviewing the six-month averages, the site had a low of 566 in March 2013, and a high of 709 in September of 2013. As expected, the number increased significantly during the spring outage period, a high of 952 CRs initiated in May 2013.

Findings

No findings were identified.

(2) Prioritization and Evaluation of Issues

The inspectors reviewed the classification of CRs and attended licensee meetings that categorized and prioritized CRs and determined that, in general, CRs were assigned appropriate prioritization and evaluation levels. Evaluations in RCEs and ACEs reviewed by the inspectors were adequate. The licensee completed about 12 RCEs since November 2012. The inspectors considered the quality of the selected RCEs to have improved since the last inspection. A contributing factor may be that licensee

review groups had previously identified issues with the quality of the evaluations resulting in corrective actions. The inspectors determined that the licensee's prioritization and evaluation of issues were sufficient to ensure that established corrective actions would be effective and that there was appropriate consideration of risk in prioritizing issues.

Several CR evaluations were found to lack sufficient depth to fully evaluate and correct the issue. In most of these cases, the CRs were processed to trend and when a trend or more CRs with the same issue were identified, it was more fully evaluated by the licensee. None of these evaluations were considered by the inspectors to be of more-than-minor significance.

### Observations

CR 2013-09086 was reviewed. It discussed material near the transformers that could become missiles in high winds, impacting the transformers. The CR stated previous communications had been unsuccessful in addressing this issue. The CR provided minimal evaluation and was closed to the action to remove the material. There was no consideration of procedure and process deficiencies that should have prevented the condition. After questions by the inspectors, the licensee staff conducted a walkdown of the area identified in the CR. Additional material was found in the area and CR 2013-17984 was generated. That CR evaluation identified existing procedures which controlled material in these areas to protect the transformers and found the licensee personnel were not familiar with those procedures. Specifically, the procedures were PAP-0204, "Housekeeping/Cleanliness Control Program," and NOP-O-1012, "Material Readiness and Housekeeping Inspection Program." These procedures contained directions for inspections in or around the switchyard and for the removal or restraint of material or debris that had the potential to become airborne with high winds and cause the loss of offsite power. This was determined to be a performance deficiency but not considered more-than-minor and it was entered into the CAP. A notice was issued to all site personnel by the licensee to highlight these procedures and requirements.

CR 2011-03864 was reviewed. It identified an NRC question on operating with a vacuum in the reactor pressure vessel when it appeared that Technical Specifications (TSs) only contained criteria that allowed operation with reactor vessel pressure greater than 0 pounds per square inch gauge (psig). The inspectors found the evaluation of the condition to address only the technical aspects of the question and not compliance with the TSs. No further action was taken or planned by the licensee. As a result, the NRC determined operating with a vacuum in the reactor pressure vessel was not in compliance with the TSs and documented a finding.

### Findings

#### .1 Failure To Comply With TS 3.4.11

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated NCV of TS 3.4.11 for failure to comply with the reactor coolant system (RCS) pressure and temperature (P/T) limits, a condition adverse to quality. Specifically, although the TS P/T limits only contain values for operating with pressures greater than 0 psig in the reactor pressure vessel (RPV), between May 2011 and July 2013, the



licensee operated the plant with a vacuum in the RPV during 5 cold startups and 1 cooldown.

Description: In October 2011, the inspectors identified a concern with the P/T limits for TS 3.4.11, "RCS Pressure and Temperature (P/T) Limits." The pressure limits for non-nuclear heatup only existed for values greater than or equal to 0 psig and the licensee was actually operating with a vacuum (below 0 psig) in the RPV. The licensee initiated CR 2011-03864, "NRC Question on Tech Spec 3.4.11 RCS Pressure and Temperature Curves/Drawing a Vacuum during Non-Nuclear Heatup," and evaluated the concern to determine if any potential deficiency existed for not operating within the curve limits. The resulting engineering evaluation stated that "The Reactor Vessel is designed following the rules of ASME Section III Subsection NB Class 1 components. From the Chicago Bridge and Iron, ASME Code Design Report, D-1, page 35, the vessel head is 4 19/32 inch thick with an inner radius of 119 inches and the vessel wall below the flange is 6 inches thick with an inner radius of 120 inches. The dimensions of these components are identified to provide indication of the robustness of the design. Due to the size and thicknesses of these components the stresses produced by vacuum are judged to be relatively insignificant." The licensee, however, did not evaluate implication for TS compliance.

In January 2013, during a cold startup following an automatic scram, the inspectors again questioned operating with the RPV in a vacuum during the startup. The licensee referred to the 2011 CR. The licensee had not committed to update the curves and submit a license amendment request (LAR) for approval of new P/T limits to reflect operation with a vacuum in the RPV during cold startups and during cooldowns. On November 5, 2013, during a phone call with various branches in the Office of Nuclear Reactor Regulation, including the Technical Specification branch, it was decided that the current TS does not address operating the RPV in a vacuum and doing so violated TS 3.4.11.

Analysis: The inspectors determined that the failure to comply with the RCS P/T limits of TS 3.4.11 was a performance deficiency. The performance deficiency was determined to be more than minor, and thus a finding, using Inspection Manual Chapter (IMC) 0612, Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Human Performance attribute area of Routine Operations Performance of the Barrier Integrity Cornerstone and had the potential to adversely affect the associated cornerstone objective of providing reasonable assurance that a physical design barrier (reactor coolant system) protects the public from radionuclide releases caused by accidents or events. Specifically, without NRC evaluation and approval of revised P/T limits that include operating the RPV in a vacuum, the inspectors did not have reasonable assurance the RPV was not adversely affected. The finding was evaluated using Inspection Manual Chapter (IMC) 0609, Significance Determination Process (SDP), Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, and IMC 0609, Appendix A, Exhibit 3 – Barrier Integrity Screening Questions, dated June 19, 2012. Because the finding involved the RCS boundary (e.g., pressurized thermal shock issues), the SDP directs the inspectors to stop and go to the detailed risk evaluation section. The regional Senior Reactor Analyst (SRA) reviewed the finding and determined that a detailed risk evaluation was not required based on the licensee engineering evaluation. As a result, the SRA concluded that there was no change in risk due to the performance deficiency. This finding has a cross-cutting aspect in the area of human performance, resources. Specifically, complete, accurate and up-to-date

procedures were not available to operators to ensure operations within the requirements of TS 3.4.11, (H.2(c)).

**Enforcement:** Technical Specification 3.4.11 requires that RPV pressures and temperatures be maintained within limits at all times. Contrary to this requirement, between June 2011 and July 2013, the licensee operated the plant with a pressure in the RPV less than the TS 3.4.11 limit of greater than or equal to 0 psig. Specifically, the licensee operated the RPV in a vacuum during cold startups on June 4, 2011, for more than 3 hours; on October 18, 2011, for more than 8 hours; on March 3, 2012, for more than 2 hours; on June 17, 2012, for more than 4 hours; and on May 11, 2013, for more than 30 minutes; and twice during a cooldown on June 16, 2013, for 15 and 30 minutes. Because the violation was of a very low safety significance and was documented in the licensee's corrective action program (as Condition Report CR 2013-18689), it is being treated as a Non-Cited Violation, consistent with Section 2.3.2 of the Enforcement Policy **(NCV 05000440/2013007-01, Failure To Comply With Technical Specification 3.4.11)**.

(3) Corrective Actions

In general, the inspectors concluded that the corrective actions were appropriate for the identified issues. The corrective actions in 2011 and 2012 in response to the NRC White radiation protection issues were found to be ineffective to improve procedure use and adherence. For other selected NRC documented violations, corrective actions were determined to be effective and timely. The inspectors' review of the previous 5 years of the licensee's efforts to address issues with the station large transformers did not identify any negative trends or inability by the licensee to address long-term issues.

Observations

The inspectors reviewed various corrective actions from the RCEs for the 2011 and 2012 NRC White issues. The inspector noted that licensee assessments and plant events have continued to demonstrate weakness in procedure compliance indicating the corrective actions developed from the RCEs were not effective. The inspectors also noted that on August 8, 2013, licensee senior managers conducted site standdowns to provide clear site expectations and standards, including procedure use and adherence. Also in August 2013, the licensee rolled out a new site action plan, the Perry Strategic Improvement Plan, to improve procedure use and adherence as well as the use of performance improvement tools, teamwork, and accountability. The inspectors reviewed portions of the Strategic Improvement Plan and noted it included required field observations by supervisors and management specifically observing and documenting procedure use behaviors. A review by the inspectors of the documented observations indicated procedure use and adherence was improving but the plan and actions have not been implemented long enough for the inspectors to conclude that notable and sustained improvement in this area had yet occurred.

In CR 2013-09637, the licensee identified that Plant Data Book I0004, "Instrumentation Channels," was approved and made effective before the NRC approved the associated LAR. After discussions with the licensee and review of the CR, the inspectors determined that the premature change was made because of a failure to follow procedure NOP-SS-3001, "Procedure Review and Approval." The corrective action assigned by the licensee was to send out a lessons-learned notice to all of the

procedure writers. However, the notice did not address the failure to follow procedure. In addition, there was no verification that all of the procedure writers reviewed the information. The licensee initiated CR 2013-18661, "NRC Questions the Thoroughness of CR 213-09637, License Amendment Implementation Completed Prior to Amendment Approval," to address this concern.

## Findings

### .1 Failure to Promptly Correct a Non-Conservative TS

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for failure to promptly correct a condition adverse to quality, a non-conservative TS. Specifically, in November 2013, the inspectors identified that the licensee implemented an administrative TS change when the licensee identified in October 2009 that TS 3.4.11, "RCS Pressure and Temperature (P/T) Limits," was non-conservative, but did not promptly submit the required LAR.

Description: In October 2009, the licensee documented in Condition Report CR 2009-64465 that TS 3.4.11, "RCS Pressure and Temperature (P/T) Limits," was non-conservative. These limits protect the reactor vessel material from pressurized thermal shock. The corrective action by the licensee was an administrative TS change in accordance with NRC Administrative Letter 98-10, "Dispositioning of Technical Specifications That Are Insufficient To Ensure Plant Safety." The change shifted a portion of the reactor pressure vessel P/T limits so that it required operation at a higher RPV temperature than previously specified at certain pressures. The licensee correctly invoked Administrative Letter 98-10 and took an action to issue a non-conservative TS tracking form, prepared in accordance with procedure NOP-LP-4009, for the purpose of alerting all TS holders of the changes to the P/T limit curves. The licensee also initiated a corrective action to formally update the calculations from which the curves were developed and, when the calculations were approved, to initiate the appropriate change mechanism, a license amendment request, to formally update the TS P/T curves. However, as of the November 2013 start of the current inspection, that calculation had not been performed. The inspectors also noted that the procedure did not specify a time requirement for the LAR submittal and did not clearly identify the organization responsible to initiate a LAR for non-conservative TSs. A timeline of this issue is presented below.

#### Timeline of Licensee Actions

09/11/2009	GE Hitachi (GEH) Nuclear Energy letter to FirstEnergy identified non-conservative TS values through an Impact Assessment for Water Level Instrumentation Nozzle Penetration on P/T curves provided to BWR Owners Group (BWROG) members.
09/15/2009	CR 2009-64465 was initiated based on GEH letter; corrective action CA-001 was initiated to seek revision to calculation EA-0246 to include level instrument analyses.
10/02/2009	GEH letter File 0000-0106-1616 Rev. 1 to FirstEnergy identified level instrument nozzle impact on P/T curves.
10/16/2009	Non-conservative TS tracking forms issued and placed into all controlled copies of licensee's TS manuals per NOP-LP-4009-04.

02/09/2010	CA-001, due February 10, 2010, extended to June 11, 2010, and provided estimated schedule with GEH as primary contractor.
05/06/2010	CA-001, due June 11, 2010, was extended to February 28, 2011, based on unacceptable proposal costs. The alternate BWROG revision to the P/T limits topical report was chosen. No definitive schedule was identified other than financial approval by the FENOC BWROG representative in April 2010. Justification was based on low safety significance.
02/14/2011	CA-001 due on February 28, 2011, was extended to August 12, 2011, based on receipt of draft calculation from the BWROG contractor.
08/10/2011	Calculation EA 0272 was initiated on August 10, 2011, and was approved on September 2. It used preliminary BWROG results to incorporate the level instrument curve.
09/16/2011	CA-001, due August 12, 2011, was closed to CA-004 which added the tracking of this item to the Design Basis Assessment Report which is output quarterly.
03/15/2013	A proposal was received to update P/T curves for License Renewal by incorporating the results of the capsule pulled in the recent refueling outage, with inclusion of instrument line impact, and an additional note to the curves for startup under a vacuum.
11/26/2013	CR 2013-18983, "2013 NRC PI&R: Timeliness Concern with Non-Conservative Technical Specification 3.4.11," was initiated to address the timeliness issue raised by the NRC.

Administrative Letter 98-10 contained two examples of untimely corrective action to correct a non-conservative TS. The first example was a licensee that waited until after a refueling outage to submit a license amendment. The second example a licensee that waited over one year to submit an LAR. As of November 14, 2013, Perry had not submitted an LAR license amendment after implementing administrative controls, over four years and two operating cycles. Based on the two examples in 98-10, the inspectors determined that Perry's corrective action to submit the LAR was not timely and a violation of 10 CFR Part 50, Appendix B, Criterion XVI.

Analysis: The licensee's failure to promptly correct a condition adverse to quality was a performance deficiency and was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 12, 2012, because the finding was associated with the area of Routine Operations Procedures within the Procedure Quality attribute of the Barrier Integrity Cornerstone, and had the potential to adversely affect the associated cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, without NRC approval of the revised P/T limits, the inspectors did not have reasonable assurance the reactor vessel was not adversely affected. The finding was evaluated using IMC 0609, Significance Determination Process (SDP), Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012, and IMC 0609, Appendix A, Exhibit 3 – Barrier Integrity Screening Questions, dated June 19, 2012. Because the finding involved the RCS boundary (e.g., pressurized thermal shock issues), the SDP directs the inspectors to stop and go to the detailed risk evaluation section. The regional SRA determined that a detailed risk evaluation was not required because operators followed the appropriate TS P/T curves

which were supported with approved licensee calculations. Therefore, there was no impact to the RCS boundary as a result of this finding and the analyst concluded that this issue was of very low safety significance. The finding has a cross-cutting aspect in the area of human performance, decision-making, where licensee decisions demonstrate that nuclear safety is an overriding priority. Specifically, from the time of discovery of the non-conservative technical specification until now, various decisions had been made by the licensee that have delayed the timely submittal of the license amendment request (H.1(c)).

Enforcement: Title 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that conditions adverse to quality be promptly identified and corrected. Contrary to the above, the licensee failed to promptly correct a non-conservative Technical Specification, a condition adverse to quality. Specifically, the inspectors identified on November 14, 2013, that the licensee failed to promptly correct the non-conservative TS 3.4.11 by not submitting the LAR in accordance with NRC Administrative Letter 98-10, which specified submittal within one year or one operating cycle. The licensee had determined TS 3.4.11, "RCS Pressure and Temperature (P/T) Limits," to be non-conservative on October 16, 2009, and implemented administrative controls as allowed by the Administrative Letter. However, as of November 14, 2013, the licensee had not submitted the LAR, over four years and two operating cycles after determining TS 3.4.11 was non-conservative. Because the violation was of very low safety significance and was documented in the licensee's corrective action program (as Condition Report CR 2013-18983), it is being treated as a Non-Cited Violation, consistent with Section 2.3.2 of the Enforcement Policy (**NCV 05000440/2013007-02, Failure To Promptly Correct a Non-Conservative Technical Specification**).

## .2 Use of Operating Experience

### a. Inspection Scope

The inspectors reviewed the licensee's implementation of the facility's Operating Experience (OE) program. Specifically, the inspectors reviewed implementing OE program procedures, attended CAP meetings to observe the use of OE information, reviewed completed evaluations of OE issues and events, interviewed the OE coordinator, and attended a weekly OE meeting which included representatives from various departments. The intent of the review was to: (1) determine whether the licensee was effectively integrating OE experience into the performance of daily activities; (2) determine whether evaluations of issues were appropriate and conducted by qualified individuals; (3) determine whether the licensee's program was sufficient to prevent future occurrences of previous industry events; and (4) determine whether the licensee effectively used the information in developing departmental assessments and facility audits. The inspectors also assessed if corrective actions, as a result of OE experience, were identified and implemented effectively and timely.

### b. Assessment

Overall, the inspectors determined that the licensee was adequately evaluating industry OE for relevance to the facility. The licensee had entered all applicable items in the CAP in accordance with the licensee's procedures. Both internal and external OE was being incorporated into lessons learned for training and pre-job briefs. The inspectors

concluded that the licensee was evaluating industry OE when performing root cause and apparent cause evaluations.

### Observations

The inspectors identified a potential weakness in the licensee's documenting of the basis for OE not requiring an evaluation. Specifically, once an OE was sent to the responsible department as "Information Only," the expectation was that if it were determined to need an evaluation, then Corrective Action (CA) would be documented. Currently, however, there was no documentation of the justification of why an evaluation was not required, even if the OE were discussed in the weekly OE meeting. The licensee initiated CR 2012-17901, "Potential Improvement Item was Identified Regarding "Information Only" OE Justification." The inspectors did not identify any OE for which an evaluation had not been performed if required.

### Findings

No findings were identified.

## .3 Self-Assessments and Audits

### a. Inspection Scope

The inspectors assessed the licensee staff's ability to identify and enter issues into the CAP, prioritize and evaluate issues, and implement effective corrective actions, through efforts from departmental assessments and audits. The inspectors reviewed audit reports and completed assessments. The inspectors reviewed fleet assessments, site Quality Assurance audits, and departmental self-assessments.

### b. Assessment

Based on the self-assessments and audits reviewed, the inspectors concluded that self-assessments and audits were typically accurate, thorough, and effective at identifying issues and enhancement opportunities at an appropriate threshold. The audits and self-assessments were completed by personnel knowledgeable in the subject area, and the audits were thorough and critical. The inspectors observed that CAP items had been initiated for issues identified through audits and self-assessments. The inspectors reviewed the self-assessment performed on the CAP and found no issues and generally agreed with the overall results and conclusions drawn.

### Observations

The inspectors reviewed fleet oversight assessment reports since the third trimester of 2012. The assessments were found to be critical of site performance. For instance, the 2013 second trimester report concluded two of the site organizations ineffective and four marginally effective (of 9 total organizations). Repeat comments and deficiencies noted in these assessments included:

- Workmanship issues due to procedure use,
- Procedure compliance issues,
- Lapses in accountability,
- Issues with management intrusiveness, and

- Concerns and issues over CAP implementation.

The relatively longstanding and repetitive nature of the issues identified support the inspector conclusions that corrective actions to improve procedure use and adherence were ineffective. The licensee was relying on the recently issued Strategic Improvement Plan to improve and sustain a higher standard of human performance.

#### Findings

No findings were identified.

#### .4 Safety Conscious Work Environment (SCWE)

##### a. Inspection Scope

The inspectors assessed the licensee's SCWE through the review of the licensee's employee concerns program (ECP), implementing procedures, discussions with the coordinator of the ECP, interviews with personnel from various departments, and reviews of issue reports.

An extensive SCWE review was conducted with multiple focus groups during the 2013 Inspection Procedure 95002 inspection that the NRC conducted in June. The results of that review are contained in NRC Inspection Report 05000440/2013009 (ADAMS Accession Number ML13224A382) and concluded the SCWE environment at Perry was adequate. Therefore, for the current inspection, the inspectors conducted impromptu interviews with plant personnel to verify the results of the 95002 inspection. Approximately 20 people were involved in questions and discussions involving SCWE. In addition to assessing individuals' willingness to raise nuclear safety issues, the interviews also addressed changes in the CAP and plant environment and management over the past 2 years. Other items discussed included:

- knowledge and understanding of the CAP,
- effectiveness and efficiency of the CAP, and
- willingness to use the CAP.

##### b. Assessment

The interviews and discussions reinforced the conclusion from the 95002 inspection that the licensee has an environment where people are free to raise nuclear safety issues without fear of retaliation. All of the individuals interviewed knew that in addition to the CAP, they could raise issues to their immediate supervisor, the ECP, or the NRC. The number of issues raised to the ECP and the subsequent investigations conducted by the ECP personnel support the responses that personnel are knowledgeable and willing to use this program.

#### Observations

A number of the people interviewed identified that one of the organizational issues was staffing. This had also been identified as one of the major concerns during the 95002 inspection and continued to be an issue for employees although no nexus was drawn to a SCWE issue. The licensee was aware of the staff's beliefs related to staffing.

Several comments indicated that there was an improvement with the communication of the leadership at Perry. Both the Site Vice-President and the Plant Manager were newly assigned to Perry since the 95002 inspection. Personnel commented that both individuals appear to spend more time in the field communicating directly with them, and appear to listen to their concerns. Continuing this behavior by the senior leadership would likely result in an improvement to the SCWE.

#### Findings

No findings were identified.

#### 4OA6 Management Meeting

##### .1 Exit Meeting Summary

On November 22, 2013, the inspectors presented the inspection results to Mr. Harkness, the Site Vice-President, and members of his staff. The licensee acknowledged the issues presented. The inspectors confirmed that proprietary documents were appropriately returned or will be destroyed.

ATTACHMENT: SUPPLEMENTAL INFORMATION



## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee Personnel

E. Gordon, Supervisor, Performance Improvement  
B. Blair, Manager – Maintenance  
E. Harkness, Site Vice President  
D. Hamilton, Director - Site Operations  
N. Conicella, Manager - Regulatory Compliance  
L. Zerr, Supervisor - Regulatory Compliance  
J. Ellis, Director – Recovery  
V. Veglia, Director – Maintenance  
T. Veitch, Manager – Regulatory Compliance  
R. Coad, Supervisor, Design Engineering  
K. Coggins, Maintenance

#### NRC Personnel

M. Kunowski, Chief, Branch 5, Division of Reactor Projects  
M. Marshfield, Senior Resident Inspector

### **LIST OF ITEMS OPENED, CLOSED AND DISCUSSED**

#### Opened and Closed

05000440/2013007-01	NCV	Failure To Comply With Technical Specification 3.4.11 (Section 4OA2.1b.(2).1)
05000440/2013007-02	NCV	Failure To Promptly Correct a Non-conservative Technical Specification (Section 4OA2.1b.(3).1)

#### Discussed

None

## LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather, that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

### CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

#### OPERABILITY EVALUATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
2012-03521	DG Ventilation Fans Cracking	May 10, 2012
2013-07483-01	Condensate Transfer System Elevated Temperatures	May 13, 2013
2013-13136	Turbine Stop Valve Testing	August 25, 2013

#### PLANT PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
GEI-0007-A	Instructions For Cable And Wire Terminations	11
IOI-1	Cold Startup	37
IOI-4	Shutdown	19
NOBP-LP-2001	FENOC Self-Assessment And Benchmarking	19
NOBP-LP-2008	FENOC Corrective Action Review Board	14
NOBP-LP-2011	FENOC Cause Analysis	16
NOBP-WM-4003	FENOC Refurbishment Process	00
NOBP-WM-4300	Order Execute Process	12
NOPB-LP-2022	Compliance Auditing	11
NOPB-LP-2023	Conduct Of Fleet Oversight	12
NOP-ER-3004	FENOC Maintenance Rule Program	2
NOP-LP-2020	Quality Control Receipt Inspection	14
NOP-LP-4009	Requests For NRC Licensing Action	2
NOP-LP-4009-04	TS Tracking Form; RCS P/T Limits 3.4.11	October 16, 2009
NOP-OP-1009	Operability Determinations And Functionality Assessments	3
NOP-OP-1012	Material Readiness And Housekeeping Inspection Procedure	7
NOP-SS-3001	Procedure Review And Approval	19
NORM-LP-2003	Analytical Methods Guidebook	4
PAP-0204	Housekeeping/Cleanliness Control Program	26
PYBP-PNMD-005	Maintenance Mentoring Process	00
PYBP-POS-5-11	Operations Work Control Unit (WCU) Guide	11
SOI-G33	Reactor Water Cleanup System	38
SVI-B21-T1176	RCS Heatup Data, Table 1	June 4, 2011
SVI-B21-T1176	RCS Heatup Data, Table 1	October 18, 2011
SVI-B21-T1176	RCS Heatup Data, Table 1	March 3, 2012
SVI-B21-T1176	RCS Heatup Data, Table 1	June 17, 2012
SVI-B21-T1176	RCS Heatup Data, Table 1	May 11, 2013
SVI-B21-T1176	RCS Cooldown Data, Table 1	June 16, 2013

<b><u>Number</u></b>	<b><u>Description or Title</u></b>
2008-48338	High Water Content In U2 Startup XFMR Oil
2010-82586	Unit 2 Startup XFMR Oil Sample Results Indicate High Moisture Content
2011-06031	2011 AFI MA. 1-1 Maintenance Consistent Use Of Procedures And Work Orders As Written
2011-06137	Declining Ownership With CAP And OE Due Dates
2011-06714	Focused Self-Assessment Recommendation Four Actions From Industry Peers To Be Tracked In CAP
2011-07124	Lack Of Work Preparation/Execution Not Limited To, But Including Div-1 AOT
2012-00212	Historical Review Of Oil Analysis On Aux Transformer Reviewed IEEE Condition 1 Limits Exceeded
2012-00386	Work Could Not Be Performed As Scheduled During Div 2 EDG Outage
2012-00400	SLC Pump 'A' Unavailable In Narrative Log But Not In A Timely Manner
2012-00406	Voltage Found During Live Dead Live Check
2012-00615	SN-SA-2012-006: Deficiencies Found With OE Reviews During FP Self-Assessment
2012-00658	Activity To Perform "Line Kill" Of RFPT B Casing Drain Line Was Unsuccessful
2012-00798	Adverse Trend – Declining Performance In Maintenance Training Programs (IP-SA-2012-0001)
2012-01073	TSC UPS B Abnormal DC Voltage Alarm
2012-02767	Unexpected Trip Of S-621 And S-620
2012-03809	Rigging Issue During Removal Of A Beam In Dry Cask Storage Project
2012-06153	Loss Of Control For The Seismic Restraint For The Dry Cask Storage Project
2012-11886	RWCU Isolation Pump Trip During SVI Restoration
2012-01516	PY-PA-12-01 The CAP Performance Was Rated Marginally Effective For The 3 <sup>rd</sup> Trimester Of 2011
2012-01908	Review Of All Site Condition Reports From January Identified A Trend Of Repeat Issues
2012-02678	MS-C-12-01-13, Issues Identified Pertaining To GL-89-13 Program
2012-02794	MS-C-12-01-13, Test Equipment Uncertainties Not Accounted In Valve Testing
2012-02911	CNRB Recommendation: Capture Feedback From NRC PI&R Inspection Debrief
2012-03231	Manual Reactor SCRAM 1-12-01 Occurred at 02:24 March 1, 2012
2012-03720	Unexpected Breaker Trip During Uncoupled Run
2012-03840	Miscommunication Of Emergency Diesel Generator Ventilation Fan Air Flow Compensation Requirements
2012-06167	Actions Taken In Response To CR11-89188 Are Outside The Corrective Action Program
2012-06485	Procedure Adherence Issues During Unit 1 Division 2 Battery Charge
2012-06660	Feedwater Heater 5A Leak As Reported Is Above An ODMI Trigger Point

2012-06973	NRC NCV, Inadequate Risk Evaluation For Main Generator Stator Water Cooling System Maintenance Resulted In A Manual Reactor Scram
2012-07882	NRC NCV, Inadequate Procedure Resulted In Loss Of High-Pressure Core Spray Function
2012-09931	Supplemental Personnel Injured During Scaffold Modification
2012-10293	PA-PY-2012-02, Maintenance CAP Implementation Issues
2012-11148	PYSP IPAT 1 <sup>st</sup> Half of 2012- Emerging Trend Identified Related To An Increase In Human Performance Events Within the Section (IP-SA-2012-0119)
2012-11369	Belt Installed On TB Supply Fan B, Unsafe Act
2012-12152	Declining CAP Health Indicators
2012-12349	July CAP Performance Indicator Shows A Declining Trend In Cause Evaluation Quality
2012-12674	Missed SVI Unit 1 Division 1 Battery
2012-13408	FO-SA-2012-0013: Activities Are Being Inappropriately Designated A Different Color Of Risk Than What Is Assessed Per NOP-OP-1007
2012-13758	Ineffective Communications During Pre-Job Brief Resulted In Drilling Through Rebar Without Prior Engineering Approval
2012-15950	SN-SA-0220 Perry Nuclear Safety Culture Review Self-Assessment-Principle 7
2012-16671	The 3rd Quarter Safety Culture Monitoring Meeting Held On October 19, 2012 Determined That Safety Culture Attribute If Needs Further Review And Attention
2012-16828	Work Group Unprepared to Start Task For Hot Short Modification Causes Un-necessary Unavailability Time For Division 1 Diesel
2012-18618	Chemistry Section Was Rated RED For The 2012 SCWE Survey Pillar
2012-19535	XCAP Precursor Issues In Cross-Cutting Aspect H.4(a)
2013-00013	Data Suggests That The Importance Placed On The Corrective Action Program Is Not Where It Needs To Be For The Station
2013-00511	TB West Crane Deficiencies Not Entered Into CAP And Resolution Not Documented In WO 200493418
2013-00826	FO-SA-2011-0017, Based On The Number Of Issues Of Issues Identified Similar In Nature To Previously Identified Issues. The Corrective Actions Taken Have Been Less Than Fully Effective
2013-00753	Clearance Not Adequate For Work To Be Performed
2013-01011	Inverter 1R14S0004 Found On Alternate Source With The Fila Light On Following Reactor Scram
2013-01476	PY-C--13-01-01, Clearance Revision Process Described In NOP-OP-1001 Is Not Being Followed
2013-01965	CARB Identified Line Ownership Of The CAP Is Inconsistent And Is Delaying Improvement Of The Implementation Of CAP At Perry
2013-03005	Snapshot Self-Assessment SN-SA-2012-0079, Found Project Section That Had One LACE CR That Required Cause Code(s)
2013-03016	MS-C-13-02-22, CR 2012-13758 Interim Effectiveness Review Not Adequately Reviewed Or Issues Identified In CAP
2013-03223	Corrective Actions Assigned In CR 2013-00478 Do Not Address Apparent Cause Identified
2013-04435	Valve Found Out-of-Position

2013-05236	Resolution Of A Condition Adverse To Quality (Non-Conservative Technical Specification) Is Not Being Tracked In The Corrective Action Program
2013-05741	NRC Cross-Cutting Theme In Human Performance Aspect H.4(a)
2013-05809	Potential Trend: There Have Been Nine Overdue CAP Products Between March 31, 2013 And April 14, 2013
2013-05993	MS-C-13-02-22: Perry Corrective Action Program Implementation Rated Marginally Effective
2013-06207	Auto Start Of 1M15C0001A During SVI-R43-T7000A. On April 15, 2013, Was Not Documented In CAP
2013-06479	P-1925 Could Inappropriately Credit RHR Availability For Decay Heat Removal In Defense-In-Depth When ADHR Is In Service
2013-07473	Level Transient During Performance Of PTI-N27-P0012
2013-07582	Conditional Release Of 1P11-F0545
2013-07585	Valve Refurbishment Did Not Follow NOBP-WM-4003
2013-07665	Field Wiring Did Not Match Drawing 209-0158-00003 For The AT Junction Box In The Generator Alterex Cabinet
2013-07881	NRC FIN, Failure To Perform Vendor Recommended Preventative Maintenance
2013-07883	NRC NCV, Valve Mis-Position Causes SDV Level Detector Inoperability
2013-07884	NRC NCV, Failure To Follow Procedures For Conducting A Standby Liquid Control System Surveillance
2013-08962	PA-PY-13-01 Organizational Effectiveness Rated Marginally Effective For 1 <sup>st</sup> Trimester 2013
2013-09086	Potential Debris/Missile Material Stored Outside Of MB-100
2013-09461	Cross Cutting Aspect H(3).b For NCV 05000440/2013002-01 Not Evaluated In CR2013-03863 Or CR2013-03781
2013-09486	SN-SA-2013-0144, CA 2011-97640-001 Not Implemented As Stated In Corrective Action Closure Comments
2013-09601	Safety Concern Roof Top Workers
2013-09637	License Amendment Implementation Completed Prior To Amendment Approval
2013-10222	Changes In Procedure's Effect On MSPI Not Evaluated
2013-11771	Five Rosemount Trip Units Have Demonstrated Drifts That Warrants Accelerated Replacement In Accordance With POD 2012-10238
2013-13040	MN-ID: Adverse Trend In Material Handling
2013-13272	NRC 95002 NCV, RWCU Valve Misposition, Elevated Temperatures In Condenser Transfer Piping
2013-13274	NRC 95002 NCV, Unexpected RPV Level Transient During Performance Of PTI-N27-P0012, Procedure Was Not Appropriate To The Circumstances
2013-13420	RP Root Cause CR 2013-09891 Was Rejected By CARB On August 26, 2013 Due To Numerous Changes And Low Grading Score
2013-13992	FO-SA-2012-0025, PI&R: Review of CR-2011-06037, Maintenance Corrective Action Implementation Issues
2013-16086	Unit 1 Start-up Transformer Oil Quality Exceeded Established Trend Plan Limits
2013-18180	2013 NRC PI&R: Potential Improvement Item Was Identified Regarding Justification For No Maintenance Rule Evaluation

2013-18689	2013 NRC PI&R: TS 3.4.11 RCS P/T Limits Comprehension
2013-18696	2013 NRC PI&R: Deficiency Found In Execution Of Work Order 20056349, Replacement Of 1P11F0545
2013-18704	2013 NRC PI&R: Planning Deficiency In Work Order 200563495, Replacement Of P11F0545
CR-G202-2009-56349	Loss Of Non-Essential 480 V BUS F-1-C And F-1-D.
CR-G202-2009-66058	Recirculation Pump A Trip On Failure To Transfer To Slow Speed
CR-G202-2010-76727	Reactor Scram

#### **OTHER DOCUMENTS**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
	CNRB – Work Management Sub-Committee Meeting (Handout)	September 2013
	Maintenance Standards Implementation	0
	Green News Flash- Awareness Of Housekeeping Standards For Switchyard And Transformer Areas	November 17, 2013
	Maintenance Superintendent And Supervisor Weekly Meeting Agenda	November 7, 2013
	Message From Site Leadership Team On Site Expectations And Standards	August 8, 2013
	Perry Station Safety & Human Performance Recovery Plan For NPS	September 18, 2012
	Perry Nuclear Power Plant Performance Indicator 01	November 19, 2013
	Revise Organizational Effectiveness Plan	October 31, 2013
200487879	Perform Line Kill On RFPT B Per ECP 08-0712-003	January 13, 2012
GAT 6008631128	Management Alignment And Ownership Meeting Agendas	November 5, 2013 November 6, 2013 November 7, 2013 November 8, 2013
MEC-201203-PY-04	Electrical Maintenance Continuous Training 2012 Third Cycle, Phase Rotation Meters	October 3, 2012
PY Plant Status Email	Perry Plant Status For Friday, November 8, 2013; E-Mail From Dave Hamilton	November 8, 2013
System Health Report 2013-1	System--S11-Power Transformers	August 22, 2013
System Health Report 2012-2	System--S11-Power Transformers	August 10, 2012
TEEW IC-12-01	I&C Radworker H.I.T.	March 14, 2012
TEEW IC-13-01	Human Performance Tools, Verification Techniques	July 1, 2013
TEEW ME-13-01	Human Performance Tools, Lifting And Landing Of Electrical Wires/Cables	July 1, 2013

**AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
	FENOC Oversight Fleet Summary, Third Trimester 2012	September 1, 2012 through December 31, 2012
FO-SA-2012-0011	CAP Process / Database	February 8, 2013
FO-SA-2012-0025	Preparation For The Corrective Action Program NRC Problem And Identification Inspection	September 4, 2013
FO-SA-2013-0121	Compare Revision Changes of "INPO 97-011 Guidelines For The Use of Operating Experience"	June 24, 2013
MS-C-13-02-22	Fleet Oversight Audit Report	April 15, 2013
PA-PY-13-01	Perry Nuclear Power Plant Fleet Oversight Trimester Report, 1st Trimester 2013	May 29, 2013
PA-PY-13-02	Perry Nuclear Power Plant Fleet Oversight Trimester Report, 2nd Trimester 2013	September 26, 2013
PY-PA-12-01	Review Of All Site Condition Reports From January Identified A Trend Of Repeat Issues	July 31, 2012
SN-SA-2012 0041	Submittal Of OE To The Industry	July 20, 2012
SN-SA-2012 0166	Snapshot Of Timeliness Of PJB For Significant CRs, CR Report Closure Timeliness And Evaluator Attendance At CARB.	August 6, 2012
SN-SA-2012 0254	Per CA-2012-01912-2, Perform A Snapshot 3 Months After Implementation Of New Performance Indicators To Determine Effectiveness Of Reducing Timeliness Issues In CAP	January 13, 2013
SN-SA-2012-0079	Perform A Review Of All Limited, Full, Root Cause Evaluations That Do Not Have A Cause Code In Devonway	May 8, 2012
SN-SA-2012-0095	4 <sup>th</sup> Quarter 2011 Safety Culture Monitoring Panel	May 8, 2012
SN-SA-2012-0149	May 8, 2012	
SN-SA-2012-0149	1 <sup>st</sup> Q 2012 Management Oversight And Awareness Of Conservative Decisions	August 6, 2012
SN-SA-2012-0181	Management Oversight And Awareness Of Conservative Decisions	March 5, 2013
SN-SA-2012-0246	Switchyard Component Control Assessment	November 8, 2012
SN-SA-2012-02-77-001	Plant Engineering Backlog	August 12, 2013
SN-SA-2013-004	NRC Inspection 71113004 Equipment Performance, Testing, And Maintenance	July 22, 2013
SN-SA-2013-0342	2013 Perry INPO Organizational Effectiveness Survey Analysis	October 31, 2013

**OPERATING EXPERIENCE**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>
OE 2011-0554	Preliminary-Failed Agastat E7012PB Model Timing Relay
OE 2011-0780	Preliminary-Emergency Diesel Generator Field and Output Voltage Fluctuation

OE 2011-0986	IN 2010-01 Pipe Support Anchors
OE 2011-1187	Failures Of Moore 535 Digital Single Loop Controllers Causing Problems In Multiple System
OE 2011-1307	Declining Trend In Operability Determination Led To An Inadequate Evaluation
OE 2011-1372	Preliminary- During 125 Volt DC Electrical Maintenance A Short Circuit Caused A Reactor Trip
OE 2012-0277	IN 12-01 Seismic Considerations- Principally Involving Tanks
OE 2012-0965	Environmental Qualification (EQ) Program Challenged By Inconsistent Scheduling Of Required Maintenance
OE 2013-1217	Unit 2 Turbine Trip On Main Generator Lockout
OE 2013-1225	Counterfeit Batteries Identified During Receipt Inspection

#### **CONDITION REPORTS GENERATED DURING INSPECTION**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>
2013-17900	2013 NRC PI&R: Enhance Tracking Of Maintenance Rule (a)(1) System Work Orders
2013-17901	2013 NRC PI&R: Potential Improvement Item Was Identified Regarding "Information Only" OE Justification
2013-17984	2013 NRC PI&R: Potential Transformer Yard Debris/Missile Hazards Stored Outside Of MB-100
2013-18176	2013 NRC PI&R: No Final Effectiveness Review Exist For Root Cause CR 2009-66058
2013-18180	2013 NRC PI&R: Potential Improvement Item Was Identified Regarding Justification For No Maintenance Rule Evaluation
2013-18387	2013 NRC PI&R: NRC Questions Perry Response To CR 2013-00511
2013-18579	2013 NRC PI&R: Documentation Of Corrective Action Implementation Does Not Meet Expectation
2013-18661	2013 NRC PI&R: NRC Questions The Thoroughness Of The Response To CR 2013-09637, License Amendment Implementation Completed Prior To Amendment Approval

#### **ROOT CAUSES AND APPARENT CAUSES**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>
2011-02542	Unit 1 Start-up Transformer Failure
2012-07454	IRM D Indicating Failure During Power Ascension
2013-01011	Inverter 1R14S004 Was Found On Its Alternate Source And With The Fail Light On Following A Reactor Scram
2013-05234	Root Cause For Fuel Defect Found During 1R14
2013-07454	IRM D Not Responding Properly
2013-09737	Maintenance And Technical Training Station Identified Finding



## LIST OF ACRONYMS USED

ACE	Apparent Cause Evaluation
ADAMS	Agencywide Documents Access and Management System
BWROG	Boiling Water Reactor Owners Group
CA	Corrective Action
CAP	Corrective Action Program
CARB	Corrective Action Review Board
CCA	Common Cause Analysis
CFR	Code of Federal Regulations
CR	Condition Report
ECP	Employee Concerns Program
FENOC	FirstEnergy Nuclear Operating Company
GEH	General Electric-Hitachi
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
LACE	Limited Apparent Cause Evaluation
LAR	License Amendment Request
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
OE	Operating Experience
P/T	Pressure/Temperature
PARS	Publicly Available Records System
PI&R	Problem Identification and Resolution
PSIG	Pounds per Square Inch Gauge
RCE	Root Cause Evaluation
RCS	Reactor Coolant System
RPV	Reactor Pressure Vessel
SCWE	Safety Conscious Work Environment
SDP	Significance Determination Process
SRA	Senior Reactor Analyst
TS	Technical Specification
WIP	Work-In-Progress

E. Harkness

-2-

If you contest a violation or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Perry Nuclear Power Plant.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region III, and the NRC Resident Inspector at the Perry Nuclear Power Plant.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records System (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).

Sincerely,

/RA/

Michael A. Kunowski, Chief  
Branch 5  
Division of Reactor Projects

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

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Letter to Ernest Harkness from Michael Kunowski dated January 3, 2014

SUBJECT: PERRY NUCLEAR POWER STATION – NRC PROBLEM IDENTIFICATION  
AND RESOLUTION INSPECTION REPORT 05000346/2013007

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