UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

November 14, 2013

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 INTEGRATED INSPECTION REPORT 05000440/2013004

Dear Mr. Harkness:

On September 30, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed a routine inspection at your Perry Nuclear Power Plant. The enclosed report documents the results of this inspection, which were discussed on October 18, 2013, with Mr. D. Hamilton and other members of your staff.

Based on the results of this inspection, two NRC-identified and two self-revealed findings of very low safety significance were identified. Three of the findings 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.

Further, the inspectors documented a licensee-identified violation which was determined to be of very low safety significance in this report. The NRC is treating this violation as an NCV consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the violations 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 U.S. 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 the cross-cutting aspect assignment or a finding not associated with a regulatory requirement 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 Public Document Room or from the Publicly Available Records System (PARS) component of 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. 05000440
License No. NPF-58

Enclosure: Inspection Report 05000440/2013004
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:	05000440/2013004
Licensee:	FirstEnergy Nuclear Operating Company (FENOC)
Facility:	Perry Nuclear Power Plant, Unit 1
Location:	Perry, Ohio
Dates:	July 1, 2013, through September 30, 2013
Inspectors:	M. Marshfield, Senior Resident Inspector J. Nance, Resident Inspector J. Jandovitz, Project Engineer R. Jickling, Senior Emergency Preparedness Inspector M. Phalen, Senior Health Physicist S. Bell, Health Physicist
Observer:	R. Leidy, Ohio Department of Health, Bureau of Radiation Protection
Approved by:	Michael A. Kunowski, Chief Branch 5 Division of Reactor Projects

Enclosure

TABLE OF CONTENTS

SUMMARY OF FINDINGS 1

REPORT DETAILS 4

Summary of Plant Status 4

1. REACTOR SAFETY 4
1R04 Equipment Alignment (71111.04) 4
1R05 Fire Protection (71111.05Q) 5
1R06 Flood Protection Measures (71111.06) 9
1R07 Annual Heat Sink Performance (71111.07) 10
1R11 Licensed Operator Requalification Program (71111.11Q) 10
1R12 Maintenance Effectiveness (71111.12) 11
1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13) 12
1R15 Operability Determinations and Functionality Assessments (71111.15) 13
1R18 Plant Modifications (71111.18) 14
1R19 Post-Maintenance Testing (71111.19) 14
1R20 Forced Outage Activities (71111.20) 15
1R22 Surveillance Testing (71111.22) 16
1EP2 Alert and Notification System Evaluation (71114.02) 17
1EP3 Emergency Response Organization Staffing and Augmentation System (71114.03) 17
1EP5 Maintenance of Emergency Preparedness (71114.05) 18
1EP6 Drill Evaluation (71114.06) 18

2. RADIATION SAFETY 19
2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01) 19
2RS2 Occupational As-Low-As-Is-Reasonably-Achievable Planning and Controls (71124.02) 24
2RS7 Radiological Environmental Monitoring Program (71124.07) 24
2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08) 28

4. OTHER ACTIVITIES 32
4OA1 Performance Indicator Verificaiton (71151) 32
4OA2 Identification and Resolution of Problems (71152) 36
4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153) 38
4OA5 Other Activities 38
4OA6 Meetings 39
4OA7 Licensee-Identified Violations 40

SUPPLEMENTAL INFORMATION 1

KEY POINTS OF CONTACT 1

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED 1

LIST OF DOCUMENTS REVIEWED 2

LIST OF ACRONYMS USED 13

SUMMARY OF FINDINGS

Inspection Report (IR) 05000440/2013004, 07/01/2013 – 09/30/2013; Perry Nuclear Power Plant. Annual Fire Protection Drill Observation; Occupational Radiation Safety; and Public Radiation Safety.

This report covers a 3-month period of inspection by resident inspectors and announced baseline inspections by regional inspectors. Four Green findings were identified by the inspectors. Three of the findings were considered non-cited violations (NCVs) of NRC regulations. The significance of inspection findings is 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.

A. NRC-Identified and Self-Revealed Findings

Cornerstone: Mitigating Systems

Green. The inspectors identified a finding of very low safety significance and associated non-cited violation (NCV) of License Condition 2.C(6) for failure to ensure that an individual met the fire drill participation requirements for fire brigade members and fire brigade leaders. Specifically, certified fire brigade members and fire brigade leaders are required to participate in at least two drills per year and in one case the licensee failed to conduct proper drills as required by the license condition. The issue was entered into the licensee's corrective action program as Condition Report 2013-12964, and the licensee initiated immediate action to ensure that all current fire brigade members/leaders met drill participation requirements prior to fulfilling those roles.

The inspectors determined that the failure to conduct proper drills was a performance deficiency and was more than minor in accordance with Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because the finding was associated with the Mitigating Systems Cornerstone attribute of Protection Against External Factors for Fire and adversely affected the associated cornerstone objective of ensuring the reliability and capability of the fire brigade to respond to initiating events to prevent undesirable consequences. Because the licensee failed to ensure that fire brigade members and fire brigade leaders met the licensee's qualification requirements of participating in at least two fire drills per year, the mitigating systems cornerstone attribute to ensure the availability and reliability of the fire brigade to respond to initiating events was impacted. The finding was evaluated using IMC 0609, Significance Determination Process (SDP), Attachment 0609.04, "Initial Characterization of Findings," dated June 19, 2012. Because the finding involved the Fire Brigade, Table 3, SDP Appendix Router, Section E.1, "Fire Protection," directed NRC staff to use IMC 0609, Appendix A, "The SDP for Findings At-Power," dated June 19, 2012. Exhibit 2 of IMC 0609, the Mitigating Systems Screening Questions, Section D.1.a., Fire Brigade, was checked "yes" because the finding involved the Fire Brigade training and qualification requirements. The first condition under D.1.a., "The fire brigade demonstrated the ability to meet the required times for fire

extinguishment for drill scenarios," was applicable and the finding did not significantly affect the ability of the fire brigade to respond to a fire, so the finding was determined to be of very low safety significance. This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the corrective action program component, in that the licensee did not take corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity. Specifically, the licensee failed to identify that all drill requirements for fire brigade personnel as required in Branch Technical Position APCSB 9.5-1, Appendix A, which requires specific factors that qualify a drill for training purposes, was not used to plan and execute drills for personnel re-qualifying for this watch position during 2012 and 2013 (P.1(d)). (Section 1R05.2)

Cornerstones: Occupational Radiation Safety and Public Radiation Safety

Green. A finding of very low safety significance and an associated non-cited violation (NCV) of Technical Specification 5.4.1 was self-revealed through an electronic dosimeter alarm when, on August 6, 2013, a licensee worker inappropriately entered a high radiation area in the overhead of Auxiliary Building 574'. The inspectors concluded that the worker failed to comply with the requirements of his radiation work permit that prohibited work 6 feet above floor level until a radiological survey is performed and radiation protection verifies that the area met the requirements of the radiation work permit. This issue was entered into the licensee's corrective action program as Condition Report 2013-12077. Corrective actions focused on performance management of the individual involved.

The inspectors reviewed Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," dated August 11, 2009, and determined that the issue was more than minor because it was similar to Example 6(h). The inspectors also determined that the finding was of very low safety significance in accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated August 19, 2008. The inspectors identified no cross-cutting issues associated with this finding. (Section 2RS1.1)

Green. The inspectors reviewed a self-revealed finding (FIN) of very low safety significance involving an unauthorized activity inside a radiologically contaminated locked high radiation area. Specifically, on April 30, 2013, licensee contract personnel inappropriately placed a plastic container of goldfish inside the Turbine Building 620' auxiliary steam tunnel. This issue was entered into the licensee's corrective action program as Condition Report 2013-06758. Corrective actions included performance management of the individuals involved.

The inspectors determined that the finding was more than minor, in accordance with Inspection Manual Chapter (IMC) 0612 because it was associated with the Occupational Radiation Safety Cornerstone attribute of program and process of radiological exposure and contamination control and adversely affected the associated cornerstone objective to ensure adequate protection of worker health and safety from exposure to radioactive materials during routine civilian nuclear reactor operation. The inspectors also determined that the finding was of very low safety significance in accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated November 28, 2011. Additionally, the inspectors determined that the primary cause of this finding was related to the cross-cutting aspect in the area of human

performance in work practices. Specifically, the licensee did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety was supported (H.4(c)). (Section 2RS1.2)

Green. The inspectors identified a finding of very low safety significance and an associated non-cited violation (NCV) of Technical Specification 5.5.1, "Offsite Dose Calculation Manual (ODCM)." Specifically, the licensee failed to follow the "Fish and Invertebrates" sampling requirements specified in the ODCM. Corrective actions were being developed in the corrective action program (Condition Report 2013-14987) and senior plant management expressed the understanding that sampling was important and the condition would be corrected.

The finding was more than minor because it was associated with the Public Radiation Safety Cornerstone attribute of program and process of projected offsite dose and adversely affected the associated cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain. The finding was assessed using Inspection Manual Chapter (IMC) 0609, Attachment D, dated February 12, 2008, for the Public Radiation Safety Significance Determination Process and determined to be of very low safety significance because it involved the Environmental Monitoring Program. Additionally, the inspectors determined that the primary cause of this finding was related to the cross-cutting aspect in the area of human performance in work practices. Specifically, the licensee did not effectively communicate expectations regarding procedural compliance and personnel following procedures (H.4(b)). (Section 2RS7)

B. Licensee-Identified Violation

A violation of very low safety significance (Green) that was identified by the licensee has been reviewed by the inspectors. Corrective actions planned or taken by the licensee have been entered into the licensee's corrective action program. This violation and corrective action tracking number are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

The plant began the inspection period at 100 percent power. On September 6, 2013, at 12:01 a.m., plant power was reduced for a planned forced outage to replace the V1A 125-volt alternating current (AC) bus regulating transformer control module. At 1:01 p.m. the plant disconnected from the grid and was shutdown. The reactor returned to criticality on September 8 at 9:09 a.m. The plant synchronized to the grid on September 9 at 3:33 a.m. and reached 100 percent power on September 13 and remained at full power for the remainder of the inspection period with the exception of small periods of slightly reduced power to support surveillance testing requirements and minor power reductions for seasonal variations.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

1R04 Equipment Alignment (71111.04)

.1 Quarterly Partial System Walkdowns

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- reactor core isolation cooling;
- 'B' annulus exhaust gas treatment system;
- Division 2 emergency diesel generator (EDG); and
- 'A' emergency closed cooling system.

The inspectors selected these systems based on their risk significance relative to the Reactor Safety Cornerstones at the time they were inspected. The inspectors attempted to identify any discrepancies that could impact the function of the system and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Updated Safety Analysis Report (USAR), Technical Specification (TS) requirements, outstanding work orders, condition reports (CRs), and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also walked down accessible portions of the systems to verify system components and support equipment were aligned correctly and operable.
The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program (CAP) with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

These activities constituted four partial system walkdown samples as defined in Inspection Procedure (IP) 71111.04-05.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05Q)

.1 Routine Resident Inspector Tours (71111.05Q)

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- Fire Zone; 1AB-3B (Auxiliary Building 620' Elevation);
- Fire Zone; 0CC-2A, 2B, 2C (Control Complex 599' Elevation);
- Fire Zone; 1CC-3B, 3D (Control Complex 620’ Elevation) and 1DG-1B (Diesel Generator Building 620’ Elevation);
- Fire Zone; 0IB-1 (Intermediate Building 574’ and Pipe Chase 585’ Elevation); and
- Fire Zone; 0EW-1A,1B (Emergency Service Water Pump House).

The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and implemented adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems, or features in accordance with the licensee’s fire plan.
The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant’s Individual Plant Examination of External Events with later additional insights, their potential to impact equipment which could initiate or mitigate a plant transient, or their impact on the plant’s ability to respond to a security event.
Using the documents listed in the Attachment to this report, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee’s CAP.
Documents reviewed are listed in the Attachment to this report.

These activities constituted five quarterly fire protection inspection samples as defined in IP 71111.05-05.

b. Findings

No findings were identified.

.2 Annual Fire Protection Drill Observation (71111.05A)

a. Inspection Scope

On September 18, 2013, the inspectors observed a fire brigade activation for a simulated fire on the junction box for the 480-volt power supply for the nuclear closed cooling pump 'A' motor. Based on this observation, the inspectors evaluated the readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies, openly discussed them in a self-critical manner at the drill debrief, and took appropriate corrective actions. Specific attributes evaluated were:

- proper wearing of turnout gear and self-contained breathing apparatus;
- proper use and layout of fire hoses;
- employment of appropriate firefighting techniques;
- sufficient firefighting equipment brought to the scene;
- effectiveness of fire brigade leader communications, command, and control;
- search for victims and propagation of the fire into other plant areas;
- smoke removal operations;
- utilization of pre-planned strategies;
- adherence to the pre-planned drill scenario; and
- drill objectives.

Documents reviewed are listed in the Attachment to this report.

These activities constituted one annual fire protection inspection sample as defined in IP 71111.05-05.

b. Findings

Introduction: The inspectors identified a finding of very low safety significance (Green) and associated non-cited-violation of License Condition 2.C(6) for failure to ensure that individuals met requalification fire drill participation requirements for fire brigade members and fire brigade leaders. Specifically, certified fire brigade members and fire brigade leaders are required to participate in at least two drills per year.

Description: The licensee's oversight program conducted a multi-site Fire Protection Audit, MS-C-13-05-31, from May 17, 2013, through July 11, 2013. During that audit several issues were identified at Perry by the audit team. One violation of very low significance (Green), was identified by the licensee, which was documented in NRC IR 05000440/2013003 (ML13219A056), dated August 7, 2013. The finding documented that the licensee took credit, inappropriately, for numerous fire drills in 2011 and 2012. This finding was documented in the licensee's CAP as CR 2013-09402. A peer review was conducted by the licensee of the closure summary for CR 2013-09402. The peer reviewer asked the following question, "By not giving credit for some drills, did we still meet the minimum qualification/certification requirements?" This was the first opportunity for the licensee to recognize that individuals may not be qualified to fulfill fire brigade member or fire brigade leader positions because they had not completed two fire drills in the past year that conform to the license condition. The response given to the peer review question stated that,

"FPI-A-B02, Fire Brigade Drills, Rev. 7, Section 6.4.1.2 states "Credit for actual Fire Brigade response may be taken by completing the following:

a. Fire Drill Critique Form
b. FENOC Attendance Sheet
c. Fire Report

The Drill credit that was given did not always include a minimum of the drill objectives as stated in Appendix R and the Branch Technical Position. The procedure does not define that the criteria spelled out in Appendix R and the Branch Technical Position needs to be met for drill credit to be given. This is a deficiency in FPI-A-B02.

Although the minimum objectives for a drill were not always met, the procedure allowed for this drill credit. Because the procedure allowed for credit, no drills were missed by any personnel during the time frame mentioned."

The inspectors reviewed the licensee's CR 2013-09402, "MS-C-13-05-31: Inappropriate Credit Given for Fire Brigade Drills," dated June 18, 2013, which identified numerous instances where the licensee claimed credit for fire drills which did not meet the license condition requirements. The inspectors identified one instance, involving an individual who fulfilled the role of fire brigade member/leader for an operating crew during June, July, and August 2013, who had not participated in a fire drill that met the license condition in over 18 months.

The inspectors, in August 2013, met with the fire marshal on two different occasions to determine if the licensee had evaluated the continuing qualifications of the fire brigade member/leader based upon participation in fire drills that did not meet the license condition. In both meetings the fire marshal reiterated that although the minimum objectives for a drill were not always met, the procedure allowed for this drill credit and because the procedure allowed for credit, no drills were missed by any personnel during the time frame mentioned, and that all fire brigade personnel were qualified to fulfill those positions. After the second meeting between the fire marshal and the inspectors, the licensee documented the NRC's concerns in CR 2013-12964 on August 21, 2013. The "Immediate Actions Taken" section of this CR states, in part, that "Currently all fire brigade members have performed fire drills as documented and approved per FPI-A-B02. The current status of all qualified brigade members is documented in the FITS Qual Matrix." The NRC determined fire drills that did not meet requirements imposed by license conditions and licensee procedures should not have been credited, as asserted by the licensee in CR 2013-09402 and in the 'Immediate Actions Taken' section of CR 2013-12964, for fire brigade member/leader qualification/certification requirements.

The inspectors met with the operations manager on August 27, 2013, and discussed their continuing concerns with the qualifications of one fire brigade member/leader that was currently fulfilling those roles in an operating crew despite not having participated in a fire drill that met the license condition in more than 18 months. Following that meeting the licensee took immediate action to ensure that all fire brigade members/leaders met drill participation requirements prior to fulfilling those roles on operating crews.

Analysis: The inspectors determined that the failure to implement and maintain in effect all provisions of the approved fire protection program was a performance deficiency. Specifically, the licensee failed to ensure that fire brigade members and fire brigade leaders met the license requirements by participating in at least two fire drills per year, which was within the licensee's ability to foresee and correct.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because the finding was associated with the Mitigating Systems Cornerstone attribute of Protection Against External Factors for Fire and adversely affected the cornerstone objective of ensuring the reliability and capability of the fire brigade to respond to initiating events to prevent undesirable consequences. The finding was evaluated using IMC 0609, "Significance Determination Process (SDP)," Attachment 0609.04, "Initial Characterization of Findings, dated June 19, 2012. Because the finding involved the fire brigade, Table 3, SDP Appendix Router, Section E.1, "Fire Protection," directed NRC staff to use IMC 0609, Appendix A, "The SDP for Findings At-Power," dated June 19, 2012. Exhibit 2 of IMC 0609, the Mitigating Systems Screening Questions, Section D.1.a., Fire Brigade, was checked "yes" because the finding involved the fire brigade training and qualification requirements. The first condition under D.1.a., "The fire brigade demonstrated the ability to meet the required times for fire extinguishment for drill scenarios," was applicable and the finding did not significantly affect the ability of the fire brigade to respond to a fire, so the finding was determined to be of very low safety significance (Green).

This finding has a cross-cutting aspect in the area of problem identification and resolution associated with the CAP component, in that the licensee did not take corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity. Specifically, the licensee failed to identify that all drill requirements for fire brigade personnel as required in Branch Technical Position APCSB 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants," Appendix A, which requires specific factors that qualify a drill for training purposes, was not used to plan and execute drills for personnel re-qualifying for this watch position during 2012 and 2013 (P.1(d)).

Enforcement: License Condition 2.C(6) requires, in part, that the licensee implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report (FSAR), as amended, and as approved through Safety Evaluation Report NUREG-0887, dated May 1982, and supplement numbers 1 through 10. Section 9A of the USAR described the approved fire protection program. Section 9A.6. Item 3.III.I describes compliance with Appendix R requirement III.I, Fire Brigade Training and states "FENOC will comply as documented in CEI [Cleveland Electric Illuminating] letter dated April 29, 1982, and March 25, 1985." CEI letter dated March 25, 1985, states, in part, that "The fire brigade training program will meet criteria stipulated in 10 CFR Part 50, Appendix R, Section III.I" which states, in part, that "each fire brigade member should participate in each drill, but must participate in at least two drills per year." Section 9.A.5 describes compliance with NRC Branch Technical Position APCSB 9.5-1, Appendix A. Item B.5 states that "Training for the Fire Brigade is described in procedures and instructions which are sub-tier to PAP [Perry Administrative Procedure]-1910." Item B.5(b) states, in part, that "Drills will be conducted according to procedures and instructions sub-tier to PAP-1910."

Fire Protection Instruction (FPI)-A-B02, "Fire Brigade Drills," Revision 7, a procedure incorporated into the licensee's Fire Protection Program, PAP-1910, Section 6.2.1 states, in part, that "Certified Fire Brigade Members and Fire Brigade Leaders are required to participate in at least two fire drills within their re-qualification year." Contrary to the above, from June 18, 2013, through August 10, 2013, an individual who was listed as a certified fire brigade member and a fire brigade leader had not participated in two fire drills within his requalification year and performed duties as a fire brigade member and fire brigade leader. Because this violation was of very low safety significance and it was entered into the licensee's CAP as CR-2013-12964, and the licensee initiated immediate action to ensure that all current fire brigade members/leaders met drill participation requirements prior to fulfilling those roles, this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy **(NCV 05000440/2013004-01, Failure to Meet Fire Brigade Drill Training Requirements)**.

1R06 Flood Protection Measures (71111.06)

.1 Underground Vaults

a. Inspection Scope

The inspectors selected underground bunkers/manholes subject to flooding that contained cables whose failure could disable risk-significant equipment. The inspectors determined that the cables were not submerged, that splices were intact, and that appropriate cable support structures were in place. In those areas where dewatering devices were used, such as a sump pump, the device was operable and level alarm circuits were set appropriately to ensure that the cables would not be submerged. In those areas without dewatering devices, the inspectors verified that drainage of the area was available, or that the cables were qualified for submergence conditions. The inspectors also reviewed the licensee's corrective action documents with respect to past submerged cable issues identified in the CAP to verify the adequacy of the corrective actions. The inspectors performed a walkdown of the following underground bunkers/manholes subject to flooding:

- Electrical Safety Manhole #1, Division 2 and Division 3 Safety-Related Circuits;
- Electrical Safety Manhole #2, Division 2 and Division 3 Safety-Related Circuits;
- Electrical Safety Manhole #3, Division 1 Unit 1 and Division 1 Unit 2 Safety Related-Circuits; and
- Electrical Safety Manhole #4, Division 1 Unit 1 and Division 1 Unit 2 Safety-Related Circuits.

Documents reviewed are listed in the Attachment to this report. This inspection constituted one underground vault sample as defined in IP 71111.06-05.

b. Findings

No findings were identified.

1R07 Annual Heat Sink Performance (71111.07)

a. Inspection Scope

The inspectors reviewed the licensee's testing of emergency closed cooling 'A' heat exchanger and the residual heat removal 'A' heat exchanger to verify that potential deficiencies did not mask the licensee's ability to detect degraded performance, to identify any common cause issues that had the potential to increase risk, and to ensure that the licensee was adequately addressing problems that could result in initiating events that would cause an increase in risk. The inspectors reviewed the licensee's observations as compared against acceptance criteria, the correlation of scheduled testing and the frequency of testing, and the impact of instrument inaccuracies on test results. Inspectors also verified that test acceptance criteria considered differences between test conditions, design conditions, and testing conditions. Documents reviewed are listed in the Attachment to this report.

This annual heat sink performance inspection constituted one sample as defined in IP 71111.07-05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11Q)

.1 Resident Inspector Quarterly Review of Licensed Operator Requalification

a. Inspection Scope

On July 29, the inspectors observed a crew of licensed operators in the plant's simulator during licensed operator requalification training to verify that operator performance was adequate, evaluators were identifying and documenting crew performance problems, and training was conducted in accordance with licensee procedures. The inspectors evaluated the following areas:

- licensed operator performance;
- crew's clarity and formality of communications;
- ability to take timely actions in the conservative direction;
- prioritization, interpretation, and verification of annunciator alarms;
- correct use and implementation of abnormal and emergency procedures;
- control board manipulations;
- oversight and direction from supervisors; and
- ability to identify and implement appropriate TS actions and Emergency Plan actions and notifications.

The crew's performance in these areas was compared to pre-established operator action expectations and successful critical task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator requalification program simulator sample as defined in IP 71111.11-05.

b. Findings

No findings were identified.

.2 Resident Inspector Quarterly Observation of Heightened Activity or Risk (71111.11Q)

a. Inspection Scope

On July 16 and July 18, the inspectors observed the operating crew adjust plant equipment to maintain conditions within the design limits of the plant as a result of extended hot weather conditions. The plant remained in a continuous Transmission System Emergency – Hot Weather Alert from Monday, July 15, through Friday, July 19, and had to de-rate several times to maintain condensate and circulation water temperatures within design operating limits. This was an activity that required heightened awareness. The inspectors evaluated licensed operator performance in the following areas:

- crew's clarity and formality of communications;
- ability to take timely conservative actions;
- prioritization, interpretation, and verification of annunciator trends/alarms;
- correct use and implementation of procedures;
- control board/component manipulations;
- oversight and direction from supervisors;
- documentation of activities; and
- pre-activity and post-activity briefs and use of human error prevention techniques.

The performance in these areas was compared to pre-established operator action expectations, procedural compliance and task completion requirements. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one quarterly licensed operator heightened activity/risk sample as defined in IP 71111.11-05.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk-significant systems:

- R14, 125-volt AC current vital distribution system;
- B33, reactor recirculation system; and
- C22, redundant reactivity control system.

The inspectors reviewed events, such as where ineffective equipment maintenance had resulted in valid or invalid automatic actuations of engineered safeguards systems, and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- implementing appropriate work practices;
- identifying and addressing common cause failures;
- scoping of systems in accordance with 10 CFR 50.65(b) of the maintenance rule;
- characterizing system reliability issues for performance;
- charging unavailability for performance;
- trending key parameters for condition monitoring;
- ensuring 10 CFR 50.65(a)(1) or (a)(2) classification or re-classification; and
- verifying appropriate performance criteria for structures, systems, and components/functions classified as (a)(2), or appropriate and adequate goals and corrective actions for systems classified as (a)(1).

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the CAP with the appropriate significance characterization. Documents reviewed are listed in the Attachment to this report.

This inspection constituted three quarterly maintenance effectiveness samples as defined in IP 71111.12-05.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed the licensee's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- upgrade auxiliary building ventilation radiation monitor D-17;
- high-pressure core spray inoperability with Unit 1 and Unit 2 air compressor equipment lineup;
- scram discharge vent valve failed closed too fast and required troubleshooting and repair;
- heating ventilation and air conditioning 'A' trains out of service for maintenance;
- uninterruptable power supplies system 125-volt AC V1A regulating transformer control box replacement; and
- residual heat removal ’A’ and low-pressure core spray water leg pump replacement.

These activities were selected based on their potential risk significance relative to the Reactor Safety Cornerstones. As applicable for each activity, the inspectors verified that risk assessments were performed as required by 10 CFR 50.65(a)(4) and were accurate

and complete. When emergent work was performed, the inspectors verified that the plant risk was promptly reassessed and managed. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed TS requirements and walked down portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

Documents reviewed are listed in the Attachment to this report.

These maintenance risk assessments and emergent work control activities constituted six samples as defined in IP 71111.13-05.

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

a. Inspection Scope

The inspectors reviewed the following issues:

- alternate decay heat removal Cycle 15 operability determination;
- Divisions 1, 2, and 3 EDG operability determination;
- control complex chiller ‘A’ leaking chill water isolation check valve;
- motor feed pump and support system functionality determination;
- ‘A’ End-of-cycle Recirculation Pump Trip (EOC-RPT) and reactor protection system Channel 'A' operability determination; and
- 125-volt AC vital bus – V1A operability determination.

The inspectors selected these potential operability issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure that TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TS and USAR to the licensee’s evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. Additionally, the inspectors reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment to this report.

These operability inspections constituted six samples as defined in IP 71111.15-05.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

The inspectors reviewed the modification for the radioactive waste control system upgrade

The inspectors reviewed the configuration changes and associated 10 CFR 50.59 safety evaluation screening against the design basis, the USAR, and the TS, as applicable, to verify that the modification did not affect the operability or availability of the affected system. The inspectors, as applicable, observed ongoing and completed work activities to ensure that the modification was installed as directed and consistent with the design control documents; the modification operated as expected; post-modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modification did not impact the operability of any interfacing systems. As applicable, the inspectors verified that relevant procedure, design, and licensing documents were properly updated. Lastly, the inspectors discussed the plant modification with operations, engineering, and training personnel to ensure that the individuals were aware of how the operation with the plant modification in place could impact overall plant performance. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one permanent plant modification sample as defined in IP 71111.18-05.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the following post-maintenance activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- M23/M24 motor control center switchgear and battery rooms' recirculation fan 'A' maintenance and repair;
- motor-driven fire pump shaft repair and retest;
- scram discharge vent and drain valve air regulator repaired and retested;
- annulus exhaust gas treatment system general maintenance retest;
- 125-volt AC vital bus – V1A repair and retest; and
- turbine control valve number 3 repair and retest.

These activities were selected based upon the structure, system, or component's ability to impact risk. The inspectors evaluated these activities for the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written in accordance with properly reviewed and approved procedures; equipment was returned to its operational status following testing (temporary modifications or jumpers

required for test performance were properly removed after test completion); and test documentation was properly evaluated. The inspectors evaluated the activities against TSs, the USAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the CAP and that the problems were being corrected commensurate with their importance to safety. Documents reviewed are listed in the Attachment to this report.

This inspection constituted six post-maintenance testing sample as defined in IP 71111.19-05.

b. Findings

No findings were identified.

1R20 Forced Outage Activities (71111.20)

a. Inspection Scope

The inspectors evaluated outage activities for a forced outage that began on September 6 and continued through September 9, 2013. The inspectors reviewed activities to ensure that the licensee considered risk in developing, planning, and implementing the outage schedule.

The inspectors observed or reviewed the reactor shutdown and cooldown, outage equipment configuration and risk management, electrical lineups, selected clearances, control and monitoring of decay heat removal, control of containment activities, personnel fatigue management, startup and heatup activities, and identification and resolution of problems associated with the outage. The outage was the result of the failure of the R14 125-volt AC V1A regulating transformer control box to control voltage on the V1A bus. Although this bus was not a safety-related bus, the plant would not be able to remain at power if the bus became de-energized. The licensee was concerned with continued operations with higher-than-normal voltage on V1A degrading equipment powered off the bus over an extended period of time. The control unit was replaced and tested satisfactorily. Additional work items were also completed while the reactor was shut down to minimize dose to maintenance workers.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted one other outage sample as defined in IP 71111.20-05.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the test results for the following activities to determine whether risk-significant systems and equipment were capable of performing their intended safety function and to verify testing was conducted in accordance with applicable procedural and TS requirements:

- SVI-E12-T2001; RHR 'A' Pump and Valve Operability Test (routine testing);
- SVI-E22-T2001; HPCS Pump and Valve Operability Test (in-service testing);
- SVI-E22-T1319; Diesel Generator Start and Load Division 3 (routine testing);
- SVI-P45-T2003; HPCS ESW Pump and Valve Operability Test (routine testing);
- SVI-R43-T1348; Division 2 Standby Diesel Generator 24 Hour Run and Hot Restart (routine testing); and
- SVI-E12-T1196B; LPCI Pump 'B' Discharge Flow-Low (Bypass) Channel Functional for 1E12-N652B (routine testing).

The inspectors observed in-plant activities and reviewed procedures and associated records to determine the following:

- did preconditioning occur;
- the effects of the testing were adequately addressed by control room personnel or engineers prior to the commencement of the testing;
- acceptance criteria were clearly stated, demonstrated operational readiness, and consistent with the system design basis;
- plant equipment calibration was correct, accurate, and properly documented;
- as-left setpoints were within required ranges; and the calibration frequency was in accordance with TSs, the USAR, procedures, and applicable commitments;
- measuring and test equipment calibration was current;
- test equipment was used within the required range and accuracy; applicable prerequisites described in the test procedures were satisfied;
- test frequencies met TS requirements to demonstrate operability and reliability; tests were performed in accordance with the test procedures and other applicable procedures; jumpers and lifted leads were controlled and restored where used;
- test data and results were accurate, complete, within limits, and valid;
- test equipment was removed after testing;
- where applicable for inservice testing activities, testing was performed in accordance with the applicable version of Section XI, American Society of Mechanical Engineers code, and reference values were consistent with the system design basis;
- where applicable, test results not meeting acceptance criteria were addressed with an adequate operability evaluation or the system or component was declared inoperable;
- where applicable for safety-related instrument control surveillance tests, reference setting data were accurately incorporated in the test procedure;
- where applicable, actual conditions encountering high resistance electrical contacts were such that the intended safety function could still be accomplished;

- prior procedure changes had not provided an opportunity to identify problems encountered during the performance of the surveillance or calibration test;
- equipment was returned to a position or status required to support the performance of its safety functions; and
- all problems identified during the testing were appropriately documented and dispositioned in the CAP.

Documents reviewed are listed in the Attachment to this report.

This inspection constituted five routine surveillance testing samples and one in-service testing sample as defined in IP 71111.22, Sections -02 and -05.

b. Findings

No findings were identified.

1EP2 Alert and Notification System Evaluation (71114.02)

a. Inspection Scope

The inspectors held discussions with the emergency preparedness (EP) staff regarding the operation, maintenance, and periodic testing of the primary and backup Alert and Notification System (ANS) in the plume pathway Emergency Planning Zone. The inspectors reviewed monthly trend reports and siren test failure records from July 2012 through July 2013. Information gathered during document reviews and interviews was used to determine whether the ANS equipment was maintained and tested in accordance with Emergency Plan commitments and procedures. The inspectors also observed a weekly test of the ANS system. Documents reviewed are listed in the Attachment to this report.

This ANS evaluation inspection constituted one sample as defined in IP 71114.02-06.

b. Findings

No findings were identified.

1EP3 Emergency Response Organization Staffing and Augmentation System (71114.03)

a. Inspection Scope

The inspectors reviewed and discussed with plant EP staff the Emergency Plan commitments and procedures for Emergency Response Organization (ERO) on-shift and augmentation staffing levels. A sample of approximately 50 ERO training records was reviewed to evaluate ERO key and support positional training. The inspectors reviewed the ERO augmentation system and activation process, the primary and alternate methods of initiating ERO activation, unannounced off-hour augmentation tests from August 2011 through August 2013, and the provisions for maintaining the plant's ERO roster.

The inspectors reviewed a sample of corrective actions related to the facility's ERO staffing and augmentation system program and activities from September 2011 through August 2013 to determine whether corrective actions were completed in accordance with the site's CAP. Documents reviewed are listed in the Attachment to this report.

This ERO staffing and augmentation system inspection constituted one sample as defined in IP 71114.03-06.

b. Findings

No findings were identified.

1EP5 Maintenance of Emergency Preparedness (71114.05)

a. Inspection Scope

The inspectors reviewed a sample of nuclear oversight staff's audits of the EP program to determine whether these independent assessments met the requirements of 10 CFR 50.54(t). The inspectors also reviewed critique reports and samples of CAP records associated with the 2012 biennial exercise, as well as various EP drills conducted, in order to determine if the licensee fulfilled its drill commitments, and to evaluate the licensee's efforts to identify, track, and resolve concerns identified during these activities. The inspectors reviewed a sample of EP items and corrective actions related to the facility's EP program and activities from September 2011 through August 2013 to determine whether corrective actions were completed in accordance with the site's CAP. Documents reviewed are listed in the Attachment to this report.

This correction of EP weaknesses and deficiencies inspection constituted one sample as defined in IP 71114.05-06.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on July 10, 2013, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the Simulator Control Room and Technical Support Center to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the CAP. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the Attachment to this report.

This emergency preparedness drill inspection constituted one sample as defined in IP 71114.06-05.

b. Findings

No findings were identified.

.2 Training Observation

a. Inspection Scope

The inspector observed a simulator training evolution for licensed operators on July 29, 2013, which required emergency plan implementation by a licensee operations crew. This evolution was planned to be evaluated and included in performance indicator data regarding drill and exercise performance. The inspectors observed event classification and notification activities performed by the crew. The inspectors also attended the post-evolution critique for the scenario. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that the licensee evaluators noted the same issues and entered them into the CAP. As part of the inspection, the inspectors reviewed the scenario package and other documents listed in the Attachment to this report.

This inspection of the licensee's training evolution with EP drill aspects constituted one sample as defined in IP 71114.06-06.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstones: Occupational Radiation Safety and Public Radiation Safety

2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01)

.1 Instructions to Workers (02.03)

a. Inspection Scope

The inspectors reviewed the following radiation work permits (RWPs) used to access high radiation areas and evaluated the specified work control instructions or control barriers:

- RWP 130102, 1G61C0012A; Auxiliary Building Floor Drain Sump Pump Replacement;
- RWP 136009, Containment/Drywell General Maintenance Activities; and
- RWP 126021; Reactor Reassembly.

For these RWPs, the inspectors assessed whether allowable stay times or permissible dose (including from the intake of radioactive material) for radiologically significant work under each RWP were clearly identified.

The inspection activities supplement those documented in NRC IR 05000440/2013003.

b. Findings

Introduction: A finding of very low safety significance and an NCV of TS 5.4.1 was self-revealed when a licensee worker inappropriately entered a high radiation area in the overhead of Auxiliary Building elevation 574'.

Description: On August 6, 2013, two licensee maintenance workers were performing a walkdown in the Auxiliary Building elevation 574' of the floor drain sump pump area. The walk down was to support demobilization of the work zone after work on the sump pumps. Area demobilization included removing a chain-fall that was suspended in the area at about 30 feet in the overhead. From floor level, the workers could not get a clear view of how the chain-fall was secured in the overhead. Consequently, one of the workers proceeded to climb on plant equipment and scale an area wall such that the worker was positioned a nominal 20 feet into the overhead. At that point, the worker had an unobstructed view of how the chain-fall was secured and the efforts that it would take to demobilize the work zone.

Climbing above 6 feet off floor level is prohibited at Perry Nuclear Power Plant (NOP-OP-1002, Conduct of Operations) without specific radiation protection approval. These areas of the plant are not routinely surveyed. The licensee's normal course of operation is to survey these areas as needed when workers need access to the overhead. Plant workers are trained to contact radiation protection for an updated survey as a part of radiation worker training. This requirement is included in each station RWP, and is a part of each worker's briefing upon entering the radiologically controlled area (RCA) of the plant. Additionally, safe work practices at the Perry Nuclear Power Plant require that a job safety analysis is performed to determine the safest way to access overhead work locations.

Through interviews, the licensee determined that the workers were focused on the task at hand and failed to notify radiation protection of the need to survey the overhead area. Dose rates in the overhead were a nominal 130 milliRem/hour (mRem/hr) at 30 centimeters (cm) from the overhead piping. The 130 mRem/hr dose rate in the overhead was in excess of the RWP electronic dosimeter (ED) dose rate alarm setpoint of 95 mRem/hr. The ED of the worker that climbed into the overhead alarmed when he entered the elevated dose rate area of the overhead. The worker immediately left the area and notified radiation protection of the ED alarm and of his actions. Licensee records indicate that the second maintenance worker that was in the work area did not intervene to stop the first worker from climbing. Licensee corrective actions for this issue focused on performance management of the individuals involved.

Analysis: The inspectors determined that the failure of the licensee worker to comply with his RWP, radiation worker training, and RCA entry briefing requirements was a performance deficiency. The inspectors determined that the cause of the performance deficiency was reasonably within the licensee's ability to foresee and correct and should have been prevented. The finding was not subject to traditional enforcement since the incident did not have a significant safety consequence, did not impact the NRC's ability to perform its regulatory function, and was not willful.

The inspectors reviewed IMC 0612, Appendix E, "Examples of Minor Issues," dated August 11, 2009, and determined that the issue was more than minor because it was similar to Example 6(h). The finding was assessed using IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated August 19, 2008, and was determined to be of very low safety significance. Specifically, the finding was not an as-low-as-is-reasonably achievable (ALARA) planning issue, there was no overexposure, nor substantial potential for an overexposure, and the licensee's ability to assess dose was not compromised.

The inspectors reviewed this finding and determined that no cross-cutting aspect was applicable in accordance with IMC 0305 "Operating Reactor Assessment Program," dated June 13, 2012, and IMC 0310, "Components Within the Cross-Cutting Areas," dated October 28, 2011.

Enforcement: Technical Specification 5.4.1 requires that written procedures be established, implemented, and maintained covering the activities in Regulatory Guide (RG) 1.33, Revision 2, Appendix A, dated February 1978. Procedures specified in RG 1.33 include radiation protection procedures for an RWP. Radiation Work Permit 130102 prohibited work 6 feet above floor level until a radiological survey was performed and radiation protection verified that the area met the requirements of the RWP.

Contrary to the above, on August 6, 2013, a licensee worker who was signed-in on RWP 130102 climbed a nominal 20 feet into the overhead of the Auxiliary Building elevation 574' near the floor drain sump pump to assess removing a chain-fall while demobilizing the floor drain sump pump work area. Since the issue was of very low safety significance, corrective actions were taken as described above, and the issue was entered into the licensee's CAP (as CR 2013-12077), the violation is being treated as an NCV consistent with Section 2.3.2 of the NRC Enforcement Policy **(NCV 05000440/2013004-02, Worker Access Into a High Radiation Area Contrary to the Requirements of the Radiation Work Permit)**.

.2 Radiation Worker Performance (02.07)

a. Inspection Scope

The inspectors observed radiation worker performance with respect to stated radiation protection work requirements. The inspectors assessed whether workers were aware of the radiological conditions in their workplace and the radiation work permit controls/limits in place, and whether their performance reflected the level of radiological hazards present.

The inspectors reviewed radiological problem reports since the last inspection that found the cause of the event to be human performance errors. The inspectors evaluated whether there was an observable pattern traceable to a similar cause. The inspectors assessed whether this perspective matched the corrective action approach taken by the licensee to resolve the reported problems. The inspectors discussed with the radiation protection manager any problems with the corrective actions planned or taken.

The inspection activities supplement those documented in NRC IR 05000440/2013003 and constitute one complete sample as defined in IP 71124.01-05.

b. Findings

Introduction: The inspectors reviewed a self-revealed finding of very low safety significance involving an unauthorized activity inside a radiologically contaminated locked high radiation area contrary to the requirements of licensee procedure NOBP-OP-4009, "Radworker Expectations." This procedure requires workers to use work practices that minimize the potential for unnecessary dose or personnel contamination events. Specifically, licensee contract personnel inappropriately placed a container of goldfish inside the Turbine Building 620' elevation in the auxiliary steam tunnel.

Description: Turbine Building 620' elevation auxiliary steam tunnel is in a radiologically controlled area of the plant controlled as a contaminated locked high radiation area. Radiological conditions upon entering the room were a nominal 1000 dpm per 100 cm^2 for loose surface contamination and radiation area dose rates were a nominal 30 mRem/hr in open, accessible areas. Once inside the auxiliary steam tunnel, workers had unencumbered access to a valve/piping pit area that had loose surface contamination of a nominal 45,000 dpm per 100 cm^2 and radiation area dose rates to a nominal 1600 mRem/hr at 30 cm from plant piping/equipment. At the time of the event, the area was being physically guarded by a locked high radiation area access control guard in order to prevent inadvertent entry.

On April 30, 2013, during refueling outage 14 (1RFO14), two goldfish were found in the auxiliary steam tunnel 620' elevation inside a 2-quart plastic container. The plastic container was located on top of a black catch basin, which was used for containing feedwater flow venturi leakage during the previous operating cycle. The individual that discovered the goldfish was in the process of picking up trash and equipment. This individual noticed the plastic container sitting in a black catch basin and observed that there were two goldfish inside the plastic container. The plastic container held approximately 3 inches of water. The individual removed the plastic container from the black catch basin and informed a radiation protection technician. The radiation protection technician transported the plastic container to the contaminated area boundary step-off pad and asked the access control guard if he knew how the fish were brought into the area. The access control guard responded that he did not know when or how the goldfish had been brought into the auxiliary steam tunnel.

Upon exiting the auxiliary steam tunnel, the radiation protection technician transported the plastic container with the goldfish to the chemistry laboratory and turned custody of the goldfish over to the chemistry supervisor. Chemistry personnel then transferred the goldfish into a separate container with demineralized water and performed an isotopic analysis on the goldfish. The goldfish were found to be radioactively contaminated with trace amounts of activated corrosion products.

Upon notification, plant management initiated an extensive investigation that included a contracted team of security specialists, to determine how and why the goldfish were brought into the plant. Ultimately, it was determined that the goldfish were brought into the plant and into the auxiliary steam tunnel locked high radiation area as part of a prank, unrelated to any legitimate work activity or process. The investigation included extent-of-condition reviews that assessed the extent of condition of the prank; and assessed the professional integrity and trustworthiness of the individuals involved. Six contract personnel were determined to be involved to more or lesser extents, resulting in

the licensee implementing its Security and Radiological Safety Performance Management Programs.

The inspectors determined that individual radiation exposures related to this issue, including extent-of-condition walkdowns by licensee personnel in the auxiliary steam tunnel, resulted in unintended and unnecessary radiation exposures to those involved. Additionally, the inspectors determined that the actual exposures received were low. Specifically, the goldfish were placed in a relatively lower dose rate area of the auxiliary steam tunnel and not in the elevated dose rate areas of the valve/piping pit.

Analysis: The inspectors determined that bringing the goldfish into a radiologically contaminated locked high radiation area of the plant as part of a prank, unrelated to any legitimate work activity or process, was a performance deficiency in not meeting the requirements of licensee procedure NOBP-OP-4009, "Radworker Expectations," that require workers to use work practices that minimize the potential for unnecessary dose or personnel contamination events.

The inspectors reviewed the guidance in IMC 0612, Appendix E, "Examples of Minor Issues," dated August 11, 2009, but did not identify any examples similar to the performance deficiency. However, in accordance with IMC 0612, the inspectors determined that the finding was more than minor because it affected the Occupational Radiation Safety Cornerstone objective to ensure adequate protection of worker health and safety from exposure to radioactive materials during routine civilian nuclear reactor operation. The conditions affected the attribute of program and process of radiological exposure and contamination control. Specifically, the placing of the goldfish in the auxiliary steam tunnel (a contaminated locked high radiation area) resulted in unintended exposure to personnel, had the potential to result in more significant unnecessary radiological exposures to personnel, and resulted in the generation of unnecessary radiologically contaminated biological waste. Consequently, the inspectors determined that the performance deficiency was a finding of more than minor safety significance.

In accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," dated August 19, 2008, the inspectors determined that the finding had very low safety significance because the finding was not an as-low-as-reasonably-achievable planning issue, there was no overexposure or potential for overexposure, and the licensee's ability to assess dose was not compromised. Corrective actions included performance management of the individuals involved.

The inspectors identified that the most significant contributor to the finding was a cross-cutting aspect in the area of human performance in work practices. Specifically, the licensee ensures supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported (H.4(c)).

Enforcement: Enforcement action does not apply because the performance deficiency did not involve a violation of a regulatory requirement. The issue was entered into the licensee's CAP as CR 2013-06758 and corrective actions were implemented to address the issue **(FIN 05000440/2013004-03, Unprofessional Worker Conduct Inside a Locked High Radiation Area in the Turbine Building 620' Auxiliary Steam Tunnel)**.

2RS2 Occupational As-Low-As-Is-Reasonably-Achievable Planning and Controls (71124.02)

The inspection activities supplement those documented in NRC IRs 05000440/2012003 and 05000440/2013003, and constitute one complete sample as defined in IP 71124.02-05.

.1 Radiological Work Planning (02.02)

a. Inspection Scope

The inspectors compared the results achieved (i.e., dose rate reductions and person-rem used) with the intended dose established in the licensee's ALARA planning for these work activities. The inspectors compared the person-hour estimates provided by maintenance planning and other groups to the radiation protection group with the actual work activity time requirements, and evaluated the accuracy of these time estimates. The inspectors assessed the reasons (e.g., failure to adequately plan the activity, failure to provide sufficient work controls) for any inconsistencies between intended and actual work activity doses.

The inspectors determined whether post-job reviews were conducted and if identified problems were entered into the licensee's CAP.

b. Findings

The inspectors identified one performance deficiency associated with unplanned, unintended occupational collective dose that involved reactor reassembly activities. The regulatory review and the associated regulatory outcome of this issue have been previously documented in NRC IR 05000440/2013009.

.2 Source Term Reduction and Control (02.04)

a. Inspection Scope

The inspectors used licensee records to determine the historical trends and current status of significant tracked plant source terms known to contribute to elevated facility aggregate exposure. The inspectors assessed whether the licensee made allowances or developed contingency plans for expected changes in the source term as the result of changes in plant fuel performance issues or changes in plant primary chemistry.

b. Findings

No findings were identified.

2RS7 Radiological Environmental Monitoring Program (71124.07)

This inspection constituted one complete sample as defined in IP 71124.07-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the annual radiological environmental operating reports and the results of any licensee assessments since the last inspection to assess whether the

Radiological Environmental Monitoring Program (REMP) was implemented in accordance with the TSs and Offsite Dose Calculation Manual (ODCM). This review included reported changes to the ODCM with respect to environmental monitoring, commitments in terms of sampling locations, monitoring and measurement frequencies, land use census, Inter-Laboratory Comparison Program, and analysis of data.

The inspectors reviewed the ODCM to identify locations of environmental monitoring stations.

The inspectors reviewed the USAR for information regarding the Environmental Monitoring Program and meteorological monitoring instrumentation.

The inspectors reviewed quality assurance audit results of the program to assist in choosing inspection "smart samples." The inspectors also reviewed audits and technical evaluations performed on the vendor laboratory if used.

The inspectors reviewed the annual effluent release report and the 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste," report to determine if the licensee was sampling, as appropriate, for the predominant and dose-causing radionuclides likely to be released in effluents.

b. Findings

No findings were identified.

.2 Site Inspection (02.02)

a. Inspection Scope

The inspectors walked down selected air sampling stations and thermoluminescent dosimeter monitoring stations to determine whether they were located as described in the ODCM and to determine the equipment material condition. Consistent with smart sampling, the air sampling stations were selected based on the locations with the highest X/Q, D/Q wind sectors, and thermoluminescent dosimeters were selected based on the most risk-significant locations (e.g., those that have the highest potential for public dose impact).

For the air samplers and thermoluminescent dosimeters selected, the inspectors reviewed the calibration and maintenance records to evaluate whether they demonstrated adequate operability of these components. Additionally, the review included the calibration and maintenance records of select composite water samplers.

The inspectors assessed whether the licensee had initiated sampling of other appropriate media upon loss of a required sampling station.

The inspectors observed the collection and preparation of environmental samples from different environmental media (e.g., ground and surface water, milk, vegetation, sediment, and soil) as available to determine if environmental sampling was representative of the release pathways as specified in the ODCM and if sampling techniques were in accordance with procedures.

Based on direct observation and review of records, the inspectors assessed whether the meteorological instruments were operable, calibrated, and maintained in accordance with guidance contained in the USAR, NRC RG 1.23, "Meteorological Monitoring Programs for Nuclear Power Plants," and licensee procedures. The inspectors assessed whether the meteorological data readout and recording instruments in the control room and, if applicable, at the tower were operable.

The inspectors evaluated whether missed and/or anomalous environmental samples were identified and reported in the annual environmental monitoring report. The inspectors selected events that involved a missed sample, inoperable sampler, lost thermoluminescent dosimeter, or anomalous measurement to determine if the licensee identified the cause and implemented corrective actions. The inspectors reviewed the licensee's assessment of any positive sample results (i.e., licensed radioactive material detected above the lower limits of detection) and reviewed the associated radioactive effluent release data that was the source of the released material.

The inspectors selected structures, systems, or components that involve or could reasonably involve licensed material for which there is a credible mechanism for licensed material to reach ground water, and assessed whether the licensee implemented a Sampling and Monitoring Program sufficient to detect leakage of these structures, systems, or components to ground water.

The inspectors evaluated whether records, as required by 10 CFR 50.75(g), of leaks, spills, and remediation since the previous inspection were retained in a retrievable manner.

The inspectors reviewed any significant changes made by the licensee to the ODCM as the result of changes to the land census, long-term meteorological conditions (3-year average), or modifications to the sampler stations since the last inspection. They reviewed technical justifications for any changed sampling locations to evaluate whether the licensee performed the reviews required to ensure that the changes did not affect its ability to monitor the impacts of radioactive effluent releases on the environment.

The licensee uses a vendor laboratory to analyze the REMP samples so the inspectors reviewed the results of the vendor's Quality Control Program, including the inter-laboratory comparison, to assess the adequacy of the vendor's program.

The inspectors reviewed the results of the licensee's Inter-Laboratory Comparison Program to evaluate the adequacy of environmental sample analyses performed by the licensee. The inspectors assessed whether the inter-laboratory comparison test included the media/nuclide mix appropriate for the facility. If applicable, the inspectors reviewed the licensee's determination of any bias to the data and the overall effect on the REMP.

b. Findings

Introduction: The inspectors identified a finding of very low safety significance and an associated NCV of TS 5.5.1, "Offsite Dose Calculation Manual (ODCM)." Specifically, the licensee failed to follow the "Fish and Invertebrates" sampling requirements specified in the ODCM.

Description: In April 2002, the licensee revised its ODCM and reduced its scope of radioactive sampling of fish from multiple samples from a nominal 32 species to one species of fish being analyzed. The technical bases for the reduced scope of fish sample was primarily based on a nominal 15-year history of sampling and radiochemical analyses of various species of fish and finding no radioactivity attributable to plant operations. In May 2008, the NRC identified a minor violation of regulatory requirements, in that, the technical bases for the 2002 changes to the ODCM were inadequate. Specifically, the NRC detailed to the licensee that an Environmental Sampling and Monitoring Program of fish near the Perry Nuclear Power Plant should detect minimal radioactive material, based upon the minimal radioactive material that was released in plant effluents. Additionally, the NRC detailed to the licensee that a proper technical evaluation should address the basis technical guidance provided in NUREG-1302. Specifically, that a REMP include the sampling and analysis of each commercially and recreationally important species of fish and invertebrates in the vicinity of plant discharges and a sample of the same species in areas not influenced by plant discharges. In 2008, the licensee initiated a CAP document (CR 2008-40760) and increased its environmental fish sampling population from one sample species to two sample species. Although the fish species that were to be sampled (walleye and yellow perch) were indicative of the majority of the consumed species of fish near the station, the inspectors identified that the increased sampling was not effectively implemented. Specifically, licensee fish sampling conducted in 2010, 2011, and 2012 was limited to one species of fish and in 2012 the licensee failed to collect any control fish samples as required by the licensee's ODCM. Compliance to the ODCM maintains the level of radioactive effluent control required by 10 CFR 20.1302, 40 CFR 190, 10 CFR 50.36a, and 10 CFR 50, Appendix I, in order to not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.

Analysis: The failure to perform representative sampling of fish in order to accurately assess ingestion radiation as required by the ODCM is a performance deficiency, because the licensee failed to meet the requirement and the cause of this issue was reasonably within its ability to foresee and correct, and should have been prevented.

The finding was not subject to traditional enforcement since the incident did not have a significant safety consequence, did not impact the NRC's ability to perform its regulatory function, and was not willful.

The inspectors reviewed the guidance in IMC 0612, Appendix E, "Examples of Minor Issues," dated August 11, 2009, but did not identify any examples similar to the performance deficiency. However, in accordance with IMC 0612, the inspectors determined that the finding was more than minor because it was associated with the Public Radiation Safety Cornerstone attribute of program and process of projected offsite dose and adversely affected the associated cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain. The finding was assessed using IMC 0609, Attachment D for the Public Radiation Safety SDP and determined to be of very low safety significance (Green) because it involved the Environmental Monitoring Program. Corrective actions were being developed and senior plant management expressed the understanding that sampling was important and the condition would be corrected. The inspectors also determined that the primary cause of this finding was related to the cross-cutting aspect in the area of human performance in work practices. Specifically,

the licensee did not effectively communicate expectations regarding procedural compliance and personnel following procedures (H.4(b)).

Enforcement: Technical Specification 5.5.1.a states that the ODCM shall contain the methodology and parameters used in the conduct of the REMP. Section 5.1 of the ODCM states that environmental samples shall be collected and analyzed in accordance with Table 5.1-1, "RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM." Section 4.b of Table 5.1-1 requires two or more commercially and/or recreationally important species in vicinity of the plant discharge area to be collected during fishing season.

Contrary to the above, as of September 27, 2013, the licensee failed to perform representative sampling of fish in accordance with the ODCM. This was a violation. Since the licensee documented this issue in its CAP (CR-2013-14987) and because the violation is of very low safety significance, it is being treated as an NCV consistent with Section 2.3.2 of the NRC Enforcement Policy **(NCV 0500440/2013004-04, Failure to Perform Representative Sampling of Fish in Order to Accurately Assess Ingestion Radiation as Required by the ODCM)**.

.3 Identification and Resolution of Problems (02.03)

a. Inspection Scope

The inspectors assessed whether problems associated with the REMP were being identified by the licensee at an appropriate threshold and were properly addressed for resolution in the licensee's CAP. Additionally, they assessed the appropriateness of the corrective actions for a selected sample of problems documented by the licensee that involved the REMP.

b. Findings

No findings were identified.

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08)

This inspection constituted one complete sample as defined in IP 71124.08-05.

.1 Inspection Planning (02.01)

a. Inspection Scope

The inspectors reviewed the solid radioactive waste system description in the USAR, the Process Control Program (PCP), and the recent radiological effluent release report for information on the types, amounts, and processing of radioactive waste disposed.

The inspectors reviewed the scope of any quality assurance audits in this area since the last inspection to gain insights into the licensee's performance and inform the "smart sampling" inspection planning.

b. Findings

No findings were identified.

.2 Radioactive Material Storage (02.02)

a. Inspection Scope

The inspectors selected areas where containers of radioactive waste are stored and evaluated whether the containers were labeled in accordance with 10 CFR 20.1904, "Labeling Containers," or controlled in accordance with 10 CFR 20.1905, "Exemptions to Labeling Requirements," as appropriate.

The inspectors assessed whether the radioactive material storage areas were controlled and posted in accordance with the requirements of 10 CFR Part 20, "Standards for Protection Against Radiation." For materials stored or used in the controlled or unrestricted areas, the inspectors evaluated whether they were secured against unauthorized removal and controlled in accordance with 10 CFR 20.1801, "Security of Stored Material," and 10 CFR 20.1802, "Control of Material Not in Storage," as appropriate.

The inspectors evaluated whether the licensee established a process for monitoring the impact of long-term storage (e.g., buildup of any gases produced by waste decomposition, chemical reactions, container deformation, loss of container integrity, or re-release of free-flowing water) that was sufficient to identify potential unmonitored, unplanned releases or nonconformance with waste disposal requirements.

The inspectors selected containers of stored radioactive material and assessed them for signs of swelling, leakage, and deformation.

b. Findings

No findings were identified.

.3 Radioactive Waste System Walkdown (02.03)

a. Inspection Scope

The inspectors walked down accessible portions of select radioactive waste processing systems to assess whether the current system configuration and operation agreed with the descriptions in the USAR, ODCM, and PCP.

The inspectors reviewed administrative and/or physical controls (i.e., drainage and isolation of the system from other systems) to assess whether the equipment which is not in service or abandoned in place would not contribute to an unmonitored release path and/or affect operating systems or be a source of unnecessary personnel exposure. The inspectors assessed whether the licensee reviewed the safety significance of systems and equipment abandoned in place in accordance with 10 CFR 50.59, "Changes, Tests, and Experiments."

The inspectors reviewed the adequacy of changes made to the radioactive waste processing systems since the last inspection. The inspectors evaluated whether changes from what is described in the USAR were reviewed and documented in accordance with 10 CFR 50.59, as appropriate, and to assess the impact on radiation doses to members of the public.

The inspectors selected processes for transferring radioactive waste resin and/or sludge discharges into shipping/disposal containers and assessed whether the waste stream mixing, sampling procedures, and methodology for waste concentration averaging were consistent with the PCP, and provided representative samples of the waste product for the purposes of waste classification as described in 10 CFR 61.55, "Waste Classification."

For those systems that provide tank recirculation, the inspectors evaluated whether the tank recirculation procedures provided sufficient mixing.

The inspectors assessed whether the licensee's PCP correctly described the current methods and procedures for dewatering and waste stabilization (e.g., removal of freestanding liquid).

b. Findings

No findings were identified.

.4 Waste Characterization and Classification (02.04)

a. Inspection Scope

The inspectors selected the following radioactive waste streams for review:

- bead resin;
- dry active waste; and
- reactor water clean-up resin.

For the waste streams listed above, the inspectors assessed whether the licensee's radiochemical sample analysis results (i.e., "10 CFR Part 61" analysis) were sufficient to support radioactive waste characterization as required by 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste." The inspectors evaluated whether the licensee's use of scaling factors and calculations to account for difficult-to-measure radionuclides was technically sound and based on current 10 CFR Part 61 analysis for the selected radioactive waste streams.

The inspectors evaluated whether changes to plant operational parameters were taken into account to: (1) maintain the validity of the waste stream composition data between the annual or biennial sample analysis update; and (2) assure that waste shipments continued to meet the requirements of 10 CFR Part 61 for the waste streams selected above.

The inspectors evaluated whether the licensee established and maintained an adequate Quality Assurance Program to ensure compliance with the waste classification and characterization requirements of 10 CFR 61.55 and 10 CFR 61.56, "Waste Characteristics."

b. Findings

No findings were identified.

.5 Shipment Preparation (02.05)

a. Inspection Scope

The inspectors observed shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and licensee verification of shipment readiness. The inspectors assessed whether the requirements of applicable transport cask certificate of compliance had been met. The inspectors evaluated whether the receiving licensee was authorized to receive the shipment packages. The inspectors evaluated whether the licensee's procedures for cask loading and closure procedures were consistent with the vendor's current approved procedures.

The inspectors observed radiation workers during the conduct of radioactive waste processing and radioactive material shipment preparation and receipt activities. The inspectors assessed whether the shippers were knowledgeable of the shipping regulations and whether shipping personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport with respect to:

- the licensee's response to NRC Bulletin 79-19, "Packaging of Low-Level Radioactive Waste for Transport and Burial," dated August 10, 1979; and
- Title 49 CFR Part 172, "Hazardous Materials Table, Special Provisions, Hazardous Materials Communication, Emergency Response Information, Training Requirements, and Security Plans," Subpart H, "Training."

Additionally, the inspectors assessed whether the licensee's training program provided training to personnel responsible for the conduct of radioactive waste processing and radioactive material shipment preparation activities.

b. Findings

No findings were identified.

.6 Shipping Records (02.06)

a. Inspection Scope

The inspectors evaluated whether the shipping documents indicated the proper shipper name; emergency response information and a 24-hour contact telephone number; accurate curie content and volume of material; and appropriate waste classification, transport index, and United Nations number for the following radioactive shipments:

- 12-3003; Radioactive Material Shipment Irradiated Coupon;
- 13-1003; Radioactive Waste Shipment Bead Resin;
- 13-1002; Radioactive Waste Shipment Bead Resin;
- 13-3080; Radioactive Material Shipment Irradiated Coupon; and
- 13-1015; Radioactive Waste Shipment Powered Resin.

Additionally, the inspectors assessed whether the shipment placarding was consistent with the information in the shipping documentation.

b. Findings

No findings were identified.

.7 Identification and Resolution of Problems (02.07)

a. Inspection Scope

The inspectors assessed whether problems associated with radioactive waste processing, handling, storage, and transportation were being identified by the licensee at an appropriate threshold, were properly characterized, and were properly addressed for resolution in the licensee's CAP. Additionally, the inspectors evaluated whether the corrective actions were appropriate for a selected sample of problems documented by the licensee that involve radioactive waste processing, handling, storage, and transportation.

The inspectors reviewed results of selected audits performed since the last inspection of this program and evaluated the adequacy of the licensee's corrective actions for issues identified during those audits.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Occupational Radiation Safety, and Public Radiation Safety

4OA1 Performance Indicator Verification (71151)

.1 Mitigating Systems Performance Index - Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the Mitigating Systems Performance Index (MSPI) - Heat Removal System performance indicator (PI) for the third quarter 2012 through the second quarter 2013. To determine the accuracy of the PI data reported, PI definitions and guidance in Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's operator logs, issue reports, event reports, MSPI derivation reports, and NRC IRs to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one MSPI heat removal system (MS08) sample as defined in IP 71151.05.

b. Findings

No findings were identified.

.2 Mitigating Systems Performance Index - Residual Heat Removal System

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI - Residual Heat Removal System PI for the third quarter 2012 through the second quarter 2013. To determine the accuracy of the PI data reported, PI definitions and guidance in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's operator logs, issue reports, event reports, MSPI derivation reports, and NRC IRs to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one MSPI residual heat removal system (MS09) sample as defined in IP 71151.05.

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index - Cooling Water Systems

a. Inspection Scope

The inspectors sampled licensee submittals for the MSPI - Cooling Water Systems for the period for the third quarter 2012 through the second quarter 2013. To determine the accuracy of the PI data reported, PI definitions and guidance in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, were used. The inspectors reviewed the licensee's operator logs, issue reports, event reports, MSPI derivation reports, and NRC IRs to validate the accuracy of the submittals. The inspectors reviewed the MSPI component risk coefficient to determine if it had changed by more than 25 percent since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one MSPI cooling water system (MS10) sample as defined in IP 71151.05.

b. Findings

No findings were identified.

.4 Reactor Coolant System Specific Activity

a. Inspection Scope

The inspectors sampled licensee submittals for the Reactor Coolant System (RCS) Specific Activity PI for Perry Nuclear Power Plant for the fourth quarter 2012 through the second quarter 2013. The inspectors used PI definitions and guidance in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, to determine the accuracy of the PI data reported. The inspectors reviewed the licensee's reactor coolant system chemistry samples, technical specification requirements, issue reports, event reports, and NRC IRs to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems were identified with the PI data collected or transmitted for this indicator and none were identified. In addition to record reviews, the inspectors observed a chemistry technician obtain and analyze an RCS sample. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one sample for RCS Specific Activity (BI01) as defined in IP 71151-05.

b. Findings

No findings were identified.

.5 Occupational Exposure Control Effectiveness

a. Inspection Scope

The inspectors sampled licensee submittals for the occupational radiological occurrences PI for the fourth quarter 2012 through the second quarter 2013, as well as additional data related to inspection activities documented in NRC IR 05000440/2012005. The inspectors used PI definitions and guidance in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, to determine the accuracy of the PI data reported. The inspectors reviewed the licensee's assessment of the PI for occupational radiation safety to determine if indicator related data were adequately assessed and reported. To assess the adequacy of the licensee's PI data collection and analyses, the inspectors discussed with radiation protection staff the scope and breadth of its data review and the results of those reviews. The inspectors independently reviewed electronic personal dosimetry dose rate and accumulated dose alarms and dose reports and the dose assignments for any intakes that occurred during the time period reviewed to determine if there were potentially unrecognized occurrences. The inspectors also conducted walkdowns of numerous locked high and very high radiation area entrances to determine the adequacy of the controls in place for these areas. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one sample for Occupational Exposure Control Effectiveness (OR01) as defined in IP 71151-05 and closes Unresolved Item URI 05000440/2012005-07, Follow-Up to Occupational Radiation Safety Performance Indicator Verification.

b. Findings

No findings were identified.

.6 Drill/Exercise Performance

a. Inspection Scope

The inspectors sampled licensee submittals for the drill/exercise PI for the third quarter 2012 through the second quarter 2013. The inspectors used PI definitions and guidance in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, to determine the accuracy of the PI data reported. The inspectors reviewed the licensee's records and processes, including procedural guidance on assessing opportunities for the PI; assessments of PI opportunities during pre-designated control room simulator training sessions; performance during the 2012 Biennial Exercise; and performance during other drills associated with the PI to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems were identified with the PI data collected, or transmitted, for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one drill/exercise (EP01) sample as defined in IP 71151-05.

b. Findings

No findings were identified.

.7 Emergency Response Organization Readiness

a. Inspection Scope

The inspectors sampled licensee submittals for the ERO PI for the third quarter 2012 through the second quarter 2013. The inspectors used PI definitions and guidance in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, to determine the accuracy of PI data reported. The inspectors reviewed the licensee's records and processes, including procedural guidance on assessing opportunities for the PI, performance during the 2012 biennial exercise and other drills, and revisions of the roster of personnel assigned to key ERO positions, to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine if any problems were identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one ERO readiness (EP02) sample as defined in IP 71151-05.

b. Findings

No findings were identified.

.8 Alert and Notification System (ANS) Reliability

a. Inspection Scope

The inspectors sampled licensee submittals for the ANS PI for the third quarter 2012 through the second quarter 2013. The inspectors used PI definitions and guidance in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, to determine the accuracy of the PI data reported. The inspectors reviewed the licensee's records and processes, including procedural guidance on assessing opportunities for the PI and results of periodic ANS operability tests, to validate the accuracy of the submittals. The inspectors also reviewed the licensee's issue report database to determine whether any problems were identified with the PI data collected or transmitted for this indicator and none were identified. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one ANS reliability (EP03) sample as defined in IP 71151-05.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Items Entered into the Corrective Action Program

a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify they were being entered into the licensee's CAP at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. Attributes reviewed included: identification of the problem was complete and accurate; timeliness was commensurate with the safety significance; evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent-of-condition reviews, and previous occurrences reviews were proper and adequate; and that the classification, prioritization, focus, and timeliness of corrective actions were commensurate with safety and sufficient to prevent recurrence of the issue. Minor issues entered into the licensee's CAP as a result of the inspectors' observations are included in the Attachment to this report.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

To assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished through inspection of the station's daily condition report packages.

These daily reviews were performed by procedure as part of the inspectors' daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings were identified.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspector CAP item screening discussed in Section 4OA2.2 above, licensee trending efforts, and licensee human performance results. The inspectors' review nominally considered the 6-month period of January 1, 2013, through June 30, 2013, although some examples expanded beyond those dates where the scope of the trend warranted.

The review also included issues documented outside of the normal CAP in major equipment problem lists, repetitive and/or reworks maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self-assessment reports, and maintenance rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's CAP trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

This review constituted one semi-annual trend inspection sample as defined in IP 71152-05.

b. Findings

No findings were identified.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153)

.1 R14 System – 125-Volt AC Vital Transformer High Voltage

a. Inspection Scope

The inspectors reviewed the plant's response to high voltage on the 125-volt AC V1A bus. The high voltage was caused by a failed aluminum electrolytic capacitor in the regulating transformer control module. Upon discovery of the high voltage condition on August 30, 2013, the licensee created an Operational Decision-Making Issue for operating the plant in a degraded condition for a short period of time while preparations were made to take the plant off-line on September 6 in an orderly fashion to repair the V1A regulating transformer. The licensee replaced the regulating transformer control module and completed additional forced outage planned activities prior to restarting the plant on September 8. Documents reviewed are listed in the Attachment to this report.

This event follow-up review constituted one sample as defined in IP 71153-05.

b. Findings

No findings were identified.

.2 (Closed) Licensee Event Report (LER) 05000440/2013-003-00: Shutdown Required by Technical Specifications Due to RCS Pressure Boundary Leakage

This event, which occurred on June 15, 2013, was identified by licensee inspections inside the drywell while the reactor was in Mode 1, at approximately 8 percent rated thermal power. A planned down power had been commenced on June 14, to inspect the drywell for sources of unidentified leakage. During those inspections, two sources of leakage were identified and one was later classified as through-wall leakage from the reactor coolant system. A plant shutdown was performed in accordance with TS 3.4.5, "RCS Operational Leakage," and the plant entered into cold shutdown on June 16 at 1:58 p.m. Repairs were made and the licensee completed its extent-of-condition investigation and root cause analysis under CR 2013-09255. The inspectors reviewed the LER submittal and root cause. The inspectors determined that no additional deficiencies were identified by the licensee. Documents reviewed are listed in the Attachment to this report. This LER is closed.

This event follow-up review constituted one sample as defined in IP 71153-05.

4OA5 Other Activities

.1 Follow-up Reviews in Accordance with IP 71151, for URI 05000440/2012005-07

The inspectors performed follow-up reviews in accordance with IP 71151, for URI 05000440/2012005-07, for "Follow-up to Occupational Radiation Safety Performance Indicator Verification." Results of the inspectors' reviews are documented in section 4OA1.5. This URI is closed.

.2 Correction to Input for Temporary Instructions (TI)-2515/182 - Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks

The TI-2515/182 inspection completion, documented in NRC IR 2013002 (ML13130A326), contained a link to the specific questions the inspection focused on. The link provided in the report was incorrect; the following is the correct link: http://www.nrc.gov/reactors/operating/ops-experience/buried-pipe-ti-phase-2-insp-req-2011-11-16.pdf

4OA6 Meetings

.1 Exit Meeting Summary

On October 18, 2013, the inspectors presented the inspection results to Mr. D. Hamilton and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

.2 Interim Exit Meetings

Interim exits were conducted for:

- The inspection results for the areas of radiological hazard assessment and exposure controls; occupational ALARA planning and controls; radioactive solid waste processing and radioactive material handling, storage, and transportation; and RCS specific activity and occupational exposure control effectiveness performance indicator verification with Mr. D. Hamilton, Director of Site Operations, on August 16, 2013.

- Follow-up conference call for the areas of radiological hazard assessment and exposure controls with Mr. T. Veitch, Manager of Regulatory Compliance, on August 23, 2013.

- The inspection results for the areas of radiological hazard assessment and exposure controls; and radiological environmental monitoring with Mr. D. Hamilton, Director of Site Operations, on September 27, 2013.

- Teleconference update with Mr. T. Veitch, Regulatory Compliance Manager, and other members of the licensee's staff on October 2, 2013.

- The results of the EP program inspection were discussed with Mr. D. Reeves on September 19, 2013.

The inspectors confirmed none of the potential report inputs discussed were considered proprietary.

4OA7 Licensee-Identified Violations

The following violation of very low significance (Green) or Severity Level IV was identified by the licensee and is a violation of NRC requirements which meets the criteria of the NRC Enforcement Policy for being dispositioned as an NCV.

- Title 10 CFR 50.54(q)(2) requires that a holder of a nuclear power reactor operating license follow and maintain the effectiveness of an emergency plan that meets the requirements in Appendix E to this part and the planning standards of 10 CFR 50.47(b). The Perry Nuclear Power Plant Emergency Plan, Section 4.0 states, in part, a 15-minute goal has been established for assessing and classifying an emergency once indications are available to control room operators that an emergency action level (EAL) has been exceeded. Contrary to the above, on November 17, 2010, the licensee failed to follow its EP during an actual emergency, which resulted in a failure to implement. Specifically, an extent-of-condition review (CR-2013-04165) of past radiological events identified vagueness and lack of specificity in EAL GU1 entry criteria resulted in the failure to classify the 2010 notification of unusual event.

  Using IMC 0609, Appendix B, "Emergency Preparedness Significance Determination Process," dated February 24, 2012, Section 4.0, "Actual Event Implementation Issue (Failure to Implement)," the inspectors determined that the violation was not greater than very low safety significance (Green) because no public official protective actions were implemented as a result of this event missed classification. The issue was documented in the licensee's CAP as CAP 2013-05332. Corrective actions included making revisions to provide clarity to EALs GU1 and GA1 and revision of the EAL's entry criteria.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

E. Harkness, Site Vice-President
D. Hamilton, Site Operations Director
J. Ellis, Recovery Director
T. Brown, Performance Improvement Director
D. Reeves, Site Engineering Director
J. Veglia, Maintenance Director

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened and Closed

05000440/2013004-01	NCV	Failure To Meet Fire Brigade Drill Training Requirements (Section 1R05.2)
05000440/2013004-02	NCV	Worker Access Into A High Radiation Area Contrary To The Requirements Of The Radiation Work Permit (Section 2RS1.1)
05000440/2013004-03	FIN	Unprofessional Worker Conduct Inside A Locked High Radiation Area In The Turbine Building 620' Auxiliary Steam Tunnel (Section 2RS1.2)
05000440/2013004-04	NCV	Failure To Perform Representative Sampling of Fish In Order to Accurately Assess Ingestion Radiation As Required By The ODCM (Section 2RS7.2)

Closed

05000440/2013-03-00	LER	Shutdown Required By Technical Specifications Due to RCS Pressure Boundary Leakage (Section 4OA3.2)
05000440/2012005-07	URI	Follow-Up to 2012 Occupational Radiation Safety Performance Indicator Verification (Section 4OA1.5)

Discussed

2515/182	TI	Review of the Industry Initiative to Control Degradation of Underground Piping and Tanks (Section 4OA5)

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.

1R04 Equipment Alignment

- Drawing (DRW) 302-0631-00000; Reactor Core Isolation Cooling System; Revision EE
- DWG 302-0632-00000; Reactor Core Isolation Cooling System; Revision LL
- DWG 208-0050-00203; Plant Radiation Monitoring System Annulus Exhaust 'B' Gas; Revision J
- VLI-M15; Annulus Exhaust Gas Treatment System (Unit 1); Revision 4
- VLI-R44; Division 1 and 2 Diesel Generator Starting Air System (Unit 1); Revision 4
- VLI-R45; Division 1 and 2 Diesel Generator Fuel Oil System (Unit 1); Revision 5
- VLI-R46; Division 1 and 2 Diesel Generator Jacket Water Systems (Unit 1); Revision 4
- VLI-R47; Division 1 and 2 Diesel Generator Lube Oil; Revision 7
- VLI-R48; Division 1 and 2 Diesel Generator Exhaust, Intake and Crankcase Systems; Revision 6
- VLI-P42; Emergency Closed Cooling System; Revision 16

1R05 Fire Protection

- FPI-0IB; Pre-Fire Plan Instruction; Intermediate Building; Revision 7
- FPI-0CC; Pre-Fire Plan Instruction; Control Complex; Revision 9
- FPI-1DG; Pre-Fire Plan Instruction; Diesel Generator Building; Revision 6
- FPI-0EW; Pre-Fire Plan Instruction; Emergency Service Water Pump House; Revision 5
- Fire Drill Planning Guide; Scenario FDU-1075; dated September 17, 2013
- PY-CEI/NRR-0213 L; Letter from Murray R. Edelman, VP Nuclear to B. J. Youngblood, Chief Licensing Branch No. 1, Division of Licensing, US NRC; dated March 25, 1985
- Fire Drill Packages for Fire Brigade Drills conducted from January 2011 to September 2013
- FITS Qualification Matrices; Fire Protection; Fire Brigade Leader
- FITS Qualification Matrices; Fire Protection; Fire Brigade Member
- Excel Spreadsheet Showing Fire Brigade Leaders and Fire Brigade Members by Crew Number
- DOC 9025; FENOC Training Plan; Fire Brigade Leader; Revision 12
- DOC 9026; FENOC Training Plan; Fire Brigade Member; Revision 6
- PAP-1910; Fire Protection Program; Revision 29
- FPI-A-B02; Fire Protection Instruction; Fire Brigade Drills; Revision 7
- CR 2013-08849; Post-Fire Drill Critique; dated June 7, 2013
- CR 2013-09000; UNSAT Fire Drill Performance; dated June 11, 2013
- CR 2013-09022; MS-C-13-05-31: Weaknesses Identified During the June 5, 2013, Fire Drill; dated June 11, 2013
- CR 2013-09219; MS-C-13-05-31: Second Quarter 2012 Fire Inspections Not Performed; dated June 14, 2013
- CR 2013-09337; MS-C-13-05-31: Finding, No Tracking Mechanism for Fire Brigade Drill Frequency Regulatory Requirements; dated July 17, 2013
- CR 2013-09402; MS-C-13-05-31: Inappropriate Credit Given for Fire Brigade Drills; dated June 18, 2013

1R06 Flood Protection Measures

- DRW 215-0711-00000; Electrical Conduit Layout Manholes and Underground Duct Runs – Plans; Revision S
- PDB-H0055; Equipment Associated With Electrical Manholes; Revision 0

1R07 Annual Heat Sink Performance

- P42-050; Emergency Closed Cooling Heat Exchanger 'A' Loop Performance Test Evaluation; Revision 2; dated April 3, 2013
- WO 200415911; Emergency Closed Cooling 'A' Heat Exchanger Performance Testing; dated August 8, 2012
- WO 200415917; RHR Heat Exchangers 'A' and 'C' Performance Testing; dated July 12, 2011

1R11 Licensed Operator Requalification Program

- IOI-15; Seasonal Variations; Revision 21
- ARI-H13-P601-0019-G4; Steam Tunnel LD Amb Temp P632; Revision 15
- EOP-03; Secondary Containment Control and Radioactivity Release Control Flowchart; Revision C
- OTLC-3058201303_PY-SGC1; Cycle 3, 2013 Evaluated Scenario C1
- NOBP-TR-1112; FENOC Conduct of Simulator Evaluation Critiques; Revision 2
- LOR Cycle 03 (2013) Simulator Notes (Discrepancies and Modifications)

1R12 Maintenance Effectiveness

- CR 2013-10598; BOP Inverter Root Cause Needs Updated Based on New Information (CR 2013-01011); dated July 11, 2013
- CR 2013-01075; Fuse Was Blown While Taking M&TE Leads Off of Termination Block; dated January 24, 2013
- CR 2013-05554; Qualifications of People Working on BOP Inverter Questioned; dated April 10, 2013
- CR 2013-02544; 120 VAC Vital Inverters and Distribution System Exceeded Maintenance Rule Performance Criteria; dated February 20, 2013
- CR 2013-01155; BOP Inverter Logic Power Supply Card Voltage Polarity Backwards When Measured per Drawing (Positive vice Negative 15 VDC); dated January 25, 2013
- CR 2013-01152; Inadequate PM on Internal Cards for Static Transfer Switch; dated January 25, 2013
- CR G202-2011-93026; Electrical Installation Deficiencies; dated April 19, 2011
- CR 2013-11875; The 2013 First Half Overall System Health Report Rating for the R14 System, 120 VAC (Inverters and Distribution) is Red; dated August 2, 2013
- CR 2013-01011; Inverter 1R14S0004 was Found on its Alternate Source and with the Fail Light On Following Reactor Scram; dated January 22, 2013
- CR 2013-09255; Perry Drywell Unidentified Leakage Inspection Results 6/15/2013 B33 Vent Valve; dated June15, 2013
- CR 2013-11297; 1st Period, 2013 System Health Report for the Reactor Recirculation System (B33) Shows an Overall System Rating of "Red;" dated July 23, 2013
- Perry Nuclear Power Plant, Plant Health Report 2013-01; System – B33 – Reactor Recirculation; dated August 22, 2013
- Babcock & Wilcox Final Report; Laboratory Analysis of a Leaking Flow Control Appendage from Perry Nuclear Power Plant; S-1361-101; dated September 2013

- NOBP-ER-3009; FENOC Plant Health Report Program; Revision 11
- CR G202-2009-59250; Difficulties in Performing the Hot Calibration of Recirc Flow Control Valve B33F060B; dated May 14, 2009
- CR G202-2009-66159; Seat leakage on Bottom Head Drain Line Isolation Valves; dated October 17, 2009
- CR 2013-14963; RRCS Trouble; dated September 25, 2013
- CR 2013-04538; RPV Water Level Low Alarm/Trip was Received on Panel C22-P001-2; dated March 26, 2013
- CR 2013-07041; RRCS Test Fault Light Locked In; dated May 3, 2013
- CR 2013-11780; RRCS Trouble will not Remain Reset While in Intradivisional Test Mode; dated August 1, 2013
- CR 2013-07068; Identified Incorrect Size Fuse Installed in Circuit; dated May 4, 2013
- CR 2012-00529; Incorrect Results Noted During SVI Performance – Possible Failed Optical Isolator; dated January 12, 2012
- CR 2012-00490; INPO AP-913 Class “Critical” Equipment Issued Without the Required 100 HR Burn-in; dated January 11, 2012
- CR 2013-07264; Defective Failed CSM Circuit Card Fuse Blown; dated May 8, 2013
- CR 2013-07311; Two Outage PM Tasks Will Not Be Completed in 1R14 and Will Require a Third Deferral; dated May 9, 2013
- CR 2013-07397; New Universal Logic Cards May Not Be Compatible with the Plant Original Cards; dated May 10, 2013
- CR 2013-04809; ULC’s for WO’s 200215680 and 200215679 (RRCS Div 2) Would Not Physically Seat Into The Backplane Connector; dated March 29, 2013
- CR 2012-00820; APRM’s Downscale Signal to Redundant Reactivity Control System May Not Be Tracked for Point To Point Testing; dated January 18, 2012
- WO 200215679; Replace Universal Logic Card B-A14-A07 (Channel ‘B’); dated April 22, 2013
- Perry Nuclear Power Plant, Plant Health Report 2013-01; System – C22 – Redundant Reactivity Control System; dated August 22, 2013

1R13 Maintenance Risk Assessments and Emergent Work Control

- NOP-OP-1007-01; Risk Management Action Tracking Form; Aux Bldg Vent Rad Monitor Upgrade, Disable and Enable Aux Bldg Supply Fan Trips; dated August 12, 2013
- WO 200412049; Upgrade D17 System per ECP 04-0274-004; dated August 12, 2013
- eSOMS; Plant Narrative Log; dated August 12, 2013
- WO 200572864; Scram Discharge Volume First Vent Valve F-0010 Investigate, Repair and Retest; dated August 13, 2013
- Part/Component Equivalent Replacement Package #450; Revision 0
- CR 2013-12342; 1C11F0010 Stroke Time Close was Outside of Acceptable Range (too Fast) During the Performance of SVI-C11-T2004; dated August 10, 2013
- eSOMS; Plant Narrative Log; dated August 25, 2013 and August 26, 2013
- WO 200327387; MCC Switchgear and Battery Rooms Recirculation Fan ‘A’ Refurbishment / Rewind; dated August 26, 2013
- NOP-OP-1007; Risk Management; Revision 16
- eSOMS; Plant Narrative Log; dated August 30, 2013, August 31, 2013 and September 7, 2013
- eSOMS; Plant Narrative Log; dated September 23, 2013 and September 24, 2013
- Perry Nuclear Power Plant Work Implementation Schedule – Week 01, Period 2, Division 1; From 1200 Monday, 09/23/13 to 1200 Tuesday, 09/24/13
- Risk Management Action Tracking; Division 1 Water Leg Pump – Orange Activity Risk Due to Exceeding 50 Percent of Shutdown Limiting Condition for Operation Action Time; dated September 25, 2013

1R15 Operability Determinations and Functionality Assessments

- CR 2013-06533; Plant Data Book Decay Heat Curve "1R14 In-Vessel Decay Heat After 280 Fuel Bundle Discharge" May be Non-Conservative; dated April 25, 2013
- CR 2013-06220; Acceptance Criteria for ADHR Flow in TXI-0377 Does Not Match Design Basis Calculation Value and TXI Test Flows Obtained Did Not Meet the Required Minimum Flow; dated April 19, 2013
- CR 2013-10462; The ADHR System Operating Instruction Has Not Been Updated to Align with the Prompt Functionality Assessment for Use of ADHR in Cycle 15; dated June 9, 2013
- Prompt Functionality Assessment for ADHR in CR 2013-06220, Revision 1; dated May 8, 2013
- CR 2013-12496; Control Complex Chiller A Refrigerant Discolored; dated August 13, 2013
- Prompt Operability Determination for CR 2013-12496, Control Complex Chiller A; Revision 0
- CR 2013-12274; Fuel Oil Truck Turned Away; dated August 9, 2013
- CR 2013-09047; Division 3 Diesel Generator Fuel Oil Delivery Did Not Meet Acceptance Criteria; dated June 11, 2013
- CR 2013-12980; N27F180 Did Not Initially Open; dated August 22, 2013
- WO 200573707; Feed Water and Feed Water Leakage Motor Feed Pump Discharge Valve; dated August 23, 2013
- CR 2013-13136; Anomaly During Performance of SVI-C71-T0046 RPS 'A' Control Valve # 3; dated August 25, 2013
- eSOMS; Plant Narrative Log; dated August 24, 2013 and August 25, 2013
- NOP-OP-1010; Operational Decision-Making; Revision 4
- CR 2013-13521; Abnormal Indications on 1H13P601 – Division 1 Instruments; dated August 30, 2013
- ODMI from CR 2013-13542; CR for ODMI "High Voltage on V1A" per NOP-OP-1010; dated September 1, 2013

1R18 Plant Modifications

- Engineering Change Package 05-0147-001; Radwaste Control System Upgrade Project; Revision 0
- Notification 600376473; Upgrade Allen-Bradley PLCs; dated April 4, 2007

1R19 Post-Maintenance Testing

- WO 200539793; M23 MCC. Switchgear and Misc. Electrical 'A'; dated July 17, 2013
- PMI-0109; V-Belt and Sheave Inspection; Revision 6
- GMI-0073; V-Belt and Sheave Maintenance; Revision 13
- WO 200570291; Rebuild Motor Fire Pump; dated July 22, 2013
- GEI-0049; AC and DC Motor Testing; Revision 7
- PTI-P54-P0035; Electric and Diesel Fire Pump Monthly Operability Test; Revision 15
- PTI-P54-P0036A; Motor Driven Fire Pump Flow Data and Control Panel Functional Test; Revision 5
- WO 200550857; Scram Discharge Vent and Drain Valve Operability Test; dated August 10, 2013
- WO 200326461; Remove Citation Series MCC to Allow Replacement Using Freedom Bucket; dated August 19, 2013
- WO 200417716; Lubricate AEGTS 'B' Fan; dated August 19, 2103
- WO 200504378; 'B' Annulus Exhaust Gas Treatment Charcoal Adsorber Operability Test and Plenum Inspection; dated August 19, 2013

- SVI-M15-T1240-B; Annulus Exhaust Gas Treatment System Train 'B' Flow and Filter Operability Test; Revision 6; dated August 20, 2013
- WO 200574062; Turbine Control Valve Fast Closure Scram; dated September 12, 2013
- SVI-C71-T0046; Turbine Stop Valve Closure and Turbine Control Valve Fast Closure Chanel Functional for 1C71-N006A, B, C, D, E, F, G, H and 1C71-N005A, B, C, D; Revision 11; dated September 11, 2013
- WO 200574596; PY-1R14 120 VAC Vital (Inverters and Distribution) V1A; dated September 8, 2013
- CR 2013-13521; Elevated Voltage on V1A; dated August 30, 2013
- eSOMS; Plant Narrative Log; dated August 30, 2013, September 1, 3, 5, 7, 2013

1R20 Refueling and Other Outage Activities

- Perry Nuclear Power Plant Work Implementation Schedule - V1A Voltage Issue Planned Forced Outage; dated September 6, 2013 at 0400
- Perry Nuclear Power Plant – Reactivity Plan; Evolution Specific – V1A Outage Shutdown; Revision 0 Update 1; dated September 4, 2013
- IOI-1; Cold Startup; Revision 37
- IOI-3; Power Changes; Revision 51
- IOI-4; Shutdown; Revision 19
- IOI-17; Drywell Entry and Access Control; Revision 18
- NOBP-OM-4003; FENOC Forced Outage Management; Revision 6
- NOP-OP-1007; Risk Management; Revision 17
- Perry Nuclear Power Plant – V-1-A Forced Outage Orders September 2012; as of September 3, 2013, at 1049
- ODMI from CR 2013-13542; CR for ODMI "High Voltage on V1A" per NOP-OP-1010; dated September 1, 2013
- CR 2013-13638; Control Rod Drive Stabilizing Valve Solenoids Will Require Replacement Due To Sustained 140 VAC Operating Voltage on Bus V-1-A; dated September 3, 2013

1R22 Surveillance Testing

- WO 200548721; RHR 'A' Pump and Valve Operability Test; dated July 3, 2013
- SVI-E12-T2001; RHR 'A' Pump and Valve Operability Test; Revision 30
- WO 200550023; HPCS Pump and Valve Operability Test; dated July 16, 2013
- SVI-E22-T2001; HPCS Pump and Valve Operability Test
- WO 200551177; Diesel Generator Start and Load Division 3; dated July 19, 2013
- SVI-E22-T1319; Diesel Generator Start and Load Division 3; Revision 19
- SOI-E22B; Division 3 Diesel Generator; Revision 30
- SVI-R10-T5227; Off-Site Power Availability Verification; Revision 8
- PTI-E22-P0006; Periodic Test Instruction – Division 3 HPCS Diesel Generator Auxiliary System Monitoring; Revision 10
- SVI-P45-T2003; HPCS ESW Pump and Valve Operability Test; Revision 19
- WO 200469806; HPCS ESW Pump and Valve Operability Test; dated July 21, 2013
- WO 200472585; Division 2 Standby Diesel Generator 24 Hour Run; dated August 7, 2013
- SVI-R43-T1348; Division 2 Standby Diesel Generator 24 Hour Run; Revision 4
- PTI-R43-P0002; Division 2 Standby Diesel Generator Auxiliary System Monitoring; Revision 17; dated August 11, 2013
- SVI-R43-T1318; Diesel Generator Start and Load Division 2; Revision 15
- SVI-E12-T1196B; LPCI Pump B Discharge Flow-Low (Bypass) Channel Functional for 1E12-N652B; Revision 12

1EP2 Alert and Notification System Evaluation

- Emergency Plan for Perry Nuclear Power Plant, Section 7.4; Prompt Alert Siren System; Revision 39
- PSI-0021; Prompt Alert System; Revision 2
- PYBP-ERS-0028; Prompt Alert Siren System Emergency Planning Zone Testing; Revision 3
- FEMA Approval of Perry Nuclear Power Plant Design Report Update; dated December 21, 2011
- FEMA Approval of Perry Nuclear Power Plant Prompt Alert and Notification System; dated September 8, 1986
- PNPP No. 6816; Prompt Alert System Siren Test Reports; July 2012 – June 2013
- PNPP No. 6813; 2011 and 2012 Prompt Alert System Annual Maintenance Checklists
- PNPP No. 6814; 2011 and 2012 Prompt Alert System Maintenance Checklist
- CR-2012-11644; Inadvertent Sirens Soundings; dated July 26, 2012

1EP3 Emergency Response Organization Staffing and Augmentation System

- Emergency Plan for Perry Nuclear Power Plant, Section 5; Organizational Control of Emergencies; Revision 39
- Emergency Plan for Perry Nuclear Power Plant, Section 6; Emergency Measures; Revision 39
- Emergency Plan for Perry Nuclear Power Plant, Section 8; Maintaining Emergency Preparedness; Revision 32
- PTI-GEN-P0003; Quarterly Testing if the Emergency Pager System; August 2011 – August 2013
- PYBP-ERS-0033; Off-Hour Unannounced Drill Conduct; dated March 1, 2012
- PS-YB-PTI-GENP0003; Quarterly Testing of the Emergency Pager System Records
- Emergency Response Telephone Directory; dated September 10, 2013
- FENOC Information Tracking System ERO Position Requirements; dated September 18, 2013
- CR-2012-01764; Lapsed ERO Qualification Due to Lost Exam Results; dated February 2, 2012
- CR-2011-06905; Off-Hours Emergency Exercise Objectives Not Demonstrated; dated December 15, 2011

1EP5 Maintenance of Emergency Preparedness

- Emergency Plan for Perry Nuclear Power Plan; Revisions 30 and 39
- Emergency Response Section Letters of Agreement; Current through January 2014
- EPL-JFGEPLAN FEN-01; Qualification Card/Job Familiarization Guide; Revision 0
- EP Note No. 12-014; ERO Newsletter; dated December 31, 2012
- Perry Gaitronics System Status; September 16, 2013
- Master Audit Plan Emergency Preparedness; Revision 3
- MS-C-12-11-24; Fleet Oversight Audit Report of Emergency Preparedness; dated December 6, 2012
- MS-C-11-11-24; Fleet Oversight Audit Report of Emergency Preparedness; dated December 12, 2011
- NOBP-LP-5006; Initial Qualification and Continuing Development of Emergency Response Personnel; Revision 1
- PYBP-ERS-0029; Review of Actual Events – Unusual Event; dated November 28, 2012
- SN-SA-2013-0214; Pre-NRC Emergency Preparedness Self-Assessment; dated September 18, 2013

- CR-2013-05332; Discovery After the Fact of Classification Threshold Being Met; dated April 7, 2013
- CR-2012018870; Badged Personnel Unaware of Emergency Event Classifications; dated December 3, 2012
- CR-2012-18589; Entered Unusual Event for Toxic Gas; dated November 28, 2012
- CR-2012-15505; Exercise-TSC Incorrect Dose Projection and PAR Provided to EOF; dated October 3, 2012
- CR-2012-09742; Enhance EAL Bases Document for Increased Plant Radiation Levels; dated June 14, 2012

1EP6 Drill Evaluation

- PNPP ERO Drill Scenario Guide; dated July 10, 2013
- EPI-A1; Emergency Action Levels; Revision 26
- OTLC-3058201303_PY-SGC1 Cycle 3 2013 Evaluated Scenario C1, Revision 0
- CR 2013-11184; E-Plan Drill, Area for Improvement, Incorrect EAL Written on a Follow-up Notification to State and Counties; dated July 21, 2013

2RS1 Radiological Hazard Assessment and Exposure Controls

- CR 2013-08685; PA-PY-13-02 Radiation Protection Effectiveness Rated Marginally Effective for First Trimester 2013; dated June 5, 2013
- CR 2013-12077; Individual Received Dose Rate Alarm While Removing Chain-Fall; dated August 6, 2013
- CR 2013-12269; Post-Event Critique Worker Violation of the Requirements of Industrial Safety; dated August 7, 2013
- FENOC Radiation Worker Training; Revision 3
- GEN-SAF-0001; Generation Personal Safety Manual; dated August 29, 2012
- NOP-OP-1007; Risk Management; Revision 16
- NOP-OP-4010; Determination of Radiological Risk; Revision 07
- NOP-OP-4101; Access Controls for Radiologically Controlled Areas; Revision 10
- NOP-OP-4102; Radiological Postings, Labeling, and Markings; Revision 09
- NOP-OP-4107; Radiation Work Permit; Revision 11
- NOP-OP-4703; Determination of Alpha Monitoring Levels; Revision 02
- PAP-0114; Radiation Protection Program; Revision 17
- RWP 130102; 1G61C0012A; Aux Building Floor Drain Sump Pump Replacement; Revision 01
- CR-2013-06758; Two Goldfish Found in Steam Tunnel by Scaffold Group; dated April 30, 2013
- NOBP-OP-4009; Radworker Expectations; Revision 03
- NOP-OP-4001; Radiation Protection Program; Revision 03
- NOP-OP-4002; Conduct of Radiation Protection; Revision 05
- NOP-OP-4101; Access Controls for Radiologically Controlled Areas; Revision 10
- NOP-OP-4107; Radiation Work Permit (RWP); Revision 12
- NOP-OP-4502; Control of Radioactive Material; Revision 02

2RS2 ALARA Planning and Controls

- CR 2013-06631; Evaluation of R14 RWPs Against the Technical Basis for the Occupational Radiation Safety Significance Determination Process, Appendix C; dated April 26, 2013
- CR 2013-12077; Individual Received Dose Rate Alarm While Removing Chain-Fall; dated August 6, 2013

- FENOC Radiation Worker Training; Revision 03
- IOI-3; Power Changes; Revision 50
- IOI-0017; Drywell Entry and Access Control; Revisions 16 and 17
- NOP-OP-4005; ALARA Program; Revision 03
- NOP-WM-001; Work Management Process; Revision 08
- Perry Nuclear Power Station 1R14 Outage ALARA Report; dated August 14, 2013
- Perry Nuclear Power Plant Final Outage RWP Dose Report; dated May 16, 2013
- Perry Plant 5 Year Exposure Reduction Plan; Draft; dated August 14, 2013
- RWP 130129; 0G41F0746A Relief Valve, 0G41F0280 and 0G41F0290 Valve Swap; Revision 00
- RWP 136009; Containment/Drywell General Maintenance Activities; Revisions 00-03
- RWP 126021; Reactor Reassembly; Revision 00
- SN-SA-2013-0177-001; Full Assessment; ALARA Post Outage Critique; dated August 8, 2013

2RS7 Radiological Environmental Monitoring Program

- 10 CFR Part 61 Analysis and Evaluations; Selected Waste Streams; various dates 2011, 2012, and 2013
- 2011 Land Use Census at Perry Nuclear Power Plant; dated April 2012
- 2012 Land Use Census at Perry Nuclear Power Plant; dated April 2013
- 2012 Meteorological Tower Maintenance Log; undated; delivered September 25, 2013
- 2013 Meteorological Tower Maintenance Log; undated; delivered September 25, 2013
- Air Sampler Maintenance and Calibration Records; various dates 2012 and 2013
- Annual Report of the Perry Nuclear Power Plant Meteorological Program; 2011
- Annual Report of the Perry Nuclear Power Plant Meteorological Program; 2012
- ATI Environmental Inc.; Midwest Laboratory; Inter-laboratory Comparison Program results; January 2012 through December 2012
- CR 2008-40760; NRC ID Comments on REMP Inspection; dated May 23, 2008
- CR 2008-46049; MS-C-08-08-02 Finding: ODCM Change Missing TS 5.5.1 Documentation; dated September 10, 2008
- CR 2012-19332; NRC ID Incomplete Corrective Actions Implemented to Address NRC REMP Inspection Issues; dated December 12, 2012
- CR 2013-12689; Negative Trend Noted for Environmental Air Sampler Flow Indication; dated August 16, 2013
- CR 2013-14566; Trees Too Close to Environmental Air Sampling Station; dated September 18, 2013
- CR 2013-14568; Vegetation Not Maintained Below Bottom of Air Sample Cabinet for Environmental Air Sample Stations; dated September 18, 2013
- Meteorological Monitoring and Data Review; Selected records; various dates 2012 and 2013
- NOP-OP-2012; Groundwater Monitoring; Revision 06
- PAP-0807; Chemical Waste Minimization and Waste Management Program; Revision 12
- PAP-1901; Dry Radioactive Waste Volume Reduction Program; Revision 07
- Perry Groundwater Sampling Analysis Plan; undated; delivered September 25, 2013
- Perry Nuclear Power Plant Annual Environmental and Effluent Release Report; 2011
- Perry Nuclear Power Plant Annual Environmental and Effluent Release Report; 2012
- Perry Offsite Dose Calculation Manual: Revision 20
- Process Controls Program (PCP); Revision 12
- REMP-0006; Radiological Environmental Monitoring Program; Fish Sampling Instruction; Revision 10
- REMP 0009; Radiological Environmental Monitoring Program; Surface and Drinking Water Sampling; Revision 09

- REMP 0010; Radiological Environmental Monitoring Program; Milk Sampling; Revision 06
- REMP-0012; Radiological Environmental Monitoring Program; Food Product Sampling; Revision 08
- REMP-0014; Radiological Environmental Monitoring Program; Exchange of Field Dosimeters; Revision 08
- REMP 0023; Radiological Environmental Monitoring Program; Air Sample Collection; Revision 08
- SN-SA-2012-0262; RETS/REMP Program Health; dated September 06, 2012
- SN-SA-2013-0032; REMP Self-Assessment (Part 1 of 2); dated September 23, 2013

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation

- 10 CFR Part 61 Sample; Bead Resin; dated February 15, 2012
- 10 CFR Part 61 Sample; Dry Active Waste; dated January 4, 2012
- 10 CFR Part 61 Sample; Reactor Water Cleanup Resin; dated March 15, 2012
- 12-3003; Radioactive Material Shipment Irradiated Coupon; dated February 10, 2012
- 13-1003; Radioactive Waste Shipment Bead Resin; dated March 6, 2013
- 13-1002; Radioactive Waste Shipment Bead Resin; March 4, 2013
- 13-3080; Radioactive Material Shipment Irradiated Coupon; dated August 15, 2013
- 13-1015; Radioactive Waste Shipment Powered Resin; dated August 15, 2013
- CR 2013-12358; SN-SA-2013-0204; Clarification Needed on PCP and USAR; dated August 11, 2013
- CR 2013-12357; SN-SA-2013-0204; Discrepancies During Walkdown of the OSSC Yard and ICM Pad; dated August 11, 2013
- CR 2013-12361; SN-SA-2013-0204; Updates Needed for RW Shipping Contact Information; dated August 11, 2013
- CR 2013-05678; Focused Self-Assessment FO-SA-2013-0011 Deficiency – Quarterly/Annual Inspection of Outside Containers – Radioactive Material Control; dated April 12, 2013
- CR 2012-13884; New Radiation Work Permit Required for Reactor Water Clean-up Liner; dated September 11, 2012
- CR 2012-04601; Transport Trailer Found with Loose Surface Contamination; dated March 26, 2013
- CR 2011-02304; During NRC Radwaste Inspection Identified Sealand 14 Material Condition; dated September 23, 2011
- HPI-H0005; 10CFR61 Compliance Sampling Program; Revision 1
- HPI-K0009; Operation of the WARF, RISB, and OSSC Yard; Revision 3
- NOP-OP-4501; Control of Radioactive Material; Revision 02
- NOP-OP-5201; Shipment of Radioactive Material/Waste; Revision 3
- Process Control Program; Revision 12
- Perry Personnel Radioactive Material Handling and Transportation Training Records; Selected Records; Various Dates
- Perry Quality Assurance Program Approval for Radioactive Material Packages No 0541; Revision 6; dated August 18, 2005
- RPI-1301; Movement of Radioactive Material/Waste Outside of Radiologically Controlled Areas and Onsite Interim Storage; Revision 11

4OA1 Performance Indicator Verification

- Mitigating Systems Performance Index Basis Document; Revision 8
- Mitigating Systems Performance Index Basis Document; Revision 7

- Mitigating Systems Performance Index Basis Document; Revision 6
- NOBP-LP-4012-06; Mitigating Systems Performance Index (MSPI) Unavailability Index (UAI) and Unreliability Index (URI) for Heat Removal System (RCIC); dated July 2012 to June 2013; Revision 2
- NOBP-LP-4012-07; MSPI UAI and URI for Residual Heat Removal (RHR); dated July 2012 to June 2013; Revision 3
- NOBP-LP-4012-19; MSPI UAI and URI for Emergency Service Water (ESW); dated July 2012 to June 2013; Revision 2
- CR 2012-19358; Radiological Posting Change as a Result of Extent of Condition (HRA to LHRA); dated December 13, 2012
- NOBP-LP-4012; NRC Performance Indicators; Revision 04
- NOBP-LP-4012-09; NRC Performance Indicator Data Sheets; Barrier Integrity Reactor Coolant System Dose Equivalent Iodine; December 2012 through July 2013
- NOBP-LP-4012-14; NRC Performance Indicator Data Sheets; Occupational Radiation Safety; dated December 2012 through July 2013
- NEI FAQ 12-04; “HRA Related Occurrences”

4OA2 Problem Identification and Resolution

- CR 2013-00162; Perry Snubber Program Assessment Not Completed per NOP-ER-2101; dated January 4, 2013
- CR 2013-02995; Snubber 1E12H0520 Tested in the Degraded Range During Scheduled Acceleration Testing; dated February 28, 2013
- CR 2013-03205; Dose for the Snubber Project Less Than Estimate; dated March 5, 2013
- CR 2013-03682; Work Delay to Snubber Scaffold. Higher Dose Rates Than Anticipated; dated March 13, 2013
- CR 2013-03982; Non-Safety Snubber 1N64H0017 Failed Functional Testing; dated March 19, 2013
- CR 2013-04157; Pipe Clamp for Snubber 1E51H0073 Damaged During Snubber Removal; dated March 21, 2013
- CR 2013-04278; Snubber 1N22H0099 Tested in the Degraded Range; dated March 22, 2013
- CR 2013-04282; Snubber 1N22H0089 Tested in the Degraded Range; dated March 22, 2013
- CR 2013-04402; Snubber 1N22H0100 Tested in the Degraded Range; dated March 25, 2013
- CR 2013-04478; Snubber 1N22H0365 Failed Drag Test; dated March 26, 2013
- CR 2013-04845; Snubber 1N22H0113 Tested in the Degraded Range; dated March 30, 2013
- CR 2013-04846; Snubber 1N22H0097 Tested in the Degraded Range; dated March 30, 2013
- CR 2013-04949; PA-PY-13-01 – Adverse Trend – 1R14 Lifting and Rigging Issues; dated April 1, 2013
- CR 2013-05023; Snubber PY-1H0597(W) Tested in the Degraded Range During Functional Testing; dated April 2, 2013
- CR 2013-05184; Snubber 1N27H0005 Dropped/Fell About 2 Inches While Rigging in the Drywell; dated April 4, 2013
- CR 2013-05507; Safety Related Snubber, 1M51H1031, Serial No. 18848, Tested Degraded but SAT in the Acceleration Test and Under Compression; dated April 10, 2013
- CR 2013-05638; CR 2013-04478, Snubber H22H0365 Failed Drag Test in the Compression Direction Should Have Been Categorized as AL; dated April 11, 2013
- CR 2013-06461; Basic PSA Mechanical Snubbers Received from Warehouse Did Not Meet Performance Requirements; dated April 24, 2013
- CR 2013-09548; Snubber 1B21H0453 Failed Visual Inspection Performed per NQI-1042; dated June 20, 2013

- CR 2013-09564; BETA Failure Analysis Report on Replaced N43 Snubber Identified Fouling Present. Extent of Condition Needs to be Evaluated for Other Plant Systems; dated June 20, 2013
- CR 2013-11610; Maintenance Trending Data – Implementation of the Lifting and Rigging Program Needs Additional Attention, dated July 29, 2013
- CR 2013-00360; Air Sampler Exhaust Turbine Failure; dated January 9, 2013
- CR 2013-07291; Environmental Air Sampler Flow Meter Failed; dated May 8, 2013
- CR 2013-09862; Environmental Air Sampler Flowrate Variations; dated June 26, 2013
- CR 2013-00103; Transfer of CA 2011-01593-48 (Root Cause CA) "STOP WORK Actions for Off Scale Radiation Meters" from NOP-OP-4002 to NOP-OP-4104; dated January 3, 2013
- CR 2013-00137; Three Corrective Actions from Root Cause Evaluations are not Being Implemented as Stated; dated January 4, 2013
- CR 2013-01547; Behavior of Root Cause Team Member During Request to Enter Protected Train Area Was Not Appropriate; dated January 31, 2013
- CR 2013-02940; MS-C-13-02-22: VP Approval of SCAQ Root Cause Evaluations for CR 2012-03231 Was Untimely; dated February 27, 2013
- CR 2013-04856; Two Corrective Actions Were Not Implemented in a Timely Manner for Root Cause Condition Report 2009-66058; dated March 30, 2013
- CR 2013-07896; Root Cause Cycle Time for CR 2013-05234 Exceeded 45 Days; dated May 21, 2013
- CR 2013-08100; The Wording of Corrective Action CA 2012-18695-1 in Devonway Differs From the Wording in the Root Cause Report; dated May 24, 2013
- CR 2013-08818; NRC ID 2013 95002: Opportunities Exist to Improve Extent of Condition Write-up in Root Cause Report CR 2012-18695 (Parallel White Finding); dated June 6, 2013
- CR 2013-09807; NRC ID 2013 95002: Opportunities Exist to Improve Extent of Condition Write-up in Root Cause Report CR 2012-18277 (Turbine Building 577 and RBRT LHRA Control Challenges; dated June 25, 2013
- CR 2013-09965; CARB Tabled Three Alternate Closure/Not Performed Corrective Actions from a Significant Root Cause; dated June 28, 2013

4OA3 Follow-Up of Events and Notices of Enforcement Discretion

- CR 2013-13542; CR for ODMI "High Voltage on V1A" per NOP-OP-1010; dated August 31, 2013
- NOP-OP-1010; Operational Decision Making; Revision 04
- LER 05000440/2013-003-00; Shutdown Required by Technical Specifications Due to RCS Pressure Boundary Leakage; dated August 14, 2013
- CR 2013-09255; Perry Drywell Unidentified Leakage Inspection Results 6/15/2013 B33 Vent Valve; dated June 15, 2013
- CR 2013-13521; Elevated Voltage on V-1-A; dated August 30, 2013

LIST OF ACRONYMS USED

AC	Alternating Current
ALARA	As-Low-As-Is-Reasonable-Achievable
ANS	Alert and Notification System
CAP	Corrective Action Program
CEI	Cleveland Electric Illuminating
CFR	*Code of Federal Regulations*
CR	Condition Report
EAL	Emergency Action Level
ED	Electronic Dosimeter
EDG	Emergency Diesel Generator
EP	Emergency Preparedness
ERO	Emergency Response Organization
FIN	Finding
FPI	Fire Protection Instruction
FSAR	Final Safety Analysis Report
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Inspection Report
LER	Licensee Event Report
MSPI	Mitigating Systems Performance Index
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
ODCM	Offsite Dose Calculation Manual
PAP	Perry Administrative Procedure
PCP	Process Control Program
PI	Performance Indicator
RCA	Radiologically Controlled Area
RCS	Reactor Coolant System
REMP	Radiological Environmental Monitoring Program
RFO	Refueling Outage
RG	Regulatory Guide
RWP	Radiation Work Permit
SDP	Significance Determination Process
TS	Technical Specification
USAR	Updated Safety Analysis Report
URI	Unresolved Item

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Sincerely,

/RA/

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

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Letter to Ernest Harkness from Michael Kunowski dated November 14, 2013

SUBJECT: PERRY NUCLEAR POWER PLANT - NRC INTEGRATED INSPECTION REPORT 05000440/2013004

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