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

December 30, 2010

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

SUBJECT: PERRY NUCLEAR POWER PLANT - PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000440/2010007

Dear Mr. Bezilla:

On November 30, 2010, the U. S. Nuclear Regulatory Commission (NRC) completed a biennial team inspection of Problem Identification and Resolution (PI&R) at your Perry Nuclear Power Plant. The inspection team also reviewed the most recent independent assessment of safety culture to further evaluate an open substantive cross-cutting issue. The enclosed report documents the inspection results, which were discussed on November 30, 2010, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and with the conditions of your operating license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The team concluded that problems were properly identified, evaluated, and resolved within the corrective action program. The team also concluded that the improved quality of root and full apparent cause analyses identified during the last PI&R inspection has continued. Human performance initiatives and commitments initiated in 2009 appear to have become engrained in your work practices. Your staff was aware of the importance of having a strong safety-conscious work environment and expressed a willingness to raise safety issues. However, the team determined that improvements made to address the substantive cross-cutting issue in work planning are not yet effective and that additional effort in this area is needed.

Based on the results of this inspection, one NRC-identified finding and one self-revealed finding of very low safety significance were identified. One finding was also a violation of NRC requirements. However, because of the very low safety significance and because it was entered into your corrective action program, the NRC is treating this finding as a Non-Cited Violation (NCV) in accordance with Section 2.3.2 of the NRC's Enforcement Policy.

If you contest the subject or severity of the findings, 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 a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Perry Nuclear Power Plant. In addition, if you disagree with the cross-cutting aspect of any finding 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 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, and 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 document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

**/RA/**
Jamnes L. Cameron, Chief
Branch 6
Division of Reactor Projects

Docket Nos. 50-440
License Nos. NPF-58

Enclosure: Inspection Report 05000440/2010007
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

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| Docket No: | 50-440 |
| License No: | NPF-58 |
| Report No: | 05000440/2010007 |
| Licensee: | FirstEnergy Nuclear Operating Company (FENOC) |
| Facility: | Perry Nuclear Power Plant, Unit 1 |
| Location: | Perry, Ohio |
| Dates: | November 1 – 30, 2010 |
| Inspectors: | J. Jandovitz, Project Engineer, Team Lead<br>A. Dunlop, Senior Reactor Inspector<br>C. Brown, Reactor Inspector<br>M. Phalen, Senior Health Physicist<br>T. Hartman, Resident Inspector, Perry |
| Approved by: | J. Cameron, Chief<br>Branch 6<br>Division of Reactor Projects |

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## SUMMARY OF FINDINGS

IR 05000440/2010007; 11/01/2010 - 11/30/2010; Perry Nuclear Power Plant, Unit 1; Routine Biennial Problem Identification and Resolution (PI&R) Inspection.

This inspection was performed by four NRC regional inspectors and the Perry resident inspector. Two Green findings were identified by the inspectors. One finding also has an associated Non-Cited Violation (NCV). The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### Problem Identification and Resolution

On the basis of the sample selected for review, the team concluded that implementation of the corrective action program (CAP) at Perry was generally effective. The licensee had a low threshold for identifying problems and entering them in the CAP. Items entered into the CAP were screened and prioritized in a timely manner using established criteria; were properly evaluated commensurate with their safety significance; and corrective actions were generally implemented in a timely manner, commensurate with the safety significance. The team noted that the licensee reviewed operating experience for applicability to station activities. Audits and self-assessments were determined to be performed at an appropriate level to identify deficiencies. The team also concluded that the improved quality of root and full apparent cause analyses identified during the last PI&R inspection has continued.

Human performance initiatives and commitments initiated in 2009 appear to have become engrained in station work practices and personnel are willing and provided examples where they would stop work if they identified issues.

The plant staff was aware of the importance of having a strong safety-conscious work environment and expressed a willingness to raise safety issues. In interviews conducted during the inspection, workers at the site expressed willingness to enter safety concerns into the CAP.

However, the team determined that improvements made to address a longstanding substantive cross-cutting issue in work planning are not yet effective and additional effort in this area is needed.

### NRC-Identified and Self-Revealed Findings

#### Cornerstone: Initiating Events

Green: A finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed for the licensee's failure to have an adequate work plan for replacing voltage regulator cards associated with Average Power Range Monitor (APRM) 'A'. Specifically, the work plan for APRM 'A' did not provide proper guidance to the technicians or operating crew resulting in an unexpected recirculation flow control valve (FCV) runback and subsequent required operator actions. The licensee entered the issue into their corrective action program as condition report (CR) 10-85239. As part of the corrective actions, the licensee plans to place warning placards on the outside of the

APRM cabinet doors providing the proper instructions to personnel working in the cabinets.

The finding was determined to be more than minor because the finding was similar to IMC 0612, Appendix E, Example 4.b, and resulted in operator intervention to maintain reactor power stable. In addition, the performance deficiency impacted the Initiating Events Cornerstone attribute of procedures and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," Table 4a, for the Initiating Events cornerstone. While the finding increased the likelihood of a reactor trip, it did not increase the likelihood that mitigation equipment would not be available, and therefore, the inspectors determined the finding to be of very low safety significance. The finding is associated with a cross-cutting aspect in the operating experience component of the Problem Identification & Resolution cross-cutting area because the licensee did not implement internal operating experience (OE) into station processes and procedures. Specifically, licensee personnel did not adequately research and identify previous plant experience regarding the impact of de-energizing the power supply to the control circuitry for APRM 'A' on other related systems contributing directly to an unplanned power transient on the reactor (P.2(b)).

**Cornerstone: Public Radiation Safety**

Green: A finding of very low safety significance was identified by the inspectors for the licensee's failure to follow procedure NOBP-LP-4003A, FENOC 10 CFR 50.59 User Guidelines, when a new procedure was written and implemented describing the operation of the waste abatement reclamation facility (WARF), radioactive interim storage facility (RISB), and on-site storage and container yard (OSSC). Specifically, the determination that new procedure HPI-K0009, "Operation of the WARF, RISB and OSSC Yard," was a managerial or administrative change and, therefore, the 50.59 process was not applicable, did not comply with the direction provided in Section 1.1 of NOBP-LP-4003A. As a result, the differences in the use of these facilities as specified in Procedure HPI-K0009, with their design basis and USAR descriptions were not identified and evaluated. The licensee has rescinded this procedure until the regulatory evaluation is completed.

The finding was determined to be more than minor because it was associated with the Public Radiation Safety Cornerstone attribute of program/process and adversely affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Appendix D, "Public Radiation Safety," to assess its significance. The inspectors determined that the finding did not involve radioactive material control, there was not a substantial failure to implement the radiological effluent program, and public dose was less than criteria in 10 CFR Part 50, Appendix I, and 10 CFR 20.1301. This finding is associated with a cross-cutting aspect in the resources component of the human performance cross-cutting area because the licensee did not ensure complete, accurate, and up-to-data design documentation and procedures are available. Specifically, there were eleven instances where issues related to operating the WARF,

RISB, and OSSC outside of their design bases were identified since 2000 and no actions to correct these issues were developed until 2010, when a procedure was issued (H.2(c)).

## Licensee-Identified Violations

No violations of significance were identified.

## REPORT DETAILS

## 4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution (71152B)

The activities documented in Sections .1 through .5 constituted one biennial sample of problem identification and resolution as defined in Inspection Procedure (IP) 71152.

.1 Assessment of the Corrective Action Program Effectiveness

a. Inspection Scope

The inspectors reviewed the licensee's Correction Action Program (CAP) implementing procedures, interviewed personnel, and attended CAP meetings to assess the implementation of the CAP by site personnel.

The inspectors reviewed risk and safety significant issues in the licensee's CAP program since the last NRC Problem Identification and Resolution (PI&R) inspection in February of 2009. The selection of issues ensured an adequate review across NRC cornerstones. The inspectors used issues identified through NRC generic communications, department self-assessment, licensee audits, operating experience reports, and NRC documented findings as sources to select issues. Additionally, the inspectors reviewed issue reports generated as a result of facility personnel's performance in daily plant activities. In addition, the inspectors reviewed condition reports (CRs) and a selection of completed investigations from the licensee's various investigation methods, which included root cause, apparent cause, limited apparent cause, and common cause investigations.

The inspectors selected the Emergency Service Water (ESW) system to conduct a detailed 5-year review. The inspectors' review was to determine whether the licensee staff were properly monitoring and evaluating the performance of this system through effective implementation of station monitoring programs. The inspectors also performed partial system walkdowns in the plant of the ESW system, the Waste Abatement Reclamation Facility (WARF), of scaffolding installed at various locations in the plant, and of operator aids and signs posted in the plant.

During the reviews, the inspectors evaluated whether the licensee staff's actions were in compliance with the facility's CAP and 10 CFR Part 50, Appendix B, requirements. Specifically, the inspectors evaluated whether licensee personnel were identifying plant issues at the proper threshold, entering the plant issues into the station's CAP in a timely manner, and assigning the appropriate prioritization for resolution of the issues. The inspectors also evaluated whether the licensee staff assigned the appropriate investigation method to ensure the proper determination of root, apparent, and contributing causes. The inspectors also evaluated the timeliness and effectiveness of corrective actions for selected issue reports, completed investigations, and NRC findings, including Non-Cited Violations (NCVs).

Documents reviewed are listed in the Attachment to this report.

b. Assessment

(1) Effectiveness of Problem Identification

In general, problem identification was adequate and at an appropriate threshold and workers were encouraged to identify issues. The sample of issues from the CAP reviewed by inspectors indicated a low threshold. Almost 5000 CRs have been generated by the site at the time of this inspection. This number was in- line with the number generated at the other FENOC sites and was considered by the inspectors to be representative of a good problem identification ethic. Safety culture related surveys and interviews indicated the willingness of the licensee's staff to identify issues and capture them in the CAP. The team did identify that some low level issues were not initially put into the CAP until workers were prompted or significant discussion ensued, indicating continued reinforcement of a low threshold may be needed.

Observations

Trending NRC Cross-Cutting Aspects

The team noted that the licensee is reviewing all Root Cause, Apparent Cause and Limited Apparent Cause Evaluations and categorizing their results based on NRC cross-cutting aspects. The team noted that in many cases the licensee performed a limited cause evaluation that determined the cause to be related to human errors; a more complete evaluation may produce a different cause, possibly related to a process. While a more in-depth causal evaluation was not required by the process, using the results to trend for cross-cutting aspects may lead to the wrong focus if corrective actions were initiated.

Findings

No findings were identified.

(2) Effectiveness of Prioritization and Evaluation of Issues

The team attended several Management Alignment and Ownership Meetings (MAOM) and a Corrective Action Review Board (CARB) meeting. Overall, the team concluded CAP issues were being properly screened. The majority of issues were of low level and were either closed to trend or assigned a work order to fix. Licensee staff appropriately challenged CAP items during screening meetings and were cognizant of potential trends. Prioritization has allowed the station to maintain a workable backlog for evaluation of issues.

There were no items in the operations, engineering, or maintenance backlogs that were risk significant, individually or collectively. There were no classifications or immediate operability determinations with which the inspectors disagreed.

The team reviewed nine root cause or apparent cause documents and found that they were in-depth, addressed the issue, were of good quality, and were well documented. During the 2009 PI&R inspection, the inspectors noted improvements in the completeness and quality of root and full apparent cause analyses. The team has the same conclusion during this inspection.

Through interviews, the team verified personnel received an automated e-mail which provided the status of their issue. For those issues involving equipment or systems, discussion between the initiator and evaluator to ensure the issue was correctly defined and to discuss the course of action seemed to improve in the last year.

Findings

No findings of significance were identified.

(3) Effectiveness of Corrective Actions

The team concluded that corrective actions for identified deficiencies were generally timely and adequately implemented, commensurate with their safety significance. Those corrective actions addressing selected NRC documented violations were also generally effective and timely.

During the planning for this inspection, one of the samples selected was NCV 2009004-003, Unexpected Half Scram Due to Faulty Troubleshooting Plan, which concerned the power supplies for the average power range monitor (APRMs). During the inspection, the plant experienced an unexpected recirculation flow control valve (FCV) runback signal which was generated during replacement of voltage regulating cards associated with the 'A' APRM instrument. The runback signal required operator action to control reactor power. The team reviewed this incident with respect to the corrective actions completed for NCV 2009004-03. The inspectors determined the incident was not related to the corrective actions taken for the NCV, but did determine that the work plan and procedures for the recent APRM work were not adequate and could have prevented the runback if the knowledge from the 2009 issue as well as a similar 1999 issue were institutionalized.

The team also reviewed a number of issues in the CAP concerning the use of the WARF, the radioactive interim storage facility (RISF), and the on-site storage and container (OSSC) yard. Since 2000, many issues were identified with these facilities; of particular concern were issues that identified that use of the facilities was not in accordance with their design basis. The inspectors noted that a new procedure to correct these issues was not issued until 2010.

Findings

(1) Unexpected Recirculation Flow Control Valve Runback Due to Inadequate Work Plan

Introduction: A finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was self-revealed for the licensee’s failure to provide an adequate work plan for replacing voltage regulating cards associated with APRM ‘A’. Specifically, the work plan for APRM ‘A’ did not provide proper guidance to the technicians or operating crew resulting in an unexpected recirculation flow control valve (FCV) runback and subsequent required operator actions.

Description: On November 1, 2010, technicians replaced three 15-Vdc (volt direct current) voltage regulator cards in the control circuitry for the 'A' APRM. The replacement process required power supply PS23 to be turned off. PS23 provides power to the 15-Vdc voltage regulator cards for APRM 'A' and 'E' as well as the optical

isolator that fed power information to the automatic flow demand limiter (AFDL) circuitry. Due to issues associated with PS23, the power supply remained off for an extended period of time. Unknown to the technicians and the operating crew who performed the work plan, shutting down PS23 and removing power from the optical isolator resulted in the optical isolator output signal drifting up even though actual conditions remained stable. After approximately 30 minutes with PS23 de-energized, the optical isolator output signal drifted up to the AFDL setpoint (110 percent) and the AFDL sent a signal to the recirculation FCVs to reduce recirculation flow (runback) to reduce power. After determining that the cause of the runback was not an actual plant condition, the operating crew locked up the FCVs to stop the runback by securing the hydraulic control units that control the FCVs. The runback resulted in an approximately 1 percent power reduction. The operators entered Off-Normal Instruction ONI-C51, Unplanned Change in Reactor Power or Reactivity.

A review of the work site identified that placards warning personnel about de-energizing PS23 and the effects on the FCVs were present inside both the front and back panels. A review of the work order (WO) identified that precautions and limitations associated with de-energizing PS23 did not include a similar warning related to the FCV runback potential. A review of historical documents identified a similar issue which occurred in 1999 and led to the placement of the placards inside the APRM cabinets. Other recent issues, related to power supply failures, were also not discussed in the work plan, nor were there any contingencies in the work plan to provide response actions if the power supply failed.

Corrective actions planned include installation of placards on the outside of the cabinet doors of the APRM unit to ensure that the knowledge contained in the regulator card calibration procedure was available to all personnel upon entry into the APRM control panels and updating the precautions of all active WOs associated with the APRM cabinet or power supply.

Analysis: The inspectors determined that the work plan developed for replacement of the 15-Vdc regulating cards did not adequately address the proper controls to execute the task and was a performance deficiency. The inspectors further determined that the issue was within the licensee's ability to foresee and correct, and that it could have been prevented because the licensee had previous similar internal operating experience.

The finding was determined to be more than minor because the finding was similar to Example 4.b in IMC 0612, Appendix E, "Examples of Minor Issues," dated January 10, 2008, and resulted in a reactor power transient requiring operator intervention to maintain the reactor power at a stable value. This performance deficiency impacted the Initiating Events Cornerstone attribute of procedure quality and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability. Specifically, the failure to use proper controls resulted in a runback signal from the automatic flow demand limiter system and required operator actions to control reactor power.

The inspectors determined the finding could be evaluated using the SDP in accordance with Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a, dated January 10, 2008, for the Initiating Events Cornerstone. Because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that

mitigation equipment would not be available, the inspectors determined the finding to be of very low safety significance (Green).

This finding is associated with a cross-cutting aspect in the operating experience component of the Problem Identification & Resolution cross-cutting area, because the licensee did not implement internal operating experience (OE) into station processes and procedures. Specifically, licensee personnel did not adequately research and identify previous plant experience regarding the impact of de-energizing the power supply to the control circuitry for APRM 'A' on other related systems contributing directly to an unplanned power transient on the reactor (P.2(b)).

Enforcement: Criterion V, "Instructions, Procedures, and Drawings," of 10 CFR Part 50, Appendix B, requires, in part, that activities affecting quality be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, or drawings. Contrary to the above, on November 1, 2010, the licensee's work plan for replacing voltage regulators on APRM 'A', an activity affecting quality, was not appropriate to the circumstances. Specifically, the work plan did not provide proper guidance for de-energizing the power supply to the 15-Vdc voltage regulator cards in the control circuitry for the APRM 'A'. The failure to lock up the FCVs prior to de-energizing the power supply resulted in a recirculation flow runback with a subsequent requirement for operator action to maintain the plant stable.

The licensee entered the issue into the corrective action program (CAP) as CR 10-85239. The licensee's immediate actions included entry into an off-normal instruction to control reactor power while restoring the electric power supply to the effected APRMs. Because this violation was of very low safety significance and it was entered into the licensee's CAP via CR 10-85239, this violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy. (NCV 05000440/2010007-01, Unexpected Recirculation Flow Control Valve Runback Due to Inadequate Work Plan)

(2) Failure to Follow Procedure when Completing Regulatory Applicability Form for a New Waste Abatement Reclamation Facility, Radioactive Interim Storage Facility, and On-Site Storage and Container Procedure

Introduction: A finding of very low safety significance was identified by the inspectors for the failure to follow procedure NOBP-LP-4003A when performing the evaluation of a new procedure for use of the WARF, RISF, and OSSC yard. Specifically, the determination that new procedure HPI-K0009, "Operation of the WARF, RISB and OSSC Yard," was a managerial or administrative change and, therefore, the 50.59 process was not applicable, did not comply with the direction provided in Section 1.1 of NOBP-LP-4003A.

Description: The original plant design was to process and store radioactive waste (radwaste) inside the radiologically restricted area of the power generating facility, primarily inside the original radwaste building. This building was built to 10 CFR Part 50 requirements, including Appendix A, "General Design (GD) Criteria for Nuclear Power Plants," Criterion 60 – "Control of Releases of Radioactive Materials to the Environment." In the late 1970's and early 1980's, the NRC and the industry recognized that nuclear plants would need additional on-site waste storage capacity as low-level

waste disposal facilities were considering restricting access to some nuclear power plant operators.

The NRC provided guidance to nuclear power plant operators on how to proceed with making changes to their facilities for increasing their capacity for the storage of radioactive waste and materials through Generic Letter 81-38, “Storage of Low-Level Radioactive Waste at Power Reactor Sites,” and IE Circular 80-18, “10 CFR 50.59 Safety Evaluations for Changes to Radioactive Waste Treatment Systems.”

The licensee at Perry designed and built the WARF, RISF, and OSSC yard facilities to engineering document, DCR 91-7177, and its associated 50.59 evaluation, and also incorporated these facilities into the Updated Final Safety Analysis Report (UFSAR), Section 11.4.1.2. However, they were not built to the same construction standards of the original plant. Instead, the design documents restricted their use by establishing criteria such as limits on waste processing, thresholds on the amount of radioactive waste stored, and radiation limits on stored materials. These criteria were established such that radioactive effluents would be minimized. Additionally, radioactive monitoring and sampling would be required to ensure potential radioactive effluent pathways were identified, analyzed, and evaluated for dose impact.

Over time, the use of the facilities changed and CR 08-46725 identified 11 issues since 2000 that were categorized as implementation, compliance, or design issues that deviated from the design basis established in the 1993 design documents and UFSAR. The inspectors noted that the licensee had not implemented any administrative controls, such as procedures, for use of the facilities, thereby increasing the probability of a mistake in the licensee’s effluent dose assessments related to the use of the facilities.

In 2008, the licensee initiated CR 08-46210 after NRC observations on the use of these facilities. The CR considered three possible solutions to use the facilities as desired: change the original DCR/ 50.59 completed in 1993, change the USAR, or develop a new procedure. The licensee issued new procedure HPI-K0009, “Operation of the WARF, RISB, and OSSC Yard,” on September 17, 2010.

Title 10 CFR 50.59 allows the licensee to make changes to the facility and procedures as described in the UFSAR. The licensee used procedure NOBP-LP-4003A, “FENOC 10 CFR 50.59 Users Guidelines,” to evaluate new procedures to determine which regulations applied to the procedure and whether the procedure would require review by the NRC. In accordance with NOBP-LP-4003A, a Regulatory Applicability Determination (RAD) form was completed that concluded this new procedure was a managerial or administrative change and not subject to control under 10 CFR 50.59. After the inspectors questioned this conclusion, the licensee determined this was not an administrative change and the initial conclusion did not comply with the procedure. The licensee also agreed that the use of the facilities as described in the procedure did not agree with the facilities’ design basis documents or their descriptions in the UFSAR. Proper application of procedure NOBP-LP-4003A would have more fully evaluated the radiological effluents that may have resulted from use of these facilities that were different from the uses described in the design basis documents.

The licensee initiated CR 10-85992 to evaluate this issue and rescinded Procedure HPI-K0009 until the regulatory evaluations were completed.

Analysis: The inspectors determined that the failure to perform a 10 CFR 50.59 screening was contrary to procedure NOBP-LP-4003A and was a performance deficiency. Specifically, the determination that new procedure HPI-K0009 was a managerial or administrative change did not comply with the procedure. As a result, the 10 CFR 50.59 screening was not performed and the differences in the procedure requirements with the design basis and USAR requirements were not identified and evaluated.

The finding was determined to be more than minor because it was associated with the Public Radiation Safety Cornerstone attribute of program/process and affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation. Specifically, no compensatory radiological monitoring was in place to assess the dose from WARF building effluents.

The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Appendix D, Public Radiation Safety, dated February 12, 2008, to assess its significance. The inspectors determined that the finding did not involve radioactive material control, there was not a substantial failure to implement the radiological effluent program, and public dose was less than the criteria in 10 CFR Part 50, Appendix I, and 10 CFR 20.1301. Consequently, the inspectors concluded that the finding was of very low safety-significance (Green).

This finding is associated with a cross-cutting aspect in the resources component of the human performance cross-cutting area because the licensee did not ensure complete, accurate, and up-to-date design documentation and procedures were available. Specifically, there were eleven instances where issues related to operating the WARF, RISB, and OSSC outside of their design basis were identified since 2000 and no controls to correct these issues were developed until 2010, when a procedure was issued (H.2(c)).

Enforcement: No violation of regulatory requirements occurred (FIN 05000440/2010007-020; Failure to Follow Procedure when Completing Regulatory Applicability Form for a New WARF, RISB, and OSSC Procedure)

.2 Assessment of the Use of Operating Experience

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the facility's OE program. Specifically, the inspectors reviewed operating experience program implementing procedures, attended CAP meetings to observe the use of OE information, and completed evaluations of OE issues and events. The inspectors' review was to determine whether the licensee was effectively integrating OE into the performance of daily activities, whether evaluations of issues were proper and conducted by qualified personnel, whether the licensee's program was sufficient to prevent future occurrences of previous industry events, and whether the licensee effectively used the information in developing departmental assessments and facility audits. The inspectors also assessed if corrective actions, as a result of OE, were identified and effectively and timely implemented.

Documents reviewed are listed in the Attachment to this report.

b. Assessment

In general, OE was effectively used at the station. The inspectors observed that OE was discussed as part of the daily station planning meetings, at shift turnover meetings, and at pre-job briefs. Also, the inspectors determined that OE was appropriately reviewed during causal evaluations. The team concluded that the licensee's corrective actions noted during the 2009 PI&R inspection to improve the thoroughness and timeliness of OE evaluations and the dissemination of OE information appeared to be effective in sustaining performance in this area. However, the team did identify one issue where use of internal OE was deficient.

Observation

Average Power Range Monitor Power Supply

As part of the team's evaluation of the APRM finding discussed in a previous section, the team concluded that the licensee did not make effective use of internal OE. Previous incidents concerning the APRM power supplies occurred in 1999 and 2009 that were included in the CAP. Review by the licensee of these incidents during development of the procedure and work control documents would have likely prevented the performance deficiency. A cross-cutting aspect related to the use of OE was assigned to this finding.

Findings

No findings of significance were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors assessed the licensee staff's ability to identify and enter issues into the CAP, prioritize and evaluate issues, and implement effective corrective actions, through a review of departmental assessments and audits.

Documents reviewed are listed in the Attachment to this report.

b. Assessment

The inspectors concluded that self-assessments and audits were scheduled and addressed the majority of the performance areas. The self-assessments and audits were typically accurate and identified issues and enhancement opportunities at an appropriate threshold. Issues found in the assessments were entered into the CAP.

The lead for the NRC inspection team reviewed the focused self-assessment, FO-SA-10-101, completed in preparation for this NRC inspection. This assessment was found to be thorough with a number of resulting corrective actions, many of them concerning the CAP process. The results of the assessment were not shared with the NRC inspection team to ensure independence of the team's conclusions. In general, the focused self-assessment agreed with the team's assessment of the CAP.

Findings

No findings of significance were identified.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

The inspectors assessed the licensee's Safety Conscious Work Environment (SCWE) through the reviews of the facility's employee concern program (ECP), discussions with coordinators of the ECP, interviews with personnel from various departments, and reviews of issue reports. The inspectors also reviewed the results from the quarterly Safety Culture Monitoring Reports, the annual SCWE Survey, and the Independent Safety Culture Survey performed as requested by the NRC.

Documents reviewed are listed in the Attachment to this report.

Assessment

The team determined that the plant staff were aware of the importance of having a strong SCWE and expressed a willingness to raise safety issues. All individuals had a good basic understanding of the definition of safety culture and SCWE. No one interviewed had experienced retaliation for safety issues raised, or knew of anyone who had failed to raise issues. All persons interviewed had an adequate knowledge of the CAP and ECP process and the ECP manager maintained visibility through routine communications and attending department meetings. These results were similar to the findings of the licensee's safety culture surveys. Based on these interviews, the inspectors concluded that there was no evidence of an unacceptable SCWE.

The team determined that the ECP process was being effectively implemented. Review of selected ECP issues concluded that the licensee was completing thorough investigations for issues having safety culture aspects and in all cases satisfactorily resolved the issue with the concerned individuals.

Documents reviewed are listed in the Attachment to this report.

Observations

Independent Safety Culture Assessment

In the 2009 End-of-Cycle Assessment letter (ADAMS Accession Number ML100610281), the NRC requested that Perry perform an independent safety culture assessment. The team reviewed the results of the assessment and found it satisfactory. It concluded that the plant's safety culture was adequate, which agreed with the NRC team's determination. The assessment identified a number of areas that needed improvement and these were entered into the CAP as CR 10-78263. The independent assessment was conducted using the latest industry guidance, Nuclear Energy Institute (NEI) 09-07, "Fostering a Strong Nuclear Safety Culture." This process included completion of a written survey offered to the entire staff, followed by an independent panel using the results of the written survey as a focus for interview questions and observations. The assessment of the safety culture was then made by the panel. The team noted weaker safety culture aspects determined by the panel were not the same aspects determined from the written survey. While the team agrees that this was in accordance with the industry guidelines, a discussion of the differences between the conclusions of the safety culture assessment report and the written survey results would

have minimized questions regarding these differences and increased confidence that the licensee had accurately identified the weaker safety culture aspects.

Independent Safety Culture Survey Results

The team found that Perry completed a number of surveys and assessments of safety culture and SCWE in 2010. Specifically, Perry completed an industry developed written survey of safety culture on April 19; an independent safety culture self-assessment on May 14, quarterly safety culture monitoring for the first 3 months, and an annual SCWE survey in August. The assessments resulting from the surveys identified strengths and weaknesses, with the weaknesses entered into the CAP. Results of the surveys were communicated via e-mails and during organization meetings. During interviews by the inspection team, individuals were asked about the results of the surveys, in general and specific to their work group, and also if they knew of corrective actions or improvement plans resulting from the assessments. Individuals responded that they had received updates on the results and generally thought the results were good, but no individual could identify the specific results for their work group or knew of resulting actions. Some of the individuals responded they received the e-mails but for various reasons did not read them. The team considered the effort to perform the safety culture assessments very significant, but the communication of the results to the individuals weak, possibly resulting in the loss of some of the effectiveness of the assessments.

Findings

No findings of significance were identified.

.5 Human Performance

a. Inspection Scope

The 2010 Perry Mid-Cycle Performance Review letter (ADAMS Accession Number ML102440084) noted this was the sixth consecutive assessment that identified a substantive cross-cutting issue in human performance. In particular, it identified continuance of the human performance aspect of Work Control, Planning (H.3(a)) that was first opened in the 2007 End-of-Cycle Assessment letter (ADAMS Accession Number ML080600303). The 2010 Mid-Cycle Performance Review letter stated the cross-cutting aspect would be reviewed during this PI&R inspection and the results used as one of the criteria to determine further actions to address this long-standing issue. The PI&R team assessed performance in this area through interviews with personnel, review of CR 09-63793, Independent Common Cause Analysis of Recent Human Performance Events, and CAP issues relevant to work planning.

Documents reviewed are listed in the Attachment to this report.

Assessment

Based on this inspection, it appears that human performance in general has improved at the site. Personnel interviewed indicated that they consistently used tools, such as pre-job briefs, peer checks, two-minute rules, and strict procedure adherence to prevent mistakes. It did appear these tools and expectations were accepted by the staff and now considered the normal behavior for doing work. They also provided examples where a job was stopped when unexpected conditions or improper planning was

encountered. Past experience would have been for the workers to push through the issue and risk making a mistake. Now, the issues are raised and entered into the CAP. Similar answers and comments were also received from the one contractor interviewed. In 2009, human performance commitments to improved performance were made by each plant organization. When asked if these commitments were still being implemented at a high level, respondents replied they were. Several respondents in different organizations stated that their human performance advocate, a person designated in each organization with a focus on human performance, monitored department performance of the commitments and reinforced them when a declining trend was noted.

However, while the team recognized that human performance in general had improved, the team concluded that Perry's corrective actions to improve the specific continuing substantive cross-cutting issue in the work planning aspect had not yet been effective. During selected interviews, individuals identified examples of jobs that were stopped, some during the weeks the inspectors were onsite, due to ineffective planning. In addition, the finding discussed in this report concerning the APRM could have been prevented by more complete planning. Another issue being evaluated by inspectors this quarter concerning valve preconditioning also has aspects of poor work plan implementation. Recent changes have been made to the planning work group to include additional expertise, particularly experienced operations resources.

The team also specifically reviewed actions to improve radiation protection planning and dose estimates based on issues identified during the last refueling outage. The team noted that planning radiological aspects and dose estimates into work activities during the operating cycle was satisfactory. However, it was still not clear if the corrective actions taken by the station would be effective during the next refueling outage due to the unique and dose intensive jobs currently in the upcoming outage schedule.

4OA6 Management Meetings

.1 Exit Meeting Summary

On November 30, 2010, the inspectors presented the inspection results to Mr. Bezilla 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## SUPPLEMENTAL INFORMATION

## KEY POINTS OF CONTACT

Licensee

M. Bezilla, Site Vice-President
R. Coad, Manager, Regulatory Compliance
G. Freddo, Response Team, Engineering
J. Grabner, Director, Site Engineering
K. Krueger, Plant General Manager
B. Lach, Employee Concerns
D. Lockwood, Response Team Lead
P. McNulty, Manager-Radiation Protection
M. Medakovich, Response Team, Radiation Protection
J. Pelcic, Nuclear Compliance
D. Varner, Response Team, Maintenance

Nuclear Regulatory Commission

M. Marshfield, SRI, Perry Nuclear Power Plant

## LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened/Closed

| | | |
|---|---|---|
| 05000440/2010007-01 | NCV | Unexpected Recirculation Flow Control Valve Runback Due to Inadequate Work Plan |
| 05000440/2010007-02 | FIN | Failure to Follow Procedure when Completing Regulatory Applicability Form for a New WARF, RISB, and OSSC Procedure |

## 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.

PLANT PROCEDURES

| Number | Description or Title | Date or Revision |
|---|---|---|
| NOP-CC-2003 | Engineering Changes | 14 |
| NOP-LP-2001 | Corrective Action Program | 26 |
| NOP-LP-2022 | Administration of the FENOC Quality Assurance Program Manual (QAPM) | 01 |
| NOP-LP-2100 | Operating Experience Program | 04 |
| NOBP-LP-2001 | FENOC Self-Assessment / Benchmarking | 15 |
| NOBP-LP-2007 | Condition Report Process Effectiveness Review | 06 |
| NOBP-LP-2008 | FENOC Corrective Action Review Board | 09 |
| NOBP-LP-2010 | CREST Trending Codes | 09 |
| NOBP-LP-2011 | FENOC Cause Analysis | 10 |
| NOBP-LP-2012 | Fleet Oversight Standards and Expectations | 06 |
| NOBP-LP-2017 | FENOC Fleet Oversight Training Review Committee Charter | 06 |
| NOBP-LP-2022 | Compliance Auditing | 06 |
| NOBP-LP-2023 | Performance Assessment | 07 |
| NOBP-LP-2024 | Fleet Oversight Reporting and Analysis | 05 |
| NOBP-LP-2033 | Corrective Action Program Curriculum Review Committee | 01 |
| NOBP-LP-2100 | FENOC Operating Experience Program | 04 |
| NOBP-LP-2101 | Significant Operating Experience Report (SOER) Process | 00 |
| NOBP-LP-2118 | Integrated Performance Assessment and Trending | 06 |
| NOBP-LP-4003A | FENOC 10 CFR 50.59 User Guidelines | 07 |
| NOP-OP-1009 | Operability Determinations and Functionality Assessments | 02 |
| NOP-OP-4503 | Personnel Contamination Monitoring | 05 |
| | FENOC Quality Assurance Program Manual | 13 |
| GCI-0016 | Scaffolding Erection, Modification or Dismantling Guidelines | 18 |
| PAP-1407 | Labels, Signs and Operator Aids | 07 |
| OAI-1703 | Hardcards | 06 |
| HPI-K0009 | Operation of the WARF, RISB and OSSC Yard | 01 |

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

| Number | Description or Title | Date or Revision |
|---|---|---|
| 07-19667 | Elevated Airborne Radioactivity During Dryer Strongback Removal | |
| 07-22877 | Improper Flows for Containment Vessel and Drywell Purge Exhaust System | |
| 07-29213 | Scaffold Dose for RFO11 Exceeds Estimate by 150% | |
| 08-44480 | Motor Feed Pump Lube Oil Water Intrusion | |
| 08-46144 | 480 V Division 1 and 2 Transformer Anchorage | |
| 08-46210 | Design Basis Description of the WARF/RISB Facility, NRC Identified | |
| 08-46725 | Inability to Correct WARF/RISB/OSSC Yard Issues through CAP | |
| 09-52038 | NRC PI&R 2009: Scaffold not in Compliance with Plant Procedures | |
| 09-52148 | ESW Sluice Gate Opened | |
| 09-52450 | NRC PI&R 2009 - Potential Adverse Trend in Scaffold Program | |
| 09-52474 | NRC PI&R 2009: Scaffold not in Compliance w/ Site Proc. No Immediate. Operabilty. Performed | |
| 09-53398 | Replacement Station Air Compressors do Not Have the Required Auto-Start | |
| 09-54319 | Annulus Exhaust Gas Treatment System Damper Failure | |
| 09-54697 | Compliance with SOI-F15 Precaution and Limitation 2.33 | |
| 09-55117 | While Working on the 360 Platform a Worker Struck His Head on Refuel Platform | |
| 09-55007 | NRC PI&R Inspection RPT NCV: Scaffold Build not in Compliance with Procedure GCI-016 | |
| 09-55138 | ESW Emergency Inject Valve Actuator Found Failed | |
| 09-55397 | Reactor Bottom Drain Temperature Lowered to Less than 70F | |
| 09-56569 | DC BUS ED-1-A Ground Fault Alarm Locked In | |
| 09-56646 | ED1A Ground | |
| 09-58187 | Incorrect Relay Operated During PTI-N41-P0002 | |
| 09-58808 | RHR A High Pressure During ISI-B21-T1300-1 | |
| 09-58995 | Procedure Change to Vent Piping Between RHR to FW Return Isolation Valves | |
| 09-60395 | CCCW Chilled Water Pump A Failed to Start | |
| 09-60873 | NRC ID (FP Triennial): Control Room Fire Isolation for 1M43C0001A | |
| 09-62185 | Self Assessment Identified 3 Components with High Number of CRs | |
| 09-62188 | Critical Component Failure Assessment | |
| 09-63674 | Weakness in Responding to Changing Radiological Conditions | |

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

| Number | Description or Title | Date or Revision |
|---|---|---|
| 09-63860 | INPO 2009 Area For Improvement (RP.1-3) | |
| 09-63991 | Unexpected 1/2 Scram During APRM A Troubleshooting | |
| 09-65110 | NRC NCV, RCS Temperature Below Minimum Allowed by Tech Specs | |
| 09-65239 | LHRA Entry Made on Wrong RWP | |
| 09-67396 | NRC Comment on WARF/RISB Use Verses Design Basis | |
| 09-67554 | Perform Lace Evaluation Of Maintenance Rule Function Failure | |
| 09-67884 | NRC 2009 QTR3 Report - Faulty Troubleshooting Plan Causes 1/2 Scram | |
| 10-71309 | Physical Condition of the WARF Building | |
| 10-71622 | Cracked Weld on ECC B Flow Element Instrument Root Piping | |
| 10-72025 | Voltage Adequacy During Automatic LOCA Load Sequencing at Minimum Grid | |
| 10-72522 | Perry On-Line Cycle Schedule Bow Wave | |
| 10-77023 | Potential Cross-Cutting Theme for Human Performance Aspect H.1.b – Decision Making (includes 360 Platform NCV) | |
| 10-77781 | Reactor Recirc Pump A Trip due to Failed Optical Isolator | |
| 10-78036 | Problems with Both Air Dryers for DG 2 | |
| 10-78265 | CA-SA-10-103 AFI 2B Opposing Views and Employee Input Selectively Sought | |
| 10-78266 | CA-SA-10-103 AFI 3F Change is Poorly Managed | |
| 10-78267 | CA-SA-10-103 AFI 5F Ineffective Corrective Actions to Address Procedure Quality | |
| 10-78268 | CA-SA-10-103 NNI P3B Unintended Consequences from Management Communications | |
| 10-78917 | ESW Sluice Gate Backup Air Bottle Pressure Low | |
| 10-79107 | Inadequate Review for Peroxide Cleaning | |
| 10-79995 | FO-SA-10-10 Pre-PI&R Potential Deficiencies, Non-compliance with Program | |
| 10-79996 | FO-SA-10-1 Pre-PI&R Potential Deficiencies, Timeliness of CR Initiation | |
| 10-80010 | FO-SA-10-1 Pre-PI&R Potential Deficiencies | |
| 10-80083 | SLC Heat Trace Failure | |
| 10-80752 | Employee Disregarded Portal Monitor Alarm VIO 2010-008-01 | |
| 10-81474 | MS-C-10-07-07: Finding; Long Term Scaffolds not Evaluated for Plant Changes | |
| 10-82553 | FO-SA-10-010 Pre PI&R Potential Deficiencies in SCWE & Safety Culture | |
| 10-84635 | 2010 SCWE Survey – Pillar 2 Rated Red for PYRP | |

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

| Number | Description or Title | Date or Revision |
|---|---|---|
| 10-85239 | Recirc FCV's Locked Up Due to APRM A and E Failure | |
| 10-85240 | Missed Opportunity for Work Order Planning Process and Plant Impact Assessment | |

ROOT CAUSE/APPARENT CAUSE EVALUATIONS

| Number | Description or Title | Date or Revision |
|---|---|---|
| RCE 09-55801 | Dose for the ADHR Project Exceeds 2nd 100% Estimate | 03/20/09 |
| ACE 09-56837 | Wiring Changes in ECP 08-0122 Results in ED-1-A Grounds | 04/06/09 |
| ACE 09-57943 | PY-PA-09-01 Finding: Missed Organizational Learning Opportunities | 04/25/09 |
| ACE 09-59843 | PY-PA-09-01 Finding: Maintenance Rated Ineffective (RED) | 05/29/09 |
| RCE 09-60866 | Potential Unrecognized Entry into LCO | |
| RCE 09-61668 | Maintenance – Continuing Individual and Organizational Behaviors | 07/10/09 |
| ACE09-63793 | Independence Common Cause Analysis of Recent Human Performance Events | 08/28/09 |
| RCE 09-65972 | Emergency Service Water Pump Trip | 11/17/09 |
| RCE 10-72243 | ECCW B Through Wall Leakage Reportability | 03/31/10 |

OPERATING EXPERIENCE

| Number | Description or Title | Date or Revision |
|---|---|---|
| | Externally Submitted OE | June 2010 through October 2010 |
| 03-00279 | OE SOER 03-1 Emergency Power Reliability | 12/01/03 |

AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS

| Number | Description or Title | Date or Revision |
|---|---|---|
| PY-SA-09-030 | Reporting of Operating Experience to the Industry | 06/18/09 |
| PY-SA-09-031 | Critical Component Failures | 06/01/09 |
| PY-SA-09-050 | Operating Experience (OE) Screening and Evaluation | 10/06/09 |
| PY-SA-09-057 | Perry Refuel Floor Rad Worker Practices | 02/01/10 |
| PY-SA-10-001 | Critical Component Failures | 02/19/10 |
| PY-PA-07-02 | Negative Trend in the Area of Scaffolding (07-17995) | 04/09/07 |
| PY-PA-07-02 | Fuel Handling Building Contaminated Multiple Times (07-19977) | 05/04/07 |

AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS

| Number | Description or Title | Date or Revision |
|---|---|---|
| SN-SA-10-064 | SA: Operating Experience (OE) Screening (Follow-up) - Perry Recovery Plan 7501-5 | 02/12/10 |
| SN-SA-10-081 | Root Cause/Full Apparent Cause Extent of Condition/Extent of Cause evaluations for alignment with Generic Implications Training given in 2008 | 03/08/10 |
| SN-SA-10-086 | NEI 07-07 Groundwater Compliance Snap-Shot Assessment | 03/08/10 |
| SN-SA-10-133 | Prompt Operability Determination and Prompt Functionality Assessment Review, Second Quarter 2010 | 07/14/10 |
| FO-SA-10-10 | Corrective Action Program PI&R Preparation | 08/27/10 |

DRAWINGS

| Number | Description or Title | Date or Revision |
|---|---|---|
| 302-0792 | Emergency Service Water System | LL |
| 302-0793 | Emergency Service Water System | N |

CONDITION REPORTS GENERATED DURING INSPECTION

| Number | Description or Title | Date or Revision |
|---|---|---|
| 10-85365 | 2010 NRC PI&R: Incomplete CA Closure Documentation | 11/03/10 |
| 10-85380 | ESW ‘C’ Loop ESW Discharge Pedestal has a Crack | 11/03/10 |
| 10-85514 | HPI-K0009 50.59 RAD Potential Inappropriate use of Admin Exemption | 11/08/10 |
| 10-85821 | Maintenance Rule Failure Review Form Not Completed for CR 09-54502 | 11/15/10 |
| 10-85828 | PIU Not Notified to Uncheck MR Box for XR 09-54129 | 11/15/10 |
| 10-85839 | Maintenance Rule Failure Review Form Not Completed for CR 10-75635 | 11/15/10 |
| 10-85940 | Maintenance Rule Failure Review Form for CR 10-78036 Contains Incorrect Statement | 11/17/10 |
| 10-85985 | Incomplete Documentation of Maintenance Rule Failure Reviews | 11/17/10 |
| 10-85992 | NRC Questions Regarding WARF, RISB, OSSC Yard | 11/17/10 |
| 10-86075 | Maintenance Crews PI’s Missed Opportunity | 11/19/10 |
| 10-86080 | Question on Control Room Operator Aids | 11/18/10 |
| 10-86084 | Excessive Leakage from ESW A Pump Leak-Off Line | 11/19/10 |
| 10-86086 | Cart at 1B 599’ Containing Excel Scaffolding not Blocked | 11/19/10 |
| 10-86108 | Maintenance Rule Improvement Opportunities | 11/19/10 |
| 10-86153 | PYRP Decreased Usage of the RP Pre-job briefing checklist | 11/22/10 |

MISCELLANEOUS

| Number | Description or Title | Date or Revision |
|---|---|---|
| | Corrective Action Review Board (CARB) Package | 11/09/10 |
| | Management Alignment and Ownership Meeting (MAOM) Package | 11/04/10 & 11/03/10 & 11/16/10 |
| | eSOMS Narrative Logs | 11/01/10 & 11/02/10 |
| | Operator Aids Index | 11/18/10 |
| WO 200404422 | "New PM" Replace APRM 15V Regulator Cards Z408, Z425 and Z427 | 11/03/10 |
| WO 200435236 | Troubleshoot and Rework Cause of Power Supply PS-23 not Powering Up | 11/03/10 |
| | Perry Nuclear Power Station RFO-11 Post Outage ALARA Report | 10/18/07 |
| | Perry Nuclear Power Station RFO-12 Post Outage ALARA Report | 07/30/10 |
| 91-0139 | 10 CFR 50.59 Safety Evaluation for WARF | 03/01/93 |
| 91-71777 | Design Change Request for Options for the Construction of a Waste Abatement$ Reclamation Facility | 07/08/91 |
| 92-06 | Environmental Evaluation for Construction and Operation of the LLRWSPF | 09/02/92 |
| 10-72025 & 10-72026 | Operability Determination for Voltage Adequacy During Automatic LOCA Load Sequencing at Minimum Grid Voltage | 0 |
| | Emergency Service Water System - System Health Reports (3rd Quarter 2005 through 2nd Quarter 2010 | |
| NEI 09-07 | Fostering a Strong Nuclear Safety Culture | 06/09 |
| CA-SA-10-103 | Perry Independent Safety Culture Assessment | 06/23/10 |
| NOBP-LP-2501 | 2010 Annul Safety Culture Assessment | 12 |
| | Perry SCWE Results for August 2010 | |
| NOBP-LP-2502 | 1st and 2nd Quarter 2010 Safety Culture Assessment | 07/28/10 |
| NOBP-LP-2502 | 3rd Quarter 2010 Safety Culture Assessment | 09/30/10 |

## LIST OF ACRONYMS USED

| | |
|---|---|
| ACE | Apparent Cause Evaluation |
| ADAMS | Agencywide Document Access Management System |
| AFPL | Automatic Flow Demand Limiter |
| APRM | Axial Power Range Monitor |
| CAP | Corrective Action Program |
| CARB | Corrective Action Review Board |
| CFR | Code of Federal Regulations |
| CR | Condition Report |
| ECP | Employee Concerns Program |
| ESW | Emergency Service Water |
| FCV | Flow Control Valve |
| GD | General Desing |
| IMC | Inspection Manual Chapter |
| IP | Inspection Procedure |
| MOAM | Management Alignment and Ownership Meetings |
| NCV | Non-Cited Violation |
| NEI | Nuclear Energy Institute |
| NRC | U.S. Nuclear Regulatory Commission |
| OE | Operating Experience |
| OSSC | On-Site Storage and Container |
| PARS | Publicly Available Records System |
| PI&R | Problem Identification & Resolution |
| RAD | Regulatory Applicability Determination |
| RISF | Radioactive Interim Storage Facility |
| SCWE | Safety-Conscious Work Environment |
| SDP | Significance Determination Process |
| UFSAR | Updated Final Safety Analysis Report |
| WARF | Waste Abatement Reclamation Facility |
| WO | Work Order |

If you contest the subject or severity of the findings, 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 a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspector Office at the Perry Nuclear Power Plant. In addition, if you disagree with the cross-cutting aspect of any finding 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 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, and 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 document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Jamnes L. Cameron, Chief
Branch 6
Division of Reactor Projects

Docket Nos. 50-440
License Nos. NPF-58

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Letter to M. Bezilla from J. Cameron dated December 30, 2010.

SUBJECT: PERRY NUCLEAR POWER PLANT - PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000440/2010007

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