

UNITED STATES NUCLEAR REGULATORY COMMISSION

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

February 25, 2009

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 05000440/2009-006

Dear Mr. Bezilla:

On January 30, 2009, the U. S. Nuclear Regulatory Commission (NRC) completed a routine biennial PI&R inspection at your Perry Nuclear Power Plant. The enclosed report documents the inspection results, which were discussed on January 30 with Mr. Kruger and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your 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 improvements have been made in the quality of root and full apparent cause analyses and in the handling of human performance issues. However, the team also concluded that the site's recognition and evaluation of potentially negative trends continues to be a challenge.

Based on the results of this inspection, one NRC-identified finding of very low safety significance was identified (Green). The finding was also a violation of NRC requirements. However, because of the very low safety significance and because the issue was entered into your corrective action program, the NRC is treating the issue as a Non-Cited Violation (NCV) in accordance with Section VI.A.1 of the NRC's Enforcement Policy.

If you contest the subject or severity of the NCV in this report, 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, 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 NRC Resident Inspectors' Office at the Perry Nuclear Power Plant.

M. Bezilla -2-

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Sincerely,

/RA/

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

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

Enclosure: Inspection Report 05000346/2009006

w/Attachment: Supplemental Information

cc w/encl: J. Hagan, President and Chief Nuclear Officer - FENOC

J. Lash, Senior Vice President of Operations and

Chief Operating Officer - FENOC

D. Pace, Senior Vice President, Fleet Engineering - FENOC

K. Fili, Vice President, Fleet Oversight - FENOC P. Harden, Vice President, Nuclear Support Director, Fleet Regulatory Affairs - FENOC

Manager, Fleet Licensing - FENOC

Manager, Site Regulatory Compliance - FENOC

D. Jenkins, Attorney, FirstEnergy Corp. Public Utilities Commission of Ohio

C. O'Claire, State Liaison Officer, Ohio Emergency Management Agency

R. Owen, Ohio Department of Health

M. Bezilla -2-

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R. Owen, Ohio Department of Health

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Letter to M. Bezilla from J. Cameron dated February 25, 2009

SUBJECT: PERRY NUCLEAR POWER PLANT PROBLEM IDENTIFICATION AND

RESOLUTION INSPECTION 05000440/2009-006

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000440/2009006

Licensee: FirstEnergy Nuclear Operating Company (FENOC)

Facility: Perry Nuclear Power Plant, Unit 1

Location: Perry, Ohio

Dates: January 12 – January 30, 2009

Inspectors: G. Wright, Project Engineer, Team Lead

J. Neurauter, Senior Reactor Inspector

N. Feliz, Reactor Inspector

B. Palagi, Operator Licensing Examiner/Reactor

Inspector

M. Wilk, Resident Inspector, Perry

Approved by: J. Cameron, Chief

Reactor Projects Branch 6

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SUMMARY OF FINDINGS

IR 05000440/2009-006; 01/12/2009 - 01/30/2009; Perry Nuclear Power Plant, Unit 1; routine biennial Problem Identification and Resolution Inspection (PI&R).

This inspection was performed by four regional inspectors and the Perry Resident Inspector. 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

Based on the sample selected for review, the team concluded that implementation of the corrective action program (CAP) was adequate. 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. On the basis of licensee self-assessments and interviews conducted during the inspection, workers at the site expressed freedom to raise safety concerns. The team observed that improvements have been made in the licensee's identification and assessment of human performance issues and in root and full apparent cause analyses quality. While noting some improvement in the identification of negative trends, the team also noted that in at least one case the licensee had not identified a negative trend in an area previously highlighted by an NRC finding and associated non-cited violation.

A. <u>NRC-Identified and Self-Revealed Findings</u>

Cornerstone: Barrier Integrity

• Green. A finding of very low safety significance and associated non-cited violation of Technical Specification 5.4, "Procedures," was identified by the team for the failure to erect scaffolding in accordance with procedural requirements. Specifically, scaffold constructed in the Intermediate Building had seismic bracing attached to a safety-related cable tray support and was connected to a duct support without an approved engineering document as specified in procedural requirements.

Although the licensee was able to demonstrate that the cable tray support and duct support were operable, the finding was determined to be more than minor because there was reasonable doubt that the licensee routinely performed engineering evaluations on similar scaffold issues. The finding was determined to be of very low safety significance because it did not represent an actual open pathway in the physical integrity of reactor containment. This finding had a cross-cutting aspect in the area of human performance, work practices, because the licensee failed to ensure supervisory and management oversight of work activities such that nuclear safety is supported. Specifically, the licensee failed to

provide effective oversight of the erected seismic scaffold to ensure compliance with procedural requirements [H.4(c)]. (Section 4OA2.1)

B. <u>Licensee-Identified Violations</u>

None.

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REPORT DETAILS

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution (71152B)

Completion of Sections .1 through .4 constitutes one biennial sample of problem identification and resolution as defined in Inspection Procedure 71152.

.1 Assessment of the CAP Effectiveness

a. Inspection Scope

The team reviewed the licensee's corrective action program (CAP) implementing procedures and attended CAP meetings to assess the implementation of the CAP by site personnel.

The team reviewed risk and safety significant issues in the licensee's CAP since January 2007. The selection of issues ensured an adequate review of issues across NRC cornerstones. The team used issues identified through NRC generic communications, department self-assessments, licensee audits, operating experience reports, and NRC documented findings as sources to select issues. Additionally, the team reviewed condition reports (CRs) generated as a result of facility personnel's performance of daily plant activities. In addition, the team reviewed CRs and a selection of completed root cause, apparent cause, and common cause assessments.

The team specifically reviewed CRs associated with the residual heat removal (RHR) system and performed a partial system walkdown of the RHR system to ensure the condition of the system was appropriately portrayed by the corrective action program. In addition, the team observed new fuel unloading, inspection, and transfer to the fuel pool to assess the effectiveness of the licensee's corrective actions associated with a root cause evaluation performed on its Foreign Material Exclusion program. Further, the team reviewed condition reports associated with open control room deficiencies, operator burdens, and operator work-arounds to assess the level of review and appropriateness of corrective actions.

The team's reviews were designed to determine whether the licensee's actions were in compliance with the facility's CAP and 10 CFR Part 50, Appendix B requirements. Specifically, the team's activities were designed to determine whether licensee personnel were identifying plant issues at the proper threshold, entering issues into the station's CAP in a timely manner, and assigning the appropriate prioritization for resolution of the issues. In addition, the team's activities were to determine whether the licensee assigned the appropriate investigation method to ensure the proper determination of root, apparent, and contributing causes. The team also evaluated the timeliness and effectiveness of corrective actions for selected issue reports, completed assessments, and NRC findings, including non-cited violations.

b. Assessment

(1) Effectiveness of Problem Identification

Overall, based on the description of the CAP, the number of condition reports (CRs) generated by all plant departments, and the types of issues in the program, the team concluded that the licensee was appropriately identifying issues and entering them into the CAP.

Observations

The team identified that the licensee was identifying significantly more human performance issues than in the past and using the CAP to evaluate the conditions. For example CR 08-32531, "Valve Found Out Of Position And Near Miss," provided insights into the human performance issues associated with an out-of-position reactor water cleanup valve. Another example was CR 08-47779, "Unrecognized OPDRV Results in LER," where an individual questioned the results from a previously performed activity thus allowing the facility to address the issues in a broader context.

During the walkdown of the RHR system two issues were identified. A drain valve on the RHR C Heat Exchanger, while locked, was not fully closed as required by the locked valve program; observation of the valve stem indicated the valve to be about 10 percent open. This issue was reported to the site operations department and a condition report was written (CR 09-52687, "CR 09-52687, Locked Closed Valve Does Not Appear To Be Fully Closed"). This issue was considered minor because there was a second closed valve in the series with the valve in question, the drain line was capped, and the licensee took prompt action to lock the second valve in the line. The second issue dealt with the use of keys to high radiation area doors. During the radiation protection briefing for access to the RHR rooms, radiation protection personnel informed the team members that they would be issued an electronic door key programmed to only open doors to rooms for which they had been briefed. During the briefing it was explained that the electronic keys were a corrective action to prevent individuals from entering rooms for which they had not been briefed. Following the briefing, when attempting to enter a RHR room, a worker at the gate, noting the team member having difficulty with the lock, offered to use his key to open the gate. Using a key issued to another work group to access locked radiation area would have violated station procedure and bypassed the corrective actions to earlier problems. This issue was considered minor because the area in question was locked due to a licensee administrative limit and the individual did not actually open the gate for the inspectors. The area was conservatively posted and no regulatory limits requiring posting were exceeded. This issue was reported to the site radiation protection department and a CR was written (CR 09-52641, "NRC PI&R 2009, Individual Offered To Open HRA Lock For An Individual Not In His Work Crew").

While improvements were noted in the licensee's identification of negative trends, for example the root cause evaluation for the containment airlock ball valve failures, (CR 08-44698, "Adverse Trend Identified in the Containment Air Lock Doors"), the team identified that the licensee had not identified a similar

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negative trend with scaffolding. Based on the team's questions related to scaffolding, a licensee search of scaffold program issues in the last 6 months of 2008 identified 41 related CRs and a potential adverse trend in the scaffold program. In addition, as detailed below, the team identified a scaffold where a required evaluation had not been performed. The licensee entered the concern into the corrective action program, CR 09-52450, "Potential Adverse Trend in Scaffold Program," with a recommendation that a common cause evaluation be conducted to determine the cause of the apparent adverse trend.

Findings

(1) Failure to Adhere to Procedures for Scaffold Affecting Containment Systems

<u>Introduction</u>: A finding of very low safety significance and associated non-cited violation (NCV) of Technical Specifications (TS) 5.4, "Procedures," was identified by the team for the licensee failing to adhere to Procedure GCI-0016 "Scaffolding Erection, Modification, or Dismantling Guidelines."

<u>Description</u>: On January 15, 2009, the team performed a walkdown of plant scaffolding. While at elevation 654"-6" in the Intermediate Building, the team observed the configuration of scaffold number IB 654-05#18 for compliance with Procedure GCI-0016. The team observed that this scaffold had seismic bracing attached to an L4x3x3/8 structural angle component of cable tray support 1IB5-T7. Procedure GCI 0016 "Scaffolding Erection, Modification, or Dismantling Guidelines," paragraph 5 of Attachment 4, "Acceptance Pre-Approved Scaffold Attachment Points for External Seismic Bracing to Prevent Overturning and Lateral Movement Adjacent to Safety Related Components and Equipment," specified a minimum L4x4x3/8 structural angle. In addition, the team observed that vertical scaffold legs connected to Containment Drywell Purge exhaust duct support DS-IB-5015 were not in conformance with paragraph 13.b of Section 3.0, "Precautions and Limitations," of Procedure GCI-0016.

The team noted that Procedure GCI-0016 specified the above procedural deviations be approved by an engineering document. The licensee confirmed that an engineering evaluation of these procedural deviations had not been performed.

Based on the observations, the team determined that the licensee failed to adhere to Procedure GCI-0016 for the installation of the scaffold 1B 654-05#18.

The licensee identified several nuclear safety-related circuits were routed through the cable tray at support 1IB5-T7 including containment atmosphere radiation monitor isolation valves associated with TS 3.6.1.3 and containment air lock isolation valves associated with TS 3.6.1.2.

In addition, the licensee identified that at-duct support DS-IB-5015, the Containment Drywell Purge exhaust duct is classified as non-nuclear safety-related. However, duct support DS-IB-5015 is classified as nuclear safety-related for Seismic II/I considerations, i.e., a structure not classified as Seismic Class I but whose failure due to a seismic event could affect the function of a seismic structure, system, or component. The licensee identified that a

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failure of this duct support could affect several nuclear safety related circuits routed through a nearby cable tray including containment atmosphere radiation monitor isolation valves associated with TS 3.6.1.3 and containment air lock isolation valves associated with TS 3.6.1.2.

<u>Analysis</u>: The team determined that the failure to adhere to scaffold procedures affecting containment systems was contrary to TS 5.4 and was a performance deficiency.

The finding was determined to be more than minor because the finding was similar to Example 4a of IMC 0612, Appendix E. Although the licensee was able to demonstrate that cable tray support 1IB5-T7 and duct support DS-IB-5015 were operable, there was reasonable doubt that the licensee routinely performed engineering evaluations on similar scaffold issues. Therefore, this performance deficiency impacted the Barrier Integrity Cornerstone objective to provide reasonable assurance that physical barriers (containment) protect the public from radio-nuclide releases caused by accidents or events.

The team 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 Barrier Integrity Cornerstone. Specifically, since all four questions under the Containment Barrier column were answered "no," the finding was determined to be Green, of very low safety significance, because it did not represent an actual open pathway in the physical integrity of reactor containment.

This finding had a cross-cutting aspect in the area of human performance, work practices, because the licensee failed to ensure supervisory and management oversight of work activities such that nuclear safety is supported. Specifically, the licensee failed to provide effective oversight of erected seismic scaffold to ensure compliance with procedural requirements. [H.4(c)]

Enforcement: Technical Specification Section 5.4.1 states, in part, that "Written procedures shall be established, implemented, and maintained covering the following activities: The applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978." Paragraph 9.a of Appendix A of this Regulatory Guide states, in part, that maintenance that can affect the performance of safety-related equipment should be properly pre-planned and performed in accordance with written procedures appropriate to the circumstances. The licensee established Procedure GCI-0016 as the implementing procedure for scaffolding erection, modification, or dismantling. Paragraph 13.b of Section 3.0 of Procedure GCI-0016 states, in-part, "unless specifically approved by this instruction, scaffolds shall not be connected to, or in contact with any plant equipment, piping, conduits, cable trays, HVAC supports, unless approved by an engineering document." Paragraph 5 of Attachment 4 of Procedure GCI-0016 allowed attachment of scaffold seismic bracing to cable tray support member sizes (angle size) L4x4x3/8 or larger.

Contrary to the above, on January 15, 2009, scaffold IB 654-05#18, was not erected in accordance with Procedure GCI-0016 and no engineering analysis

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was performed. Specifically, scaffold seismic bracing was attached to an L4x3x3/8 structural angle component of cable tray support 1IB5-T7 and the scaffold was connected to duct support DS-IB-5015 without an approved engineering document. Because this violation was of very low safety significance and it was entered into the licensee's corrective action program as CRs 09-52038, "Scaffold Not in Compliance with Plant Procedures," and 09-52474, "Scaffold Not in Compliance with Plant Procedures – No Prompt Operability Determination Performed," this violation is being treated as an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy (NCV 05000440/2009006-01).

(2) Effectiveness of Prioritization and Evaluation of Issues

The team concluded that issue resolutions established and monitored through the management review board and the corrective action review board were correctly assigned significance and priority in accordance with station procedures. The team noted an improvement in the completeness of root and full apparent cause evaluations compared to previous inspections. While the team had questions on numerous evaluations, the evaluations were mainly categorized as limited apparent cause or "fix" type issues, where in the past the questions involved full apparent or root cause evaluations. The reduction in questions on full apparent and root cause evaluations indicated an overall improvement in the quality of the licensee's implementation of these assessment tools.

Findings

No findings of significance were identified.

(3) Effectiveness of Corrective Actions

The team concluded that the corrective action program was generally effective in addressing identified issues. The effectiveness of the program is hampered by the licensee not consistently identifying negative trends thereby only addressing individual issues, as was the case with the scaffolding issue noted above. As previously noted, the team identified that the licensee was identifying more human performance issues and using the CAP to evaluate the items. In reviewing the corrective actions associated with human performance issues, the team concluded that the actions were appropriate; however, the corrective actions have not been in place for a sufficient amount of time to allow for a conclusive assessment of their effectiveness.

The team did identify a number of examples where assessments have had a positive impact on the facility. For example, in CR 08-44698, "Adverse Trend Identified in the Containment Air Lock Doors," the licensee stepped back from the individual failures with the air locks and they were able to effectively identify and address a number of process deficiencies.

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Findings

No findings of significance were identified.

.2 Assessment of the Use of Operating Experience (OE)

a. <u>Inspection Scope</u>

The team reviewed the licensee's implementation of its Operating Experience (OE) program. Specifically, the team reviewed implementing operating experience program procedures, attended OE program meetings to observe the use, disposition, and dissemination of OE information, and reviewed OE performance indicators. In addition, the team reviewed completed evaluations of OE issues and events identified through NRC generic communications, reports made under 10 CFR Part 21, and external and internal OE. The team also compared the information provided in the vendor manuals of the low pressure core spray (LPCS) pump and motor with the licensee's procedures and equipment environmental qualification. The team's review was to determine whether the licensee effectively integrated OE experience 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 occurrences of previous industry events, and whether the licensee effectively used the information in developing departmental assessments and facility audits. The team also assessed whether corrective actions, as a result of OE experience, were identified, and effectively and timely implemented.

b. Assessment

The team noted that the OE program has improved and that, as a result of a recent self-assessment and condition report, the licensee has several corrective actions in place or being implemented to improve the program. The corrective actions seek to improve the thoroughness and timeliness of OE evaluations, the dissemination of OE information, and other areas determined to have vulnerabilities like the OE program procedure. The team did not have any major observations that were not already being addressed by the licensee's CAP at the time of this inspection.

Observations

Timeliness of OE evaluations has improved

The team noted that the backlog of OE evaluations at the corporate level has decreased. Specifically, the licensee's performance indicators show that the number of overdue OE evaluations decreased from 125 in January of 2008 to 15 in December 2008. The team noted, however, that the evaluation of NRC Information Notice (IN) 2006-022, "New Ultra-low-sulfur Diesel Fuel Oil Could Adversely Impact Diesel Engine Performance," had not been complete by the time it was requested as a sample for this inspection. The licensee received this IN during the last quarter of 2006 and completed the evaluation during this inspection; exceeding its 60 day goal to evaluate OE. This timeliness issue was documented by the licensee in CR 09-51882 "NRC PI&R 2009: IN 2006-022 Evaluation not complete."

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Potential missed opportunities to identify an adverse condition exists

The team noted that some OE evaluations determined that existing procedures were adequate to address the issues communicated by the OE notifications without a thorough explanation of the basis for this determination. Even though the conclusions may be correct, not documenting why the procedures were adequate to address the OE could lead to a potential missed opportunity to identify an adverse condition.

In addition, it was noted during this inspection that the Vendor Information Coordinator, who is responsible for tracking all Part 21 notifications, may not be receiving all the Part 21 notifications. The licensee initiated CR 09-51876, "NRC PI&R 2009: All Part 21 Notifications are not routed through vendor coord," to review and address this issue.

Findings

No findings of significance were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The team assessed the licensee's ability to identify and enter issues into the CAP, prioritize and evaluate issues, and implement effective corrective actions, through efforts from departmental assessments and audits.

b. Assessment

The programs for self-assessments and audits were scheduled and included a broad cross section of performance areas. Procedures for performing assessments were in place and implemented providing guidance and consistency. For the audits and assessments reviewed, observations were documented and for deficiencies that were identified, CRs were written and evaluated to address the deficiencies. Overall, self-assessments were adequately performed. The team noted that self-assessments and audits were identifying more human performance issues than in the past.

The team noted an instance where the Oversight Department identified an issue with an evaluation. Specifically, the licensee determined during a prompt operability determination that a revision to a 10 CFR 50.59 evaluation was not needed. However, because of QA intervention, the process was followed and a revision to the 10 CFR 50.59 evaluation was performed.

A self assessment of the OE program had recently been performed. This assessment was thorough and well organized. The issues that were identified were evaluated appropriately and corrective action assigned. The assessment conclusions closely matched those of the inspection team.

Findings

No findings of significance were identified.

.4 Assessment of Safety Conscious Work Environment

a. Inspection Scope

The team assessed the licensee's safety conscious work environment through discussions with the employee concern program coordinator, interviews with 24 individuals from various departments, and review of the licensee's 2008 Safety Conscious Work Environment (SCWE) survey.

b. Assessment

As part of its ongoing assessment of SCWE, the licensee used an anonymous survey tool first developed in 2002 at the Davis-Besse facility. Results for 2008 indicated no significant areas of overall weakness in a safety conscious work environment, although some organizations were notably more negative in their perceptions of management. The team noted that the survey was returned by approximately 71 percent of the staff. The survey also included security staff and contractors. Based on its review of the survey and interviews, the team concluded that the licensee staff was willing to raise safety concerns without fear of negative consequences.

The team also noted one technical issue brought to the ECP coordinator was appropriately placed in CAP for evaluation.

c. Findings

No findings of significance were identified.

4OA6 Management Meetings

Exit Meeting Summary

On January 30, 2009, the team presented the inspection results to Mr. Kruger and other members of the licensee's staff. The licensee's staff acknowledged the issues presented. The team confirmed that none of the potential report inputs discussed was considered proprietary.

SUPPLEMENTAL INFORMATION

Key Points of Contact

<u>Licensee</u>

- K. Krueger, Plant General Manager
- A. Cayia, Director, Performance Improvement
- K. Cimorelli, Director, Maintenance
- J. Grabner, Director, Site Engineering
- R. Coad, Manager, Regulatory Compliance
- A. Mueller, Manager, Training
- L. Lindrose, Manager, Security
- M. Wesley, Manager, Maintenance
- T. Hilston, Manager, Design Engineering
- F. Smith, Manager Emergency Planning
- P McNulty, Manger, Radiation Protection
- C. Elberfeld, Supervisor, Nuclear Compliance
- V. Forbuch, Human Performance

LIST OF ITEMS OPENED, CLOSED, DISCUSSED

Opened and Closed

05000440/2009006-01	NCV	Failure to Adhere to Procedures for Scaffold Affecting Containment Systems (Section 4OA2.1)
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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
GCI-0016	Generic Civil Instruction: Scaffolding Erection, Modification or Dismantling Guidelines	Rev. 15
NOPB-LP-2011	FENOC Cause Analysis	Rev. 07
NOP-LP-2001	Corrective Action Program	Rev. 19
NOBP-LP-2008	FENOC Corrective Action Review Board	Rev. 8
NOBP-OP-0012	Operator Work Arounds, Burdens & Control Room Deficiencies	Rev. 00
NOBP-LP-2100	FENOC Operating Experience Reference Guide	Rev. 3
NOP-LP-2100	Operating Experience	Rev. 3
NOP-WM-1001	Order Planning Process	Rev. 10
NOP-WM-4300	Order Execution Process	Rev. 6
PAP-1107	Plant Administrative Procedure: Temporary Instruction Control	Rev. 7
SOI-P42	Emergency Closed Cooling System	9/11/2008
SOI-P47	Control Complex Chilled Water System	12/16/2008

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

Number	Description or Title	Date or Revision
CR 00-3709	DG Fuel Oil Strainer Differential Pressure Switch	11/30/2000
CR 07-14232	Division 2 Emergency Service Water Inoperable	02/08/2008
CR 07-14306	Inappropriate ASME Code Case Revision Applied to Support Prompt Operability Determination for CR 07-14065	02/08/2007
CR 07-16389	Initial License Class 05-01 NRC Exam Failures	3/5/2007
CR 07-19058	EH-1201 Relay 86g1 Reset Step Missed In Svi-R43t1328	4/22/2007
CR 07-20446	Unexpected Turbine Trip during Startup	05/13/2007
CR 07-20576	Reactor Scram During Digital Feedwater Control System Testing under TXI-373	05/15/2007

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

Number	Description or Title	Date or Revision
CR 07-20585 CR 07-20587	Plant Restart and Testing and Oversight Plan Organizational Issues Evaluation – Reactor Scram during Reactor Feedwater Pump	05/15/2007 05/15/2007
CR 07-20588	Turbine Digital Control Tuning Training Issues - Reactor Scram during Reactor Feedwater Pump Turbine Digital Control Tuning	05/15/2007
CR 07-21864	-C-07-05-17 Operations Training Program Rated Marginally Effective	6/11/2007
CR 07-22981	RHR B Min Flow Valve Disconnect Not Closed On Entering Cold Shutdown	7/2/2007
CR 07-23175	Potential Mis-Interpretation Of Tech Spec 3.4.1 During Recirc Pump Trip Event	7/9/2007
CR 07-24458	Common Cause of Site Issues	7/31/2007
CR 07-27641	Continuing FME Problems In Vicinity Of Open Pools And Vessels	10/2/2007
CR 07-28746	Additional Concerns with Bolt Torque for Recirculation Flow Control Valves	10/17/2007
CR 07-30660	RCIC System Tripped Shortly after Initiation	11/28/2007
CR 07-31437	Housekeeping and Potential Scaffold Issues in RCIC Room	12/12/2007
CR 07-31788	RHR A Suction Press Low Alarm	12/20/2007
CR 08-34551	Limitorque Valve Operator Grease/Oil Separation	1/28/2008
CR 08-35163	Unplanned Tech Spec Entry Which Declared ECC B And Associated Systems Inop	2/10/2008
CR 08-35817	RHR A Suction Pressure Low Alarm Received On Pump Start	2/23/2008
CR 08-37980	RCIC Venting for CA 07-30660-027 Is Causing Unnecessary Unavailability Time	2/14/2008
CR 08-40969	High Pressure Core Spray Inoperable	5/28/2008
CR 08-41138	NRC NCV: Failure to Implement Appropriate RCIC Instrument Test Procedures	5/08/2008
CR 08-41574	Cross Cutting Theme for Human Performance Aspect H.2(c), Documentation	06/10/2008
CR 08-42164	NRC Questions on Protected Train Postings and Risk Assessment	06/21/2008
CR 08-42974	Division 1 Diesel Generator Fuel Pump Strainer Dp High	7/9/2008
CR 08-42982	Fuel Oil Strainer Differential Alarm Received During Division 1 EDG Operation	7/9/2008
CR 08-43197	H.4(a) Cross Cutting Aspect Trend: Human Error prevention Technique	7/14/2008
CR 08-43277	Oil Leaking From Valve Gearbox	7/15/2008
CR 08-43483	RHR Pump Min Flow Valve Found Closed	7/20/2008
CR 08-43997	Non-Safety Electrical Manhole Cover Inadvertently Dropped into Manhole	7/30/2008
CR 08-44438	Alternate Decay Heat Removal Work Impact	8/06/2008

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

Number	Description or Title	Date or Revision
	Due to Reinstallation of Floor Plugs	
CR 08-44524	Potential for Engineering Evaluation Requests Technical Basis to be Exceeded by Concurrent Barrier Removal	8/07/2008
CR 08-44634	Turbine Building Crane PM Activity in PMI- 0039 Needs to be Updated and Revised	8/12/2008
CR 08-44804	Weak Level of Documentation of Prompt Operability Determination (POD)	8/14/2008
CR 08-46585	RHR C Min Flow Valve 1e12f0064c Closed On Pump Start	9/13/2008
CR 08-47659	H.4(b) Cross Cutting Aspect Trend: Procedural Compliance	10/09/2008
CR 08-48248	Third Quarter Trend Shows an Increase Trend – Human Error and Inappropriate Action	10/22/2008
CR 08-48768	Additional Controls for Movement of Light Loads	10/31/2008
CR 08-48921	Protected Train Walkdown by Shift Manager Revealed Issues with Postings	11/04/2008
CR 08-49842	NRC Third Quarter Inspection Report Finding: Fail to Implement Required Risk Management for Protected Train	10/31/2008
CR 08-50267 CR 08-50270	Oil Separation In MOV Operator Oil/Grease Separation In Operator	12/2/2008
CR 08-50803	Excel Scaffold Not Meeting Procedure Requirements	12/12/2008
CR 09-51818	RHR A Hx Outlet Valve Has A 200 DPM Packing Leak	1/9/2009
CR 09-52476	NRC Pl&R 2009: The EOC For Cr 08-40969 Needs Clarification	1/23/2009
CR 09-52687	Locked Closed Valve Does Not Appear To Be Fully Closed	1/27/2009

OPERATING EXPERIENCE

Number	<u>Description or Title</u>	Date or Revision
200237831 200239207	FENOC Evaluation of IN 2006-22 FENOC Evaluation of SER 07-06	6/30/2007 1/7/2007
200251244 200252088	FENOC Evaluation of IN 2007-01 FENOC Evaluation of IN 2007-05	4/8/2007 4/15/2007
200252089 200267694 200294004	FENOC Evaluation of IN 2007-06 FENOC Evaluation of TR 7-57 PY Evaluation of SOER 07-02	2/15/2007 9/18/2007 7/8/2008
200294208 200318117	FENOC Evaluation of TR 7-60 FENOC Evaluation of IN 2008-02	1/5/2009 3/21/2008

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OPERATING EXPERIENCE

Number	Description or Title	Date or Revision
200318386	FENOC Evaluation of IN 2008-04	4/9/2008
CR 02-03435	OE Evaluation of SOER 02-3	9/24/2002
CR 02-03435	OE SOER 02-3 Large Power Transformer Reliability	9/24/2002
CR 04-05506	OE Evaluation of TR 4-40	10/20/2004
CR 05-02678	GE/GNF Notified the Site of a Potential Part 21 Issue Affecting TS 2.1.1.1	3/24/2005
CR 05-04199	Vendor Potential Reportable Condition due to Non-Conservatism in the R-Factor	5/10/2005
CR 06-01358	10CFR21 Issued against Rosemount 1153 pressure transmitters	3/22/2006
CR 06-02757	Grand Gulf valve failure OE 22791 Div 1/2 DG susceptibility	5/12/2006
CR 06-02895	Industry Experience of Unexpected Control Rod Fail-to-Settle Events	6/28/2006
CR 07-14065	ESW B piping weld leak on outlet of ECC B Heat Ex.	2/8/2007
CR 07-14235	NRC GL 07-01 Inaccessible or underground power cable failures	2/8/2007
CR 08-37125	PY-PA-08-01: Organizational Response to NRC GL 2008-01 less than adequate	3/20/2008
CR 08-44869	Late Coordination of field activities to support GL 08-01 laser scanning	8/15/2008
CR 08-50367	Fisher 10CFR21 Notice Affects SW2930, Sw2931 and SW2932	12/3/2008
CR 08-50515	PY Review of Fisher 10CFR21 Notice 2008-02	12/8/2008
OE 25127	Reactor Scram / Digital Feedwater Control System Logic Flaw	7/05/2007
PAP-0607	Document and Vendor Information Control	Rev. 11
SOI-E21	LPCS System	Rev. 22
SVI-E21-T2001	LPCS Pump and Valve Operability Test	Rev. 20

AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS

Number	Description or Title	Date or Revision
Audit-MS-C-06-10-07	Preventable Equipment Failures Challenges	2/7/2008
Audit-MS-C-08-05-07	Perry CDBI Pre-Assessment PY-SA-08-079 Output Documents Not Identified	4/11/2008
udit-MS-C-08-05-07	Maintenance and Work Management Programs	7/23/2008
Audit-MS-C-08-08-22	Composite Human Performance Indicator For 1st Qtr 2008	4/18/2008

AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS

Number	<u>Description or Title</u>	Date or Revision
	AFI From PY-SA-08-012 GESILI -	
CR 06-09998	159 Modification Not Implemented For RWCU Filter Demineralizers	6/8/2008
CR 07-12910	Critical Component Failure Are Not Being	1/18/2007
0.007 12010	Classified Correctly In The Cap Program	17 10/2001
CR 07-14065	Pinhole Leak On "B" ESW Outlet From "B" ECC Hx	7/11/2008
CR 07-14120	NRC event number 43071, Potential Part 21 issue with GE snubber fluids	1/9/2007
CR 07-14120	Snapshot Sa PY-SA-07-68 Found Design Silt	7/22/2008
CR 07-14232	Depth Exceeded In The ESW Intake Tunnel Root Cause Analysis Report: Division 2	3/09/2007
01(01-14202	Emergency Service Water System through	3/03/2001
CD 07 14206	Wall Leakage Operability Review	7/22/2009
CR 07-14306	Inappropriate ASME Code Case Revision Applied To Support Pod For Cr 07-14065	7/22/2008
CR 07-19932	LTA 50.59 Review of Div. 2 DG Slow Start	5/3/2007
	FEA	
CR 07-19932	Py-Pa-07-02: LTA 50.59 Review Of Div. 2 Dg Slow Start Feature	7/22/2008
CR 07-20446	Root Cause Report Main Turbine	6/12/2007
	Unexpectedly Tripped	o =. = o o .
CR 07-20576	Root Cause Analysis Report: Automatic Level 3 Scram	6/20/2007
CR 07-20585	Plant Restart And Testing And Oversight Plan	8/6/2008
CR 07-20587	Organizational Issues Evaluation - Rx Scram	10/13/2008
CR 07-20588	During RFPT Digital Controls Tuning Training Issues - Reactor Scram During RFPT	10/22/2008
CIV 07-20300	Digital Controls Tuning	10/22/2000
CR 07-22860	HPCS ESW Draindown Test Portion Of SVIi P45 T2003 Failed.	11/13/2008
CR 07-24458	Common Cause Of Site Issues	11/17/2008
CR 07-24847	Maintenance Enforcement Of Worker	12/11/2008
	Standards - Continued Improvement	
00.07.04047	Required	0/0/007
CR 07-24847	Review Of CRs For Ineffective Corrective Actions Results In Emergent Trend	8/8/2007
CR 07-25439	Non-Safety Lubricant Utilized on Safety	8/21/2007
CD 07 00006	Related Equipment without justification	40/40/0007
CR 07-28806	Failure Of Work Management And Condition Report Process	10/18/2007
CR 07-29242	EDG Hallway inspections not performed as required	10/26/2007
CR 07-30660 and	Root Cause Analysis Report: Reactor Core	2/19/2008
CR 07-31441	Isolation Cooling (RCIC) System Trip following	
CR 07-30676	Plant Scram RPV and RCS Transients vs ASME Fatigue	11/28/2007
OK 07-30070	Limits	11/20/2007

AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS

Number	<u>Description or Title</u>	Date or Revision
CR 07-31183	Cr 07-29026 Investigation Finds Chemistry's Ineffective Use Of Cap	12/7/2007
CR 08-32531	Valve Found Out Of Position And Near Miss	1/4/2008
CR 08-32972	Cross-Cutting Theme For Human Performance Aspect H.3.A, Work Control	1/17/2008
CR 08-33656	2nd Half PYRC/PIU IPA AFI: LTA Implementation Of PI Processes	1/17/2008
CR 08-34592	Review and process of significant event reports	1/30/2008
CR 08-37049	MS-C-08-03-01 - MRB inappropriate corrective action	3/18/2008
CR 08-3709	Pre-CDBI Investigate The Need To Flow Test The EDG Fuel Oil Eductors	4/25/2008
CR 08-38929	MS-C-08-03-01 Inconsistent Implementation Of The Corrective Action Program	4/11/2008
CR 08-39035	MS-C-08-03-01 Control Of Work On A Dg In Standby	4/9/2008
CR 08-39275	Pre-CDBI - Minor Discrepancy In Design Minimum Flow Rate Value Shown In SVI	4/25/2008
CR 08-39363	MS-C-08-03-01 Safety Equip Not Available To Support PEI	4/25/2008
CR 08-39452	MS-C-08-03-01 Access To PEI Ladders Is Inhibited	4/25/2008
CR 08-39873	MS-C-08-04-15: NOBP-NF-1013 References Outdated Nop-Cc-4001 Steps & Requirements	5/5/2008
CR 08-40311	MS-C-08-03-01 Clearance Program Shortfalls.	5/14/2008
CR 08-40395	Root Cause Corrective Action 07-20576-8 Not Implemented As Written	5/15/2008
CR 08-41630	Self-Assessment # PY-SA-08-092 - Addition Of Simulator Vendor Drs To SCMS	5/29/2008
CR 08-42032	MS-C-08-05-07: Risk Self Assessment Not Performed	6/19/2008
CR 08-42034	MS-C-08-05-07: Use Of Loop Multipliers During Risk Evaluations	6/19/2008
CR 08-43587	Snapshot Ass'm't PY-SA-08-091: Carb Actions Not Taken, Effectiveness Review LTA	7/22/208
CR 08-43822	Ineffective Corrective Actions For Cr 04-06719 Scram Vent And Drain Valves	7/25/2008
CR 08-44698	Adverse Trend Identified In The Containment Air Lock Doors	8/13/2008
CR 08-44852	Potential Cross Cutting Theme In Problem Identification And Resolution (PI&R)	7/29/2008
CR 08-45397	Procedure Enhancement	8/27/2008
CR 08-45505	OE Program AFI - SOER Effectiveness reviews	8/28/2008

AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS

Number	Description or Title	Date or Revision
CR 08-45509 CR 08-47153	OE Program AFI - OE in work packages PY-PA-08-03 Finding: Adverse Trend In Objective 3, Initial Training	8/28/2008 10/1/2008
CR 08-47206	Neg. Note. Item ID'D In Tech. Skills Prgm. SA - OE In Train Not Incorp HU	9/26/2008
CR 08-47779	Unrecognized OPDRV Results In LER	10/13/2008
CR 08-47895	MS-C-08-08-22: CA not responded to in timely manner	10/15/2008
CR 08-48385	MS-C-08-0908 - Implementation Issues Regarding Delinquent M&TE	10/24/2008
CR 08-48388	MS-C-08-09-08 - Delinquent M&TE Not Returned By The Due Date	10/24/2008
CR 09-51621	Untimely Review of TR 6-56	1/6/2009
FL-SA-08-004 PY-SA-07-025	Focused SA - Operating Experience Program Perform A Ongoing Self-Assessment Of The OE Program Utilizing Guidelines For The Use Of operating Experience	9/5/2008 6/14/2007
PY-SA-07-087 PY-SA-08-020	Problem Solving and Decision Making Evaluate the actions taken to improve the Human Performance in the INPO identified AFIs have been successful	8/31/2008 11/14/2008
PY-SA-08-058	Effectiveness of Corrective Actions for Contamination Control AFI – Tracked by CA 07-29353-4	7/31/2008
PY-SA-08-091	Extent of Condition/Effectiveness Reviews Assessment	7/25/2008
PY-SA-08-117	Follow up to Common Cause Analysis (CR 07-24458)	10/28/2008

DRAWINGS

Number	<u>Description or Title</u>	Date or Revision
C-937-333	Intermediate Building – Elevation 654"-6" Miscellaneous Duct Supports	Α
D-912-604	System Diagram: Containment Vessel and Drywell Purge	BB
D-936-742	Intermediate Building – Northwest Elevation 654"-6" - Duct Support Locations	Е

CONDITION REPORTS GENERATED DURING INSPECTION

<u>Number</u>	Description or Title	Date or Revision
CR-09-51876	NRC PI&R 2009: All Part 21 Notifications are not routed through vendor coord.	1/12/2009

CONDITION REPORTS GENERATED DURING INSPECTION

Number	Description or Title	Date or Revision
CR-09-51882	NRC PI&R 2009: IN 2006-022 Evaluation not complete	1/12/2009
CR-09-51896	NRC PI&R 2009; Incomplete CA Closure	1/13/2009
CR-09-52038	Scaffold Not in Compliance with Plant Procedures	1/15/2009
CR-09-52075	NRC PI&R 2009: Corrective Actions and PM not appropriately cross-referenced	1/16/2009
CR 09-52385	NRC PI&R 2009 Ca Inappropriately Closed	1/22/2009
CR-09-52450	Potential Adverse Trend in Scaffold Program	1/23/2009
CR-09-52474	Scaffold Not in Compliance with Plant Procedures – No Prompt Operability Determination Performed	1/23/2009
CR-09-52476	NRC PI&R 2009; The EOC for CR 08-40969 Needs Clarification and Increased Scope	1/23/2009
CR-09-52641	NRC PI&R 2009 Indiv. Offered to Open HRA Lock for an Indiv. Not in his Work Crew.	1/27/2009
CR-09-52670	NRC PI&R 2009: OE Evaluation of TR 7-57 nor IAW procedure	1/28/2009
CR-09-52687	Locked Closed Valve Does Not Appear To Be Fully Closed,	1/27/2009
CR-09-52702	Engineering Evaluation Completed for Scaffold Configuration Identified in CR 09-52038 Was Incorrect	1/27/2009
CR-09-52756	NRC PI&R 2009; CR 08-34584 Analysis Did Not Address Problem Statement	1/29/2009
CR-09-52772	Scaffolding Seismic Qualification Calculation Issues	1/27/2009

MISCELLANEOUS

Number	Description or Title	Date or Revision
23:02.039	Calculation: Seismic Qualification of Scaffolding	1
Order 200299311	Perform RCIC Instrument Line and Transmitter Venting	2/14/2008
Order 200299322	Perform RCIC Instrument Line and Transmitter Venting	5/15/2008

List of Acronyms Used:

CAP Corrective Action Program Code of Federal Regulations CFR

Condition Report CR

Employee Concerns Program ECP

Non-cited Violation NCV

NRC

OE

Nuclear Regulatory Commission
Operating Experience
Problem Identification & Resolution PI&R

RHR Residual Heat Removal

SCWE Safety Conscious Work Environment

Technical Specification TS