

October 5, 2006

Mr. L. William Pearce  
Site Vice President  
FirstEnergy Nuclear Operating Company  
Perry Nuclear Power Plant  
P. O. Box 97, 10 Center Road, A290  
Perry, OH 44081-0097

SUBJECT: PERRY NUCLEAR POWER PLANT NRC INTEGRATED INSPECTION  
REPORT 05000440/2006004 AND EMERGENCY PREPAREDNESS  
INSPECTION REPORT 05000440/2006021

Dear Mr. Pearce:

On September 30, 2006, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Perry Nuclear Power Plant. The enclosed report documents the inspection findings which were discussed on September 28, 2006, with you 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. In addition to the routine NRC inspection and assessment activities, Perry performance is being evaluated quarterly as described in the Assessment Follow-up Letter - Perry Nuclear Power Plant, dated August 12, 2004. Consistent with Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," plants in the "Multiple/Repetitive Degraded Cornerstone" column of the NRC's Action Matrix are given consideration at each quarterly performance assessment review for (1) declaring plant performance to be unacceptable in accordance with the guidance in IMC 0305; (2) transferring to the IMC 0350, "Oversight of Operating Reactor Facilities in a Shutdown Condition with Performance Problems," process; and (3) taking additional regulatory actions, as appropriate. On August 22, 2006, the NRC reviewed Perry operational performance, inspection findings, and performance indicators for the second quarter of 2006. Based on this review, we concluded that Perry is operating safely. We determined that no additional regulatory actions, beyond the already increased inspection activities and management oversight, are currently warranted.

Based on the results of this inspection, no findings were identified. However, one licensee-identified violation of very low safety significance is listed in Section 4OA7 of this report. Because of the very low safety significance of this violation and because it has been entered into your corrective action program, the NRC is treating this violation as a Non-Cited Violation consistent with Section VI.A.1 of the NRC Enforcement Policy.

If you contest the subject or severity of this non-cited violation, 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 accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Mark A. Satorius, Director  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000440/2006004; 05000440/2006021  
w/Attachment: Supplemental Information

cc w/encl: G. Leidich, President and Chief Nuclear Officer - FENOC  
J. Hagan, Senior Vice President of Operations and Chief  
Operating Officer - FENOC  
D. Pace, Senior Vice President, Fleet Engineering - FENOC  
J. Rinckel, Vice President, Fleet Oversight  
Director, Site Operations  
Director, Regulatory Affairs  
Manager, Fleet Licensing  
Manager, Site Regulatory Compliance  
D. Jenkins, Attorney, FirstEnergy  
Public Utilities Commission of Ohio  
Ohio State Liaison Officer  
R. Owen, Ohio Department of Health

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-440

License No: NPF-58

Report No: 05000440/2006004  
05000440/2006021

Licensee: FirstEnergy Nuclear Operating Company (FENOC)

Facility: Perry Nuclear Power Plant, Unit 1

Location: Perry, Ohio

Dates: **July 1, 2006, through September 30, 2006**

Inspectors: M. Franke, Senior Resident Inspector  
M. Wilk, Resident Inspector  
J. Rutkowski, Senior Resident Inspector, Davis-Besse  
R. Ruiz, Reactor Engineer  
R. Winter, Reactor Engineer  
R. Clagg, Observer

Approved by: Eric R. Duncan, Chief  
Branch 6  
Division of Reactor Projects

Enclosure

## **SUMMARY OF FINDINGS**

IR 05000440/2006004, 05000440/2006021; 07/01/2006 - 09/30/2006; Perry Nuclear Power Plant.

This report covers a 3-month period of baseline inspection. The inspection was conducted by the resident and regional inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### **A. Inspector-Identified and Self-Revealed Findings**

No findings of significance were identified.

### **B. Licensee-Identified Violations**

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

Enclosure

## REPORT DETAILS

### Summary of Plant Status

The plant began the inspection period at 100 percent power. On July 8, 2006, operators reduced power to 55 percent to conduct planned maintenance activities. On July 9, 2006, operators returned power to 100 percent. On July 17, 2006, the plant experienced hot weather conditions and operators reduced power to 99.5 percent to maintain the main condenser operations within procedural limits. Power was returned to 100 percent on the same day. Between July 31 and August 3, 2006, the plant experienced an extended period of hot weather conditions. During this period, operators maneuvered power to as low as 92 percent to manage main condenser operations within procedural limits and then returned power to 100 percent. On September 11, 2006, operators reduced power to about 80 percent in order to repair the "A" reactor turbine-driven feed pump. On September 12, 2006, operators returned power to 100 percent. On September 29, 2006, operators commenced reactor downpower maneuvers to conduct planned maintenance activities and ended the inspection period on September 30, 2006, at 82 percent power.

### 1. REACTOR SAFETY

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

#### 1R01 Adverse Weather Protection (71111.01)

##### a. Inspection Scope

During the week of August 21, 2006, the inspectors observed licensee activities associated with the treatment of raw water systems to control populations of zebra mussels. The inspectors observed infrequently performed test or evolution briefings, pre-shift briefings, and control room briefings to determine whether the briefings met criteria specified in the Perry Operations Section Expectations Handbook and Perry Administrative Procedure (PAP)-1121, "Conduct of Infrequently Performed Tests or Evolutions," Revision 4. The inspectors also reviewed prerequisites identified in licensee procedure PTI-GEN-P0024, "Mussel Treatment," Revision 11, to determine whether they were completed prior to the initiation of treatment on August 22, 2006. Finally, during the remainder of the inspection period, the inspectors periodically reviewed licensee activities and data collection as specified by licensee procedure PTI-GEN-P0023, "Mussel Monitoring," Revision 4, to determine whether mussel settlement was being properly monitored.

This review represented one inspection sample.

##### b. Findings

No findings of significance were identified.

## 1R04 Equipment Alignment (71111.04)

### .1 Semi-Annual Complete System Walkdown

#### a. Inspection Scope

The inspectors performed a complete walkdown of accessible portions of the residual heat removal (RHR) system to determine system operability and condition during the month of July 2006. The RHR system was selected due to its risk significance. The inspectors used valve lineup instructions (VLIs) and system drawings to accomplish the inspection.

The inspectors observed selected switch and valve positions, electrical power availability, system pressure and temperature indications, component labeling, and general material condition. The inspectors determined whether system configurations and operating parameters were consistent with licensee procedures and drawings. The inspectors also reviewed open system engineering issues as identified in the licensee's Quarterly System Health Report, outstanding maintenance work requests, and a sampling of condition reports (CRs) to determine whether problems and issues were identified, and corrected, at an appropriate threshold. The documents used for the walkdown are listed in the attached List of Documents Reviewed.

This review represented one semi-annual complete system walkdown.

#### b. Findings

No findings of significance were identified.

### .2 Quarterly Partial System Walkdowns

#### a. Inspection Scope

The inspectors conducted a partial walkdown of the system trains listed below to determine whether the systems were correctly aligned to perform their designed safety function. The inspectors used VLIs and system drawings during the walkdown. The walkdown included selected switch and valve position checks, and verification of electrical power to critical components. Finally, the inspectors evaluated other elements, such as material condition, housekeeping, and component labeling. The documents used for the walkdown are listed in the attached List of Documents Reviewed. The inspectors reviewed the following systems:

- "B" standby liquid control (SLC) system during testing of the SLC "A" system; and
- "A" and "B" annulus exhaust gas treatment system (AEGTS) trains following maintenance on the "A" AEGTS train.

This review represented two quarterly partial system walkdown samples.



b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05AQ)

a. Inspection Scope

The inspectors walked down the following areas to assess the overall readiness of fire protection equipment and barriers:

- Turbine Building elevations 605', 620' and 624';
- Fire Zones 1CC-5A and 2CC-5A, Unit 1 and Unit 2 Control Rooms;
- Technical Support Center;
- Reactor Recirculation Pump Carbon Dioxide Drywell Fire Suppression System;
- Turbine Building Lube Oil Room;
- Fire Zone 1AB-1, Auxiliary Building Unit 1, elevation 574';
- Fire Zone 1AB-3, Auxiliary Building Unit 1, elevation 620';
- Turbine Power Complex Building; and
- Fire Zone 1AB-1C, reactor core isolation cooling pump room, elevation 574'.

Emphasis was placed on evaluating the licensee's control of transient combustibles and ignition sources, the material condition of fire protection equipment, and the material condition and operational status of fire barriers used to prevent fire damage or propagation. The inspectors utilized the general guidelines established in Fire Protection Instruction (FPI)-A-A02, "Periodic Fire Inspections," Revision 3; Perry Administrative Procedure (PAP)-1910, "Fire Protection Program," Revision 11; and PAP-0204, "Housekeeping/Cleanliness Control Program," Revision 15; as well as basic National Fire Protection Association Codes, to perform the inspection and to determine whether the observed conditions were consistent with procedures and codes.

The inspectors observed fire hoses, sprinklers, and portable fire extinguishers to determine whether they were installed at their designated locations, were in satisfactory physical condition, and were unobstructed. The inspectors also evaluated the physical location and condition of fire detection devices. Additionally, passive features such as fire doors, fire dampers, and mechanical and electrical penetration seals were inspected to determine whether they were in good physical condition. The documents listed in the List of Documents Reviewed at the end of this report were used by the inspectors during the inspection of this area.

These reviews represented nine quarterly inspection samples.

b. Findings

Introduction

The inspectors identified an unresolved item (URI 05000440/2006004-01) requiring further inspection. The URI was associated with a longstanding degraded condition of

the drywell reactor recirculation pump carbon dioxide (CO<sub>2</sub>) fire suppression system that resulted in an insufficient CO<sub>2</sub> tank level.

#### Description

On August 1, 2006, the inspectors observed that the CO<sub>2</sub> suppression tank level for the reactor recirculation pump fire suppression system was 42 percent. This was below the minimum operability limit of 45 percent. The inspectors also noted that the tank was leaking CO<sub>2</sub>. On further review, the inspectors determined that the tank was below the minimum level to be considered operable in March 2006, October 2005, August 2005, June 2005, May 2005, April 2005, October 2003, September 2003, August 2002, and July 2001. In addition, during reviews of licensee condition reports, the inspectors determined that the inoperability of the CO<sub>2</sub> tank was unnecessarily extended due to the late arrival of CO<sub>2</sub> delivery trucks since 2005. The inspectors observed that the CO<sub>2</sub> delivery was also delayed following the identification of a low tank level on August 1, 2006. Licensee personnel performed procedure PTI-P54-P0016, "Carbon Dioxide Storage Tank Pressure and Level Verification," Revision 4, on August 2, 2006, and recorded tank level at 37 percent. On August 8, 2006, the inspectors observed that the CO<sub>2</sub> tank level had decreased to 10 percent due to the delay in CO<sub>2</sub> delivery.

Perry License Condition C(6) required that the licensee implement and maintain in effect all provisions of the approved fire protection program as described in the Perry Final Safety Analysis Report (FSAR). Section 9A.5, Position C.8 of the FSAR stated that measures had been established to ensure conditions adverse to fire protection, such as failures, malfunctions, deficiencies, deviations, defective components, uncontrolled combustible materials, and nonconformances are promptly identified, reported, and corrected. Attachment 3 of PAP-1910, "Fire Protection Program/Fire Protection Functional Specifications," Revision 12, stated that the minimum required level for the reactor recirculation pumps CO<sub>2</sub> system was 45 percent (2460 lbs).

Because the issue was associated with a fire protection system for the drywell and required the development of potential fire scenarios, the issue required further inspection by regional fire protection specialists in order to determine the significance of the issue. As a result, this issue is considered an unresolved item (URI 05000440/2006004-01) pending the development of potential drywell fire scenarios and the subsequent determination of the overall issue significance.

### 1R06 Flood Protection Measures (71111.06)

#### a. Inspection Scope

The inspectors performed an inspection of internal flooding vulnerabilities associated with the building roof drains. The inspection consisted of a review of the roof drain system design features described in the Updated Safety Analysis Report (USAR). In addition, the inspectors reviewed corrective action documents to determine whether previously identified deficiencies were appropriately prioritized and addressed. The inspectors walked down the roof drain system to determine whether observations were

consistent with design. The inspectors also walked down the upper internal elevations of major safety-related buildings for any indications of severe roof leakage problems.

This review represented one inspection sample.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

a. Inspection Scope

On July 20, 2006, the resident inspectors observed licensed operator performance in the plant simulator. The inspectors evaluated crew performance in the areas of:

- clarity and formality of communication;
- ability to take timely action in the safe direction;
- prioritizing, interpreting, and verifying alarms;
- correct use and implementation of procedures, including alarm response procedures;
- timely control board operation and manipulation, including high-risk operator actions; and
- group dynamics.

The inspectors also observed the licensee's evaluation of crew performance to determine whether the training staff had identified performance deficiencies and specified appropriate remedial actions.

This review represented one inspection sample.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

.1 Quarterly Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the maintenance rule requirements to determine whether component and equipment failures were identified and scoped within the maintenance rule and that select structures, systems, and components (SSCs) were properly categorized and classified as (a)(1) or (a)(2) in accordance with 10 CFR 50.65. The inspectors reviewed station logs, maintenance work orders (WOs), selected surveillance test procedures, and a sample of CRs to determine whether the licensee was identifying issues related to the maintenance rule at

an appropriate threshold and that corrective actions were appropriate. Additionally, the inspectors reviewed the licensee's performance criteria to determine whether the criteria adequately monitored equipment performance and to determine whether changes to performance criteria were reflected in the licensee's probabilistic risk assessment. During this inspection period, the inspectors reviewed the following SSCs:

- containment airlock system; and
- leak detection system.

These reviews represented two quarterly inspection samples.

b. Findings

No findings of significance were identified.

.2 Periodic Evaluation

a. Inspection Scope

The inspectors examined the Maintenance Rule periodic evaluation report completed for the period of May 31, 2003, through May 6, 2005. The inspectors reviewed a sample of (a)(1) Action Plans, Performance Criteria, Functional Failures, and Condition Reports to evaluate the effectiveness of (a)(1) and (a)(2) activities. These same documents were reviewed to verify that the threshold for the identification of problems was at an appropriate level and the associated corrective actions were appropriate. Also, the inspectors reviewed the maintenance rule procedures and processes. The inspectors focused the inspection on the following four systems:

- high pressure core spray;
- diesel generator;
- reactor recirculation; and
- plant radiation monitoring and process monitoring.

The inspectors verified that the periodic evaluation was completed within the time constraints defined in 10 CFR 50.65 (once per refueling cycle, not to exceed 24 months). The inspectors also ensured that the licensee reviewed maintenance rule goals, monitored SSC performance, reviewed industry operating experience, and made appropriate adjustments to the maintenance rule program as a result of the above activities.

The inspectors verified that:

- the licensee balanced reliability and unavailability during the previous cycle, including a review of high safety significant SSCs;
- (a)(1) goals were met, that corrective actions were appropriate to correct the defective condition, including the use of industry operating experience, and that (a)(1) activities and related goals were adjusted as needed; and

- the licensee established (a)(2) performance criteria, examined any SSCs that failed to meet their performance criteria, and reviewed any SSCs that have experienced repeated maintenance preventable functional failures including a verification that failed SSCs were considered for (a)(1).

In addition, the inspectors reviewed maintenance rule self-assessments and audit reports that addressed the maintenance rule program implementation.

These reviews represented four periodic inspection samples.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed the licensee's evaluation of plant risk, scheduling, configuration control, and performance of maintenance associated with planned and emergent work activities to determine whether scheduled and emergent work activities were adequately managed in accordance with 10 CFR 50.65(a)(4). In particular, the inspectors reviewed the licensee's program for conducting maintenance risk assessments to determine whether the licensee's planning, risk management tools, and the assessment and management of on-line risk were adequate. The inspectors also reviewed licensee actions to address increased on-line risk when equipment was out of service for maintenance, such as establishing compensatory actions, minimizing the duration of the activity, obtaining appropriate management approval, and informing appropriate plant staff, to determine whether the actions were accomplished when on-line risk was increased due to maintenance on risk-significant SSCs. The following assessments and/or activities were reviewed:

- licensee's management of risk and work control during a period of elevated electrical power grid risk during the weeks of July 24 and July 31, 2006;
- licensee's management of risk and work control associated with maintenance on the common emergency diesel generator (EDG) exhaust hallway modification during the week of August 14, 2006;
- licensee's management of risk and work control associated with maintenance on the emergency service water intake structure during the week of August 28, 2006;
- licensee's management of risk and work control associated with the replacement of a containment isolation valve for the condensate storage and transfer system during the week of September 4, 2006;
- licensee's management of risk and work control associated with maintenance on both Division 1 EDG ventilation fans during the week of September 4, 2006;
- licensee's management of risk and work control associated with the repair of the "A" turbine-driven reactor feed pump during the week of September 11, 2006; and
- licensee's management of risk and work control associated with repairs to the "A" control complex chiller during the week of September 18, 2006

These reviews represented seven inspection samples.

b. Findings

No findings of significance were identified.

1R14 Operator Performance During Non-Routine Evolutions and Events (71111.14)

During the inspection period, this Inspection Procedure was deleted and activities performed prior to deletion are now documented in Section 71153.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors selected CRs related to potential operability issues for risk-significant components and systems. These CRs were evaluated to determine whether the operability of the components and systems was justified. The inspectors compared the operability and design criteria in the appropriate sections of the Technical Specification (TS) and USAR to the licensee's evaluations, to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures were in place, would function as intended, and were properly controlled. Additionally, the inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations. The inspectors reviewed the following issues:

- an operability evaluation associated with the seismic qualification of the Division 1 and Division 2 EDG flywheel covers on July 13, 2006;
- an operability evaluation associated with a latent calculation error for a fire protection carbon dioxide system thermal relief valve affecting the primary containment system on August 4, 2006;
- an operability evaluation associated with the flooding analysis for a moderate energy water line break affecting the control complex switchgear rooms during the week of August 7, 2006;
- an operability evaluation associated with the ASME (American Society of Mechanical Engineers) qualification of the relief valve for the suppression pool makeup system heat exchanger on July 14, 2006;
- an operability evaluation associated with the inadvertent addition of ultra low sulfur fuel oil to the Division 3 EDG fuel oil storage tank on September 8, 2006; and
- an operability evaluation associated with high particulate and acidity levels found in a reactor core isolation cooling turbine oil sample on September 21, 2006.

These reviews represented six inspection samples.

b. Findings

No findings of significance were identified.

## 1R19 Post-Maintenance Testing (71111.19)

### a. Inspection Scope

The inspectors evaluated the following post-maintenance testing (PMT) activities for risk-significant systems to ensure the following (as applicable): the effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed; acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate; tests were performed as written; and equipment was returned to its operational status following testing. The inspectors evaluated the activities against TS, the USAR, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications. In addition, the inspectors reviewed CRs associated with PMTs to determine whether the licensee was identifying problems and entering them in the corrective action program. The specific procedures and CRs reviewed are listed in the attached List of Documents Reviewed. The following post-maintenance activities were reviewed:

- testing of the containment lower airlock inner door after maintenance that was conducted on June 21, 2006;
- testing of the electric motor-driven fire pump that was conducted on July 31, 2006;
- testing of the main generator hydrogen oil extractor pump that was conducted on July 21, 2006;
- testing of the reactor core isolation cooling system following maintenance on August 11, 2006;
- testing of the average power range monitor channel "G" that was conducted on August 25, 2006;
- testing of the reactor feed pump turbine "A" thrust bearing wear detection and trip system after repair on September 12, 2006;
- testing of the reactor water cleanup leak detection system after repair on September 20, 2006; and
- testing of a fuel pool cooling and cleanup system motor-operated valve following maintenance on September 26, 2006.

These reviews represented eight inspection samples.

### b. Findings

No findings of significance were identified.

## 1R22 Surveillance Testing (71111.22)

### a. Inspection Scope

The inspectors observed surveillance testing or reviewed test data for risk-significant systems or components to assess compliance with TS, 10 CFR 50, Appendix B, and licensee procedure requirements. The testing was also evaluated for consistency with the USAR. The inspectors verified that the testing demonstrated that the systems were ready to perform their intended safety functions. The inspectors determined whether



test control was properly coordinated with the control room and performed in the sequence specified in the surveillance instruction (SVI), and if test equipment was properly calibrated and installed to support the surveillance tests. The procedures reviewed are listed in the attached List of Documents Reviewed. The surveillance activities assessed were:

- low pressure core spray system pump and valve in-service testing conducted on July 12, 2006;
- high pressure core spray system essential service water pump and valve in-service testing on July 26, 2006;
- Division 2 EDG monthly routine testing on August 15, 2006;
- SLC "B" system quarterly pump and valve in-service testing on August 17, 2006;
- oscillation power range monitor "G" routine functional testing on August 21, 2006; and
- containment isolation local leak rate test in-service testing on August 29, 2006.

These reviews represented four in-service inspection samples and two routine testing inspection samples.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed documentation for a ventilation system modification to provide additional air cooling for the auxiliary building during the week of July 24, 2006.

The inspectors assessed the acceptability of this temporary configuration change by comparing the 10 CFR 50.59 screening and evaluation information against the design basis, the Updated Final Safety Analysis Report (UFSAR), and the TS as applicable. The comparisons were performed to ensure that the new configurations remained consistent with design basis information. The inspectors, as applicable, performed field verifications to ensure that the modifications were installed as directed; the modifications operated as expected; modification testing adequately demonstrated continued system operability, availability, and reliability; and that operation of the modifications did not impact the operability of any interfacing systems.

This review represented one inspection sample.

b. Findings

No findings of significance were identified.



1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed activities in the simulator control room, the Technical Support Center, the Emergency Operations Facility, and Operations Support Center during an emergency preparedness drill conducted on September 16, 2006. The inspection focused on the ability of the licensee to appropriately classify emergency conditions, complete timely notifications, and implement appropriate protective action recommendations in accordance with approved procedures.

This review represented one inspection sample.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

As discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to determine whether they were being entered into the licensee's corrective action program at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed.

This is not an inspection sample.

b. Findings

No findings of significance were identified.

.2 Annual Sample Review

a. Inspection Scope

The inspectors selected the licensee's root cause evaluation associated with the licensee's excursion from the maximum extended operating domain (MEOD) boundary during reactor power ascension on July 9, 2006. The inspectors selected this issue for detailed review because the issue was associated with the cross-cutting area of human performance. The inspectors reviewed the corrective actions associated with the event and reviewed the licensee's evaluation to determine whether licensing or design limits were exceeded.

This review represented one inspection sample.

b. Findings and Observations

As a result of the root cause evaluation, the licensee identified three root causes: (1) weaknesses in the management, implementation, and oversight of the reactivity management program; (2) weaknesses in procedure use and adherence, and evolution control and monitoring, that led to inappropriate decisions; and (3) lack of organizational engagement. The licensee evaluated the MEOD boundary excursion for normal and limiting postulated transients and concluded that design and licensing limits were not exceeded. Licensee corrective actions included: a site-wide human performance stand-down, additional oversight expectations for reactivity management plans, added simulator training and training program changes for operations and reactor engineering personnel, and changes to the work management process.

While not a finding, the inspectors noted that the licensee had previously identified weaknesses in the reactivity management process in May 2006. The inspectors also noted that the MEOD boundary was exceeded after operators made a decision to exceed a procedural administrative limit that was put in place to provide margin to the MEOD boundary and that this procedure allowed the limit to be exceeded in certain cases with the operations shift manager's approval. The inspectors determined that the operations and reactor engineering personnel were not aware that the MEOD limit had been exceeded until after the event had occurred.

4OA3 Event Followup (71153)

.1 Notification of Unusual Event

a. Inspection Scope

On June 20, 2006, a minor earthquake occurred that was centered about 3 miles northwest of Perry. The inspectors responded to the control room and observed the licensee's declaration of a Notice of Unusual Event and operator performance associated with the event. The licensee's actions included plant walkdowns to inspect for damage and ground water sampling to inspect for leaks. The licensee identified no adverse affects resulting from the earthquake. The inspectors conducted confirmatory walkdowns of safety significant areas of the plant and reviewed the licensee's actions to determine whether the actions were consistent with procedures and TS requirements.

b. Findings

No findings of significance were identified.

This review represented the first of six inspection samples.

.2 LER 05000440/2006-003-00 Incorrect Wiring in the Division 1 Emergency Diesel Generator Results in a Fire Protection Program Violation.

A discussion of this event, and an associated licensee-identified NCV, is contained in Section 4OA7 of this report.

This review represented the second of six inspection samples.

.3 Reactor Recirculation System Vortex and Reactivity Event

a. Inspection Scope

On July 6, 2006, control room operators responded to unexpected local power range monitor and rod block alarms that immediately reset. Operators determined that a reactor recirculation system vortex shedding event had occurred, which caused a brief neutron flux spike. The inspectors reviewed the operator performance associated with the reactivity event. The inspectors reviewed the licensee's actions to determine whether the actions were consistent with procedures and TS requirements.

This review represented the third of six samples for this inspection procedure.

b. Findings

No findings of significance were identified.

.4 Reactor Downpower and Rod Control and Indication System (RCIS) Failure

a. Inspection Scope

On July 8, 2006, control room operators reduced reactor power to about 61 percent to conduct planned maintenance. Subsequently, a failure occurred in the RCIS that prevented rod withdrawal. The inspectors observed the operator performance associated with the power maneuvers and the operator response to the failure of RCIS. The inspectors reviewed the licensee's actions to determine whether the actions were consistent with procedures and TS requirements.

This review represented the fourth of six samples for this inspection procedure.

b. Findings

No findings of significance were identified.

.5 Maximum Extended Operating Domain Boundary Excursion During Power Ascension

a. Inspection Scope

On July 9, 2006, control room operators conducted a reactor power ascension to 100 percent power. While withdrawing rods, control room operators exceeded an

administrative power to flow operating limit and questioned whether the plant remained within the maximum extended operating domain boundary limit. On July 10, 2006, licensee personnel determined that the maximum extended operating domain boundary line of the power to flow map was exceeded during the power ascension. The inspectors reviewed the operator performance associated with the power ascension that contributed to the domain boundary excursion. The inspectors reviewed the licensee's actions to determine whether the actions were consistent with procedures and TS requirements.

This review represented the fifth of six samples for this inspection procedure.

b. Findings

No findings of significance were identified.

.6 Reactor Downpower for "A" Reactor Turbine-Driven Feed Pump Emergent Maintenance

a. Inspection Scope

On September 11, 2006, control room operators conducted a reactor power reduction to 80 percent power in order to troubleshoot an emergent thrust bearing wear indication system alarm on the "A" reactor turbine-driven feed pump. Operators started the motor-driven feed pump prior to the power reduction and then secured the "A" reactor turbine-driven feed pump after reaching 80 percent power. The inspectors observed the operator performance associated with the power reduction and the manipulation of the reactor feed system. The inspectors reviewed the licensee's actions to determine whether the actions were consistent with procedures and TS requirements.

This review represented the sixth of six samples for this inspection procedure.

b. Findings

No findings of significance were identified.

4OA5 Other Activities

.1 Review of World Association of Nuclear Operators (WANO) Report

The inspectors completed a review of the interim report for the WANO May 2006 Peer Review, dated June 27, 2006. No additional followup is planned.

.2 Licensee Strike Contingency Plans (92709)

a. Inspection Scope

The inspectors completed an evaluation of the adequacy of strike contingency plans and implementation associated with the transition to the licensee's new contract with the labor union. The inspectors reviewed the adequacy of qualified personnel staffing,

maintenance of reactor operation and facility security, and determined whether the plan was in compliance with TS and the CFR.

b. Findings

No findings of significance were identified.

4OA6 Meetings

.1 Exit Meeting

On September 28, 2006, the resident inspectors presented the inspection results to Mr. L. Pearce, Site Vice President, and other members of his staff who acknowledged the findings.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

.2 Interim Exit Meeting

An interim exit meeting was conducted for:

- Maintenance Effectiveness Periodic Evaluation with Mr. J. Shaw, Engineering Director, on September 14, 2006.

4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as an NCV.

Cornerstone: Mitigating Systems

- License Condition C(6), "Fire Protection," required the licensee to implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report, as amended. The Updated Final Safety Analysis Report, Revision 12, Section 9A.6 Response L, "Fire Protection of Safe Shutdown Capability," referred to USAR Section 7.4.1.4, "Remote Shutdown System." USAR Section 7.4.1.4 stated that the "Division 1 remote shutdown capability is designed to control the required shutdown systems from outside the control room irrespective of shorts, opens or grounds in the control circuit in the control room that may have resulted from an event causing an evacuation." Contrary to this requirement, on May 4, 2006, licensee personnel identified that the Division 1 EDG control room "pull-to-lock" control switch was not designed to isolate the control room from the local Division 1 EDG controls in the event of a control room fire and that a potential fire induced hot short in the EDG logic circuit could have resulted in a failure to start or a spurious trip of the EDG even if control was transferred to local. The licensee implemented procedure changes to address the issue and entered the issue into

their corrective action program as CR 06-01930, "Additional Fire Protection Evaluation Needed For EDG Circuit," dated May 2, 2006. The Region III Senior Reactor Analysts (SRAs) performed a Phase 3 SDP evaluation of the issue because Inspection Manual Chapter (IMC) 0609, Appendix F, "Fire Protection SDP," does not address control room evacuation scenarios. Based on information from the licensee's Individual Plant Examination for External Events (IPEEE), the control room panel fire scenario that could result in a fire-induced hot short and the unavailability of the Division 1 EDG does not result in a loss of offsite power. Additionally, fire spread from the Division 1 EDG control panel to the control room panels for offsite power controls was unlikely to occur because of the construction of the control panels and the separation of the panels. Therefore, a fire that would cause a loss of offsite power and result in the postulated hot short was not a credible fire. The SRAs determined that the finding was of very low safety significance (Green) due to the low likelihood of the postulated fire concurrent with a non-fire induced loss of power to Division 1 offsite power.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee Personnel

L. Pearce, Vice President-Nuclear  
F. von Ahn, General Manager, Nuclear Power Plant Department  
R. D. Gray, Maintenance Rule Program Engineer  
J. Lausberg, Manager, Regulatory Compliance  
G. Halnon, Director, Performance Improvement Initiative  
J. Messina, Manager, Operations  
M. Wayland, Director, Maintenance  
J. Shaw, Director, Nuclear Engineering  
S. Thomas, Manager, Radiation Protection  
K. Russell, Regulatory Affairs

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

#### Opened

05000440/2006004-01	URI	Failure to Promptly Correct Degraded Condition of the Reactor Recirculation Pump CO <sub>2</sub> Fire Suppression System (Section 1R05 )
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#### Closed

05000440/2006-003-00	LER	Incorrect Wiring in the Division 1 Emergency Diesel Generator Results in a Fire Protection Program Violation (Section 71153)
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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 or 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.

### **Section 1R01 Adverse Weather Protection**

PAP-1121; Conduct of Infrequently Performed Tests or Evolutions; Revision 4  
PTI-GEN-P0023; Mussel Monitoring; Revision 4  
PTI-GEN-P0024; Mussel Treatment; Revision 11  
CR 06-03857; Delays Encountered During Performance of the Zebra Mussel Treatment; dated August 22, 2006

### **Section 1R04 Equipment Alignment**

VLI-E12; Residual Heat Removal System Valve Lineup Instruction; Revision 6; dated August 12, 2005  
CR 05-05994; Potential Preconditioning During RHR Valve Stroke SVI; dated August 12, 2005  
CR 05-06551; PCR [Procedure Change request] SVI-E12-T2003 Errors in Procedure; dated September 12, 2005  
CR 06-01063; Inoperability Time for RHR Pump B Due to Momentary Low Discharge Pressure; dated March 4, 2006  
CR 06-02390; Agastat Relay Installed in Incorrect Orientation; dated May 26, 2006  
CR 06-03287; NRC Identified - 1E12F0547C Leaking by; dated July 24, 2006  
VLI-C41; Standby Liquid Control System Valve Lineup Instruction; Revision 8; dated September 6, 2005  
CR 06-01076; SLC [Standby Liquid Control] Pump A Oil Leak Due to Being Overfilled; dated March 2, 2006  
CR 06-01147; Results of Plant Walkdown Reported to the Control Room by the NRC Resident; dated March 9, 2006  
CR 06-01737; Standby Liquid Control Injection Pump Leaking Oil; dated April 18, 2006  
CR 06-01776; Performance Vibration Monitoring of 1C41C0001A Not on PWIS; dated April 21, 2005  
CR 06-02597; SLC A Pump Sightglass Weepage; dated June 7, 2006  
CR 05-07658; Filter Plenum Door Not Properly Dogged for 1M15D0001B; dated November 17, 2005  
CR 06-6379; 1M15C0001A Low Flow Alarm Being Received with Fan Normal Operation; dated September 15, 2006  
VLI-M15; Annulus Exhaust Gas Treatment System (Unit 1); Revision 4  
System Description Manual; Annulus Exhaust Treatment System; Revision 4



### **Section 1R05 Fire Protection**

FPI-TB; Turbine Building; Revision 2  
FPI-OCC; Control Complex; Revision 5  
PAP-1910, Fire Protection Program; Revision 12  
WO 200213008; Carbon Dioxide Storage Tank Pressure and Capacity Verification; dated August 2, 2006  
PTI-P54-P0016; Carbon Dioxide Storage Tank Pressure and Level Verification; Revision 4  
CR 03-05887; Continual Degradation of the Fire Protection Carbon Dioxide Storage Tanks; dated October 23, 2003  
CR 06-02577; Notification Generated for CO2 Tank A006; dated June 3, 2006  
CR 06-02453; CO2 Tank #6 Compressor Not Maintaining Pressure; dated May 31, 2006  
CR 06-01440; Unplanned Impairment for Drywell CO2 System; dated March 29, 2006  
CR 06-00794; CO2 Storage Tank Bleeder Valve; dated February 16, 2006  
CR 05-07988; CO2 Tank #6 (PY-1P54A0006) Has Had a Long History of Losing Pressure; dated December 9, 2005  
CR 05-07112; Unplanned Impairment for Reactor Recirculation CO2 System; dated October 12, 2005  
CR 05-06249; Unplanned Fire Impairment for Reactor Recirculation Pumps CO2 system; dated August 24, 2005  
FPI-1AB; Auxiliary Building, Revision 2  
CR 06-6349; Building Roof Repairs Inadvertently Covered Parapet Wall Scuppers; dated September 14, 2006  
CR 06-6866; NRC Resident Noted RCIC [Reactor Core Isolation Cooling] Pump Outboard Bearing Trico Oiler Rotated; dated September 26, 2006  
CR 06-6892; NRC Resident Noted RCIC Pump Outboard Bearing to Trico Oiler Pipe is Sloped; dated September 27, 2006  
USAR Section 9A.4.2.1.3; Fire Zone 1AB-1c; Revision 5  
FPI-1AB; Unit 1 - RCIC System Pump Room; Revision 2

### **Section 1R06 Flood Protection**

Calculation 50:26.000; Evaluation of Roof Drain Capacity; dated May 13, 2005  
CR 04-04300; Roof Drain Calculations Can Not be Found; dated August 13, 2004  
CR 04-06761; Numerous Leaks from Various Plant Roofs; dated December 23, 2004  
CR 05-05415; Roof Leaks Continue to Pose a Threat to Vital Plant Equipment; dated July 16, 2005  
USAR Section 2.4.2.3; Effects of Local Intense Precipitation; Revision 12

### **Section 1R11 Licensed Operator Requalification**

OTLC-3058200609\_PY\_SGD; Simulator Guide; dated July 3, 2006; Revision 0

### **Section 1R12 Maintenance Effectiveness**

Maintenance Rule Monitor; P53 Containment Airlock System; dated August 1, 2006  
CR 06-00523; Leakage in Excess of Allowable for 8 Hour Duration Test Per SVI-P53-T7312; dated February 2, 2006

CR 06-01386; Apparent Cause CRCAS to Track Orders to Completions Accepted but Never Scheduled; dated March 22, 2006

CR 06-02019; Upper Airlock Outer Door Declared Inoperable Due to Faulty Pressure Switch; dated May 7, 2006

CR 06-02047; Drywell Airlock Inner Door Mechanism Binding; dated May 9, 2006

CR 06-02023; FME [Foreign Material Exclusion] Discovered in Upper Containment Pressure Switch Tubing (1P53N702A); dated May 7, 2006

CR 06-02083; Precursor [sic] to a Missed Surveillance; dated May 10, 2006

CR 06-02230; ECP Revision Required Due to Drawing Changes; dated May 16, 2006

CR 06-02470; Upper Air Lock Hinge Door Will Not Receive Grease; dated May 31, 2006

CR 06-02703; Lower Containment Airlock Inner Door Large Seal; dated June 13, 2006

CR 06-02681; Lower Containment Outer Door Unsafe Light Lit; dated June 14, 2006

CR 06-02730; Unplanned Inoperability for Lower Containment Airlock Inner Door; dated June 16, 2006

CR 06-02887; Loss of Power to Lower Containment Airlock Panel; dated June 28, 2006

CR 06-02691; Bent Valve Stem - Lower Containment Lock; dated June 14, 2006

CR 06-03244; Elevated Turbine Building (East) Area Temperatures; dated July 21, 2006

CR 06-00292; NRC Pre-Inspection ID - Steam Tunnel Temperature Design Information; dated January 19, 2006

CR 06-01715; E31-R613C Reading is Not Consistent with Local Indication; dated April 15, 2006

CR 05-07643; Drywell FDS [Floor Drain Sump] Recorder Failed. Possible Repeat Maintenance Item; dated November 17, 2005

CR 05-01031; 1E31N692 for RPV [Reactor Pressure Vessel] Head Flange Pressure Slowly Trending Up; dated February 12, 2005

CR 04-0426; Audit PY-C-04-03, RCS [Reactor Coolant System] Leakage Detection Instrumentation TS 3.4.7 Compliance; dated September 3, 2004

PAP-1125; Monitoring the Effectiveness of the Maintenance Program Plan; Revision 7

PYBP-PES--0001; Maintenance Rule Reference Guide; Revision 13

Periodic Assessment of Maintenance Rule Program - Perry Nuclear Power Plant; Cycle 10; May 31, 2003 through May 6, 2005; dated June 30, 2006

Maintenance Rule Program Self Assessment; dated June 10, 2005

Plant System Health Report; E22 - High Pressure Core Spray System; 2003 to 2006

Plant System Health Report; B33 - Reactor Recirculation System; 2003 to 2006

Plant System Health Report; R43 - Division 1 & 2 Diesel Generator System; 2003 to 2006

Plant System Health Report; D17 - Plant Radiation Monitoring & Process Monitoring; 2003 to 2006

Maintenance Rule (a)(1) Goal Setting & Goal Monitoring; Reactor Recirculation; dated January 6, 2005

Maintenance Rule (a)(1) Goal Setting & Goal Monitoring; Plant Radiation Monitoring; dated July 20, 2004

Maintenance Rule (a)(1) Goal Setting & Goal Monitoring; Diesel Generator; dated July 20, 2004

Maintenance Rule (a)(1) Goal Setting & Goal Monitoring; HPCS; dated October 23, 2002

CR 04-03757; The Offgas Pipe Monitor Indicated Off Scale High; dated July 20, 2004

CR 04-06649; During Operability Test HPCS Waterleg Pump Discharge Low Alarm Locked In; dated December 17, 2004

CR 05-04114; During Test Water Was Found Leaking From Division 2 EDG Crankcase Exhaust; dated May 6, 2005

CR 06-02024; Received B Reactor Recirculation Hydraulic Power Unit Low Tank Oil Alarm; dated May 8, 2006  
Maintenance Rule Expert Panel Meeting No. 237; dated August 11, 2005

### **Section 1R13 Maintenance Risk Assessments and Emergent Work Control**

Perry Work Implementation Schedule; Week 04, Period 6  
Perry Work Implementation Schedule; Week 05, Period 6  
NOP-OP-1007; Grid Risk Determination; Revision 2  
Perry Work Implementation Schedule; Weeks 08/09, Period 6  
Maintenance Risk Evaluation; Week 10, Period 6; Revision 1  
Perry Work Implementation Schedule; Week 10, Period 6  
Perry Work Implementation Schedule; Week 12, Period 6  
Maintenance Risk Evaluation; Week 12, Period 6; Revision 1

### **Section 1R15 Operability Evaluations**

CR 06-03071; EDG Flywheel Coverguard is Not Seismically Qualified for the Division 1 & 2 EDGs; dated July 11, 2006  
CR 06-03357; Latent Issue Error Found in Calculation P54-026 R/0; dated July 27, 2006  
CR 06-03505; Pipe Cracks and Resultant Flood 620'-6" Control Complex; dated August 3, 2006  
CR 06-03105; Relief Valve Has Not Been Tested Within Required Frequency; dated July 13, 2006  
Operability Determination; Ultra Low Sulfur #2 Fuel Inadvertently Added to Division 3 Diesel Generator Fuel Oil Storage Tank; dated September 8, 2006  
CR 06-06557; Lube Oil Analysis Indicates Expedited Maintenance on RCIC Turbine; dated September 21, 2006

### **Section 1R19 Post-Maintenance Testing**

GMI-176; Containment Airlock Door Maintenance; Revision 4  
CR 06-02730; Unplanned Inoperability for Lower Containment Airlock Inner Door  
CR 06-02801; Airlock Lower Inner Door 3-Way Valve (1P53F0578B) Found Not Assembled Correctly; dated June 21, 2006  
WO 200202745; Electric and Diesel Fire Pump Functional Test; dated July 31, 2006  
GEI-0049; AC [Alternating Current] and DC [Direct Current] Motor Testing; Revision 3  
WO 200199809; Generator Hydrogen Seal Oil Vacuum Pump; dated February 14, 2006  
WO 200172077; RCIC Pump and Valve Operability Test; dated August 14, 2006  
WO 200222604; APRM [Average power Range Monitor] G Channel Calibration; dated August 25, 2006  
WO 200226624; Troubleshoot and Repair RFPT [Reactor Feed Pump Turbine] "A" Thrust Bearing Wear Detector Alarm; dated September 9, 2006  
SOI-N27; Feedwater System; Revision 29  
WO 200227613; RWCU [Reactor Water Cleanup] Flow Dynamic Compensator; dated September 20, 2006  
SVI-G41-T2001; Fuel Pool Cooling and Cleanup System Pump and Valve Operability Test; Revision 8

PMI-0030; Maintenance of Limitorque Valve Operators; Revision 13  
WO 200138838; Containment Pool Influent Isolation Valve; dated September 26, 2006

### **Section 1R22 Surveillance Testing**

NOP-WM-2003; Work Management Surveillance Process; Revision 0  
SVI-E21-T2001; Low Pressure Core Spray System Pump and Valve Operability Test; Revision 19  
CR 06-00359; LPCS Suppression Pool Suction Valve Undersized Fuses; dated January 24, 2006  
CR 06-00460; Calculation E21-014, R/3 Has an Apparent Error in its Methodology; dated January 31, 2006  
WO 200172082; Low Pressure Core Spray Pump and Valve Operability Test; dated July 13, 2006  
SVI-P45-T2003; High Pressure Core Spray Essential Service Water Pump and Valve Operability Test; Revision 12  
CR 06-03322; SVI-P45-T2003 Procedure Change Request; dated July 26, 2006  
CR 06-03341; Unsat Observation - SVI-P45-T2003, HPCS ESW Pump and Valve Operability Test; dated July 26, 2006  
CR 06-03358; Non-consequential Rounding Error in SVI-P45-T2003; dated July 26, 2006  
CR 06-03310; Inability to Meet Hourly Adherence PWIS Activity (SVI-P45-T2003); dated July 26, 2006  
CR 06-03408; NRC Identified Issue - Recording/Rounding Practices During Surveillance Testing; dated July 28, 2006  
SVI-R43-T1318; Diesel Generator Start and Load Division 2; Revision 10  
CR 06-03707; SOI [System Operating Instruction] Step Inappropriately NA'd; dated August 15, 2006  
CR 06-03200; Division 2 DG Flywheel Cover Fasteners Missing; dated July 19, 2006  
CR 06-03156; PM [Preventative Maintenance] Past Its Overdue Without an Approved Deferral; dated July 17, 2006  
SVI-C41-T2001-B; Standby Liquid Control B Pump and Valve Operability Test; Revision 9  
CR 06-02784; Particulate Counts Increasing to Unacceptable Range; dated July 20, 2006  
CR 06-02596; SLC "B" Coupling Oil Separating from the Grease; dated June 7, 2006  
WO 200164637; Standby Liquid Control B Pump and Valve Operability Test; dated August 18, 2006  
SVI-C41-T2001-B; Standby Liquid Control B Pump and Valve Operability Test; Revision 9  
WO200171463; OPRM [Oscillating Power Range Monitor] Channel G Functional for 1C51-K603G; dated August 21, 2006  
SVI-M14T9313; Type C Local Leak Rate Test of 1M14 Penetration V313; dated August 28, 2006  
SVI-M14T9314; Type C Local Leak Rate Test of 1M14 Penetration V314; dated August 28, 2006

### **Section 1R23 Temporary Plant Modifications**

TM 06-0011; M38 Auxiliary Building Ventilation Intake on the Auxiliary Building Roof; dated July 31, 2006

### **Section 1EP6 Drill Evaluation**

Emergency Plan Drill Guidebook; Training Drill September 16, 2006  
CR 06-6259; ERO [Emergency response Organization] Training Drill PAR [Protective Action Recommendation] Incorrect; dated September 12, 2006  
CR 06-6310; ERO Training Drill Incorrect EAL [Emergency Action Level] Declaration; dated September 13, 2006

### **Section 4OA2 Identification and Resolution of Problems**

CR 06-03047; MEOD Boundary Line Exceeded During Power Ascension on July 9<sup>th</sup>; dated July 10, 2006  
CR 06-03902; CNRB [Company Nuclear Review Board] - Additional Interim Intervention Measures For Operation Above MEOD Limit; dated August 28, 2006  
Control Room Operator Logs; dated July 9-11, 2006

### **Section 4OA3 Event Followup and Notices of Enforcement Discretion**

Control Room Logs; dated July 6, 2006  
IOI-3; Power Changes; Revision 26  
FTI-B0002; Control Rod Movements; Revision 8  
ONI-C51; Unplanned Changes in Reactor Power or Reactivity; Revision 20  
PDB-A0006; Power Flow Map; Revision 11  
CR 06-02993; Reactor Vortex Event; dated July 6, 2006  
ONI-C11-1; Inability to Move Control Rods; Revision 10  
Control Room Logs; dated July 8-9, 2006  
CR 06-03038; Targeted Control Rod Pattern Not Achieved During July 8<sup>th</sup> Down Power; dated July 9, 2006  
CR 06-03047; MEOD Boundary Line Exceeded During Power Ascension on July 9<sup>th</sup>; dated July 10, 2006  
CR 06-03158; ONI-C51 Entry Not Evaluated for Exceeding MEOD on 7/09/06; dated July 17, 2006  
Licensee Personnel Statements; MEOD Boundary Line Exceeded; dated July 10-12, 2006  
Reactivity Plan; dated July 7, 2006  
PYBP-POS-0011; Reactivity Plans; Revision 0  
NOP-OP-1004; Reactivity Management; Revision 3  
Operations Night Order; dated July 10, 2006  
CR 06-03617; USAR Description of MEOD Boundary Is Not Accurate; dated August 9, 2006  
Control Room Logs; dated September 10-11, 2006  
CR 06-01930; Additional Fire Protection Evaluation Needed For EDG Circuit; dated May 2, 2006

## LIST OF ACRONYMS USED

AEGTS	annulus exhaust gas treatment system
CFR	<u>Code of Federal Regulations</u>
CR	condition report
EDG	emergency diesel generator
FENOC	FirstEnergy Nuclear Operating Company
FPI	Fire Protection Instruction
FSAR	Final Safety Analysis Report
IMC	Inspection Manual Chapter
LER	Licensee Event Report
MEOD	maximum extended operating domain
NCV	non-cited violation
NRC	Nuclear Regulatory Commission
PAP	Perry Administrative Procedure
PMT	post-maintenance testing
RCIS	Rod Control and Indication System
RHR	residual heat removal
SSC	structures, systems, and components
SVI	surveillance instruction
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report
USAR	Updated Safety Analysis Report
VLI	Valve Lineup Instruction
WANO	World Association Of Nuclear Operators
WO	work order