July 13, 2001

Mr. John K. Wood
Vice President - Nuclear
FirstEnergy Nuclear Operating Company
P. O. Box 97, A200
Perry, OH 44081

SUBJECT: PERRY NUCLEAR POWER PLANT
NRC INSPECTION REPORT 50-440/01-09

Dear Mr. Wood:

On June 30, 2001, the NRC completed an inspection at your Perry Nuclear Power Plant. The enclosed report documents the inspection findings which were discussed on June 27, 2001, 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.

Based on the results of this inspection, the inspectors identified one issue of very low safety significance (Green). The issue was determined to involve a violation of NRC requirements. However, because of the very low safety significance and because it has been entered into your corrective action program, the NRC is treating this issue as a Non-Cited Violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny the Non-Cited Violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington DC 20555-0001; and the NRC Resident Inspector at the Perry facility.

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Sincerely,
Original signed by
Laura L. Collins

Laura L. Collins, Acting Chief
Branch 4
Division of Reactor Projects

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

Enclosure: Inspection Report 50-440/01-09

cc w/encl: B. Saunders, President - FENOC
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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-440
License No:	NPF-58
Report No:	50-440/01-09
Licensee:	FirstEnergy Nuclear Operating Company (FENOC)
Facility:	Perry Nuclear Power Plant, Unit 1
Location:	P.O. Box 97 A200 Perry, OH 44081
Dates:	May 15 through June 30, 2001
Inspectors:	Christine A. Lipa, Senior Resident Inspector Rene Vogt-Lowell, Resident Inspector John E. House, Senior Radiation Specialist
Approved by:	/s/Laura L. Collins Laura L. Collins, Acting Chief Branch 4 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000440-01-09; on 05/15-06/30/2001; FirstEnergy Nuclear Operating Company; Perry Nuclear Power Plant. Reactor Operations, Occupational and Public Radiation Safety, Other; Post-Maintenance Testing, (IP 71111.19).

This report covers a 6-week routine inspection and a Occupational and Public Radiation Safety inspection. The inspection was conducted by resident inspectors and a regional specialist inspector. One Green finding was identified, which was a Non-Cited Violation. The significance of the finding is indicated by the color (Green, White, Yellow, Red) using Manual Chapter 0609 "Significance Determination Process" (SDP). The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at **http://www.nrc.gov/NRR/OVERSIGHT/index.html.**

A. Inspector Identified Findings

Cornerstone: Mitigating Circumstances

Green. The licensee's failure to properly control the design, manufacture, and installation of a modification to the emergency diesel generator ventilation system was self-revealed during post-maintenance testing. One damper failed and other dampers showed evidence of degradation. A Non-Cited Violation was identified for inadequate design control (Section 4OA5).

The finding was of very low safety significance because, although supporting equipment for a mitigating system was failed or degraded, the allowed outage time for the mitigating system was not exceeded. The inspectors used the Phase 1 worksheet to assess the safety significance of the issue.

Report Details

Summary of Plant Status

At the beginning of the inspection period on May 15, 2001, the main generator was synchronized to the grid, after completing the process of starting up from an outage during which the "B" reactor recirculation pump seal had been replaced. On May 17, an administrative power limit of 73 percent load line and 105 percent maximum core flow was imposed by the licensee, based on degradation of the "B" circulating water pump. On May 21, the "A" circulating pump showed similar signs of degradation and the licensee commenced an orderly shutdown via insertion of a manual scram from approximately 20 percent power. During the ensuing shutdown period, the licensee completed replacement of the impellers on the "A" and "B" circulating water pumps and proceeded with the replacement of the "C" circulating water pump impeller as well. The licensee started up the reactor on June 1, when Mode 2 was entered. The main generator was synchronized to the grid on June 2 with full power was attained on June 5. Subsequent to synchronization of the main generator, a condenser vacuum administrative limit of 5 inches mercury absolute (HgA) was imposed by the licensee. This self-imposed administrative limit resulted in various small power adjustments over the next several days, based on ambient conditions, until such time as the "C" circulating water pump became available. That occurred on June 14 and power was then returned to 100 percent. Power has effectively remained at 100 percent for the duration of the inspection period, with the exception of a brief period on June 23-24 when power was reduced to approximately 70 percent for a rod sequence exchange and turbine valve testing.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

Reactor (R)

1R01 Adverse Weather (71111.01)

Preparation for Warm Weather, High Winds, or Tornado

a. Inspection Scope

The inspectors reviewed relevant procedures and performed a walkdown of plant areas and licensee preparations for adverse weather, including conditions that could lead to loss of off-site power and conditions that could result from high temperatures or high winds. The inspectors focused on design features that mitigate adverse weather and the licensee's procedures that are used to respond to adverse weather indications. Procedures reviewed included: ONI-ZZZ-1, "Tornado or High Winds," IOI-15, "Seasonal Variations," and SOI-P45/49, "Emergency Service Water and Screen Wash Systems." An associated plant modification related to the ultimate heat sink was reviewed under Section 1R17.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04Q)

a. Inspection Scope

The inspectors walked down the risk significant emergency diesel generation (EDG) system ventilation dampers and the temperature controllers while one train was inoperable in each of the 3 Divisions.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspectors walked down selected risk significant areas looking for any fire protection issues related to: the control of transient combustibles, ignition sources, fire detection equipment manual suppression capabilities, passive suppression capabilities, automatic suppression capabilities, and barriers to fire propagation. Areas walked down were the control room, reactor core isolation pump room, Division 3 battery room, Division 1 and 2 switchgear rooms, turbine power complex, auxiliary building and intermediate building.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

a. Inspection Scope

On June 19, 2001, the inspectors reviewed the licensee's operator training program to evaluate operator performance in mitigating the consequences of a simulated event. The inspectors observed operator performance during a simulator training scenario for an anticipated transient without scram (ATWS). The inspectors evaluated the following attributes of the activity:

- communication clarity and formality
- timeliness and appropriateness of crew actions
- prioritization, interpretation, and verification of alarms
- control board manipulations
- correct use and implementation of procedures
- oversight and direction provided by the shift supervisor and shift manager
- group dynamics

The inspectors also evaluated the performance of the training evaluators and their critique of the crew's performance.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12Q)

a. Inspection Scope

The inspectors reviewed equipment issues, surveillance failures, and other performance problems for the systems or components listed below. The inspectors reviewed whether the components were properly scoped in accordance with the Maintenance Rule, whether failures were properly characterized, and whether the performance criteria were appropriate. In addition, the inspectors reviewed condition reports (CRs) associated with implementation of the maintenance rule to determine if the licensee was identifying problems and entering them in the corrective action program. The problem identification and resolution (PIR) CRs reviewed are listed in the attached List of Documents Reviewed.

- Circuit Breakers. The inspectors reviewed CRs associated with two breaker failures. Condition Report 00-3088 discussed the H1105 breaker failure, which was found to be missing a spacer ring from the auxiliary contacts. Condition Report 00-2096 discussed the inability to rack out breaker EF1A03 from the pocket.

- Reactor core isolation cooling system trip throttle valve. Condition Report 00-2151 documented that the valve tripped for no apparent reason.

- Emergency Service Water Strainer Backwash System. The inspectors reviewed several CRs associated with degraded components within the system. Condition Reports include: 00-3490, 01-1175, 00-1716, and 01-474.

- Emergency Diesel Generator Ventilation System Dampers. The inspectors reviewed CR 00-1370, which documented a failure of the Division 3 damper in May 2000.

- Emergency Closed Cooling Water (ECC) "A" Controller. The inspectors reviewed CR 01-0430, which documented the discovery of the ECC heat exchanger temperature control valve "A" being in manual and set to the minimum position.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors reviewed the licensee's risk assessment associated with a forced outage the week of May 21 through May 26, 2001. The inspectors reviewed the licensee's assessment and observed shutdown safety postings.

a. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions (71111.14)

a. Inspection Scope

On May 21, the inspectors observed portions of a controlled shutdown that was initiated due to indications of a degraded "A" circulation water pump.

On June 1, the inspectors observed portions of the reactor startup at the completion of the forced outage that began May 21.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope (71111.15)

The inspectors reviewed an operability determination associated with a valve alignment issue on the emergency closed cooling (ECC) system. On April 2, 2001, operators identified that ECC "B" surge tank sight glass valve P42F0668 was opened instead of closed as required. The inspectors reviewed the licensee's evaluation, as documented in CR 01-1715.

The inspectors also reviewed the licensee's operability determinations associated with welding concerns that were raised on the EDG ventilation damper couplings. On April 30, 2001, the system engineer initiated CR 01-2015 to document welding discrepancies on the EDG ventilation dampers that were installed per Design Change Package 00-5027. The inspectors reviewed the list of discrepancies that were identified and the licensee's assessment of the impact on operability.

b. Findings

No findings of significance were identified.

IR16 Operator WorkArounds (71111.16)

a. Inspection Scope

The inspectors reviewed the cumulative effects of operator workarounds on the reliability, availability, and potential for mis-operation of a system. The inspectors also reviewed whether there was an impact on initiating event frequency, mitigating systems, or the ability to respond correctly to plant transients and accidents.

In addition, the inspectors reviewed an operator work around associated with the "B" emergency service water (ESW) strainer. The inspectors reviewed the vendor technical manual, related portions of the USAR procedures, walked down the system, and interviewed plant operators and engineers.

b. Findings

The inspectors identified some issues associated with the thoroughness of review and delay in correcting the backwash system on the ESW B discharge strainer. The issue had originally been identified on November 11, 2000, when the strainer high differential pressure alarm came in several times and the system was continuously backwashing. The operators initiated a repair tag (Work Order 00-9932), entered the issue into the corrective action program as CR 00-3490, added it to the list of operator workarounds, and installed a tag-out to defeat the automatic backwashing feature. The inspectors determined that repair was not scheduled until October, 2001, nearly 11 months after the condition was identified. The inspectors considered this item to be an unresolved item, pending further review of the licensee's documentation of the basis for deferral of the repair, the licensee's 10 CFR 50.59 evaluation for the long term tag-out, further discussion with operations management, and a review of the safety-significance (URI 50-440/01-09-01).

1R17 Permanent Plant Modifications (71111.17A)

a. Inspection Scope

The inspectors reviewed portions of the installation and testing of the two on-line modifications listed below. The modifications were selected based on the risk ranking of the systems. The inspectors reviewed the associated work order and safety evaluations. The inspectors reviewed the impact of the modification on the design basis, licensing basis, and performance capability for the affected systems.

- Safety-related Upgrade of ESW Sluice Gate Sealing System, SMRF 00-5013, Revision 4. The inspectors walked down accessible portions of the system and reviewed associated documents including Safety Evaluation 00-0085 and procedures changed as a result of the modification.

- Replace Unit 1 Division 3 Batteries, SMRF 99-5010. The inspectors inspected the final installation of the new batteries in the field. The inspectors also reviewed post-modification testing directed by Work Order 99-3985.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors selected the activities listed below for review. Completed work packages were reviewed and/or tests were observed to determine whether test requirements were met. The inspectors also reviewed other documents, such as the USAR, Technical Specifications (TSs), and Maintenance Procedures to determine if the testing was sufficient to demonstrate that the systems and components were capable of performing their intended safety functions.

- The inspectors reviewed post-maintenance testing results associated with Work Order 01-0709. The work order was a repetitive task for emergency closed cooling system motor operated valve P42F0325A.

- The inspectors reviewed the post-maintenance testing activities delineated in Work Order 01-10648 and associated with the rework of Circulating Water Pump "A."

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors witnessed or reviewed the test data for the below listed surveillance tests to determine whether requirements were met, consistent with applicable sections of TSs, USAR, and Plant Procedures. The inspectors reviewed whether test control was properly coordinated with the control room and performed in the sequence specified in the surveillance instruction and if test equipment was properly calibrated and installed to support the surveillance tests. In addition, the inspectors reviewed CRs associated with surveillance testing to determine if the licensee was identifying problems and entering them in the corrective action program. The problem identification and resolution (PIR) CRs reviewed are listed in the attached List of Documents Reviewed.

- SVI-E12-T2003, "RHR "C" Pump and Valve Operability Test" (Quarterly IST Sample)

- SVI-C51-T0027H, "APRM H Channel Functional for 1C51-K605H"
- PT1-P45-P0003, "ESW System Loop C Flow and Differential Pressure"

b. Findings

No findings of significance were identified.

1R23 Temporary Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed Temporary Modification 1-01-006, which was installed on the circulating water pumps. The Temporary Modification authorized the re-installation of the original bronze impellers, following failure of the stainless steel impellers. The licensee initiated a CR to investigate the cause of the failures.

b. Findings

No findings of significance were identified.

Emergency Preparedness (EP)

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

On June 19, 2001, inspectors observed a licensee evaluated simulator scenario, being conducted as part of the licensed operator requalification program, which required an emergency classification by the operating crew's shift supervisor. The inspectors determined that the correct classification and notifications were made within the required times.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control (71121.01)

Plant Walkdowns, Radiological Boundary Verifications, and Radiation Work Permit Reviews

a. Inspection Scope

The inspectors conducted walkdowns of the radiologically restricted area to verify the adequacy of radiological boundaries and postings. Specifically, the inspectors walked down several high and locked high radiation area boundaries in the Auxiliary, Radwaste, and Containment Buildings. Confirmatory radiation measurements were taken to verify

that these areas and selected radiation areas were properly posted and controlled in accordance with 10 CFR Part 20, licensee procedures and TSs.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (71122.01)

.1 Offsite Dose Calculation Manual (ODCM)

a. Inspection Scope

The inspectors reviewed the Annual Environmental and Effluent Release Report for the year 2000, to verify that the radiological effluent program was implemented as described in the Updated Safety Analysis Report (USAR) and the Offsite Dose Calculation Manual (ODCM). The inspectors reviewed changes made by the licensee to the ODCM as well as to the liquid and gaseous radioactive waste processing system design, procedures, or operation since the last inspection to verify that changes were documented in accordance with the requirements of the ODCM and the TSs.

b. Findings

No findings of significance were identified.

.2 Gaseous and Liquid Release Systems Walkdowns

a. Inspection Scope

The inspectors performed walkdowns of the major components of the gaseous and liquid release systems to verify that the current system configuration was as described in the USAR and the ODCM, and to observe ongoing activities and equipment material condition. This included radiation and flow monitors, demineralizers and filtration systems, compressors, tanks, and vessels. The inspectors also discussed the waste processing system operations and components with the cognizant system engineer to assess its overall operation.

b. Findings

No findings of significance were identified.

.3 Gaseous and Liquid Releases

a. Inspection Scope

The inspectors reviewed liquid and gaseous radioactive waste release records including radiochemical measurements to verify that appropriate treatment equipment was used, that the radwaste effluents were processed and released in accordance with the ODCM, and that releases met the 10 CFR Part 20 requirements. The inspectors also observed the collection of a liquid radwaste sample to verify that the sampling process was in compliance with station procedures.

b. Findings

No findings of significance were identified.

.4 Dose Calculations

a. Inspection Scope

The inspectors reviewed selected individual batch release records for the year 2001, along with the Annual Environmental and Effluent Release Report for the year 2000, to ensure that the licensee had properly determined the offsite dose to the public from radiological effluent releases, and to determine if any annual TS or ODCM (i.e., Appendix I to 10 CFR Part 50 values) limits were exceeded.

b. Findings

No findings of significance were identified.

.5 Air Cleaning Systems

a. Inspection Scope

The inspectors reviewed air cleaning system surveillance test results for the annulus exhaust gas treatment systems to ensure that test results were within the licensee's acceptance criteria. The inspectors reviewed surveillance test results for the gaseous release systems to verify that the flow rates were consistent with USAR values.

b. Findings

No findings of significance were identified.

.6 Effluent Monitor Calibrations

a. Inspection Scope

The inspectors reviewed calibration records of liquid and gaseous point of discharge effluent radiation monitors to verify that instrument calibrations were within the required

calibration frequency. The inspectors also reviewed the current effluent radiation monitor alarm setpoint values for agreement with station requirements.

b. Findings

No findings of significance were identified.

.7 Counting Room Instrument Calibrations and Quality Control

a. Inspection Scope

The inspectors reviewed the quality control records for radiochemistry instrumentation used to identify and quantitate radioisotopes in effluents, in order to verify that the instrumentation was calibrated and maintained as required by station procedures. This review included calibrations of gamma spectroscopy/spectrometry systems, liquid scintillation instruments, and associated instrument control charts.

b. Findings

No findings of significance were identified.

.8 Interlaboratory Comparison Program

a. Inspection Scope

The inspectors reviewed the results of the 1999, and 2000, Interlaboratory Comparison Program along with the radiochemistry quality control program (Section .7) in order to evaluate the licensee's capability to perform radiochemical measurements, and to assess the quality of radioactive effluent sample analyses performed by the licensee. The inspectors reviewed the licensee's quality assurance evaluation of the Interlaboratory Comparison Program and associated corrective actions for any deficiencies identified.

b. Findings

No findings of significance were identified.

.9 Identification and Resolution of Problems (71152)

a. Inspection Scope

The inspectors reviewed audits, self-assessments, and CRs generated in 2000 and 2001 to evaluate the effectiveness of the licensee's self-assessment process in the identification, characterization, and prioritization of problems, and to verify that previous radiological instrumentation and effluent related issues were adequately addressed. Condition reports that addressed radioactive treatment and monitoring program deficiencies were also reviewed to verify that the licensee had effectively implemented the corrective action program.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors verified the licensee's data for the performance indicator (PI) listed below. For the time periods indicated, the inspectors reviewed: (1) Operator Logs and Daily Plant Status Reports for information related to the indicator, and (2) CRs related to system equipment issues. The inspectors also verified that the licensee's data met the guidance in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 0.

- Reactor Coolant System Leakage, Q4 2000 - Q1 2001

b. Findings

No findings of significance were identified.

4OA3 Event Follow-up (71153)

a. Inspection Scope

The inspectors reviewed the licensee's event notification 38099 on June 27, 2001, where the licensee reported that the Oscillation Power Range Monitors were declared inoperable. The inspectors reviewed associated TS 3.3.1.3 and CR 01-2582.

b. Findings

No findings of significance were identified.

4OA5 Other

(Closed) URI 50-440/01-08-01. Failed Emergency Diesel Generator (EDG) Ventilation Damper Identified During Post Maintenance Testing.

a. Inspection Scope

The inspectors reviewed the licensee's root cause analysis of the failure as documented in CR 01-1801 and interviewed licensee engineering and maintenance personnel to resolve the issues associated with the URI.

b. Findings

Through this inspection, the inspectors determined that there was a licensee performance deficiency, in that there were several design control problems with the newly modified EDG ventilation dampers. This URI will be closed.

As documented in Inspection Report 50-440/01-08, following installation of newly modified dampers in each of the Divisional EDG rooms, the link arms on one Division 3 EDG ventilation damper had broken and the Division 1 link arms had some cracks. The licensee's root cause analysis report discussed the following root causes: (1) Lower strength material was supplied than the assumed strength used in the design calculations; (2) The link arms had reduced torsional capability due to the use of a 1" diameter shaft, which had not been fully tested or reviewed to assure that the specification requirements were met (the original design was a 3/4" shaft); (3) Lower than actual design loads were assumed for the link arm (use of incorrect code, no correction of the torque limits for bearing torque during flow, and assumed equal sharing of the torque between 2 link arms); (4) Actuation torques observed at the manufacturer's facility coupled with the bearing torque during flow would exceed the design limits, but this was not properly dispositioned prior to installation at Perry; and (5) Numerous alignment/binding problems were encountered during installation of the dampers at Perry that caused additional binding during operation of the dampers. This is discussed in the report as increasing the actuation forces, which degraded the drive blade link arms to a point that they later failed in low cycle fatigue.

This issue had a credible impact to safety because supporting equipment for a mitigating system train had failed and supporting equipment for other trains of the mitigating system was degraded. Using the Phase 1 screening worksheet provided in Manual Chapter 0609, the inspectors concluded that the issue was of very low safety significance (green). Each EDG has 2 redundant trains of ventilation. Therefore, there was an operable redundant train of ventilation to the failed ventilation train, and the failure of the one Division 3 damper did not result in the Division 3 EDG exceeding the TS allowed outage time. Also, although the Division 1 EDG dampers had cracks and were declared inoperable, the licensee's assessment is that the EDG remained fully functional in that as-found condition.

Criterion III of 10 CFR 50 Appendix B requires, in part, that measures shall be established: (1) to assure that appropriate quality standards are specified and included in design documents, (2) for selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the safety related functions of the components, and (3) for verifying or checking the adequacy of the design. The failure to properly design, manufacture, and install the new dampers is a Violation of 10 CFR 50, Appendix B, Criterion III. However, because of the very low safety significance of the item and because the licensee has included this item in their corrective action program, (CR 01-1801) this Violation is being treated as a Non-Cited Violation (NCV 50-440/01-09-02).

4OA6 Meeting(s)

Exit Meeting

The inspectors presented the inspection results to Mr. John Wood, Site Vice President and other members of licensee management at the conclusion of the inspection on June 27, 2001. The licensee acknowledged the findings presented. No proprietary information was identified.

Interim Exit Meeting Summary

Senior Official at Exit:	Mr. John Wood, Site Vice President
Date:	May 17, 2001
Proprietary:	No
Subject:	Radiological Effluents and Access Control
Change to Inspection Findings:	No

KEY POINTS OF CONTACT

Licensee

J. Wood, Vice President-Nuclear
B. Boles, Operations Manager
R. Strohl, Superintendent, Plant Operations
G. Dunn, Manager, Regulatory Affairs
D. Gudger, Supervisor, Compliance
T. Lentz, Manager, Design Engineering
K. Ostrowski, Director, Nuclear Services Department
D. Phillips, Manager, Plant Engineering
T. Rausch, Director, Nuclear Engineering Department
R. Schrauder, General Manager, Nuclear Power Plant Department

NRC

L. Collins, Acting Branch Chief, Reactor Projects, Branch 4

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-440/01-09-01	URI	Inability to Automatically Backwash ESW B Strainer
50-440/01-09-02	VIO	Design Control of Modification to EDG Dampers

Closed

50-440/01-08-01	URI	EDG Damper Linkages Fail/Crack Following Modification
50-440/01-09-02	VIO	Design Control of Modification to EDG Dampers

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
ATWS	Anticipated Transient Without Scram
CFR	Code of Federal Regulations
CR	Condition Report
ECC	Emergency Closed Cooling Water System
EDG	Emergency Diesel Generator
ESW	Emergency Service Water
FENOC	FirstEnergy Nuclear Operating Company
HPCS	High Pressure Core Spray
IOI	Integrated Operating Instruction
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
ODCM	Offsite Dose Calculation Manual
PARS	Publicly Available Records
PIR	Problem Identification and Resolution
RCIC	Reactor Core Isolation Cooling
SDP	Significance Determination Process
SVI	Surveillance Instruction
TS	Technical Specifications
URI	Unresolved Item
USAR	Updated Safety Analysis Report

LIST OF DOCUMENTS REVIEWED

1R01 Adverse Weather

IOI-15	Seasonal Variations	
SOI-P45/49	Emergency Service Water and Screen Wash Systems	
CR 01-2481	Feedbooster pumps high stator temperatures	June 18, 2001
CR 01-2361	Feedwater seal injection pumps	June 4, 2001
	Licensee Summary Paper, “Warm Weather Status - Summer of 2001"	June 26, 2001

1R04 Equipment Alignment

SOI-M43	Diesel Generator Building Ventilation System	
CR 01-2587	EDG Damper Hold Down Bolting	June 28, 2001
CR 01-0220	Ventilation Damper Installation Information	January 19, 2001
VLI-M43	Valve Line-up, Diesel Generator Building Ventilation System	

1R12 Maintenance Rule

Technical Manual	R. P. Adams - Strainer for ESW	
CR 00-1370	Division 3 EDG damper failure	May 6, 2000
CR 00-3088	Breaker H1105 aux contacts problem	October 5, 2000
CR 00 2096	Unable to rack breaker out of pocket	July 12, 2000
CR 00-2151	RCIC trip throttle valve tripped	July 17, 2000
CR 01-2575	Past Operability/Maintenance Rule Evaluations	June 27, 2001
CR 01-0430	ECC A Controller Found in Manual	February 6, 2001

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

CR 01-2528	Incomplete Risk Assessment Documentation	June 22, 2001
CR 01-2563	Unavailable components not assessed for risk impact	June 26, 2001

1R15 Operability Evaluations

CR 01-1715	ECC System Valve out of position	April 2, 2001
CR 01-2015	EDG Damper Welding concerns	April 30, 2001

1R16 Operator Workarounds

Nuclear Operating Company FENOC Guideline	FENOC Work-Around and Control Room Deficiency Guidelines	January 17, 2000
Management and Communications (M&C) 14	Work Around Policy	February 15, 2000
SOI-P45/49	Emergency Service Water and Screen Wash Systems	
CR 01-0474	ESW B low flow rate	February 10, 2001
Work Order 00-9932	Repair ability to automatically back wash ESW B discharge strainer	
USAR	Section 9.2 Emergency Service Water System	
Annunciator Response Instructions	ARI-H13-P601-20-H5, ESW to RHR A Hx's Flow Low, ARI-H13-P601-20-G1, ESW Pump A Discharge Pressure Low, ARI-H13-P601-20-G4, Sluice Gate A/B Open - ESW Forebay Low	
CR 00-0532 and Operability Determination	Low ESW Flow Rates	February 22, 2000
CR 00-3490	ESW B Strainer High dp Indicated	November 11, 2000
Operability Determination 96-3390	Degraded Flow rates on ESW A and B	April 28, 1999
PAP-1401	Clearance/Tagout Program	June 25, 2000
CR 01-1175	ESW A Strainer blowdown valve F040A degraded	March 6, 2001
CR 00-1716	ESW B Strainer blowdown valve failed PMT	June 1, 2000

1R17 Permanent Plant Modifications

SMRF 00-5013	Sluice Gate Seal Modification	
NR 01-WS-051	Nonconformance Report on Seals	June 27, 2001
CR 01-2569	Dedication of Sluice Gate Seals	June 27, 2001

1R22 Surveillance Testing

SOI-E22B	Division 3 Diesel Generator (Unit 1)
WO#99-019710	Diesel Generator Start and Load Division 3

1R23 Temporary Modifications

10 CFR 50.59 Applicability Check for Temporary Mod. 01-006	Temporary Mod to Circulating Water System Pump Impellers	May 23, 2001

2OS1 Access Control

01-1476	IFTS Plug in Annulus With No HP Lock	March 16, 2001
01-1476	Root Cause Analysis Report for IFTS Plug	April 19, 2001
01-1540	RHR Hot Spot	March 19, 2001
01-1957	Job Placed On Radiological Hold	April 26, 2001
01-1915	Nineteen CRs Identify High Radiation Control Issues	April 24, 2001
01-1892	Containment Floor Drain Sump	April 19, 2001
01-1974	Worker Exceeded Dose Set Point	April 27, 2001
01-1967	Individual Received Dose Rate Alarm	April 27, 2001
01-1959	Two Workers Exceeded Dose Limits	April 26, 2001
01-1968	Reactor Water Clean Up Pump Dose Rates	April 26, 2001
01-1995	Reactor Water Clean Up Pump Beta Dose Rates	April 27, 2001

2PS1 Radiological Effluents

00-043	Radiation Monitoring Instruments	September 21, 2000
00-041	Maintenance of Effluent Dose Calculations and Set Points	September 14, 2000
00-028	Chemistry Audit PA 99-06 Follow-up	July 13, 2000
00-025	Radiation Protection Monitoring Equipment	June 29, 2000
00-046	Chemistry Technical Specifications	October 5, 2000
PA 00-08	Radwaste Processing and Shipping	June 24, 2000
01-029L	Liquid Radwaste Release Permit	May 13, 2001
01-028L	Liquid Radwaste Release Permit	May 13, 2001
01-027L	Liquid Radwaste Release Permit	May 12, 2001
01-026L	Liquid Radwaste Release Permit	May 11, 2001
01-025L	Liquid Radwaste Release Permit	May 8, 2001
PAP-1105	Annulus Exhaust Gas Treatment System Train A	October 30, 2000
PAP-1105	Annulus Exhaust Gas Train A Flow & Filter Test	September 28, 2000
PAP-1105	Annulus Exhaust Gas Treatment System Train B	October 20, 1999
PTI-D21-P3000	Area Radiation Monitor System Calibration	November 15, 2000
PTI-D17-P1660	Containment/Drywell Purge Exhaust Radiation Monitor	April 4, 2000
PAP-1403	Control of Set Points	January 10, 2000
HPI-A0003	Radiation Monitor Alarm Setpoint Determination	January 7, 1999
SOI-D17A	Process Radiation Monitoring System	September 24, 1998
SVI-D17-T8000-B	U1 Vent Noble Gas Radiation Monitor Source Check for 1D17-K786	November 27, 1995
CHI-0053	Operation of the Gamma Spectroscopy System	May 14, 2001
1D17-K0786	U1 Vent Radiation Monitor Calibration	May 2, 2000
2D17-K0786	U2 Vent Radiation Monitor Calibration	February 15, 2001
1D17-K0836	Off Gas Vent Radiation Monitor Calibration	March 21, 2000
1D17-K0856	TB/HB Vent Radiation Monitor Calibration	October 31, 2000

1D17-K605	Emergency Service Water Radiation Monitor Calibration	August 24, 2000
1D17-K606	Liquid Radwaste Effluent Discharge Radiation Monitor Calibration	February 15, 2001
	Tritium Control Chart	May 16, 2001
	Annual Environmental and Effluent Release Report For 2000	March 1, 2001
	Perry Updated Safety Analysis Report	

4OA3 Event Response

CR 01-2582	Potentially Non-Conservative Stability Reload Calculation	June 27, 2001
TS 3.3.1.3	Oscillation Power Range Monitor (OPRM) Instrumentation	
Event Notification Form	Licensee Form documenting call to NRC	June 27, 2001
NRC Event No. 38099	Oscillation Power Range Monitor Scram Setpoints Are Non-Conservative	June 27, 2001
NRC Event No. 38104	10 CFR 21 Report: Stability Reload Licensing Calculations May be Non-Conservative	June 29, 2001