Mr. Howard Bergendahl Vice President - Nuclear, Davis-Besse FirstEnergy Nuclear Operating Company Davis-Besse Nuclear Power Station 5501 North State Route 2 Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION

NRC INSPECTION REPORT 50-346/02-05

Dear Mr. Bergendahl:

On June 30, 2002, the NRC completed an inspection at your Davis-Besse Nuclear Power Station. The enclosed report documents the inspection findings which were discussed on June 25, 2002, 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.

No findings of significance were identified.

The NRC has increased security requirements at the Davis-Besse Nuclear Power Station in response to terrorist acts on September 11, 2001. Although the NRC is not aware of any specific threat against nuclear facilities, the NRC issued an Order and several threat advisories to commercial power reactors to strengthen licensees' capabilities and readiness to respond to a potential attack. The NRC continues to monitor overall security controls and will issue temporary instructions in the near future to verify by inspection the licensee's compliance with the Order and current security regulations.

In accordance with 10 CFR 2.790 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). ADAMS is accessible from the NRC Web site at <a href="http://www.nrc.gov/NRC/ADAMS/index.html">http://www.nrc.gov/NRC/ADAMS/index.html</a> (the Public Electronic Reading Room).

Sincerely,

#### /RA/

John A. Grobe, Director Division of Reactor Safety

Docket No. 50-346 License No. NPF-3

Enclosure: Inspection Report 50-346/02-05

cc w/encl: B. Saunders, President - FENOC

Plant Manager

Manager - Regulatory Affairs M. O'Reilly, FirstEnergy Ohio State Liaison Officer

R. Owen, Ohio Department of Health Public Utilities Commission of Ohio

President, Board of County Commissioners

Of Lucas County

President, Ottawa County Board of Commissioners

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# U. S. NUCLEAR REGULATORY COMMISSION REGION III

Docket No: 50-346 License No: NPF-3

Report No: 50-346/02-05(DRP)

Licensee: FirstEnergy Nuclear Operating Company

Facility: Davis-Besse Nuclear Power Station

Location: 5501 North State Route 2

Oak Harbor, OH 43449-9760

Dates: April 1, 2002, through June 30, 2002

Inspectors: S. Thomas, Senior Resident Inspector

D. Simpkins, Resident Inspector

T. Ploski, Senior Emergency Preparedness Inspector

J. Belanger, Senior Security Specialist

Approved by: Christine A. Lipa, Chief

Branch 4

**Division of Reactor Projects** 

#### SUMMARY OF FINDINGS

IR 05000346-02-05, on 04/01-06/30/2002, FirstEnergy Nuclear Operating Company, Davis-Besse Nuclear Power Station. Integrated Inspection Report.

This report covers the second quarter of routine inspection activities conducted by resident inspectors and regional specialists. No findings of significance were identified during this inspection. 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. <u>Inspection Findings</u>

No findings of significance were identified.

## B. Licensee Identified Findings

A violation of very low significance identified by the licensee was reviewed by the inspectors. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in Section 4OA7 of this report.

## Report Details

## Summary of Plant Status

The plant was shut down for a refueling outage on February 16. As of June 25, the reactor fuel had been completely offloaded to the spent fuel pool. The licensee continued to pursue efforts to replace the reactor vessel pressure head with an unused head from the Midland facility. During this inspection period, regional management decided to implement Inspection Manual Chapter 0350, "Oversight of Operating Reactor Facilities in a Shutdown Condition With Performance Problems", as a direct result of the need to resolve many issues surrounding the Davis-Besse reactor vessel head degradation prior to allowing the facility to restart. The plant remained shut down for the entire inspection period.

#### 1. REACTOR SAFETY

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

## 1R04 Equipment Alignment (71111.04S)

## a. <u>Inspection Scope</u>

The inspectors performed a walkdown of the component cooling water system to verify equipment alignment and identify any discrepancies that impact the function of the system and, therefore, potentially increase risk. The inspectors also verified that the licensee had properly identified and resolved any equipment alignment problems that would cause initiating events or impact the availability and functional capability of mitigating system. Specific aspects of this inspection included reviewing plant procedures, drawings, and the Updated Safety Analysis Report (USAR), to determine the correct system lineup and evaluating any outstanding maintenance work requests on the system or any deficiencies that would affect the ability of the system to perform its function. Key aspects of the walkdown inspection included:

- valves were correctly positioned and do not exhibit leakage that would impact their function;
- electrical power was available as required;
- major system components are correctly labeled, lubricated, cooled, ventilated, etc:
- hangers and supports are correctly installed and functional;
- essential support systems are operational;
- ancillary equipment or debris does not interfere with system performance;
- tagging clearances are appropriate; and
- valves are locked as required by the licensee's locked valve program.

During the walkdown, the inspectors also observed the material condition of the equipment to verify that there were no significant conditions not already in the licensee's work control system.

## b. <u>Findings</u>

No findings of significance were identified.

#### 1R05 <u>Fire Protection (71111.05Q)</u>

## a. <u>Inspection Scope</u>

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of fire fighting equipment, the control of transient combustibles, and on the condition and operating status of installed fire barriers. The inspectors selected fire areas for inspection based on their overall contribution to internal fire risk, as documented in the Individual Plant Examination of External Events (IPEEE), their potential to impact equipment which could initiate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed at the end of this report, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use, that fire detectors and sprinklers were unobstructed, that transient material loading was within the analyzed limits, and that fire doors, dampers, and penetration seals appeared to be in satisfactory condition.

The following areas or components were inspected:

- spent fuel pool pump room;
- containment building; and
- diesel driven fire pump.

#### b. Findings

No findings of significance were identified.

## 1R11 <u>Licensed Operator Requalification Program</u> (71111.1Q)

#### a. <u>Inspection Scope</u>

The inspectors observed an operating crew on the simulator during requalification testing activities. The inspectors evaluated crew performance in the areas of:

- clarity and formality of communications;
- ability to take timely actions in the safe direction:
- prioritization, interpretation, and verification of alarms;
- procedure use;
- control board manipulations;
- oversight and direction from supervisors; and
- group dynamics.

The inspectors also observed the performance of the examination evaluators, their critique of the crew's performance, and the self-critique done by the operating crew to verify that any observed weaknesses were identified and documented by the licensee.

Additionally, the inspectors reviewed the simulator configuration compared to the actual control room to verify that they were as identical as practical.

## b. <u>Findings</u>

No findings of significance were identified.

## 1R13 Maintenance Risk Assessment and Emergent Work Evaluation (71111.13)

#### a. Inspection Scope

The inspectors reviewed the licensee's management of plant risk during emergent maintenance activities or weather conditions that may have impacted one or more safety significant systems. The activities were chosen based on their potential impact on increasing the probability of an initiating event or impacting the operation of safety significant equipment. The inspection was conducted to verify that evaluation, planning, control, and performance of the work were done in a manner to reduce the risk and minimize the duration where practical, and that contingency plans were in place where appropriate. The licensee's daily configuration risk assessments, observations of shift turnover meetings, observations of daily plant status meetings, and the documents listed at the end of this report were used by the inspectors to verify that the equipment configurations had been properly listed, that protected equipment had been identified and was being controlled where appropriate, and that significant aspects of plant risk were being communicated to the necessary personnel.

The inspectors reviewed the following maintenance issues:

- unexpected transformer "AC" lockouts during electrical bus "A" fast transfer testing;
- bus-tie transformers "AC" and "BD" declared inoperable due to suspect protective relaying scheme:
- check valve CF-30 declared inoperable due to abnormal banging noise; and
- decay heat train 1 weld leak.

## b. <u>Findings</u>

No findings of significance were identified.

## 1R15 Operability Evaluations (71111.15)

#### a. Inspection Scope

The inspectors selected condition reports (CRs) which discussed potential operability issues for risk significant components or systems. These CRs were evaluated to determine whether the operability of the components or systems was justified. The inspectors compared the operability and design criteria in the appropriate sections of the TSs and USAR to the licensee's evaluations presented in the CRs listed below to verify that the components or systems were operable. Where compensatory measures were necessary to maintain

operability, the inspectors verified by review of the documents listed at the end of the report that the measures were in place, would function as intended, and were properly controlled.

The conditions evaluated were:

- the potential of blocking the containment emergency sump screen caused by portable equipment with unqualified coatings that was left in containment during the last cycle; and
- weld leak on decay heat train 1 piping.

## b. <u>Findings</u>

No findings of significance were identified.

#### 1R16 Operator Workarounds (71111.16)

#### a. Inspection Scope

The inspectors reviewed the cumulative effect of all identified operator workarounds to determine whether the cumulative conditions had a significant impact on plant risk or on the operators' ability to respond to a transient or an accident.

## b. <u>Findings</u>

No findings of significance were identified.

#### 1R19 Post-Maintenance Testing (71111.19)

#### a. Inspection Scope

The inspectors reviewed post-maintenance testing activities associated with maintenance on important mitigating and support systems to ensure that the testing adequately verified system operability and functional capability with consideration of the actual maintenance performed. The inspectors used the appropriate sections of TS and the USAR, as well as the documents listed at the end of this report, to evaluate the scope of the maintenance and verify that the post-maintenance testing performed adequately demonstrated that the maintenance was successful and that operability was restored. In addition, the inspectors reviewed CRs to verify that minor deficiencies identified during these inspections were entered into the licensee's corrective action system.

The following activity was observed and evaluated:

- 13.8 kv system bus "A" transfer test;
- 13.8 kv system bus "A" fast transfer test; and
- replace the differential relays on bus tie transformers AC and BD.

## b. Findings

No findings of significance were identified.

## **EMERGENCY PREPAREDNESS (EP)**

## 1EP2 Alert and Notification System (ANS) Testing (71114.02)

#### a. Inspection Scope

The inspectors discussed with Emergency Preparedness (EP) staff the design, operation, and periodic testing of the ANS for the Davis-Besse Station's plume pathway Emergency Planning Zone (EPZ) to determine whether the system was adequately maintained and tested between 2000 and early 2002 in accordance with relevant documents. The inspectors also reviewed 2001 through early 2002 CRs associated with scheduled and non-scheduled maintenance activities to verify that corrective actions were taken following test failures and other reported equipment malfunctions. The inspectors reviewed records of the ongoing ANS upgrade project, which involved the replacement of the EPZ's 54 sirens and poles over a three-to-four year period that began in Summer 2001. The inspectors also reviewed an assessment report of 2001 ANS maintenance and testing activities that was performed by the licensee and State emergency management agency staff.

## b. Findings

No findings of significance were identified.

#### 1EP3 Emergency Response Organization (ERO) Augmentation Testing (71114.03)

#### a. Inspection Scope

The inspectors reviewed and discussed the procedure that included the primary and back-up methods for initiating an activation of the on-call ERO, the procedure for maintaining the ERO's telephone directory, and procedures for activating and periodically testing the Computerized Automated Notification System (CANS). The inspectors also reviewed the procedure on conducting semi-annual, off-hours ERO augmentation drills and reviewed records of such drills conducted in 2001 and early 2002 to determine whether the licensee maintained and tested its ability to activate its ERO during an emergency in accordance with emergency plan commitments. The inspectors also reviewed CRs associated with these augmentation drills and more frequent CANS tests to determine whether the licensee initiated adequate corrective actions on concerns identified during these activities.

The inspectors reviewed the current roster of the Station's ERO to verify that adequate numbers of personnel were assigned to key and support positions. The inspectors also reviewed and discussed with EP staff the provisions for maintaining the ERO's call out roster. The inspectors reviewed a sample of ERO members' training records to determine whether personnel listed on the current revision of the call out roster had

completed all EP training requirements within the relevant time period. The inspectors reviewed the lesson plan and a sample of other records associated with CANS training.

## b. Findings

No findings of significance were identified.

## 1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

#### a. Inspection Scope

The inspectors reviewed and discussed the EP staff's records, which included a draft training package, on the planned relocation of the Alternate Emergency Operations Facility (AEOF), which was scheduled to be completed by June 1, 2002. The inspectors reviewed correspondence from Ottawa and Lucas County officials that indicated no objection to the planned AEOF relocation. The inspectors also toured the AEOF's new location, which was being refurbished prior to equipment installation.

## b. <u>Findings</u>

No findings of significance were identified.

## 1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies (71114.05)

#### a. Inspection Scope

The inspectors reviewed the 2001 audit of the Davis-Besse Station's EP program to ensure that this independent assessment complied with the requirements of 10 CFR 50.54(t), including informing State and county officials of relevant audit conclusions. The inspectors also reviewed self-assessments and a sample of CRs associated with the May 2001 biennial exercise and integrated emergency response facility drills that were conducted in March, April, August, and October 2001 in order to evaluate the licensee's efforts to identify, track, and correct concerns identified during these activities. The inspectors reviewed portions of an early 2002 peer review of the Davis-Besse Station's EP program that was performed by personnel from the licensee's three nuclear power plants and the corporate office.

#### b. Findings

No findings of significance were identified.

#### 3. SAFEGUARDS

**Cornerstone: Physical Protection** 

3PP3 Response to Contingency Events (71130.03)

#### a. Inspection Scope

The inspectors reviewed the licensee's current protective strategy which included designated targets and target sets, their associated analysis, and security and operation response procedures. The inspectors also reviewed security event reports (SERs), and portions of the licensee's problem identification and resolution program to determine that issues related to the licensee's contingent event program were identified at the appropriate threshold and were entered into the licensee's corrective action program. Items reviewed included self-assessments, audits, and a sample of training records, force on force drill evaluations, and the licensee's procedure for their corrective action process. In addition, the inspectors conducted interviews with security officers and security management to evaluate their knowledge and use of the licensee's corrective action system.

The inspectors reviewed appropriate security records and procedures that were related to security drills, drill demonstrations, and drill critiques to verify the licensee's continuing capabilities to identify issues that represented uncorrected performance weaknesses or program vulnerabilities.

The inspectors reviewed records and interviewed seven selected members of the uniformed security force to evaluate and verify security training that related to alarm station operations, tactical "force-on-force" training, and weapon proficiency training.

The inspectors also reviewed performance indicator information related to alarm equipment performance to determine if isolated or system problems with the protected area intrusion alarm system and/or assessment system had become predictable and potentially exploitable by an adversary.

#### b. Findings

No findings of significance were identified.

## 3PP4 Security Plan Changes (71130.04)

## a. <u>Inspection Scope</u>

The inspectors reviewed Revision 13 to the Davis Besse Nuclear Security Training and Qualification Plan to verify that the changes did not decrease the effectiveness of the submitted document. The referenced revision was submitted in accordance with 10 CFR 50.54(p) by a licensee letter dated January 22, 2002.

## b. <u>Findings</u>

No findings of significance were identified.

## 4. OTHER ACTIVITIES (OA)

## 4OA1 Performance Indicator (PI) Verification (71151)

1. <u>Drill/Exercise Performance and Emergency Response Organization Drill Performance</u>

#### a. Inspection Scope

The inspectors verified that the licensee had reported the following indicators in accordance with relevant procedures and industry guidance endorsed by NRC: ANS, ERO Drill Participation, and Drill and Exercise Performance (DEP) for the EP cornerstone. Specifically, the inspectors reviewed the licensee's records associated with PI data reported to the NRC for the period April 2001 through December 2001. Records included assessments of DEP opportunities during pre-designated Control Room Simulator training sessions, the biennial exercise, and several drills, as well as the rosters of personnel who filled key ERO positions during these activities. The inspectors also reviewed records of periodic ANS tests.

## b. Findings

No findings of significance were identified.

2. <u>Unplanned Scrams Per 7000 Critical Hours and Unplanned Scrams With Loss of Heat</u> Sink

#### a. Inspection Scope

The inspectors verified that the licensee had reported the following indicators in accordance with relevant procedures and industry guidance endorsed by NRC: Unplanned Scrams Per 7000 Critical Hours and Unplanned Scrams With Loss of Heat Removal for the Initiating Events cornerstone. Specifically, the inspectors reviewed the licensee's records associated with PI data reported to the NRC for the period January 2001 through March 2002.

#### b. Findings

No findings of significance were identified.

## 4OA2 Identification and Resolution of Problems

## a. Inspection Scope 71152A

The inspectors selected 11 issues that were documented in the licensee's corrective action program to verify that the licensee had taken corrective actions commensurate with the significance of the issues. These conditions reports documented deficiencies in

the implementation of various aspects of the licensee's fire protection program during refueling outage 13. This issue was selected as one of the Identification and Resolution of Problems samples for further in-depth evaluation due to the potential risk significant aspect of not properly implementing fire protection processes on site. The inspectors verified that the licensee's corrective actions for this issue included the following performance attributes:

- complete and accurate identification of the problem in a timely manner commensurate with its significance;
- evaluation and disposition of operability/reportability issues;
- consideration of extent of condition, generic implications, common cause, and previous occurrences;
- classification and prioritization of the resolution of the problem commensurate with its safety significance;
- identification of corrective actions which are appropriately focused to correct the problem; and
- completion of corrective actions in a timely manner commensurate with the safety significance of the issue.

## b. <u>Findings</u>

No findings of significance were identified.

## 4OA3 Event Follow-UP (71153)

.1 (Closed) Security Event Report 2000-S01: Unescorted Access Improperly Granted to Contract Employee Due to Misfiling of Derogatory Information. On December 1, 2000, the licensee discovered that derogatory information had been received for a contract employee on November 7, 2000. This derogatory information was not adjudicated by contractor access control personnel prior to the licensee's granting interim unescorted access to the employee on November 20, 2000. This event was entered into the licensee's corrective action process as CR 2000-2974. The unescorted access of the contract employee was immediately revoked. The discovery was made as a result of an extent of condition review for CR 2000-2946 which had documented that two other instances of derogatory information were received and not adjudicated prior to the granting of unescorted access.

This issue was determined to have a credible impact on safety since the licensee would have denied unescorted access to the individual granted interim unescorted access on November 20, 2000, if the derogatory information had been adjudicated. Additionally, this contract employee did not disclose this derogatory information on the self-disclosure form that he completed on November 2, 2000. The issue was determined to have very low safety significance and was characterized as Green by the SDP. This issue is dispositioned in Section 4A07 of this report.

.2 (Closed) LER 50-346/2002-001-00: Main Steam Safety Valve Setpoints Greater Than Allowable Limits.

This LER documents a condition where four main steam safety valves were found during testing to have lift pressures in excess of 3 percent of their maximum lift setpoint. Appropriate actions per Technical Specification (TS) 3.7.1.1 were taken, until each valve was adjusted and demonstrated proper operation within the allowable band. This LER also documents long term corrective actions planned to prevent recurrence of this problem

This issue has been entered into the licensee's corrective action program as CR 02-0502.

.3 (Closed) LER 50-346/2002-03-00: Fuel Movement in the Spent Fuel Pool Without Required Door Attendant.

This LER documents a situation where the emergency ventilation system was inoperable for approximately 37 minutes during a time when it was required to be operable. Technical Specification 3.9.12 permits an emergency ventilation train servicing the spent fuel pool area to be considered operable when the containment equipment hatch is open and both doors of the containment personnel are open, provided at least one personnel air lock door is capable of being closed and a designated individual is available immediately outside the personnel airlock to close the door. During that 37 minutes, no designated individual was immediately available to close the personnel airlock door.

Although this is a violation of TS 3.9.12, it constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the Enforcement Policy. The issue has been entered into the licensee's corrective action program as CR 02-1199.

#### 4OA6 Exit Meetings

## **Exit Meeting**

The inspectors presented the inspection results to Mr. Bergendahl and other members of licensee management on June 25, 2002. The licensee acknowledged the findings presented. No proprietary information was identified.

#### Interim Exit Meetings

Senior Official at Exit: H. Bergendahl Date: April 25, 2002

Proprietary: No

Subject: Emergency preparedness program and

performance indicators inspection

Change to Inspection Findings: No

Senior Official at Exit: R. Fast, Plant Manager

Date: April 11, 2002

Proprietary (explain "yes"): No

Subject: Baseline Security Inspection

Change to Inspection Findings: No

#### 40A7 Licensee-Identified Violations

The following finding of very low significance was identified by the licensee and was a violation of NRC requirements which met the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as a Non-Cited Violation.

If you deny this Non-Cited Violation, you should provide a response with the basis for denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 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 Davis Besse facility.

## NRC Tracking Number Requirement Licensee Failed to Meet

NCV 50-346/02-05-01

Section 1.6.1 of the Davis-Besse Nuclear Power Station Industrial Security Plan (Revisions 19 (effective 10/18/99) and 20 (effective 7/00)) stated that the Davis-Besse Access Authorization Program shall meet the requirements of Regulatory Guide 5.66, dated June 1991, which are specified in IS-AC-00516, Unescorted Access Requirements. Section 6.7.3 of security procedure IS-AC-00516 (Revision 9) required that negative or derogatory information that emerges during the course of a background investigation or after an individual has been granted unescorted access authorization shall be subject to investigation and management evaluation. Contrary to these requirements, the licensee failed to evaluate negative or derogatory information received August 15, August 17, and November 7, 2000, during the background investigation process for three employees. This issue was included in the licensee's corrective action program as CR 2000-2946 and CR 2000-2974.

## KEY POINTS OF CONTACT

#### Licensee

- H. Bergendahl, Vice President Nuclear
- R. Fast, Plant Manager
- S. Coakley, Outage Manager
- B. Cope, Senior EP Specialist
- D. Eshelman, Director, Support Services
- M. Ginn, EP Supervisor
- J. Grabnar, Manager, Design Engineering
- D. Imlay, Superintendent, E&C Maintenance
- P. McCloskey, Manager, Regulatory Affairs
- G. Melssen, Maintenance Rule Coordinator
- J. Messina, Director, Work Management
- D. Miller, Supervisor, Compliance
- W. Mugge, Manager, Nuclear Training
- D. Nelson, Manager, Work Control
- R. Pell, Manager, Chemistry and Radiation Protection
- J. Powers, Director, Nuclear Engineering
- R. Rishel, PRA Specialist
- M. Roder, Manager, Plant Operations
- J. Rogers, Manager, Plant Engineering
- P. Schultz, Manager, Radiation Protection
- A. Schumaker, Supervisor, Access Control (Acting)
- G. Skeel, Manager, Nuclear Security
- H. Stevens, Manager, Quality Assessment
- M. Stevens, Manager, Maintenance
- S. Wise, Superintendent, Plant Operations
- G. Wolf, Senior Licensing Engineer

#### LIST OF ITEMS OPENED CLOSED AND DISCUSSED

<u>Openea</u>		
50-346/02-05-01	NCV	Failure to adjudicate derogatory information during background investigations for three contract employees (Section 4OA7)
50-346/2000-S01	SER	Unescorted Access Improperly Granted to Contract Employee Due to Misfiling of Derogatory Information (Section 4OA3)
Closed		
50-346/02-05-01	NCV	Failure to adjudicate information during background investigations for three contract employees (Section 4OA7)
50-346/2000-SO1	SER	Unescorted Access Improperly Granted to Contract Employee Due to Misfiling of Derogatory Information (Section 4OA3.1)

50-346/2002-001	LER	Main Steam Safety Valve Setpoints Greater Than Allowable (Section 4OA3.2)
50-346/2002-003	LER	Fuel Movement in Spent Fuel Pool Without Required Door Attendant (Section 4OA3.4)

## LIST OF ACRONYMS USED

ADAMS NRC's Document System

AEOF Alternate Emergency Operations Facility

ANS Alert and Notification System

CANS Computerized Automated Notification System

CFR Code of Federal Regulations

CR Condition Report

DEP Drill and Exercise Performance
DRP Division of Reactor Projects
DRS Division of Reactor Safety
EP Emergency Preparedness
EPZ Emergency Planning Zone

ERO Emergency Response Organization FENOC FirstEnergy Nuclear Operating Company

NCV Non-Cited Violation

NRC Nuclear Regulatory Commission

OA Other Activities

PARS Publically Available Records

PI Performance Indicator

SDP Significance Determination Process

SER Security Event Report
TS Technical Specifications

USAR Updated Safety Analysis Report

## LIST OF DOCUMENTS REVIEWED

1R04 Equipmen	nt Alignment	
P&ID	Drawing No. M-036A, "Component Cooling Water"	Rev. 24
P&ID	Drawing No. M-036B, "Component Cooling Water"	Rev. 30
P&ID	Drawing No. M-036C, "Component Cooling Water"	Rev. 25
Operational Schematic	Drawing OS-021, "Component Cooling Water System," Sheet 1	Rev. 28
Operational Schematic	Drawing OS-021, "Component Cooling Water System," Sheet 2	Rev. 21
Operational Schematic	Drawing OS-021, "Component Cooling Water System," Sheet 3	Rev.9
1R05 Fire Prot	<u>ection</u>	
NRC Reg. Guide 1.189	Fire Protection for Operating Nuclear Power Plants	
	Fire Hazards Analysis Report	Rev. 14
Pre-Fire Plan	Containment - All Levels	
Pre-Fire Plan PFP-AB-312	Spent Fuel Pool Pump Room	Rev.02
CR 02-2869	Diesel Fire Pump Temperature Alarm	
Pre-Fire Plan PFP-IS-51	Diesel Fire Pump Area	Rev. 02
Unit Log Entry	Log entries dated 6/28/02 at 10:44 and 11:11, regarding the diesel fire pump temperature alarms.	
1R11 Licensed	Operator Requalification Program	
Drill Scenario OLE-EPE- S116	Reactor Coolant Flow Transmitter Degradation Followed By A MSIV Failure and Stuck MSSV	Rev. 01
1R13 Maintena	nce Risk Assessment and Emergent Work Evaluation	
DB-SC-3023	Off-Site AC Sources Lined Up and Available	
CR 02-1526	Unexpected AC Transformer Lockout	

CR 02-1550	Unexpected AC Transformer Lockout	
CR 02-1553	Critical Spare Parts Not Readily Available	
	Troubleshooting Plan For Transformer AC Inadvertent Lockout During DB-SC-4026	
Operability Justification 2002-0012	Evaluation of Bus-Tie Transformer BD Operability	
DB-SC-3020	13.8 KV System Bus A & B Transfer Test	Rev. 03
DB-SC-4026	13.8 KV Buses A & B Fast Transfer Test	Rev. 01
CR 02-2513	Flow Induced Cavitation In Decay Heat Train 2 Piping	
CR 02-2279	Check Valve CF-30 Banging in Flow Stream	
Operability Justification 2002-0016	Check Valve CF-30 Had Audible Banging Noise Coming From Within The Check Valve With Decay Heat Train 2 Inservice and Approximately 3000 GPM Flowrate Through This Check Valve	Rev. 00 Rev. 01
NG-DB-116	Outage Nuclear Safety Control	Rev. 00
	Troubleshooting Plan - CR 02-2279 (CF-30) and CR 02-2410 (Decay Heat Train 1 Leak)	
CR 02-2410	Leak On Decay Heat Train 1 Line	
CR 02-2420	Notification of NRC Resident Requirements	
CR 02-2416	Inoperability of Both Emergency Diesel Generators While Decay Heat Train 2 Was Inoperable and Decay Heat Train 1 Was Leaking	
Engineering Work Request 02-248-00	Remove The 3 Foot Section of Piping and Welded 90 Degree Elbow and Install a Socket Welded Cap in Its Place	
1R15 Operabil	ity Evaluations	
CR 02-2417	Operability Justification Not Performed For Leak On Decay Heat Train 1	
Operability Justification 2002-0017	Leak Was Discovered on the Outlet Piping of the Decay Heat Cooler Temperature Control Valves DH-13B and DH-14B Off an Unused, Unisolable Tap on the Weld Connecting the Vertical Straight Pipe to the 90 Degree Elbow.	
CR 02-1532	Steam Cleaners Left Inside Containment With Unqualified Coating	

CR 02-982	Inadequate Evaluation Allowed Equipment To Be Stored In Containment	
NG-DB-00212	Containment Storage	Rev. 00
CR 02-01532	Steam Cleaners Left Inside Containment With Unqualified Coatings	
CR 02-00982	Inadequate Evaluation Allowed Equipment To Be Stored In Containment	
	Cause Analysis For CR 02-00982	
NG-DB-212	Containment Storage	
1R16 Operato	r Workarounds	
	Operator Workaround Level 2 List	6/25/02
1R19 Post-Ma	aintenance Testing	
DB-SC-3020	13.8 KV System Bus A and B Transfer Test	
DB-SC-4026	13.8 KV Bus and B Fast Transfer Test	
EWR 02-177-00	Design Summary - Replacement of Differential Relays 87/AC and 87/BD	
10 CFR 50.59 Screen 02-00719	Replace Differential Relays on Bus Tie Transformers AC and BD	
Work Order 02-2514-002	Fabricate, Paint, and Install New Metal Plate With Mounting Hole For New Relay to Cover Hole In HAAC Cubicle Door	
Work Order 02-2514-001	EWR 02-177-00, Replace The Bus Tie Differential Relays [D1 Bus Cubicle 2 Work]	
Work Order 02-2514-000	EWR 02-177-00, Replace The Bus Tie Differential Relays [A Bus Cubicle 13 Work]	
Work Order 02-2514-003	Perform All Post Maintenance Testing For Transformer AC Bus Tie Relay to Support EWR 02-177-00	
1EP2 Alert and	d Notification System (ANS) Testing	
RA-EP-00400	Prompt Notification System Maintenance	Rev. 1

Rev. 1

RA-EP-00420 Response to Prompt Notification System Malfunction

RA-EP-04400	Prompt Notification System Test	Rev. 1
	Memo: Status of Siren Replacement Project	9/5/01
	Memo: Self-Assessment - Alert and Notification System	1/17/02
	Annual Preventive Maintenance Records for 27 Sirens	8/2000
	Annual Preventive Maintenance Records for 27 Sirens	4/2001
CR 01-0403	Two Sirens Lost Power During a Storm	
CR 01-0881	One Siren Sounded But Did Not Rotate	
CR 01-0995	False Activation of One Siren Due to Thunderstorm	
CR 01-1005	One Siren Sounded But Failed to Rotate	
CR 02-1061	One Siren Lost Power	
CR 01-1249	Two Sirens Operating With High Current	
CR 01-2151	Problems During Replacement of Two Siren Poles	
CR 02-0371	Two Sirens Failed During Monthly Test	
1EP3 Emerge	ncy Response Organization (ERO) Augmentation Testing	
RA-EP-00510	Maintenance of the Emergency Plan Telephone Directory	Rev. 1
RA-EP-00520	Emergency Response Organization	Rev. 1
RA-EP-00550	Computerized Automated Notification System (CANS)	Rev. 1
RA-EP-04003	CANS weekly Test	Rev. 3
RA-EP-00100	Emergency Plan Training Program	Rev. 5
RA-EP-02110	Emergency Notifications	Rev .2
RA-EP-00200	Emergency Plan Drill and Exercise Program	Rev. 1
	Emergency Plan Training Records of a Random Sample of 25 ERO Members	
	Records of 2001 Training on Activating CANS	
	Records of Unannounced Off-Hours Augmentation Drills in March 2001, September 2001, and March 2002	

CR 01-0436	CANS Problem During a Weekly Test
CR 01-0480	Reassess Number of Technicians Who Should Be Qualified to Use Self-Contained Breathing Apparatus
CR-01-0912	CANS Problem During a Weekly Test
CR 01-1670	CANS Problem During a Weekly Test
CR 01-3212	Problem Affecting Some Pagers
	Emergency Plan Telephone Directory

1EP4 Emerge	ncy Action Level and Emergency Plan Changes	
CR 01-3201	Assess Impact on AEOF Due to Sale of Bayshore Station	
RA-EP-00600	Emergency Facilities and Equipment Maintenance Program	
	Draft 10 CFR 50.54(q) Review on AEOF Relocation	
Letter	From Ottawa Country Board of Commissioners on AEOF Relocation	4/2/02
Letter	From Lucas County Deputy Director of Emergency Services on AEOF Relocation	4/3/03
	Draft Training Package on Revised AEOF	

## 1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies Surveillance Report on April 2001 Drill 5/3/01 10 CFR 50.54(t) Audit of the EP Program for 2001 1/16/02 Letters Three Letters to State and County Officials on the 2001 Audit of 2/13/02 the EP Program 3/30/01 Integrated Drill Report 5/14/01 4/24/01 Integrated Drill Report 7/18/01 5/22-23/01 Biennial Exercise Report 7/26/01 8/9/01 Integrated Drill Report 10/8/01 10/2/01 Integrated Drill Report 11/30/01 2001 Post Accident Sampling System Drill Report 1/21/02 FENOC EP Program Review - February 2002 3/5/02 CR 01-0911 Meteorological Data Availability Problem During April Drill

CR 01-0912	CANS Problem During April Drill	
CR 01-0940	Equipment Operator Used as Communicator During a Drill	
CR 01-1185	One Objective Not Met During April Drill	
CR 01-1200	Consider Letting Emergency Control Center (ECC) Staff Make Plant Public Address Announcements	
CR 01-1208	Two Safety Concerns in ECC During a Drill	
CR 01-1209	Two Draft Procedures Tested During a Drill	
CR 01-1354	Communications With NRC Did Not Meet NRC's Expectations During the Exercise	
CR 01-1358	CANS Message Error During the Exercise	
CR 01-1366	Revise Operations Support Center Activation Procedure	
CR 01-1367	Simulator Output Had Incorrect Iodine to Noble Gas Ratio During the Exercise	
CR 01-1374	Reassess Emergency Dose Authorization Procedure and Form	
CR 01-1377	Retain State/County Notification Forms Generated During Control Room Simulator Drills	
CR 01-2078	Untimely Notification from ECC During a Drill	
CR 01-2594	Training and Equipment Concerns in Joint Public Information Center During October Drill	
CR 01-3098	Training Issues Identified During October Drill	
CR 01-3099	Equipment Issues Identified During October Drill	
CR 01-3213	Some Annual Reviews of Implementing Procedures Were Not Adequately Documented	
CR 01-3215	Two Cases of Sealed Facilities Not Re-sealed After Entry	
CR 01-3234	Premature Closure of Two CR by EP Staff	
CR 01-3247	Incomplete Preventive Maintenance in Administration Building	
CR 01-3267	EP Staff Should Improve Quality of CR Documentation	
RA-EP-2410	Operations Support Center Activation and Response	Rev. 3
CR 01-2822	Procedure Change Request - Emergency Dose Control and Potassium Iodide Distribution Procedure	
	2001 ECC Training Handout	

# 3PP3 Physical Protection

	Safeguards Event Log	2001 & 1 <sup>st</sup> Qtr. 2002
CR 01-0542	Compensatory Measure Not Performed in Prescribed Frequency	
CR 01-1666	Enhancement To Training	
CR 01-1858	Collective Significance Review of Process Security	
CR 01-2321	Obstructed Pathway to Security Defense Barrier	
CR 01-2375	Attack on America	
CR 01-2925	Adequacy of Security Measures for OCA Contractors	
CR 01-2939	Security Protective Vest	
CR 01-3248	Nuclear Security Performance Indicator Trend	
CR 01-3390	Self-Evaluation - Security Performance Indicators	
CR 02-0091	Security Enhancements	
CR 02-0608	Nuclear Security Officer Inattentive at His Post	
	Davis Besse Defensive Strategy Evaluation (NSSC)	9/1701
	Lesson Plan: Alarm Station Operation with SAIC SDMS	3/30/01
	Lesson Plan: Semi-Automatic Handgun Transition	10/26/01
SEC-NSI-800	Lesson Plan: Weapons Qualification	7/6/00
SEC-NSI-400	Armed Response Force	9/22/00
SEC-NSI-402	Tactical Training	8/14/00
SEC-NSI-401	Use of Incapacitating Agents	8/1/00
NOP-LP- 2001	Condition Report Process	Rev. 01
	Training Shift Drills	2001
TS-DP-08500	Armed Response Force	Rev. 01
DB-OP- 02544	Security Events or Threats	2/22/02
SECV- PROG-801	Suggested Initial and Code Black Positions	Rev. 051C-1

# 4OA1 Performance Indicator (PI) Verification

	PI Desktop Guide - ANS Reliability	2/02
	PI Desktop Guide - ERO Drill Participation	2/02
	PI Desktop Guide - Drill/Exercise Performance	2/02
	Monthly Siren Test Result Records - April 2001 through December 2001	
	Monthly Summaries of Key ERO Members' Drill/Exercise Participation Dates - April 2001 through December 2001	
	Records of DEP Opportunities' Assessments - April 2001 through December 2001	
CR 01-1444	One Siren's Blower Motor Did Not Operate During Monthly Test	
CR 01-1702	One Siren's Blower Motor Did Not Operate During Monthly Test	
CR 01-2938	One Siren Failed to Rotate During Monthly Test	
CR 01-1377	Improve Documentation of Scenarios Used in Control Room Simulator DEP Opportunities	
CR 01-2809	One Missed DEP Opportunity During October Drill	
CR 02-0040	Several Missed DEP Opportunities During Drills	

# 4OA2 Identification and Resolution of Problems

CR 02-1527	Collective Significance Review For Fire Protection Related Condition Report
CR 02-1492	Procedure Non-Compliance For Hot Work Permits
CR 02-1494	Procedure Non-Compliance For Transient Combustible Permits
CR 02-1498	Fire Hazard Analysis Report and Plant Configuration
CR 02-1504	Fire Protection System Impairment, Fire Watch Errors
CR 02-1495	Procedure Non-Compliance For Transient Combustible Permits
CR 02-1501	Plant Configuration and General Floor Plans Do Not Agree
CR 02-1502	Fire Protection System Impairment, Initiation Worksheet Incomplete
CR 02-1497	Blocked Fire Extiguishers
CR 02-1499	Fire Hose Improperly Rolled or Racked

## CR 02-1493 Procedure Non-Compliance For Transient Combustibles

## 4OA3 Event Follow-up

CR 02-1199 Limiting Condition For Operation Technical Specification 3.9.12,

Storage Pool Ventilation Exceeded

LER Main Steam Safety Valve Setpoints Outside of Technical

50-346/1998- Specification Allowable Values

001-01

Root Cause Main Steam Safety Valve Setpoint Drift 3/29/00

Analysis Report for CR 2000-662

LER Main Steam Safety Valve Setpoints Greater Than Allowable

50-346/2000- Values

002-01

CR 02-502 Main Steam Safety Valves As Found Test Results