June 22, 2004

EA-03-194

Mr. William R. Kanda
Vice President - Nuclear, Perry
FirstEnergy Nuclear Operating Company
P. O. Box 97, A210
10 Center Road
Perry, OH 44081

SUBJECT: PERRY NUCLEAR POWER PLANT
NRC SUPPLEMENTAL INSPECTION REPORT 05000440/2004009

Dear Mr. Kanda:

On May 28, 2004, the U.S. Nuclear Regulatory Commission (NRC) completed a supplemental inspection at your Perry Nuclear Power Plant. The enclosed report documents the inspection results which were discussed on May 28, 2004, with you and members of your staff.

The NRC performed this supplemental inspection to assess your evaluation of a White finding, which was also a violation of 10 CFR 50.47(b)(4), in the Emergency Preparedness area of the Reactor Safety cornerstone. This inspection was conducted in accordance with Inspection Procedure 95001, “Inspection For One Or Two White Inputs In A Strategic Performance Area,” and 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.

Based on the results of this inspection, we concluded that you have adequately completed a root cause analysis of the issue, which was an untimely actual emergency declaration on April 24, 2003, and have identified appropriate corrective actions to prevent recurrence of the issue. No findings of significance were identified concerning the root cause evaluation and corrective actions. As a result, the violation is considered closed.

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). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA by Roy Caniano Acting for/

Cynthia D. Pederson, Director
Division of Reactor Safety

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

Enclosure: Inspection Report 05000440/2004009
w/Attachment: Supplemental Information

cc w/encl: G. Leidich, President - FENOC
L. Myers, Chief Operating Officer, FENOC
J. Hagan, Senior Vice President Engineering
and Services, FENOC
W. O'Malley, Director, Maintenance Department
V. Higaki, Manager, Regulatory Affairs
J. Messina, Director, Nuclear
Services Department
T. Lentz, Director, Nuclear
Engineering Department
T. Rausch, Plant Manager,
Nuclear Power Plant Department
M. O'Reilly, Attorney, First Energy
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:	05000440/2004009
Licensee:	FirstEnergy Nuclear Operating Company
Facility:	Perry Nuclear Power Plant
Location:	10 Center Road Perry, OH 44081
Dates:	May 24 through May 28, 2004
Inspectors:	T. Ploski, Senior Emergency Preparedness Inspector R. Jickling, Emergency Preparedness Inspector
Observer:	E. Edwards, Specialist Ohio Emergency Management Agency
Approved by:	K. Riemer, Chief Plant Support Branch Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000440/2004009; 05/24/2004 - 05/28/2004; Perry Nuclear Power Plant; Supplemental Inspection; IP 95001, “Inspection For One Or Two White Inputs In A Strategic Performance Area.”

This supplemental inspection was performed by regional inspectors. No findings of significance were identified. 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.

Cornerstone: Reactor Safety

The U.S. Nuclear Regulatory Commission (NRC) performed this supplemental inspection to assess the licensee’s evaluation of a White finding in the Emergency Preparedness area of the Reactor Safety cornerstone. The issue that resulted in a White finding was also a violation of 10 CFR 50.47(b)(4). This supplemental inspection was performed in accordance with Inspection Procedure 95001, “Inspection For One Or Two White Inputs In A Strategic Performance Area.” The inspectors concluded that the licensee performed an adequate evaluation of the root causes of the issue (an untimely actual Alert declaration on April 24, 2003) and had identified appropriate corrective actions. As a result, the violation is considered closed.

The licensee’s evaluation of the issue identified two root causes. First, management’s expectations were not clearly established regarding the roles and responsibilities of reactor engineers in their oversight of the contractor personnel performing the spent fuel inspection activities, including communications expectations with Control Room personnel. Second, the Shift Manager’s supervisory methods were ineffective in maintaining command and control of the emergency event.

Given this acceptable performance in addressing the condition associated with the White finding, this performance issue will not be held open beyond the normal four quarters provided in NRC Manual Chapter 0305, “Operating Reactor Assessment Program.”

REPORT DETAILS

01 INSPECTION SCOPE

The U.S. Nuclear Regulatory Commission (NRC) performed this supplemental inspection to assess the licensee's evaluation of a White finding in the Emergency Preparedness area of the Reactor Safety cornerstone. The White finding, which was also a violation of 10 CFR 50.47(b)(4), was due to inadequate use of the standard emergency classification scheme, which resulted in an untimely actual Alert declaration on April 24, 2003.

On April 24, 2003, while the Perry Plant was in a refueling outage, licensee and contractor personnel were performing spent fuel inspection activities in the Fuel Handling Building (FHB). At about 1100 hours, spent fuel inspection and engineering personnel noted that the end plug had separated from its spent fuel rod and they observed gas bubbles coming from the spent fuel rod.

Soon after the release of gas bubbles from the damaged spent fuel rod entered the FHB's atmosphere, the FHB ventilation exhaust system's gaseous radiation monitor alarmed in the Control Room. The high alarm also caused an evacuation alarm to sound in the FHB and tripped the FHB's ventilation supply fan. Control Room personnel responded to the high alarm in accordance with Off-Normal Instructions (ONI), and the Unit Supervisor (US) ordered an evacuation of the affected area. However, having received no reports of damaged fuel, the Shift Manager (SM) concluded that an emergency declaration was not warranted based on his understanding of the Emergency Action Levels (EAL) in the Perry Plant's emergency plan and the plan's implementing procedures.

Between about 1120 and 1130 hours, separate evaluations of whether an emergency declaration was warranted took place within and outside of the Control Room. At 1127 hour, FHB radiation alarms cleared and relevant radiation level readings were returning to pre-event levels. However, the SM did not declare an Alert until 1150 hour, which was untimely.

02 EVALUATION OF INSPECTION REQUIREMENTS

02.01 Problem Identification

a. *Determine that the root cause evaluation identifies who (i.e., licensee, self-revealing, or NRC) identified the issue and under what conditions.*

The licensee identified that the Alert declaration was untimely and initiated Condition Report (CR) 03-02408 on April 24, 2003. This CR documented the following: the relevant EAL; the determination that the Alert declaration was untimely; and that a Cause Analysis (CA) would be done to address the untimely Alert declaration. The inspectors concluded that the issue (untimely emergency declaration) was licensee-identified.

b. Determine that the root cause evaluation identifies how long the issue existed and prior opportunities for identification.

Besides the CA resulting from CR 03-02408, the licensee completed an "April 24, 2003 Alert Classification NRC 95001 Inspection Readiness Review" (Readiness Review Report), which adequately addressed the aspects of pre-existence of the issue and prior opportunities for identification of the issue.

The Readiness Review Report indicated that no prior untimely emergency declarations had occurred at the Perry Plant involving actual plant operations, or during emergency preparedness drills or exercises in recent years. Specifically, the readiness review team reviewed records of all seven actual emergency declarations made at the Perry Plant between February 1996 and May 14, 2004. The only actual emergency event that was not declared in a timely manner was the Alert declaration on April 24, 2003. The team also reviewed records of those emergency preparedness drills and exercises, whose emergency classification, offsite notification, and offsite protective action recommendation actions were evaluated and counted as Drill and Exercise Performance (DEP) Performance Indicator (PI) opportunities, for the period January 2002 through March 2004. Over 60 of these PI opportunities were emergency classification opportunities. The team determined that none of the unsuccessful DEP indicator opportunities were due to untimely emergency classification decisions. Instead, the unsuccessful opportunities were either due to errors in accurately completing the notification form, which would be used to transmit emergency event information to State and county officials, or to errors in choosing the relevant EAL.

The inspectors performed an independent review of the licensee's records of DEP indicator opportunities for the period April 2003 through April 2004 and did not identify any instances of untimely emergency classification decisions. Reviews of the actual emergency events that occurred between February 1996 and August 2003 were evaluated during prior NRC inspections. The inspectors agreed with the Readiness Review Report's conclusion that there were no prior instances in recent years at the Perry Plant of difficulties in making timely emergency classification decisions.

c. Determine that the root cause evaluation documents the plant-specific risk consequences (as applicable) and compliance concerns associated with the issue.

The Readiness Review Report summarized plant-specific risk consequences associated with the emergency event on April 24, 2003. For example, Control Room personnel did not delay in initiating appropriate onsite protective actions for personnel even though the causes of the FHB's ventilation exhaust system's radiation monitor alarm was unknown at the time that these onsite protective action decisions were made. Also, onsite protective actions continued because the cause of the high alarm, which lasted roughly 45 seconds. There was no adverse impact on public health and safety.

With respect to compliance concerns, the licensee's evaluation acknowledged that the SM's emergency declaration decision was untimely and that the SM failed to adequately implement one of the risk significant emergency planning standards in NRC's regulations. The Readiness Review Report also recognized that emergency classification decisions are important "triggers" that cause onsite and offsite emergency responders to become ready should it become necessary to implement actions to protect public health and safety. The report also correctly noted that offsite officials were notified in a timely manner after the SM eventually made the Alert declaration.

Based on the above information, the inspectors concluded that the licensee's evaluations of the risk consequences and compliance concerns associated with the untimely Alert declaration were adequate.

02.02 Root Cause and Extent of Condition

a. Determine that the issue was evaluated using systematic method(s) to identify root cause(s) and contributing cause(s).

The licensee's initial CA, which was documented as CA 03-02408, utilized Event and Causal Factors Charting. The subsequent Readiness Review Report resulting from CR 04-02025 included the following evaluation techniques: Event and Causal Factors Charting; and Barrier Analysis. The Readiness Review Report's root cause evaluations verified that both root causes identified in the earlier CA 03-02408 were adequate.

Specifically, the aforementioned reports identified two root causes. First, management's expectations were not clearly established regarding the roles and responsibilities of reactor engineers in their oversight of contractor personnel performing the spent fuel inspection activities, including communications expectations with Control Room personnel. Second, the SM's supervisory methods were ineffective in maintaining command and control of the event. For example, the SM became involved in performing some actions that were the US's responsibility, which detracted from the SM's ability to perform a SM's oversight and event classification responsibilities.

The inspectors reviewed the root cause analysis methods employed by the licensee and concluded that an adequate, formal, structured approach was utilized to identify the root causes.

b. Determine that the root cause evaluation was conducted to a level of detail commensurate with the significance of the issue.

The licensee categorized the CA associated with CR 03-02408 as an apparent cause evaluation. The inspectors concluded that the subsequent Readiness Review Report was a significant expansion of the scope of this CA and that the report also exhibited an improved understanding of NRC Supplemental Inspection Procedure 95001. The inspectors concluded that the combination of the CA and the Readiness Review Report constituted the licensee's root cause evaluation of the issue. The inspectors determined that the root cause evaluation was conducted to a sufficient level of detail for an issue that did not warrant offsite protective actions and did result in adequate onsite protective actions. The inspectors also concluded that the licensee utilized acceptable methods to evaluate the issue and adequately identified the root causes of the untimely Alert declaration.

c. Determine that the root cause evaluation included consideration of prior occurrences of the problem and knowledge of prior operating experience.

The Readiness Review Report evaluated industry operating experience, as well as internal records to determine if similar spent fuel damage events had occurred previously. This report summarized interviews with contractor personnel that indicated

that fuel pin end cap failures occur in about 10 percent of the fuel pins during disassembly. However, the contractors could not recall another instance when an end cap failure resulted in a building ventilation system's radiation monitor alarming and a building evacuation alarm sounding.

Based on a records review of past CRs, the readiness review team did not identify prior instances of a non-spurious, unplanned high radiation alarm in the FHB. The team interviewed reactor engineering personnel and did not uncover any fuel damage events that were not documented in the Perry Plant's corrective action program.

The Readiness Review Report included an analysis of drill and actual emergency events at other operating power reactor sites during 2002 and 2003 that were categorized as NRC inspection findings either because these events were not classified as emergency events, or because they were not classified as emergency events in a timely manner. No such events at other sites involved fuel handling activities.

Based upon the reviews summarized in Subsections 02.01.b and 02.02.c of this Inspection Report, the inspectors concluded that the licensee had adequately searched for prior occurrences of the issue.

d. Determine that the root cause evaluation addresses the extent of condition and the extent of cause of the issue.

The Readiness Review Report included extent of condition evaluations of the issue. As summarized previously in this Inspection Report, the licensee's extent of condition evaluation adequately encompassed the following topics: (1) timeliness of emergency declarations at the Perry Plant associated with actual emergencies and emergency classification opportunities during drills and exercises counted as PI opportunities; (2) NRC inspection findings associated with emergency classification decision making problems at other licensees' facilities during recent years' actual emergency situations and drills; (3) previous instances at Perry Plant and other licensees' facilities of damage to fuel pin end caps during fuel inspection activities; and a search for other instances of valid FHB radiation monitor alarms at the Perry Plant and other licenses' facilities resulting from damage during fuel handling activities. None of these evaluations resulted in the identification of prior occurrences of the issue at the Perry Plant, or a similar issue at another operating power reactor site.

The Readiness Review Report also included extent of cause evaluations of several areas for symptoms similar to those associated with the issue. With respect to command and control of Control Room activities, the timeliness of those required, non-emergency event reports to NRC, which were due in less than 24 hours, were evaluated for the period January 2002 through March 2004. The last untimely, non-emergency event report was in late December 2002. Roughly half of these reports were subsequent to the untimely Alert declaration in March 2003.

The readiness review team also evaluated Nuclear Quality Assurance (NQA) staff's reports since January 2002 for observations of a SM's or US's command and control of Control Room activities during actual plant operations and training sessions. A sample

of these NQA reports were independently reviewed by the inspectors. None of these NQA reports documented command and control concerns.

The initial CA associated with CR 03-02408 identified the need for revisions to several procedures related to fuel handling activities to address the issue's root causes. The Readiness Review Report's extent of cause evaluation expanded upon these procedure reassessments to encompass all ONI procedures and Fuel Technical (Engineering) Instructions (FTI-series). In addition, all EALs were evaluated to identify those that required information not available within the Control Room to allow the SM to make an informed emergency classification decision.

The inspectors included that the licensee's extent of condition and extent of cause evaluations were adequate.

02.03 Corrective Actions

a. Determine that appropriate corrective actions are specified for each root cause, or that there is an evaluation that no actions are necessary.

The initial CA associated with CR 03-02408 resulted in four corrective actions that were relevant to one or both root causes. The relatively extensive Readiness Review Report included 11 additional corrective actions associated with the root causes, which the readiness review team determined to be unchanged from the root causes identified in the initial CA.

One of the 11 corrective actions resulting from the Readiness Review Report was completed during this NRC Supplemental Inspection. This corrective action involved reassessment of all ONI procedures to determine if existing references to the emergency plan or to the plan's EALs were adequately highlighted. As was done following its analogous reassessment of FTI-series procedures, the licensee then generated an additional CR for each of the seven FTI procedures for which enhancement of references to the emergency plan or EALs was deemed appropriate, plus an eighth CR to track the need to revise a relevant procedure writer's guide.

The inspectors concluded that all of the aforementioned corrective actions were appropriate and should be adequate to prevent recurrence of the issue.

The inspectors also reviewed revised procedures and training materials that were associated with a sample of the corrective actions that were listed as being completed in the corrective action program's records. The inspectors concluded that these corrective actions had been adequately completed.

b. Determine that the corrective actions have been prioritized with consideration of the risk significance and regulatory compliance.

The inspectors determined that the corrective action program's records contained accurate information regarding what corrective actions were completed and what other actions were ongoing. Uncompleted corrective actions, which were associated with fuel handling and inspection activities, were prioritized with consideration of risk significance

in the sense that they were to be completed prior to the next refueling outage. Corrective actions involving references in some ONI and FTI procedures to the emergency plan or EALs were reasonably prioritized, since these corrective actions involved enhancing existing references, rather than adding such emergency planning references for the first time to these procedures.

The inspectors discussed corrective actions associated with planned changes to several EALs with the licensee's emergency planning staff. The inspectors were satisfied that the licensee adequately understood the need to avoid making EAL changes that could be perceived as decreasing the emergency plan's effectiveness without prior NRC approval, and that the licensee adequately understood the need to obtain relevant offsite officials' agreement to planned EAL changes.

c. *Determine that a schedule has been established for implementing and completing the corrective actions*.

The inspectors determined that corrective actions had been completed on schedule, as documented in corrective action program records. The inspectors discussed the status of ongoing corrective actions with the licensee and did not identify concerns that planned corrective actions would not be completed by their currently scheduled due dates. The inspectors concluded that the overall schedule for completion of corrective actions was reasonable.

d. *Determine that quantitative or qualitative measures of success have been developed for determining the effectiveness of the corrective actions to prevent recurrence.*

The CA associated with CR 03-02408 included limited provisions for an effectiveness review of its corrective actions. Only Condition Report Corrective Action (CRCA) 03-02408-01 included an effectiveness review of one revised FTI-series procedure that addressed inspection of spent fuel bundles. As a result, the subsequent Readiness Review Report included expanded provisions for an effectiveness review of all corrective actions associated with that report's extent of condition and extent of cause evaluations. The licensee indicated that this effectiveness review was scheduled in Spring 2005.

The Readiness Review Report also documented the review team's conclusion that the effectiveness of several completed corrective actions was demonstrated by successful performance in several areas. For example, the report accurately noted that both actual emergency declarations that occurred subsequent to April 2003, as well as the associated notifications to offsite officials, were made in a timely manner. The report also noted that no non-emergency event reports, which were made since late December 2002 and had notification deadlines of 24 hours or less, were untimely.

The inspectors concluded that the Readiness Review Report included adequate provisions for an effectiveness review. The timing of this review was reasonable, since the next refueling outage was currently planned to occur in early 2005.

03 MANAGEMENT MEETINGS

Exit Meeting Summary

The inspectors presented the inspection results to Mr. W. Kanda and other members of licensee management and staff at the conclusion of the inspection on May 28, 2004. The licensee acknowledged the information presented. No proprietary information was discussed.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee
L. Burgwalt, On-site Emergency Planner
D. Cleavenger, Senior Emergency Planner
V. Higaki, Regulatory Affairs Manager
W. Kanda, Vice President - Perry Plant
T. Lentz, Engineering Director
M. McFarland, Staff Superintendent
K. Russell, Compliance Engineer

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened

None.

Closed

05000440/2004003-01	VIO	Untimely Actual Alert Declaration on April 24, 2003, Due to Inadequate Use of the Emergency Classification Scheme

Discussed

None.

LIST OF DOCUMENTS REVIEWED

Internal Report; April 24, 2003 Alert Classification NRC 95001 Inspection Readiness Review; dated May 22, 2004

Emergency Planning Drill and Exercise Performance Indicator Eight Quarter Running Totals; April 2004

Monthly Emergency Preparedness Drill/Exercise Performance Records; April 2003 through April 2004

Procedure EPI-A1; Emergency Action Levels; Revision 9; dated March 11, 2004

Summary Records of Required NRC Notifications; January 2002 through March 2003

CR 03-02408; At 11:00 A.B. FHB Vent Radiation Monitor High Alarm, At 11:30 A.M., the Control Room Became Aware That a Fuel Pin End Cap Came Off Causing the Alarm;

However the Alert Declaration (EAL GA2) Did Not Occur Until 11:50 A.M.; dated April 24, 2003

CRCA 03-02408-01; Revise Procedure FTI-E0036 to Strengthen Management's Expectations for Reactor Engineering Staff During Fuel Inspection Activities

CRCA 03-02408-02; Discuss Emergency Plan Performance Shortfalls and Emergency Coordinator Roles and Responsibilities in Operator Continuing Training

CRCA 03-02408-03; Identify Lessons Learned from CR 03-02408 to be Incorporated into Reactor Engineering Procedure Governing Fuel Inspection Activities in the FHB

CRCA 03-02408-04; Identify Lessons Learned from CR 03-02408 in Procedure TXI-0358 Used for the Channel Measurement Campaign

CR 03-02411; Fuel Handling Building Vent Gas High Alarm Transient Post Job Critique; dated April 24, 2003

CRCA 03-02411-01; Improve References to Emergency Plan in Procedure ONI-D17

CRCA 03-02411-02; Improve References to Emergency Plan in Procedure ONI-J11-2

CR 03-03235; Post Job Critique of Procedure ONI-N11 and PEI-N11; dated May 13, 2003

CRCA 03-03235-06; Revise Procedure PYBP-POS-2-1 to Include More Details and Guidance for Conducting Post-Job Critiques

CR 03-04078; Seismic Event, Magnitude 3.4, Located Four Miles Northeast of Fairport Harbor, Declared Unusual Event; dated June 30, 2003

CR 03-04805; Document August 14, 2003 Unusual Event Due to the Grid Blackout; dated August 14, 2003

CR 04-02025; Document Team Findings During the NRC 95001 Late Alert Classification Inspection Preparations; dated April 20, 2004

CRCA 04-02025-01; Document in a Memo the Three Exceptions to Recommendations of CRCA 03-02408-03 That Are Relevant to Temporary Procedure TXI-0358 but Not to Procedure FTI-E0036

CRCA 04-02025-02; Develop Roles and Responsibilities for Radiation Protection Staff for Notifying the SM Relevant to EALs GU1 and GA1

CRCA 04-02025-03; Perform an Effectiveness Review in 2005 on Corrective Actions Developed as a Result of Extent of Condition and Extent of Cause Evaluations Documented in Attachment to CR 04-02025

CRCA 04-02025-04; Review All ONI Procedures to Determine If References to EALs are Adequately Prioritized and Highlighted

CRCA 04-02025-05 through -10; Revise the Following FTI Procedures to Incorporate the Changes Made to FTI-E0036 per CRCA 03-02408-03: E0010; E0013, E0014, E0019, E0037, and A0001

CRCA 04-02025-11; Revise Fuel-Damage Related EAL(s) to Clarify that Fuel Damage Can Occur During Fuel Handling Activities

CRCA 04-02025-12 through -18: Revise the Following ONI Procedures to Improve References to the EALs: N11; N32; P54; R61; ZZZ-2; E12-2; and R22-1

CRCA 04-02025-19; Revise the Procedure Writer's Guide to Incorporate the Barrier Improvement Identified in CA 04-02025-04

CR 04-02538; Drill/Exercise Performance Indicator (DEP PI) Opportunity Missed During Licensed Operator Re-Qualification Scenario; dated May 18, 2004

Procedure FTI-E0036; Inspection of Irradiated Fuel Bundles; Revision 1; dated December 5, 2003

Training Materials and Attendance Sheets; Licensed Operator Continuing Training Cycle 02-2003

Temporary Procedure TXI-0358; Perry Channel Measurement Campaign; Revision 1; dated December 1, 2003

Procedure PYBP-POS-2-1; Perry Operations Section Human Performance; Revision 2; dated October 21, 2003

Procedure ONI-D17; High Radiation Levels Within Plant; Revision 8; dated December 5, 2003

Procedure ONI-J11-2; Fuel Handling Accidents; Revision 7; dated December 5, 2003

Internal Memo; NQA Effectiveness Reviews; dated May 26, 2004

NQA Observation Report PYI 200216; Evaluated Dynamic Simulator Drills for Crew 5 and Staff Crew 1; dated May 14, 2002

NQA Observation Report PYI 200270; Operations Activities During Reactor Startup; dated June 11, 2002

NQA Observation Report PYI 200299; Operational Activities Following Synchronization to the Grid Following Forced Outage; dated June 13, 2002

NQA Observation Report PYI 2003540; Control Room Activities During Shutdown for Refueling Outage 9; dated April 5, 2003

NQA Observation Report PYI 2003649; June 2003 Emergency Plan Drill; dated June 25, 2003

NQA Observation Report PYI 2003830; November 2003 Emergency Plan Drill; dated November 13, 2003

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
CA	Cause Analysis
CFR	Code of Federal Regulations
CR	Condition Report
CRCA	Condition Report Corrective Action
DEP	Drill and Exercise Performance
EAL	Emergency Action Level
FENOC	FirstEnergy Nuclear Operating Company
FHB	Fuel Handling Building
FTI	Fuel Technical (Engineering) Instruction
NQA	Nuclear Quality Assurance
NRC	Nuclear Regulatory Commission
ONI	Off-Normal Instruction
PARS	Publically Available Records
PI	Performance Indicator
SM	Shift Manager
SRO	Senior Reactor Operator
US	Unit Supervisor