November 14, 2000

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

SUBJECT: DAVIS-BESSE - NRC INSPECTION REPORT 50-346/00-12(DRS)

Dear Mr. Campbell:

On October 30 through November 03, 2000, the NRC conducted its biennial inspection of the licensed operator requalification training program at the Davis-Besse Nuclear Power Station. The results of this inspection were discussed with Mr. H. Bergendahl and other members of your staff on November 03, 2000, and during a subsequent telephone conversation on November 14, 2000. The enclosed report presents the results of this inspection.

This inspection was an examination of activities conducted under your license as they relate to safety and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel.

No findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures 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/NRC/ADAMS/index.html (the Public Electronic Reading Room).

We will gladly discuss any questions you have concerning this inspection.

Sincerely

/RA/

David E. Hills, Chief
Operations Branch
Division of Reactor Safety

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

Enclosures: 1. Inspection Report 50-346/00-12(DRS)
2. List of Documents Reviewed

cc w/encls: B. Saunders, President - FENOC
H. Bergendahl, Plant Manager
D. Lockwood, Manager, Regulatory Affairs
M. O'Reilly, FirstEnergy
State Liaison Officer, State of Ohio
R. Owen, Ohio Department of Health
A. Schriber, Chairman, Ohio Public
Utilities Commission
W. Mugge, Training Manager

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-346
License No:	NPF-3
Report No:	50-346/00-12(DRS)
Licensee:	FirstEnergy Nuclear Operating Company
Facility:	Davis-Besse Nuclear Power Station
Location:	5501 North State Route 2 Oak Harbor, OH 43449-9760
Dates:	October 30 - November 03, 2000
Inspectors:	Hironori Peterson, Senior Operations Lead Inspector Dell McNeil, Senior Operations Inspector
Approved by:	David E. Hills, Chief Operations Branch Division of Reactor Safety

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
● Initiating Events	● Occupational	● Physical Protection
● Mitigating Systems	● Public	
● Barrier Integrity		
● Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.

SUMMARY OF FINDINGS

IR 05000346-00-12(DRS), on 10/30 - 11/03/2000, FirstEnergy Nuclear Operating Company, Davis-Besse Nuclear Power Station. Licensed Operator Requalification Training Inspection Report.

The inspection was conducted by two regional senior operations specialists. There were no findings of significance identified during this inspection.

Report Details

1. REACTOR SAFETY

1R11 Licensed Operator Requalification

a. Review of Operating History - Effectiveness of Operator Training

(1) Inspection Scope

The inspectors reviewed the plant's operating history from January 1999 through October 2000, to assess whether the licensed operator requalification training program had addressed operator performance deficiencies noted in the plant.

(2) Findings

No findings of significance were identified.

b. Requalification Examination Material

(1) Inspection Scope

The inspectors reviewed the Year 2000 annual requalification operating and written examination material to evaluate general quality, construction, and difficulty level. The inspection week operating examination material consisted of dynamic simulator scenarios and job performance measures (JPMs). The written examination material, which was one of three scheduled written examinations for Senior Reactor Operators (SRO) and Reactor Operators (RO), consisted of 45 open reference multiple choice questions. The inspectors reviewed the methodology for developing the examinations, including the Licensed Operator Requalification Training (LORT) program two year sample plan, probabilistic risk assessment insights, previously identified operator performance deficiencies, and plant modifications. The inspectors assessed the level of examination material duplication during the current year annual examination (one of three exams) and with last year's annual examinations (12 exams). The inspectors also discussed various aspects of the examination development with members of the licensee's training staff.

Specific documents reviewed for this inspection are listed in Enclosure 2.

(2) Findings

No findings of significance were identified.

c. Requalification Examination Administration Practices

(1) Inspection Scope

The inspectors observed the administration of the requalification operating test to assess the licensee's effectiveness in conducting the test and to assess the facility evaluators' ability to determine adequate performance using objective, measurable performance standards. The inspectors evaluated the performance of one operating shift crew during four dynamic simulator scenarios and five JPMs in parallel with the facility evaluators. The inspectors observed the training staff personnel administering the operating test, including pre-examination briefings, observations of operator performance, individual and crew evaluations after dynamic scenarios, techniques for JPM cuing, and the final evaluation briefing for licensed operators. The inspectors noted the performance of the simulator to support the examinations. The inspectors also reviewed the licensee's overall examination security program.

Specific documents reviewed for this inspection are listed in Enclosure 2.

(2) Findings

The inspectors identified that not all of the licensed SROs were evaluated or put at risk of being evaluated in the position of implementing and directing activities of Abnormal Operating Procedures (AOP) and Emergency Operating Procedures (EOP). The licensee's control room organization included three SROs. The Shift Supervisor (SS) who is the senior on-shift SRO responsible for the Emergency Plan as the acting Emergency Director, the Shift Manager (SM) who is the SRO responsible for the Senior Technical Advisor (STA) duties, and the Shift Supervisor Assistant who is the SRO responsible for the implementation of AOPs and EOPs. The licensee's requalification training program procedure P-OPS-4, "Development and Conduct of Simulator Evaluations," Revision 7, restricted evaluation of SROs who were qualified as SS or SM in only those two identified positions of SS or SM during the annual requalification operating test evaluations. The licensee's program appeared contrary to the requirements of 10 CFR 55.59(a)(2)(ii) which notes that the operating test requires senior operators to demonstrate an understanding of and the ability to perform the actions necessary to accomplish a comprehensive sample of items specified in 10 CFR 55.45(a)(2) through (13) inclusive to the extent applicable to the facility. This issue concerning evaluation of all SROs in all applicable positions for an SRO including EOP use is considered an unresolved item (50-346/00-12-01) pending further NRC review.

d. Requalification Training Program Feedback Process

(1) Inspection Scope

The inspectors assessed the methods and effectiveness of the licensee's processes for revising and maintaining its licensed operator continuing training program up to date, including the use of feedback from plant events and industry experience information. The inspectors interviewed licensee personnel (operators, instructors, training management, and operations management) and reviewed the applicable licensee's procedures. In addition, the inspectors reviewed Quality Assurance and Self-Assessment Audits.

Specific documents reviewed for this inspection are listed in Enclosure 2.

(2) Findings

No findings of significance were identified.

e. Remedial Training Program

(1) Inspection Scope

The inspectors assessed the adequacy and effectiveness of the remedial training conducted since the previous annual requalification examinations and the training planned for the current examination cycle to ensure that they addressed weaknesses in licensed operator or crew performance identified during training and plant operations. The inspectors reviewed remedial training procedures and individual remedial training plans, and interviewed licensee personnel (operators, instructors, and training management). In addition, the inspectors reviewed the current examination cycle remediation packages for the written and operating examination failures to ensure that remediation and subsequent re-evaluations were completed prior to returning individuals to licensed duties.

Specific documents reviewed for this inspection are listed in Enclosure 2.

(2) Findings

No findings of significance were identified.

f. Conformance with Operator License Condition

(1) Inspection Scope

The inspectors reviewed the licensee's program for maintaining active operator licenses and ensuring the medical fitness of its licensed operators. The inspectors evaluated the facility and individual operator licensees' conformance with the requirements of 10 CFR Part 55.

Specific documents reviewed for this inspection are listed in Enclosure 2.

(2) Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA6 Management Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. H. Bergendahl and other members of licensee management at the conclusion of the inspection on November 03, 2000. Subsequent to the exit meeting, the licensee was notified via telephone conversation of the new unresolved item (URI) on November 14, 2000. The licensee acknowledged the observations and did not identify any information as proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

H. Bergendahl, Plant Manager
D. Bondy, Senior Nuclear Training Advisor
R. Coad, Plant Operations Manager
*J. House, Supervisor Operations Training
*D. Miller, Supervisor Regulatory Affairs Compliance
*W. Mugge, Nuclear Training Manager
A. Schumaker, Acting Supervisor Health Services
B. Young, Qualification Instructor

NRC

T. Kozak, Chief, Reactor Projects Branch 4
*K. Zellers, Senior Resident Inspector, Davis-Besse
D. Simpkins, Resident Inspector, Davis-Besse
H. Peterson, Senior Operations Lead Inspector
D. McNeil, Senior Operations Inspector

*Notified on November 14, 2000 of new unresolved item.

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-346/00-12-01	URI	Potential training program discrepancy to meet the requirements of 10 CFR 55.59(a)(2)(ii), concerning evaluation of all SROs in all applicable positions for an SRO including EOP use.

Closed

None

Discussed

None

LIST OF ACRONYMS

AOP	Abnormal Operating Procedure
CFR	Code of Federal Regulations
DRS	Division of Reactor Safety
EOP	Emergency Operating Procedure
JPM	Job Performance Measure
LORT	Licensed Operator Requalification Training
NRC	Nuclear Regulatory Commission
RO	Reactor Operator
SM	Shift Manager
SRO	Senior Reactor Operator
SS	Shift Supervisor
STA	Shift Technical Advisor
URI	Unresolved Item

Enclosure 2

LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents referenced and/or reviewed during the inspection, including documents prepared by others for the licensee. Inclusion on this list does not imply that NRC inspectors reviewed the documents in their entirety, but, rather that selected sections or portions of the documents were referenced and/or evaluated as part of the overall inspection effort. NRC acceptance of the documents or any portion thereof is not implied.

Procedures

- NT-OT-07001, Nuclear Training Procedure, Revision 05
- NG-CS-00901, Davis-Besse Health Center Operations
- P-OPS-1, Written Examinations and Quizzes for Licensed Operators, Revision 2
- P-OPS-3, Requalification Walkthrough Examination, Revision 3
- P-OPS-4, Development and Conduct of Simulator Evaluations, Revision 7
- Operations Licensed Operator Proficiency Manual

Licensed Operator Requalification Training Documentation

- Licensed Operator Requalification Program Training Plan, Revision 5, including:
  - Two Year Cycle Schedule
  - Course Outlines
  - Simulator Guide List
  - ORQ In-Plant Tasks
  - Tasks to 10 CFR 55.59 Items Cross Reference
  - Licensed Operator Continuing Training SOERs
- Requalification Training Attendance Records (1999 - 2000)

Other Material Reviewed

- Control Room Operator Proficiency Log Records for the Current Training Period Which Indicated the On-Shift Watch Standing Hours for Licensed Operators at the Facility
- Medical Records for Ten Licensed Operators (5 SROs and 5 ROs)
- Training Requirements Detailed Completions - Medical Physical Examination Schedules
- Condition Report No. 2000-2646, Year 2000 Exam No.1, Biennial Written Examination Failures
- Removal from Licensed Duties Intra-Company Memorandums

Current and Previous Annual Examination Material and Documentation

- Year 2000 Licensed Operator Requalification Program Annual Examination Sample Plan
- Year 2000 Simulator Evaluations for One Operations Crew and Seven Individual Operators
- Remedial Training Packages for Crew and Individual Failures for the 1999 and 2000 Annual Operating Examination and the 2000 Biennial Written Examination
- Year 2000 - ORQ-ERO-00401-Written Examination No.1 for SROs and ROs
- Four Simulator Scenarios for Annual Operating Examination:
  - ORQ-EPE-S101
  - ORQ-EPE-S109
  - ORQ-EPE-S114

- ORQ-EPE-S127

- JPM No. 2, Initiate Long Term Boron Dilution
- JPM No. 7, Serious Control Room Fire, Primary Side Reactor Operator Actions (Outside RRA Actions) - RO only
- JPM No. 10, Serious control Room Fire, Assistant Shift Supervisor Actions, Attachment 2, Protect EDG 1 - SRO only
- JPM No. 30, High Pressure Injection Operation
- JPM No. 89, Emergency Closure of Core Flood Tank 2 Isolation Valve, CF 1A
- JPM No. 127, Actions for Steam Binding of Motor Drive Feedwater Pump

Assessments

- 1998 Quality Assurance Audit of Training
- 2000 Quality Assurance Audit of Training
- 1999 Training Program Self Assessment for the Operator Training Program