

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-346/OL-92-02(DRS)

Docket No. 50-346

License No. NPF-3

Licensee: Toledo Edison Company

Facility Name: Davis-Besse Nuclear Power Station

Examination Administered At: Centerior Service Company  
c/o Toledo Edison Company  
300 Madison Avenue  
Toledo, OH 43652

Examination Conducted: On November 18, 1992, - SRO/Initial  
Examination; and  
During the week of November 30, 1992  
Regualification Examinations

RIII Examiner:

R. M. Bailey

11/15/92  
Date

Chief Examiner:

T. Burdick for  
J. R. Walker

12/17/92  
Date

Approved By:

T. Burdick  
Thomas M. Burdick, Chief  
Operator Licensing Section 2

12/17/92  
Date

Examination Summary

Examinations were administered on November 18, 1992 and during the week of November 30, 1992, (Report No. 50-346/OL-92-02(DRS)) to one senior reactor operator for an initial retake written examination, and to seven senior reactor operators and five reactor operators for the regualification examination. Crew performance as well as individual performance was evaluated on the dynamic portion of the operating examination. An exit meeting was conducted on December 3, 1992, with plant management.

Results: All five reactor operators and four senior reactor operators passed all sections of the requalification examinations. Three senior reactor operators failed the JPM portion of the examination. In addition, one of three crews received an unsatisfactory evaluation on the dynamic simulator examination. The senior reactor operator passed the initial (written) retake examination.

The following are examples of the strengths and weaknesses identified by the NRC evaluators.

#### Strengths

- Demonstrated a thorough knowledge of equipment location.
- One crew did a good job on recapping the events in progress during the performance of the dynamic simulator examination. This was done when the conditions permitted, allowing the crew to provide important feedback.

#### Weaknesses

- Communications between crew members during dynamic simulator examinations was weak. A lack of feedback resulted in open-ended communication.
- During a rod exercise a majority of the personnel had difficulty in determining that a rod was failed.

These events are addressed in the report details.

## REPORT DETAILS

### 1. Examiners

\*J. Walker, NRC  
R. Bailey, NRC  
E. Benjamin, PNL

\*Chief Examiner

### 2. Exit Meeting

An exit meeting was held on December 3, 1992, with facility management and training staff representatives, to discuss the examiner's observations.

#### NRC Representatives in attendance were:

J. Walker, Chief Examiner  
R. Bailey, Examiner

#### Facility Representatives in attendance were:

E. F. Bergner, Simulator Supervisor  
M. Bezilla, Operations Superintendent  
G. A. Bradley, Licensing Representative  
G. Homna, Compliance Supervisor, Licensing  
T. Meyers, Technical Services Director  
R. A. Simpkins, Operations Training Supervisor  
M. Stewart, Manager Nuclear Training  
L. Storz, Plant Manager  
J. K. Wood, Manager, Plant Operations

### 3. Examination Development

The NRC and licensee members of the examination team validated the proposed examination developed by the licensee during the week of November 16, 1992.

The examination validation was accomplished by comparing the proposed examinations with the applicable guidance of NUREG 1021, "Operator Licensing Examiner Standards," Revision 6.

#### a. Reference Material

The reference material sent to the NRC for use during examination development of the regualification examination was adequate.

b. Regualification Written Examination

The licensees' proposed written examination generally met the guidance as stated in ES-602. Some questions on Parts A and B examinations had to be rewritten to clarify information being sought.

c. Job Performance Measures (JPM)

The Job Performance Measures (JPM) were evaluated during the preparation week. The JPMS met the guidance provided in ES-603.

d. Dynamic Simulator

Overall, all scenarios met the guidance of Attachment ES-604-1. Minor changes were made to enhance the actions required during each scenario.

4. Examination Administration

The licensee was responsible for examination administration while NRC observed. This process allowed the NRC to evaluate the licensee's regualification program as well as the individual operators. The following observations were made by the NRC concerning examination administration:

Written Examination

The licensee did a good job scheduling the examination. This reduced the amount of "dead time" associated with the examination, which was a positive attribute in reducing operator stress during the examination process.

Dynamic Simulator Examination

During the dynamic simulator examinations, some direction by the NRC evaluators was required to keep the events flowing smoothly. In one case the simulator operator inadvertently inserted the wrong malfunction. The malfunction was scheduled for later in the scenario. This resulted in some Individual Simulator Critical Tasks (ISCT) not being evaluated. Use of the radio headsets aided in keeping all evaluators informed of events in progress and in recovering from the inadvertent malfunction.

### Job Performance Measures (JPM)

The use of notebooks for JPM administration provided the evaluators with a concise and easily managed evaluation package for each operator. Some critical task standards needed to be clarified following the performance of the JPMS. In addition, the answer key did not always indicate all acceptable answers for the questions.

#### 5. Evaluation of Facility Evaluators

During examination administration, the NRC assessed each licensee evaluator's ability to conduct consistent and objective examinations and their ability to provide unbiased operator evaluations. The following observations were made regarding the facility evaluators:

- Evaluators tended, at times, to be less conservative than the NRC evaluators. The NRC identified one crew as unsatisfactory while the facility considered it satisfactory. The facility graded all crew competencies as satisfactory, whereas the NRC evaluators graded Diagnosis and Control Board Operations as unsatisfactory. This determination was based upon the crew diagnosing a secondary steam leak inside containment as a small primary reactor coolant system (RCS) leak, failing to properly control the main turbine electro-hydraulic control system (EHC) in manual and overfeeding a Ruptured Steam Generator during three independent events.
- The evaluators tended to allow some operators to continue performing JPMS even though the operators were no longer making reasonable progress.
- Evaluators were not alert to problems noted during simulator setup. During one JPM the expected fault was not entered into the simulator as required for the JPM.
- Evaluators were not consistent in reporting back answers to the operators during JPM questions. In some cases the answers were read back verbatim and, in others, the answers were paraphrased when read back.
- The evaluators initially graded two JPMS as satisfactory whereas the NRC evaluator graded them unsatisfactory. The facility was requested to explain their grading methodology. Upon conclusion of this discussion, the facility evaluators chose to change their grading for both JPMS to unsatisfactory. This resulted in the facility identifying a third failure of JPMS.



- Co-evaluation of the operators' performance was done by the NRC and the facility. This provided the NRC with the necessary information to assess the individual operator's performance as well as the licensee's regualification program performance.

#### 6. Regualification Program Evaluation

The overall program evaluation for the Davis-Besse facility, based on examinations given the week of November 30, 1992, was satisfactory.

#### 7. Additional Examiner Observations

The following items are additional observations made during the examination administration:

##### Strengths:

- One crew did a good job on recapping the events in progress during the performance of the dynamic simulator examination. This was done when the conditions permitted, allowing the crew to provide important feedback.
- Operators showed a thorough knowledge of component locations in the plant.
- Operators demonstrated a thorough knowledge of control board component locations.
- Use of the Shift Manager to verify various actions was a strength aiding in the ability to diagnose various events.

##### Weaknesses:

- Communications between crew members during dynamic simulator examinations was weak. This was demonstrated by a lack of feedback resulting in open ended communication.
- During a rod exercise JPM a majority of the personnel had difficulty determining that a rod was failed.
- Assistant Shift Supervisors serving in the Shift Supervisor position demonstrated difficulties in determining emergency action level (EAL) classifications.

- Assistant Shift Supervisors serving in the Shift Supervisor position demonstrated difficulties in maintaining adequate command and control over the crew. In many cases, the operator had to rely on the incumbent Shift Supervisor to advise them as to what actions to take.

Enclosure 2

REQUALIFICATION PROGRAM EVALUATION REPORT

Facility: Davis-Besse Nuclear Station

Examiners: J. Walker, R. Bailey, E. Benjamin

Date of Evaluation: Week of November 30, 1992

Areas Evaluated: ☒ Written ☒ Oral ☒ Simulator

Examination Results:

	<u>RO</u> <u>Pass/Fail</u>	<u>SRO</u> <u>Pass/Fail</u>	<u>Total</u> <u>Pass/Fail</u>	<u>Evaluation</u> <u>(S or U)</u>
Written Examination	<u>5/0</u>	<u>7/0</u>	<u>12/0</u>	<u>S</u>
Operating Examination				
Oral	<u>5/0</u>	<u>4/3</u>	<u>9/3</u>	<u>S</u>
Simulator	<u>5/0</u>	<u>7/0</u>	<u>12/0</u>	<u>S</u>
Evaluation of facility written examination grading				<u>S</u>

Crew Examination Results:

	<u>Crew 1</u> <u>Pass/Fail</u>	<u>Crew 2</u> <u>Pass/Fail</u>	<u>Crew 3</u> <u>Pass/Fail</u>	<u>Evaluation</u> <u>(S or U)</u>
<u>Operating Examination</u>	Pass	Pass	Fail	S

Overall Program Evaluation

Satisfactory

This evaluation includes the results of the examination administered the week of November 30, 1992. This is in accordance with NUREC 1021 "Operating Licensing Examiner Standards", ES-601, Rev 6, Section C.1.6.4. Reference Examination Report No. 50-346/OL-92-02(DRS).

Submitted: T. Burdick for  
Walker  
Examiner

Forwarded: T. Burdick  
Burdick  
Section Chief

Approved: M. J. Wright for  
Wright  
Branch Chief



Enclosure 4

SIMULATION FACILITY FIDELITY REPORT

Facility Licensee: Davis-Besse Nuclear Power Station

Facility Licensee Docket No.: 50-346

Operating Tests Administered On: Week of November 30, 1992

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and are not, without further verification and review, indicative of noncompliance with 10 CFR 55.45(b). These observations do not affect NRC certification or approval of the simulation facility other than to provide information that may be used in future evaluations. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating tests, the following items were observed:

ITEM

DESCRIPTION

None.