

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-440/OL-92-01

Docket Nos. 50-440

License No. NPF-58

Licensee: The Cleveland Electric
Illuminating Company
10 Center Road
Perry, OH 44081

Facility Name: Perry Nuclear Power Plant

Examination Administered At: Training Center
10 Center Road
Perry, OH 44081

Examination Conducted: Week of August 3, 1992

Examiners: R. L. Doornbos

C. M. Zelig

R. D. Orton, Pacific Northwest Laboratories

Chief Examiner: KM Shembarger for
D. R. McNeil

9/11/92
Date

Approved By: KM Shembarger for
M. J. Jordan, Chief
Operator Licensing Section 1

9/11/92
Date

Examination Summary

Examination Administered on the week of August 3 - 7, 1992
(Report No. 50-440/OL-92-01)

Senior Reactor Operator (SRO) examinations were administered to three previously licensed Reactor Operators (ROs). Five non licensed operators were given RO examinations.

Results:

All individuals examined satisfactorily passed the NRC initial license examination.

The following is a summary of the strengths and weaknesses noted during the performance of this examination.

Strengths:

- o The Perry Nuclear Power Plant (PNPP) simulator. (For details see Section 3c.)
- o SRO command and control during dynamic simulator scenarios. (For details see Section 3c.)

Weaknesses:

- o No major weaknesses were noted during administration of the examination.

REPORT DETAILS

1. Examiners

D. R. McNeil, Chief Examiner, NRC, Region III
M. J. Jordan, RIII, Chief, RIII OLB Section 1
R. L. Doornbos, Region III
C. M. Zelig, Region III
R. D. Orton, Pacific Northwest Laboratories

2. Parsons Contacted

Facility

*D. K. Cobb, Superintendent, Plant Operations
*D. P. Igyarto, Training Manager
*J. McHugh, Training Coordinator
*D. L. Bauguess, Initial License Instructor
*M. L. Wesley OTN Supervisor

U. S. Nuclear Regulatory Commission (NRC)

* M. J. Jordan, RIII, Chief, OLB Section 1
* D. R. McNeil, RIII, Chief Examiner
R. L. Doornbos, RIII Examiner
* C. Zelig, RIII Examiner
P. Hiland, SRI, PNPP

*Denotes those present at the exit meeting on August 7, 1992.

3. Initial License Training Program Observations

The initial license training program appeared to be functioning well as evidenced by the 100% pass rate. Candidates appeared well prepared for the examination. Training department personnel were responsive to the needs of license candidates and to the NRC in assisting in the development of this examination.

The following information is provided for evaluation by the licensee through their SAT based training program. No response is required.

a. Written Examination

Strengths:

- o The pre-exam review was excellent. There was only one post-exam comment which was a request to delete one question on the SRO examination.

Weaknesses:

- o There were no major weaknesses noted.

Job Performance Measures (JPMs)

Strengths:

- o There were no major strengths noted in this area. Overall all candidates did well in this area.

Weaknesses:

- o Many candidates were unable to correctly state what the source range instrumentation would indicate near the end of a refueling outage. This is an important aspect of shutdown reactivity management and should receive higher emphasis in the licensed operator training program.
- o Three candidates were unable to correctly identify the major source of alpha particles at PNPP. Identification of alpha sources is necessary for identifying fuel failure problems.

Dynamic Simulator Scenarios

Strengths:

- o The SRO candidates were well prepared for their position of responsibility. All exhibited strong command and control skills during the examination. Since all SRO candidates were previously licensed personnel, they were very familiar with control panel instrumentation and control switches.

The simulator setup demonstrated a commitment to training. The control room pictures marking the boundaries of the control room and panel internals were indicative of the commitment to training.

The simulator modeling, in general, was good. During one of the dynamic scenarios, the simulator was required to simulate vessel flood. The simulator gave an accurate representation of what would be expected during vessel flood conditions. Many simulator facilities cannot reproduce these conditions satisfactorily.

The simulator performed well throughout the scenarios. It did not halt or give erroneous indications during the examination.

Weaknesses:

- o During one dynamic scenario, the crew was required to emergency depressurize the reactor. At the completion of depressurization, the SRO determined he did not have accurate water level indications and therefore chose to flood the vessel. When another crew was faced with the same conditions, the SRO determined that vessel level instrumentation was accurate and as a result, concluded a flood was not required. Additional training may be required to ensure all operators consistently recognize invalid vessel level indications.

4. General

Training

Training department personnel were professional and conscientious in execution of their duties and responsibilities. Their assistance in reviewing and re-writing many questions initially submitted for the examination enabled Region III examiners to provide a much improved and more comprehensive examination.

The assistance given by the instructor assigned to operate the simulator was excellent. The instructor put in extra hours on short notice and made many suggestions that significantly improved the dynamic simulator scenarios.

Operations, Security, Radiation Protection, Other

Operations, Security and Radiation Protection personnel were professional in all cases. Operations personnel were called upon to review the written examination and supply replacement questions for some questions. Their effort in this area was noteworthy.

While the power block was clean, it was in need of paint and additional lighting in many areas. It was noted during the examination that significant effort was being made to encourage workers to be professional and take pride in PNPP. It has been demonstrated at other plants that a clean, well lighted work space tends to increase the professional attitude of personnel.

While performing IOI-2, Step 4.8, Generator Synchronization, operators became confused at steps 13 - 16. In order to perform steps 13 and 14 the synch selector switch must have already been operated, but was not called for until steps 15 and 16. These steps in the procedure should be reviewed for technical accuracy and modification.

While attempting to validate a JPM on the simulator, it was noted that if a high control room ventilation radiation condition existed concurrent with a failure of the isolation logic (including the manual arm-and-depress pushbutton), there was no procedural guidance available for manual realignment of the control room ventilation system. In addition, control switches for some system dampers were not located in the control room, adding additional complication to the situation. This condition should be reviewed and a procedure generated if necessary, to ensure adequate guidance is available for operations personnel.

5. Simulator Observations

Simulator discrepancies were identified. These discrepancies are noted in Attachment 4.

6. Exit Meeting

An exit meeting was held at the Perry Nuclear Power Plant training building on August 7, 1992. Those attending the meetings are listed in Section 2 of this report. The following items were discussed during the exit meeting:

- o Strengths and weaknesses noted in this report.
- o The general observations relating to the plant noted in section 4.
- o Time frame in which exam results would be issued (30 days).

ENCLOSURE 2

FACILITY COMMENTS AND NRC RESOLUTION OF COMMENTS

Question No. 27 on the SRO examination was as follows:

The reactor is operating with the following conditions:

Reactor power	83%
Reactor Pressure	1040 psig
Reactor level	199"
DW Temperature	138 degrees F
Suppression Pool Level	18'5"
Containment Pressure	.1 psig

An inadvertent SPMU dump occurs and suppression pool level increases to 24 feet. What action is required under these conditions?

- a. Continue reactor operations and restore suppression pool level.
- b. Enter PEI T23 and lower suppression pool level to within the limit within 6 hours.
- c. Shutdown the reactor, enter RPV control and emergency depressurize due to high suppression pool level.
- d. Restore level to within the limit within one hour, or be in Hot S/D within 24 hours and cold S/D in the next 24 hours.

Answer: c.

Facility comment: There is no correct answer provided for this question.

NRC resolution: Concur with the facility. The EOPs were improperly interpreted when formulating this question.

ENCLOSURE 4

SIMULATION FACILITY REPORT

Facility: The Cleveland Electric
Illuminating Company

Docket No. 50-440

Operating Tests Administered On: Week of August 3 - 7, 1992

The following documents observations made by the NRC examination team during the August, 1992, initial examination. These observations do not constitute audit or inspection findings and are not, without further verification and review, indicative of non-compliance with 10 CFR 55.45(b). These observations do not affect NRC certification or approval of the simulation facility other than to provide information which may be used in future evaluations. No licensee action is required in response to these observations.

During the conduct of the simulator portion of the operating tests, the following items were observed:

ITEM

DESCRIPTION

Extraction Non-return check valves

The extraction non-return check valves were all cycling off the same model at the same time during turbine startup. The plant would not perform in the same manner.

Stub busses

The electric system's stub buses failed to trip when a LOCA signal was generated. This was a known simulator problem.

Rod Speeds

During portions of the examination, it was noted that post scram rod speeds appeared excessive. Operators also agreed that the speeds were in excess of what they would expect.