

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-263/OL-92-02

Docket No. 50-263

License No. DPR-22

Licensee: Northern States Power Company
414 Nicollet Mall
Minneapolis, MN 55401

Facility Name: Monticello Nuclear Power Station

Examination Administered At: Monticello, Minnesota

Examination Conducted: March 23-27, 1992

RIII Examiners:

Robert Leach
M. Leach

4-20-92
Date

K. Mikkelsen, Pacific Northwest Labs (PNL)

Chief Examiner:

R. L. Doornbos
R. L. Doornbos

4-20-92
Date

Approved By:

M. J. Jordan
M. J. Jordan, Chief
Operator Licensing Section 1

4/21/92
Date

Examination Summary

Examination administered on March 23 - 27, 1992
(Report No. 50-263/OL-92-02)

Written and operating requalification (requal) examinations were administered to nine Senior Reactor Operators (SROs) and three Reactor Operators (ROs). Two operating shift crews and two staff crews were evaluated on the simulator portion of the NRC examination.

A requal retake examination was administered to two licensed operators during the same time period. One (1) SRO took the written portion of the retake examination and one (1) SRO took the dynamic simulator scenario portion of the retake examination.

Results: All four crews, and all individuals, including the requal retakes, satisfactorily passed the NRC requalification and requalification retake examinations. In accordance with the criteria of NUREG-1021 Revision 6, Operator Licensing Examiner Standards, ES-601, the Monticello Requalification Training Program was rated satisfactory.

Although the training program was considered satisfactory, several strengths and weaknesses were identified.

STRENGTHS

Response to annunciator alarms (Details in Section 3)

Good variety of standard and alternate path Job Performance Measures (JPMs) (Details in Section 3)

Knowledge of equipment and component locations (Details in Section 4)

WEAKNESSES

Some RO and SRO examination questions submitted were at the recall (memory) level rather than the comprehension/evaluation level (Details in Section 3)

Informal Communications (Details in Section 3)

Limited Scenario Exam Bank variety (Details in Section 3)

JPM questions were not correctly identified (Details in Section 3)

REPORT DETAILS

1. Examiners

- +*R. L. Doornbos, Chief Examiner, RIII NRC
- +*M. N. Leach, Examiner, RIII NRC
- K. Mikkelsen, Examiner, Pacific Northwest Labs (PNL)

2. Persons Contacted

Facility Representatives

- + D. Antony, General
- +*D. Alcott, Senior Instructor
- +*W. Boehme, Shift Manager
- +*M. Brant, General Superintendent Operations (Acting)
- + W. Hill, Plant Manager
- *D. Horgen, Simulator Supervisor
- +*L. Nolan, Manager, Monticello Training Center
- +*R. Uglow, Operations Training Supervisor

+Denotes presence at the Management exit meeting on March 27, 1992.

*Denotes presence at the Training exit meeting on March 27, 1992.

3. Requalification Training Program Observations

The following information is provided to aid the licensee in upgrading the training program and plant operations. No specific licensee response is required.

a. Written Examination

Generally, the level of knowledge required on both the RO and SRO examinations were at the recall/memory level, rather than the comprehension/evaluation level. Not all open reference questions in the Limits and Controls and Statics, were developed within the guidelines described in ES-602 Attachment 1, Table 1. Questions developed to these levels will facilitate discrimination between a competent and less than competent operator.

Some questions provided on the reactor operator examination were inappropriate (i.e., event classification) to that level of examination. The questions were replaced.

The questions for one of the simulator statics focused on two areas of knowledge. If the operator was weak (or strong) in either of these areas there was an increased opportunity to do poorly (or well) on this section of the examination. The NRC exam team requested that an additional area of examination be included in this static. The Examiner Standard ES-602, Attachment 1, Section B. 3.a.(1) through (6) addresses the type of written questions needed for the static scenario examinations.

b. Simulator Scenarios

During the dynamic simulator examination the operators consistently responded to annunciator alarms in a timely and accurate manner. Alarm prioritization and use of annunciator alarm response procedures was good.

The operators did not meet the facility administrative guidance on communications, 4AWI-04-07-05 "General Plant Operating Activities". 4AWI-04-07-05 requires there to be an understanding between the communicator and the receiver. Rarely were any "directions" or "orders" provided to the panel operators. Typical communications consisted of "Who would like to reduce recirculation flow", followed by a pause and then an operator would say "I guess I can do that." Discussions with the training department and a review of the facility training evaluators' comments on crew communications indicates that this type of communication is acceptable. However, the Operations representative indicated to the exam team that he had previously identified communications as a problem. The exam team is concerned that during high stress levels associated with major transients, the type of communications exhibited may lead to errors.

The variety of examination scenarios did not span a large spectrum of the Emergency Operating Procedures (EOPs). A significant number of exam bank scenarios ended in Emergency Depressurization. To fulfill the NRC's mandate to evaluate operators over a wide spectrum of the EOPs the examination team developed two new scenarios for use in the examination. Clarification was provided in the area of Individual Simulator Critical Task (ISCT) identification. Examples of ISCTs identified for deletion included; take actions per Technical Specifications, and identification of a leaking SRV.

The exam bank scenarios were found to be straight forward with little requirement for prioritization of actions or allocation of resources. The exam team recommended that an increased number of simultaneous events, both before and after the major transient, would enhance the quality of the scenarios, and be more consistent with NRC guidance for scenarios on NRC exams.

c. Job Performance Measures (JPM)

The JPM bank met the minimum requirements of NUREG 1021 for use on an NRC exam. Several JPMs had been added to the bank that required an alternate path for accomplishment which increased the realism associated with the examination. Clarification was provided on JPM task critical steps (i.e. the removal of "verify" as a critical step when there is no fault associated with the verification).

Cues during in plant JPMs frequently provide more feed back to the operator than would actually be available in the plant. For example, "The valve stem is in and valve is closed," was provided as feed back to the operator during one of the JPMs. The appropriate feedback to the operator should have been "the valve stem is in." Changes implemented by the exam team resulted in cues being consistent with ES-604 Attachment 1, Critical Task Methodology.

Only one of the twenty four JPM questions submitted by the facility was identified as not allowing the use of reference materials. After the exam team consulted with the facility operation's representative and based on the knowledge level expected of plant operators, by the Operations Department representative, approximately half of the JPM questions submitted were changed from reference allowed to no reference allowed.

d. Training

The utility was reluctant to make adjustments in the requalification examination, i.e., development of new scenarios and removal of references on JPM questions. After the reasons for the changes were explained to several levels of management, the facility agreed to the changes. The training and operations staff conducted themselves professionally throughout the preparation and examination weeks.

The evaluators were courteous, professional, and in general performed very well during the administration of the examination.

During JPM walkthrough questions some evaluators would read back the operator's answer while others would not. The facility should ensure that evaluators are consistent, either by reading back the examinees' answer or not reading back the answer. Consistency will assure uniform exam administration and reduce the tendency of reading back the answer only when the examinee's response is incorrect or incomplete.

Evaluators used during the simulator examination tended to hold conversations between themselves after the start of the scenario. These conversations were distracting and made it difficult to hear the candidates. The evaluators demonstrated adequate detection skills and judgment.

4. Observations

The following items are the summary of observations noted by the NRC during the examination.

Observations

All operators exhibited good knowledge of equipment and component locations in the simulator and in the plant.

The evaluators administered unbiased evaluations of the examinees.

Plant Housekeeping was good.

Security, Radiation Protection and Operations personnel were very cooperative in assuring there were no unnecessary delays associated with badging, dosimetry and accessing the station.

5. Examination Results Comparison

A comparison between the NRC and the facility grading on the written and operating portions of the examination was found to be adequate. In accordance with the criteria of NUREG-1021, Revision 6, Operator Licensing Examiner Standards, ES-601, the Monticello Requalification Training Program was deemed adequate and received an overall rating of satisfactory.

6. Simulator Observations

During administration of the requalification examination no major simulator discrepancies were identified.

7. Exit Meeting

A training exit meeting with the facility training department, and a plant management exit were conducted at the Monticello Training Center on March 27, 1992. Those attending the meetings are listed in Section 2 of this report.

The following items were discussed during these exit meetings:

- a. The training program observations made by the examiners during the administration of the requalification examination (see Sections 3).
- b. The general observations relating to the plant (see Section 4).

The rating of the Monticello requalification training program was presented at the exit meeting. The facility was informed that the results will be reviewed by regional management and that they would be documented in this examination report.

ENCLOSURE 2

REQUALIFICATION PROGRAM EVALUATION REPORT

Facility: Monticello Nuclear Power Station

Examiners: R. L. Doornbos, Chief Examiner
M. Leach, Region III
K. Mikkelsen, PNL

Dates of Evaluation: March 23-27, 1992

Areas Evaluated: X Written X Oral X 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> 3/0 </u> | <u> *10/0 </u> | <u> 13/0 </u> | <u> S </u> |
| Operating Examination | | | | |
| Oral | <u> 3/0 </u> | <u> 9/0 </u> | <u> 12/0 </u> | <u> S </u> |
| Simulator | <u> 3/0 </u> | <u> *10/0 </u> | <u> 13/0 </u> | <u> S </u> |
| Evaluation of facility written examination grading | | | | <u> S </u> |

*Indicates the results of one SRO Requal Retake in each category.

Crew Examination Results:

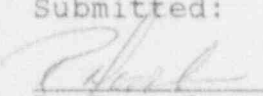
| | <u>Crew 1</u> <u>Pass/Fail</u> | <u>Crew 2</u> <u>Pass/Fail</u> | <u>Crew 3</u> <u>Pass/Fail</u> | <u>Crew 4</u> <u>Pass/Fail</u> | <u>Evaluation</u> <u>(S or U)</u> |
|-----------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|
| Operating Examination | <u> PASS </u> | <u> PASS </u> | <u> PASS </u> | <u> PASS </u> | <u> S </u> |

Overall Program Evaluation

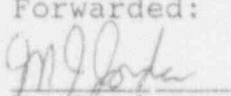
Satisfactory X

Note: Crews 2 and 4 were the staff crews.

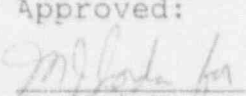
Submitted:


R. Doornbos
Examiner
04/24/92

Forwarded:


M. Jordan
Section Chief
04/20/92

Approved:


G. Wright
Branch Chief
04/21/92

ENCLOSURE 3

SIMULATION FACILITY REPORT

Facility Licensee: Monticello Nuclear Generating Plant

Facility Licensee Docket No. 50-263

Operating Tests Administered On: March 23 - 27, 1992

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

| <u>ITEM</u> | <u>DESCRIPTION</u> |
|-------------|--------------------|
| None | |