U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-263/OL-91-02

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 18-22, 1991

RIII Examiner: B. Holbrook, Examiner, Region II
K. Kennedy, Examiner, Region IV

Chief Examiner: _____ 4/24/91
H.I Peterson Date

Approved By: _____ 4/25/91
M. J. Jordan, Chief Date
Operator Licensing Section 1

Examination Summary
Examination administered on March 18-22, 1991
(Report No. 50-263/OL-91-02)
Written and operating requalification examinations were administered to eleven Senior Reactor Operators (SROs) and three Reactor Operators (ROs). Alternative B method of examining was utilized during this examination. Two operating shift crews and two staff crews (each staff crew consisting of two SROs and three extras) were evaluated on the simulator portion of the NRC examination.
Results: All four crews satisfactorily passed the dynamic simulator portion of the NRC requalification examination. Total individual failures consisted of two SROs. One SRO failed the dynamic simulator portion of the examination, and one SRO failed the written portion of the examination. All ROs passed the requalification examination. The facility failed the same two SROs.

Overall, the facility and NRC grading resulted in total agreement on the number of SRO failures. Independent grading by the NRC, in accordance with the criteria of NUREG-1021, Revision 6, Operator Licensing Examiner Standards, ES-601, assigned the Monticello Requalification Training Program a rating of satisfactory.

Although the training program was considered satisfactory, areas of JPM's, written question bank, and simulator scenarios warrant consideration for future examination. Specific information concerning these items are discussed in Sections 3 and 4 of this report.

It was noted that in addition to evaluating individuals on simulator ISCT's, the licensee also used competence factors which are not required by the Examiner Standards. This is a very positive attribute of the licensee's evaluation program.

REPORT DETAILS

1. Examiners

+*H. Peterson, Chief Examiner, NRC, Region III
+*B. Holbrook, NRC, Region II
K. Kennedy, NRC, Region IV

2. Persons Contacted

Northern States Power Company (NSP)

*D. Antony, Site Manager, Monticello Site
+*D. Nevinski, General Superintendent, Operations
*B. Hill, Plant Manager, Monticello
+*L. Nolan, General Superintendent Training, Monticello
+*B. McGillic, Operations Training Supervisor, Monticello
*D. Reynolds, Operations Training Supervisor, Prairie Island
*D. Horgen, Technical Support Training Supervisor, Monticello
+*W. Dhein, Operations Shift Manager
*L. Waldinger, NSP Manager, Production Training
+*B. Bowen, Senior Technical Instructor
+*M. Perry, Senior Technical Instructor
*T. Coss, Nuclear Safety and Licensing Engineer
*J. Shriver, Senior Technical Instructor, Simulator

U. S. Nuclear Regulatory Commission (NRC)

+*M. Jordan, Chief, Operator Licensing Section 1, Region III
*P. Moore, Resident Inspector, Monticello
*P. Hartmann, Senior Resident Inspector, Prairie Island
*J. Ulie, Reactor Inspector, Region III
W. Long, Headquarters, Monticello Licensing Project Manager

+Denotes those present at the Training Staff exit meeting on March 22, 1991.

*Denotes those present at the Management exit meeting on March 22, 1991.

3. Requalification Training Program Observations

The quantity of examination material per the criteria of NUREG-1021, Revision 6, Operator Licensing Examiner Standards, was acceptable. However, material quality concerning requalification written questions, scenarios, and the job performance measures (JPM) could be enhanced. The facility training staff was very responsive to the NRC in

resolving any concerns identified during the development of the requalification examination.

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

Examination questions for both Limits/Controls and Statics, should be better developed to discriminate between a competent and less than competent operators. Most of the questions were deemed adequate, but due to the facility's unique procedure configuration, the questions required some improvements. More emphasis should be directed to creating questions that test the higher levels of knowledge (analysis and cognitive) and not just memorization or direct look ups.

b. Simulator Scenarios

The facility has met the NUREG 1021 minimum requirements regarding the quantity of examination simulator scenarios. In meeting this requirement, the disclosure of the simulator examination bank was allowed. The facility allowed operators to review all the material in the examination bank and allowed crews to practice any and all exam bank simulator scenarios starting approximately two months before and up to the day prior to the scheduled NRC Requalification Examination. While there is no prohibition on disclosing the material, we do not believe that allowing license holders to practice the scenarios is consistent with the intent of evaluation scenarios. Evaluation scenarios are to assess the level of ability of individuals, prior practice on the scenarios may cloud this assessment. If you or the individual feel that additional board time is needed, then scenarios which replicate, not duplicate, the evaluation scenarios should be used. As many of your training scenarios should already fit this criterion, little additional effort on your part would be required. The facility could look at altering initial conditions, turnover information, and/or sequence of malfunctions for training scenarios to promote a fresh evaluation, while maintaining the concept of the original scenario. For this exam there was no compromise of the selected exam scenarios.

The quality of the simulator scenarios is adequate. The scenarios enter Technical Specification concerns/malfunctions and abnormal procedures. They

also adequately enter and require limited transitioning between Emergency Operating Procedures (EOPs). Enhanced evaluation of individuals ability prioritize actions and allocate resources could be achieved by introducing simultaneous equipment or component failures.

c. Job Performance Measures (JPM)

The quantity of the JPM met the minimum requirements of NUREG 1021. However, several JPMs required more consistent and definitive cues/standards to assure that the candidates understood what was expected of them. The facility required clarification on system response cues as stated in the ES-603-1, JPM Quality Checklist. System response cues in the performance standards should be complete and correct such that the evaluators could properly cue the operator when asked.

The facility's quantity of questions for each JPM was good. The facility has developed up to six questions for each JPM. However, the JPM questions, at times, were not discriminating enough. Due to the facility's structuring of Operating Procedures to include system descriptions, more emphasis should be directed to creating questions that test the higher levels of knowledge (analysis and cognitive), or specify when reference material is not to be used in answering the question.

d. Evaluators

Overall, the evaluators were courteous and professional. The facility was very responsive to the NRC requests to upgrade the JPMs to incorporate the system response cues. The facility and the evaluators assimilated and adapted very well to the new system response cues prior to the administration of the examination. On a few occasions, the evaluators demonstrated unfamiliarity with the JPMs. Better preparation, including further review and walkdown of the JPMs by the evaluators, would possibly rectify this item. Additionally, during the JPM walkthrough questions, the facility should ensure that evaluators refrain from the tendency to add clarifying words to the answers given by the examinees when the recorded answer from the examinee is read back.

During the dynamic simulator phase of the requalification examination, the evaluators demonstrated adequate judgment, preparation and detection skills.

The evaluators and simulator operators had some inaccuracies in the simulator setups for scenarios and JPMs. For example, a RCIC JPM was set up with the wrong suction lineup, a SBGT JPM was incorrectly setup without the proper verification of the group isolation valve lineup, and during the simulator scenarios the RCIC system was not tagged out and inoperable as required by the scenario initial conditions while the SBGT system incorrectly remained tagged out of service from a previously run scenario. More emphasis should be placed on proper simulator setup, so as not to add confusion and undue stress to the operators.

4. Observations and Concerns

The following items are the summary of observations and concerns noted by the NRC during the licensing requalification examination. It is designed to assist the facility in identifying items which may require additional attention to avoid difficulties in the future.

Concerns

a. There were some procedural nomenclature and control board labeling inconsistencies. In several cases, it created some confusion for the operators during the performance of several JPMs. For example, RCIC JPM 217-001, Y91 JPM 262-003, and RFP JPM 259-004.

b. During the in-plant JPMs, the operators would only mention what equipment (i.e., wrenches, hoses, etc.) was required, but would not take any action to obtain such equipment. After questioning the operators to identify where to obtain the required equipment, it was noted that several operators were unfamiliar with the tool locations. For example, during the complete isolation of one HCU, several operators were unsure of the locations of a wrench, hose, and drain attachment. Some noted that the equipment was in a locked cabinet in the Radwaste Control Room area (not marked as Rad material storage area), and some believed that the equipment must be obtained from the warehouse and the drain attachment from the I/C shop. The facility was informed that JPMs should also evaluate the ability to obtain or identify the locations of required tools/equipment. It was also suggested that the facility should re-examine the strategic placement of required tools for the performance of routine and especially Emergency Operating Procedure contingency actions.

c. Medical records pertaining to the required two year licensing physicals were reviewed. It was identified that several physicals had lapsed in the two year requirement. Fourteen individual records were reviewed. Four were one to two months delinquent in completing their physical and one was four months delinquent. All operators were current in their physical examination at the time of this requalification examination. The facility was instructed that better control is needed to ensure that licensing physicals be administered within the two year requirement.

Observations

a. The utility was very attentive to the NRC requalification examination process. The training and operations staff were courteous and professional throughout the preparation and examination weeks.

b. The utility demonstrated a conservative demeanor towards the requalification evaluation. The facility training department was receptive to the improvements suggested by the NRC relating to requalification material and evaluation techniques. The evaluators were always professional throughout the examination, and exhibited unbiased evaluation of the examinees.

c. Plant housekeeping was good.

d. 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. The facility and the NRC evaluations were in agreement on all requalification examination failures based on the criterion of NUREG-1021. 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 the administration of requalification examination no major simulator discrepancies were identified. There were some annunciators which were not operational, but it was noted in the Initial Retake Examination Report No. OL-91-01.

Discussions between the chief examiner and the Licensing Project Manager indicated the NRC Headquarters has received the Monticello simulator certification report dated February 1, 1991.

7. Exit Meeting

A pre-exit meeting with the facility Training Department, and a formal plant management exit interview were conducted at the Monticello Training Center on March 22, 1991. Those attending the meetings are listed in Section 2 of this report.

The following items were discussed during the exit meeting:

a. The training program observations made by the examiners during the administration of the requalification examination (see Section 3).

b. The general observations and concerns 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: H. Peterson, Chief Examiner
B. Holbrook, Region II
K. Kennedy, Region IV

Dates of Evaluation: March 18-22, 1991

Areas Evaluated: X Written X Oral X Simulator

Examination Results:

	RO Pass/Fail	SRO Pass/Fail	Total Pass/Fail	Evaluation (S or U)
Written Examination	3/0	10/1	13/1	S
Operating Examination Oral	3/0	11/0	14/0	S
Simulator	3/0	10/1	13/1	S
Evaluation of facility written examination grading				S

Crew Examination Results:

	Crew 1 Pass/Fail	Crew 2 Pass/Fail	Crew 3 Pass/Fail	Crew 4 Pass/Fail	Evaluation (S or U)
Operating Examination	PASS	PASS	PASS	PASS	S

Overall Program Evaluation

Satisfactory X Unsatisfactory _____ (List major deficiency areas with brief descriptive comments)

Note: Crews 3 and 4 were the staff crews.

Submitted:
H. Peterson
04/24/91

Forwarded:
M. Jordan
04/25/91

Approved:
G. Wright
04/29/91

ENCLOSURE 3

SIMULATION FACILITY REPORT

Facility Licensee: Northern States Power Company
Monticello Nuclear Power Station

Facility Licensee Docket No. 50-263

Operating Tests Administered On: March 18 and 22, 1991

During the conduct of the simulator portion of the operating tests, the following items were observed (if none, so state):

ITEM	DESCRIPTION
None	