U. S. NUCLEAR REGULATORY COMMISSION
REGION III

Report No. 50-263/OL-90-02

Docket No. 50-263 License No. DPR-22

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

Facility Name: Monticello Nuclear Generating Plant

Examination Administered At: Monticello Nuclear Generating Plant

Examination Conducted: Sept. 10-14, 1990

RIII Examiners: Eddie N Rau for 10/29/90
J. A. Hammer Date

Eddie N Rau 10/29/90
E. R. Rau Date

Eddie N Rau for 10/29/90
M. Daniels Date

M J Jordan 10/29/90
M. J. Jordan Date

Approved By: M J Jordan 10/29/90
M. J. Jordan, Chief Date
Operating Licensing Section I

Examination Summary:

Examination administered on September 10-14, 1990,
(Report No. 50-263/OL-90-02
Written and operating examinations were administered to two reactor operator and eight senior reactor operator candidates.
Results: All candidates passed the written portion the examination. Two reactor operator and six senior operator candidates passed the operating portion of the examination. The examination was administered using Revision 6 of the Examiner Standards. This new standard is more structured than the previous revisions and because of this structured format the examiners observed repetition of tasks and therefore, an increase in generic weaknesses was observed (See sections 4,6 and 7).

1. Examiners

*J. Hammer, Chief Examiner, RIII NRC
*E. Rau, Examiner, RIII NRC
*M. Jordan, Chief Operating Licensing Section RIII NRC
M. Daniels, Examiner, Sonalysts
W. Dean, Observer, Chief, Regional Support and Oversight NRC Headquarters
*R. Doornbos, Observer, RIII NRC

2. Persons Contacted

Facility Representatives

*G. Earney, General Superintendent Training
*R. Uglow, Lead Licensing Instructor
*D. Nevinski, General Superintendent Operations
*M. Brant, Site Superintendent
*D. Morgan, Technical Support Training Supervisor
*B. McGillic, Operations Training Supervisor
*D. Antony, General Manager Monticello Site
*D. Alcott, Simulator Operator
R. Smith, Simulator Technician

NRC Representatives

*S. Ray, Senior Resident Inspector
*P. Moore, Resident Inspector

*Denotes those present at the exit meeting on Sept. 14, 1990.

3. Summary of Results

	WRITTEN Pass/Fail	OPERATING Pass/Fail	OVERALL Pass/Fail
RO	2/0	2/0	2/0
SRO	8/0	6/2	6/2

4. Operating/Written Examination Strengths and Weaknesses

The following is a summary of the generic strengths and weaknesses noted on the operating and written portions of the licensing examination. This information is being provided to aid the licensee in upgrading license and requalification training programs. No licensee response is required.

Strengths

a. Ability of the candidates to locate and use Electrical and mechanical prints.

b. SRO instant candidates in plant performance of JPM's.

c. RO candidates knowledge of Technical Specifications.

Weaknesses

a. Radiation Sources and Hazards, what was generating the radiation, what would expected radiation levels be when equipment was in use ie. RCIC turbine, and health hazards associated with the different kinds of radiation.

b. Communication during the simulator exam at times was not adequate; ie."repeatback" and acknowledgement of information. When asked what equipment was running the candidate's response was confusing, in that he combined what was opening/operating with what was not opening/operating, in lieu of just telling the SRO what was opening/operating.

c. Two of the three candidates could not identify tools to do a specific task for refueling.

d. The candidates ability to perform RWM prestart checks.

e. Inability to determine Technical Specification requirements for a failure of instruments that inputs to the PCIS.

f. Most of the candidates had difficulty in locating the Offgas stack isolation reset switch in the control room.

g. SRO upgrades demonstrated a weakness in the inplant JPM's

h. Candidates did not always use the Annunciator Response Procedures, and alarms were left on without acknowledging the annunciators for an excessive amount of time.

5. Training department

Strengths

a. The pre-exam review was done well and as a result there were no unresolved issues on the questions of either RO or SRO exam.

b. Professional and competent staff.

c. Knowledge and use of the simulator.

d. Simulator updated to the plant.

Weaknesses

a. Simulator malfunction book not up to date.

b. Simulator operator did not follow Scenario and gave a component back that was not part of the scripted Scenario.

6. Procedural Weakness

a. Procedure for outside of control room EOP's should have location of all valves and connections. Some candidates did not know the location of some components while performing an emergency evolution they had to stop and go and locate a P&ID to assist in locating the components. Location of components in the procedure could prevent this delay in accomplishing the emergency procedure.

b. RWM pre-start procedure did not reflect the new system. The screen display did not match the expected response given in the procedure.

7. Training Weakness

a. There was an inconsistency in the performance of surveillances. ie. Candidates performed the MSL Radiation Monitor checks using different methods of increasing the trip signal (some used units others used tenths and others used hundredths).

8. General Observations

The following observations were made while administering the licensing examination:

a. Plant cleanliness was good.

b. Security, Radiation Protection and Operations personnel were very cooperative in assuring there were no unnecessary delays associated with administering of the exam.

9. Examination Review

The written examination was reviewed with personnel from the training department during the week of August 27,1990. All facility comments were resolved prior to the administration of the written examination. Following the examination, the licensee submitted further comments on the as written exam. These post-exam comments identified three questions that the answer key had an incorrect answer as the correct answer and one question that had two correct answers. The answer key was changed to reflect the correct response (see section 11).

10. Exit Meeting

Following a pre-exit meeting with the Training Department, a formal management exit interview was conducted on September 14, 1990. Those attending the meeting are listed in section 2 of this report.

The following items were discussed during the exit meeting:

a. The strengths and weaknesses noted on the operating examination (See Section 4,5,6 and 7).

b. The observations made by the examiners during the administration of the exam (See Section 8).

c. Licensee's post-examination comments and subsequent NRC resolution of these comments. (See Enclosure 2).

The results of the examinations were not presented at the exit meeting. The licensee was informed that the results would be contained in the examination report and that the report would be sent approximately 30 working days.

ENCLOSURE 1

SIMULATOR FACILITY FIDELITY REPORT

Facility Licensee: Northern States Power Company

Facility Licensee Docket NO. 50-263

Operating Test Administered on: September 11, 12, and 13, 1990

During the conduction of the simulator portion of the operating test, the following items were observed:

ITEM	DESCRIPTION
none were observed.	

ENCLOSURE 2

NRC Exam Comments

QUESTION: 067 (SRO)
052 (RO)
POINTS: 1.00

During the Jan-June quarters you received a 227 mrem whole body dose while assisting with refueling operations. During the current quarter (July-Sept) you have received a total of 458 mrem whole body exposure. How much more exposure can you receive this quarter without exceeding any NSP radiation limits? (You have an NRC Form 4 on File.)

a. 315 mrem

b. 565 mrem

c. 1315 mrem

d. 1542 mrem

ANSWER: C

COMMENT: D is the correct response. With Form 4 an individual can receive 2000 mrem/quarter, therefore, 2000 mrem - 458 mrem received = 1542 mrem still available.

RECOMMENDATION: Accept D as the correct answer.

REFERENCE: 4AWI - 11.1.14 page 5 of 9

NRC RESOLUTION: Concur, accept D as the answer.

QUESTION: 052 (SRO)

POINTS: 0.25

ENCLOSURE 2 (Cont'd)

Match the instrumentation scrams in Column I with the Technical Specification basis provided in Column II. Response in Column II may be used more than once and there is only a single answer for each instrument in column I

COLUMN I (SCRAM)	COLUMN II (BASIS)
a. MSIV 10% closure	1. prevent exceeding MCPR Safety Limit
b. Main Steam Line high radiation	2. prevent exceeding LHGR Thermal Limit
c. Drywell pressure	3. reduce reactor vessel pressure transient
d. APRM high flux in	4. reduce reactor vessel transient
	5. backup the low reactor level scram
	6. isolate radioactive releases from the environment
	7. reduce radioactive contamination of the main turbine

ANSWER:

a. 3
b. 7
c. 5
d. 1

COMMENT: For part b 6 is the correct response,, 7 is incorrect.

RECOMMENDATION: Accept 6 as the correct response to part 6.

REFERENCE: Technical Specification Bases Page 37 rev. 52

NRC RESOLUTION: Concur, accept 6 as the correct response to part b.

ENCLOSURE 2 (Cont'd)

QUESTION: 051 (SRO)
044 (RO)
POINTS: 1.00

During a plant transient and Reactor scram, operators are unable to maintain reactor water level above -126 inches. RPS Control 1100 series directs the operator to "maintain RPV water level" If level cannot be maintained above -126 inches, RPV Control directs level restoration (C.5-2001) of the reactor vessel because this is the lowest reactor level that:

a. will generate sufficient steam to maintain the uncovered clad below 2000 deg. F.

b. will provide adequate core cooling and maintain the peak fuel centerline temperature of any fuel pin below 2200 deg. F.

c. can be maintained without noticeable reactor power and level oscillations occurring.

d. can provide and steam generation in the covered portion of the core for steam cooling of the uncovered fuel.

ANSWER: a

COMMENT: B is the correct answer, a is incorrect.

RECOMMENDATION: Accept b as the correct answer.

REFERENCE: C.5.1 - 1101, page 15 of 18
C.5.1 - 1000, page 2 of 43

NRC RESOLUTION: Concur, accept b as the correct answer.

ENCLOSURE 2 (Cont'd)

QUESTION: 032 (SRO)
029 (RO)
POINTS: 1.00

Select the statement that describes a condition in which the Intermediate Range Monitoring (IRM) circuitry is NOT functioning correctly. The reactor mode switch is in "STARTUP/HOT STANDBY".

a. IRM 11 indicates 90/125 scale on range 7 with a rod block and scram signal present.

b. IR 12 indicates 115/125 scale on range 6, a rod block in present, and IRM upscale trip light is lit.

c. IRM 13 and 11 both fail full upscale and a reactor scram occurs.

d. IRM 13 mode/test switch is placed to "STANDBY" and a rod block and half-scram occurs.

ANSWER: a

COMMENT: A is a correct answer and C is a correct answer. Channels 11 and 14 IRM's feed the same Reactor Protection System Channel, therefore, would only cause a Half (1/2) scram verses a full scram.

RECOMMENDATION: Both answers a and c are correct.

REFERENCE: Operations Manual B.5.6, page 003

NRC RESOLUTION: Concur, accept both a and c as correct answers.