U.S. NUCLEAR REGULATORY COMMISSION REGION I OPERATOR LICENSING EXAMINATION REPORT

EXAMINATION REPORT NO. 88-06 (OL) FACILITY DOCKET NO. 50-220 FACILITY LICENSE NO. DPR-063 LICENSEE: Niagara Mohawk Power Corporation 301 Plainfield Road Syracuse, New York 13212 FACILITY: Nine Mile Point 1 EXAMINATION DATES: March 21 - 25, 1988 CHIEF EXAMINER: **Operations** Engineer Lumb, Senior **APPROVED BY:** Lance

6-88 Date

David J. Lange, Chief, BWR Section, Operations Branch, Division of Reactor Safety

Written and operating examinations were administered to five (5) reactor operator (RO) candidates. All candidates passed the SUMMARY: examinations.

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TYPE OF EXAMINATIONS: Replacement

EXAMINATION RESULTS:

		RO Pass/Fail			
_ Written		5	1	0	_
_ Operating	-	5	/	0	_
_ Overall	-	5	/	0	-

- 1. CHIEF EXAMINER AT SITE: T. Lumb, Senior Operations Engineer
- 2. OTHER EXAMINERS: D. Lange, Chief, BWR Section R. Miller, Examiner (Sonalysts) S. Pullani, Senior Operations Engineer (Examiner in Training) C. Gratton, Examiner (NRC Headquarters)
- 3. The following is a summary of generic strengths and deficiencies noted on the operating tests. This information is being provided to aid the licensee in upgrading license and requalification training programs. No licensee response is required.

STRENGTHS

Familiarity with piping and instrument drawings.

DEFICIENCIES

None

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4. The following is a summary of generic strengths and deficiencies noted from the grading of the written examinations. This information is being provided to aid the licensee in upgrading license and requalification training programs. No licensee response is required.

STRENGTHS

- a. Understanding of reactivity coefficient effects on reactor power Question 1.02
- b. Understanding of differential control rod worth Question 1.05
- c. Understanding of thermodynamic response to a power decrease Question 1.07
- d. Understanding of the effects of a turbine trip Question 1.08
- e. Understanding of bypass valve response to a loss of condenser vacuum Question 2.04
- f. Understanding of the response of the Liquid Poison System to an initiation signal Question 2.06
- g. Knowledge and understanding of Emergency Ventilation System instrumentation Question 2.08
- h. Knowledge of High Pressure Coolant Injection system operations -Question 2.10
- i. Knowledge of Reactor Protection System setpoints and bypass signals - Question 3.03
- j. Understanding of A. C. Distribution System interlocks -Question 3.04
- k. Understanding of Control Rod Drive System indications -Question 3.11
- 1. Understanding of the requirements for a Radiation Work Permit Question 4.03
- m. Knowledge of the procedure for evacuation of the Control Room -Question 4.08

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DEFICIENCIES

- a. Understanding of BETA, the delayed neutron fraction Question 1.01
- b. Understanding of the effect of changes in recirculation flow on the Critical Power Ratio - Question 1.09a
- c. Knowledge of reactor water level instrumentation Question 2.05c
- d. Understanding of Rod Worth Minimizer operation Question 3.10
- e. Understanding of use of the process computer to identify safety limit violations Question 4.02
- f. Ability to determine radiation dose rates using the inverse square law - Question 4.04b
- g. Understanding of the reasons behind Emergency Cooling system operational cautions Question 4.06a
- 5. Personnel Present at Exit Interview, March 25, 1988:

NRC Personnel

- R. Gallo, Chief, Operations Branch, DRS
- D. Lange, Chief, BWR Section, DRS
- T. Lumb, Senior Operations Engineer
- S. Pullani, Senior Operations Engineer
- J. Johnson, Chief, Reactor Projects Section 2C
- W. Cook, Senior Resident Inspector
- W. Schmidt, Resident Inspector

Facility Personnel

C. V. Mangan, Senior Vice President
T. E. Lempges, Vice President Nuclear Generation
T. J. Perkins, General Superintendent
J. L. Willis, General Superintendent
K. Zollitsch, Training Superintendent - Nuclear
R. Seifried, Assistant Superintendent of Training
R. A. Sanaker, Lead License Class Instructor
T. W. Roman, Unit 1 Station Superintendent
R. B. Abbott, Unit 2 Station Superintendent
R. Randall, Unit 1 Operations Superintendent
J. C. Aldrich, Technical Assistant Unit 1

Other Personnel

P. D. Eddy, New York State Public Service Commission

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6. Summary of NRC Comments Made at Exit Interview:

There were a number of interruptions from telephones and radios during the written examination. No significant problems were identified during the examination review. The facility was reminded to send their written comments to the NRC and Sonalysts within five working days.

There was a 30 minute delay in access to the plant during one of the operating examinations but it was promptly resolved. Operations and training personnel were cooperative during the examination process.

Simulator fidelity was good. There was a problem with a bypass valve malfunction that did not actuate. Some of the Initial Conditions (ICs) required a long setup time to establish stable plant conditions for turnover or the conditions described in the training material. This setup time increased the length of the operating examinations.

Familiarity with piping and instrument drawings was noted as a generic strength and there were no generic weaknesses noted on the operating tests.

The results of the examinations would not be discussed at the exit meeting but would be contained in the Examination Report. Every effort would be made to send the candidates' results in approximately thirty days.

Numerous discrepancies and misleading information were found in the material submitted for examination preparation. Many of these were identified by the candidates during the written and operating examinations. The discrepancies and misleading information that resulted in changes to the written examination answer key are noted in Attachment 3, NRC Response to Facility Comments.

Attachments:

- 1. Written Examination and Answer Key (RO)
- 2. Facility Comments on Written Examinations after Facility Review
- 3. NRC Response to Facility Comments
- 4. Simulation Facility Fidelity Report

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