January 26, 2001

Mr. M. Reddemann
Site Vice President
Kewaunee and Point Beach Nuclear Plants
Nuclear Management Company, LLC
6610 Nuclear Road
Two Rivers, WI 54241

SUBJECT: KEWAUNEE NUCLEAR POWER PLANT - INITIAL LICENSE EXAMINATION REPORT 50-305/00-301(DRS)

Dear Mr. Reddemann:

On December 20, 2000, the NRC completed initial operator licensing examinations at your Kewaunee Nuclear Power Plant. The enclosed report presents the results of the examination.

Kewaunee Nuclear Power Plant training department personnel administered the written examination on December 11, 2000, and NRC examiners administered the operating examinations during the weeks of December 11 and December 18, 2000. Six reactor operator and four senior reactor operator applicants were administered license examinations.

The results of the examinations were finalized on January 18, 2001. Six applicants passed all sections of their respective examinations resulting in the issuance of three reactor operator licenses and three senior reactor operator licenses. A seventh applicant passed all sections of the examinations but was not issued a reactor operator license pending the resolution of possible appeals. Two applicants demonstrated unsatisfactory performance on the written examination and were not issued reactor operator licenses. The remaining applicant demonstrated unsatisfactory performance on both the written examination and the integrated plant operations (simulator operations) portion of the operating examination. This applicant was not issued a senior reactor operator license.

The NRC staff considered three examination failures out of a total of ten applicants examined to be an abnormally high failure rate. Your staff is expected to evaluate these failures to determine whether deficiencies exist in your initial licensed operator training program.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document control system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADQAMS/index.html (the Public Electronic Reading Room).

We will gladly discuss any questions you have concerning this examination.

Sincerely,

/RA/

David E. Hills, Chief
Operations Branch
Division of Reactor Safety

Docket No. 50-305
License No. DPR-43

Enclosures:
1. Operator Licensing Examination Report 50-305/00-301(DRS)
2. Facility Comments and NRC Resolutions
3. Simulation Facility Report
4. Written Examinations and Answer Keys (RO & SRO)

cc w/encl 1, 2, 3:
K. Hoops, Manager, Kewaunee Plant
D. Graham, Director, Bureau of Field Operations
Chairman, Wisconsin Public Service Commission
State Liaison Officer

cc w/encl 1, 2, 3, 4:
J. Brown, Training Department

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-305
License No:	DPR-43
Report No:	50-305/00-301(DRS)
Licensee:	Nuclear Management Company, LLC
Facility:	Kewaunee Nuclear Power Station
Location:	N490, State Highway 42, Kewaunee, WI 54216-9511
Dates:	December 11 - 20, 2000
Examiners:	David L. Pelton, Chief Examiner Jay A. Hopkins, Examiner George A. Wilson, Examiner
Approved by:	David E. Hills, Chief Operations Branch Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000305-00-301 on 12/11-20/2000, Nuclear Management Company, LLC, Kewaunee, Unit 1. The announced operator licensing initial examination was conducted by regional examiners in accordance with the guidance of NUREG-1021, Operator Licensing Examination Standards for Power Reactors, Revision 8, Supplement 1, Addendum 1.

Examination Summary:

- Six reactor operator applicants and four senior reactor operator applicants were administered written and operating examinations for initial operator licensing. Six applicants passed all sections of their respective examinations resulting in the issuance of three reactor operator licenses and three senior reactor operator licenses. A seventh applicant passed all sections of the examinations but was not issued a reactor operator license pending the resolution of possible appeals. Two applicants demonstrated unsatisfactory performance on the written examination and were not issued reactor operator licenses. The remaining applicant demonstrated unsatisfactory performance on both the written examination and the integrated plant operations (simulator operations) portion of the operating examination. This applicant was not issued a senior reactor operator license (Section 4OA5.1).

Report Details

4. OTHER ACTIVITIES (OA)

4OA5 Other

.1 Initial Licensing Examinations

a. Examination Scope

The NRC examiners conducted announced operator licensing initial examinations during the weeks of December 11 and December 18, 2000. The facility's training staff used the guidance established in NUREG-1021, Operator Licensing Examination Standards for Power Reactors, Revision 8, Supplement 1, Addendum 1, to prepare the examination outline and to develop the written and operating examinations. The facility's training staff administered the written examination on December 11, 2000. The NRC examiners administered the operating examination December 12 through December 20, 2000. Six reactor operator applicants and four senior reactor operator applicants were examined.

b. Findings

Written Examination

The NRC examiners determined that the written examination, as originally submitted by the licensee, was within the range of acceptability expected for a proposed examination. Examination changes, agreed upon between the NRC and the licensee, were made according to NUREG-1021. The licensee provided comments on three written examination questions that were administered to the applicants. All three of these questions appeared on the reactor operator examination while only two of the questions appeared on the senior reactor operator examination. The licensee's specific comments and the NRC's resolution of those comments were included in Enclosure 2 to this report.

Operating Test

The NRC examiners determined that the operating test, as originally submitted by the licensee, was within the range of acceptability expected for a proposed examination. Examination changes, agreed upon between the NRC and the licensee, were made according to NUREG-1021.

Examination Results

Six reactor operator applicants and four senior reactor operator applicants were administered written and operating examinations for initial operator licensing. Six applicants passed all sections of their respective examinations resulting in the issuance of three reactor operator licenses and three senior reactor operator licenses. A seventh applicant passed all sections of the examinations but was not issued a reactor operator license pending the resolution of possible appeals. Two applicants demonstrated

unsatisfactory performance on the written examination and were not issued reactor operator licenses. The remaining applicant demonstrated unsatisfactory performance on both the written examination and the integrated plant operations (simulator operations) portion of the operating examination. This applicant was not issued a senior reactor operator license.

.2 Examination Security

a. Inspection Scope

The examiners reviewed and observed the licensee's implementation of examination security requirements during the examination preparation and administration.

b. Findings

The NRC examiners determined that the licensee's examination security practices associated with the development and administration of the operator license examinations were satisfactory.

4OA6 Management Meetings

Exit Meeting Summary

The chief examiner presented the examination team's preliminary observations and findings to you and other members of the licensee management on December 20, 2000. The licensee acknowledged the observations and findings presented and did not identify any proprietary information.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

K. Hoops, Plant Manager
T. Taylor, Assistant Plant Manager, Operations
J. Stoeger, Plant Operations Superintendent
P. Walker, Training Superintendent
J. Brown, Operations Training Supervisor
J. Bly, Senior Operations Instructor
G. Baldwin, Senior Operations Instructor - Exam Development Coordinator
G. Harrington, Licensing Lead
T. Schneider, Quality Programs
D. Asbel, Quality Programs

NRC

Julio Lara, Kewaunee Senior Resident Inspector

ITEMS OPENED, CLOSED AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF ACRONYMS

ADAMS	Agency-Wide Document Access and Management System
DRS	Division of Reactor Safety
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
RCS	Reactor Coolant System
RO	Reactor Operator
SRO	Senior Reactor Operator
SI	Safety Injection

Facility Comments and NRC Resolutions

Written Examination Record Number 41 (RO examination question number 29, SRO examination question number 32):

Comment: The question asked for the effect on system operation if reactor trip bypass breaker "B" failed to open following a reactor trip. The applicant was expected to select answer "d" which stated "following any safety injection (SI) and reset, automatic actuation of SI train "B" cannot be **blocked**." The licensee initially recommended that the question be deleted based on the fact that the associated system logic diagrams did not indicate that the SI block logic received a signal from the reactor trip breakers. This meant that answer "d" was incorrect leaving no correct answer. Subsequent to the original submittal of this comment, the licensee verbally requested that the originally stated basis for the deletion of the question be replaced. The licensee stated that the basis for the deletion of the question was not whether or not the SI block logic received a signal from the reactor trip breakers but that the applicant's were confused by the use of the term "block" verses the term "disabled" in answer "d."

NRC Resolution: The recommendation was accepted. The station trains its operators that the term "disabled" refers to the condition wherein both reactor trip breakers are open and the SI signal has been reset. Once these conditions are met, an annunciator on the permissive status panel illuminates indicating "AUTO SI DISABLED." Conversely, the licensee trains its operators that the term "block" refers to the ability to manually block the pressurizer pressure input to the SI circuitry. This block is accomplished by positioning control switches on the main control panel. Once blocked, an annunciator on the permissive status panel illuminates indicating "PRZR SI BLOCKED." Based on this, answer "d" would only be correct if it stated "following any SI and reset automatic actuation of SI train "B" cannot be **disabled**." Since the term "block" was used in answer "d" verses the term "disabled," no correct answer was provided to the question. The question was deleted.

Written Examination Record Number 43 (RO examination question number 31):

Comment: The question asked for the identification of conditions that would require a manual start of the turbine driven auxiliary feedwater pump if the automatic start were to fail. The licensee recommended that answer "b" be accepted as a correct answer along with the original correct answer "c." The licensee stated that answer "b," a trip of both main feedwater pumps at 60 percent power, would eventually result in a turbine driven auxiliary feedwater pump automatic start signal being

generated. The trip of both main feedwater pumps would result in a turbine trip, the turbine trip would result in a reactor trip, the post-trip response of steam generator levels would be to decrease to less than the LO-LO level setpoint, and a turbine driven auxiliary feedwater pump automatic start signal would be generated. The licensee further solidified this position by using the plant simulator and recreating the situation using the information given in the question stem and tripping both main feedwater pumps at 60 percent power which, in fact, did result in a turbine driven auxiliary feedwater pump automatic start signal being generated.

NRC Resolution: Recommendation was not accepted; however, the question was deleted. Upon further review of the distractors, answer "a" (train "B" SI actuation) could also eventually result in a turbine driven auxiliary feedwater pump automatic start signal being generated. Given a sufficiently high initial power level, a train "B" SI actuation would result in a reactor trip, the post-trip response of steam generator levels would be to decrease to less than the LO-LO level setpoint, and a turbine driven auxiliary feedwater pump automatic start signal would be generated. As a result, the original answer "a" was correct, answer "b" was correct, and answer "c" was correct. This psychometric flaw significantly reduced the discrimination value of the question. In accordance with NUREG-1021, a question with three or more correct answers is to be deleted; therefore, the question was deleted.

Written Examination Record Number 84 (RO examination question number 68, SRO examination question number 61):

Comment: The question stated that a loss of coolant accident had occurred, provided additional plant conditions, then asked for the appropriate actions to be taken as they related to Functional Restoration Procedure FR-P.1, "Response to Pressurized Thermal Shock Condition." The question was recommended for deletion due to the fact that the licensee had inadvertently used a version of the question on both the RO and SRO written exams that was missing information needed to answer the question.

NRC Resolution: The recommendation was accepted. In order to answer the question, the applicants would have to step through the "Integrity" critical safety function tree to determine if a "red path" existed. The existence of a "red path" would then require entry into FR-P.1. The question stem did not contain information concerning when the event had occurred. Without this information, the applicants would not be able to answer the first decision block in the "Integrity" critical safety function tree thus would not be able to determine if entry into FR-P.1 were required. The question was deleted.

In regards to the licensee's use of an old version of the question; the licensee had created three computer files while developing the exam.

The licensee created a file containing the "master" written exam bank, a second file containing the RO written exam, and a third file that contained the SRO written exam. When the changes were originally made to this question, only the version in the master written exam bank file was changed. The change was not incorporated into version contained in either the RO or SRO written exam files.

Enclosure 3

SIMULATION FACILITY REPORT

Facility Licensee: Kewaunee Nuclear Power Plant, Unit 1

Facility Docket No.: 50-305

Operating Tests Administered: December 12 - 17, 2000

The following documents observations made by the NRC examination team during the initial operator license 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 Part 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
1.	RBV-21/CD-34042, Containment Purge Exhaust Fan, could not be started.
2.	TLA-1, “Rod Supervision” alarm would not clear during dropped rod recovery. The alarm was expected to clear once the dropped rod was positioned within 24 steps of Bank “D.”

Enclosure 4

WRITTEN EXAMINATIONS AND ANSWER KEYS (RO/SRO)