

December 22, 2004

Mr. Thomas Coutu  
Site Vice President  
Kewaunee Nuclear Plant  
Nuclear Management Company, LLC  
N490 Hwy 42  
Kewaunee, WI 54216-9511

SUBJECT: KEWAUNEE NUCLEAR POWER PLANT  
NRC INITIAL LICENSE RE-TAKE EXAMINATION  
REPORT 05000305/2004302(DRS)

Dear Mr. Coutu:

On November 16, 2004, NRC examiners completed an initial operator licensing examination at your Kewaunee Nuclear Power Plant. The enclosed report presents the results of the examination.

Under the direction of an NRC examiner, Kewaunee training department personnel administered an initial license re-take written examination on November 16, 2004. One Reactor Operator (RO) applicant was administered the written examination. The results of the written examination was finalized on December 20, 2004. The applicant passed the examination and was issued an operator license. The operating test was waived for the applicant based on NRC evaluation of operating performance during a previous initial license examination and upon the successful completion of an accelerated remedial training program to address identified performance weaknesses.

Although the applicant passed the NRC initial license retake written examination, the initial proposed written examination submittal by your training staff was considered outside the acceptable quality range expected by the NRC in accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 8, Supplement 1. This determination was based on the observation that 66 out of 100 written examination questions required replacement or significant modification. As a result of the overall poor quality of your submittal and the extent of the changes needed, it was necessary to delay the conduct of the examination by three months. Future examination submittals and examination administration should incorporate any lessons learned from your evaluation of this issue.

In accordance with 10 CFR Part 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

T. Coutu

-2-

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

Sincerely,

*/RA/*

Roger D. Lanksbury, Chief  
Operations Branch  
Division of Reactor Safety

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

Enclosures: 1. Operator Licensing Examination  
Report 05000305/2004302(DRS)  
2. Post Examination Comments and Resolution  
3. Written Examination and Answer Key (RO)

cc w/encls: J. Cowan, Executive Vice President,  
Chief Nuclear Officer  
Plant Manager  
Manager, Regulatory Affairs  
J. Rogoff, Vice President, Counsel & Secretary  
D. Molzahn, Nuclear Asset Manager,  
Wisconsin Public Service Corporation  
L. Weyers, Chairman, President and CEO,  
Wisconsin Public Service Corporation  
D. Zellner, Chairman, Town of Carlton  
J. Kitsembel, Public Service Commission of Wisconsin

T. Coutu

-2-

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- D. Molzahn, Nuclear Asset Manager,  
Wisconsin Public Service Corporation
- L. Weyers, Chairman, President and CEO,  
Wisconsin Public Service Corporation
- D. Zellner, Chairman, Town of Carlton
- J. Kitsembel, Public Service Commission of Wisconsin

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000305/2004302(DRS)

Licensee: Nuclear Management Company, LLC

Facility: Kewaunee Nuclear Power Plant

Location: N 490 Highway 42  
Kewaunee, WI 54216

Date: November 16, 2004

Examiner: M. Bielby, RIII NRC Examiner

Approved by: R. Lanksbury, Chief  
Operations Branch  
Division of Reactor Safety

Enclosure 1

## SUMMARY OF FINDINGS

ER 05000305/2004302(DRS); 11/16/2004; Kewaunee Nuclear Power Plant; Initial License Examination Report.

The announced operator licensing re-take initial written examination was conducted by Kewaunee Nuclear Power Plant training personnel under the direction of a regional NRC examiner in accordance with the guidance of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Draft.

### Examination Summary:

- One Reactor Operator (RO) written examination was administered; the applicant passed the examination, and was issued a operator license. (Section 4OA5.1)

## REPORT DETAILS

### 4. OTHER ACTIVITIES (OA)

#### 4OA5 Other

##### .1 Initial Licensing Examinations

###### a. Examination Scope

The NRC reviewed the Kewaunee Nuclear Power Plant developed initial license written re-take examination for a Reactor Operator (RO). Initially, the facility's training staff used the guidance established in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 8, Supplement 1, to prepare the examination outline and to develop the 100 question RO written examination. The training staff used the guidance established in NUREG-1021, Revision 9, Draft, to prepare a subsequent examination outline submittal and to develop a replacement 75 question RO written examination. Kewaunee Nuclear Power Plant training staff members were directed to administer the written examination during the week of November 15, 2004. One RO applicant was examined.

###### b. Findings

###### Written Examination

The licensee developed the written examination. During their review, NRC examiners determined that the initially proposed 100 question written examination, as submitted by the licensee, was outside the acceptable quality range expected by the NRC in accordance with NUREG-1021, Revision 8, Supplement 1. This determination was based on the observation that 66 out of 100 written questions required replacement or significant modification. This number included 35 questions with a low level of difficulty that made the questions non-challenging to a licensed operator, and would not discriminate between safe and unsafe operators. An additional 35 questions contained various psychometric errors including more than one (or no) correct answer, examination questions that did not match the selected outline Knowledge and Ability statements, improperly applied level of knowledge for SRO or RO, incorrect identification of cognitive level of knowledge, and question distractors that were not plausible.

The minimum requirement to determine an adequate quality range for the written examination, in accordance with ES-501 of NUREG-1021, was 20 percent or fewer items that required replacement or significant modification. The written examination submittal was outside the acceptable quality range expected by the NRC. As a result of the overall poor quality of the submittal and the extent of the changes needed, it was necessary to delay the conduct of the retake examination by three months. Future examination submittals and examination administration should incorporate any lessons learned from your evaluation of this issue.

During the week of September 14, 2004, examination changes were agreed upon, including submittal of a new outline and 75 question RO written examination using

guidance contained in NUREG-1021, Revision 9, Draft. Subsequent verification of changes the week of October 18, 2004, between the NRC and the licensee, were made according to the guidance contained in NUREG-1021, Revision 9, Draft.

### Examination Results

The RO applicant passed the written examination. The licensee submitted one post written examination comment. The NRC agreed with the comment and that question was revised accordingly.

#### .2 Examination Security

##### a. Inspection Scope

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

##### b. Findings

No findings were noted in this area. The licensee staff appeared to be enforcing correct examination security procedures.

#### 4OA6 Meetings

##### .1 Exit Meeting

The chief examiner presented the written examination results via telephone on December 21, 2004, to Mr. W. Goddes of the Kewaunee Nuclear Power Plant. Mr. Goddes acknowledged the results presented.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **PARTIAL LIST OF PERSONS CONTACTED**

#### Licensee

W. Goddes, Operations Training General Supervisor

W. Hunt, Training Manager

S. Johnson, Training Instructor

#### NRC

M. Bielby, Chief Examiner

### **LIST OF ACRONYMS USED**

ADAMS	Agency-Wide Document Access and Management System
CST	Condensate Storage Tank
DRS	Division of Reactor Safety
NRC	Nuclear Regulatory Commission
RO	Reactor Operator

## Post Examination Comments and Resolution

### Written Examination Question #37 on the Reactor Operator (RO) Examination:

The applicant is asked:

Given the following:

- The reactor is at 48 percent power.
- Feedwater pumps A and B are running.
- Hotwell Recirculation to the CSTs is in progress per N-CD-03, Condensate System.
- MU-2A, Condensate Makeup Control Station Inlet, is closed.
- MU-2B, Cond Emergency Makeup Control Station Inlet, is closed.
- C-404, Condensate Dump to CST, is open one turn.
- Then, C-401/CV-31011, Condenser Dump Valve, OPENS and sticks OPEN.

Which ONE of the following running pump combinations would be the INITIAL indication of this plant condition after the first interlock setpoint is reached?

- a. Feedwater Pump A and Condensate Pump A.
- b. Feedwater Pump B and Condensate Pump B.
- c. Feedwater Pump A and Condensate Pump B.
- d. Feedwater Pump B and Condensate Pump A.

### Facility Comment:

The facility's comment was that as submitted, the examination identified the correct answer as "c. Feedwater Pump A and Condensate Pump B." The question asked: "Which one of the following *running pump combinations* would be the INITIAL indication of this plant condition after the first interlock setpoint is reached?" [Emphasis added].

As indicated in the explanation provided with the submitted question, Condensate Pump B trips at 14 percent hotwell level and the trip of this pump results in the trip of Feedwater Pump A. Therefore the remaining running pumps would be Condensate Pump A and Feedwater Pump B, answer "d." The only explanation for the incorrect answer being marked as correct, is that the question was reorganized during the latter part of facility validation, but the marking of the correct answer was not changed at that time.

### NRC Resolution:

The NRC concluded that the correct answer was "d." vice "c." The examiners reviewed Procedures A-CD-03, "Condensate System Abnormal Operation," Revision March 21, 2004, Section 3.0 Immediate Actions, Step 3.1.2; N-CD-03, "Condensate System," March 21, 2004, Section 4.2, Step 1.a; KNPP System Description, "Condensate System (CD)," Revision 3, Sections 3.3 and 3.16; and "Integrated Logic Diagram Condensate System," Revision HJ. The NRC examiner agreed with the licensee that the correct answer was "d." vice "c."

WRITTEN EXAMINATIONS AND ANSWER KEYS (RO/SRO)

RO Final Examination ADAMS Accession No. ML043560480

Answer Key ADAMS Accession NO. ML043560465

Enclosure 3