

*Burdick*

SEP 25 1991

Docket No. 50-305

Wisconsin Public Service  
Corporation  
ATTN: Mr. K. H. Evers  
Manager - Nuclear Power  
Post Office Box 19002  
Green Bay, WI 54307-9002

Dear Mr. Evers:

SUBJECT: REQUALIFICATION EXAMINATION REPORT

On the week of August 19, 1991, the NRC administered requalification examinations to employees of your organization who operate your Kewaunee Nuclear Power Plant. During examination development, the NRC noted that the examination material provided by the licensee had significantly improved regarding format and content from the previous requalification examination conducted in August, 1990. At the conclusion of the examination, any generic findings that evolved as a result of the examinations were discussed with those members of your staff identified in the enclosed report.

In accordance with the criteria of NUREG 1021, ES-601, Rev. 6, a minimum of 12 licensed operators must be examined to render a program evaluation. Because only 11 licensed operators were administered the examination, your program has not been assigned a rating. The requalification program evaluation will be deferred until 12 licensed operators from consecutive evaluations have been examined. For the one individual with unsatisfactory results, the facility should take corrective action as required by its approved requalification program.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter and the enclosures will be placed in the NRC Public Document Room.

Should you have any questions concerning this examination, please contact us.

Sincerely,

ORIGINAL SIGNED BY GEOFFREY C. WRIGHT

Geoffrey C. Wright, Chief  
Operations Branch

Enclosure: Examination Report  
No. 50-305/OL-91-02(DRS)

See Attached Distribution

RIII  
*[Signature]*  
Lennartz/cg  
09/25/91

RIII  
*DSM*  
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*Yes*  
RIII  
*JMB for*  
Hague  
09/25/91

RIII  
*[Signature]*  
Wright  
09/25/91

Wisconsin Public Service  
Corporation

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SEP 25 1991

Distribution

cc w/enclosure:

C. R. Steinhardt, Senior  
Vice President -

Nuclear Power

Mark L. Marchi, Plant

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Resident Inspector, RIII

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WI Department of Health and

Social Services

R. F. Zube, Plant Training Manager

A. Hanson, Project Manager, NRR

T. Guilfoil, Contract Exam Supervisor, Sonalysts

R. M. Gallo, Branch Chief, OLB

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-305/OL-91-02(DRS)

Docket No. 50-305

License No. DPR-43

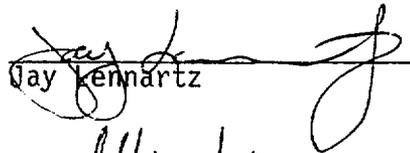
Licensee: Wisconsin Public Service Corp.  
P. O. Box 19002  
Green Bay, WI 54307-9002

Facility Name: Kewaunee Nuclear Power Plant

Examination Administered At: Kewaunee Nuclear Power Plant

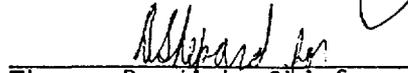
Examination Conducted: Week of August 19, 1991

Chief Examiner:

  
Jay Kennartz

9/25/91  
Date

Approved By:

  
Thomas Burdick, Chief  
Operator Licensing Section 2

9/25/91  
Date

Examination Summary

Examination administered on the week of August 19, 1991, (Report No. 50-305/OL-91-02)(DRS) to 10 Senior Reactor operators (SRO) and one Reactor Operator (RO). Crew performance as well as individual performance was evaluated on the dynamic portion of the operating examination. Results: One SRO failed the Job Performance Measure (JPM) walkthrough portion of the operating examination and passed all other phases of the examination. The licensee representatives agreed to remove this individual from licensed duties until a remediation program is completed including successful re-examination as required by its approved requalification program. All other operators passed the examinations. In addition, all crews received satisfactory evaluations for their performance on the dynamic simulator examination. The requalification program evaluation criteria contained in NUREG 1021, "Operator Licensing Examiner Standards," ES-601, Rev. 6, "Administration of NRC Requalification Program Evaluations," Section C.1.b.4 states that a program evaluation will be based on a sample of at least 12 examinees. Therefore, an evaluation of the licensees' requalification program will be deferred until the next annual requalification examination.

## REPORT DETAILS

### 1. Examiners

\*J. Lennartz, NRC  
T. Guilfoil, Sonalysts  
D. Lane, Sonalysts  
K. Parkinson, Sonalysts

### 2. Exit Meeting

An exit meeting was held on August 23, 1991 between the NRC and licensee representatives to discuss the requalification program and the examiner observations as discussed in this report.

#### NRC representatives in attendance were:

J. Lennartz, Examiner  
P. Castleman, Senior Resident Inspector  
K. O'Brien, Resident Inspector

#### Licensee representatives in attendance were

M. Marchi, Plant Manager  
C. Schrock, Assistant Manager, Plant Operations  
D. Braun, Superintendent, Plant Operations  
T. Webb, Plant Licensing  
R. Zube, Assistant Superintendent, Nuclear Operations Training  
D. Karst, Operations Training Supervisor, Simulator

The licensee representatives acknowledged the examiner observations discussed in sections 3-8 of this report as well as the items identified in the attached Simulation Facility Fidelity Report.

### 3. Examination Development

The NRC and licensee members of the examination team validated the proposed examination developed by the licensee during the examination preparation conducted the week of August 5, 1991. The examination validation was accomplished by comparing the proposed examinations with the applicable guidance of NUREG 1021, "Operator Licensing Examiner Standards," Revision 6.

#### a. Examination Material

The licensees' examination material generally met the guidance as

stated in ES-601, "Administration of NRC Requalification Program Evaluations," Attachment 1, "Evaluation Checklist For Facility Reference Material," and was considered to be adequate. Additionally, it was noted that the licensees' examination material had significantly improved regarding format and content from the previous requalification examination conducted in August, 1990.

b. Written Examination

The licensee's proposed written examination generally met the guidance as stated in ES-602, "Requalification Written Examination." The following are a few examples of deficiencies in the written examination that were identified by the NRC.

- A few questions did not test knowledge at least at the comprehension level.
- There were numerous direct look up questions.
- Some questions that tested immediate operator actions allowed time to use references to answer. Immediate operator actions should be committed to memory and time to use references to answer these type questions should not be allowed.

All of the specific observations regarding the written examination material were provided to the licensee representatives and all of the required changes were made by the examination team prior to examination administration.

c. Job Performance Measures (JPM)

The following are a few specific examples of the observations that were made by the NRC when the JPMs were compared with the guidance as stated in ES-603:

- The JPM examination bank did not contain any SRO only JPMs.
- JPM 058, "Start and Load the Diesel Generator" Step 7 annunciator numbers and nomenclature and Step 12 Diesel Generator room damper numbers failed to match the applicable procedure nomenclature and numbers.
- JPM 076, "Operate TDAFW Pump Locally," Step 7 and Step 12 utilized "pump on" and "pump off" respectively as cues for pump status which is inappropriate. Actual system parameters and indications such as system flowrate and/or pump discharge pressure would be appropriate cues.

- JPM 110, "Response to Loss of Secondary Heat Sink" was changed to a time critical JPM from one that was not considered to be time critical.
- Six of the 20 JPMs that were proposed by the licensee for this examination were repeated from last years examination. In addition, five JPMs were designated as "common JPMs" to be administered to all three crews. The examination team replaced the JPMs that were repeated from last years examination with other JPMs from the licensees JPM examination bank and changed the JPM grouping such that no JPMs were common to all three crews.

All of the specific observations regarding the JPMs were provided to the licensee representatives.

d. Dynamic Simulator

In general, the simulator scenarios met the guidance as stated in ES-604. However, some of the Identified Simulator Critical Tasks (ISCTs) were deleted by the examination team because they failed to meet the required criteria stated in ES-604 for ISCTs. In addition, five of the 17 simulator scenarios that were proposed by the licensee for this examination were repeated from last years examination. The examination team replaced the simulator scenarios that were repeated from last years examination with different simulator scenarios from the licensees' dynamic examination bank.

4. Examination Administration

The licensee was responsible for examination administration while the NRC observed the process which allowed the NRC to evaluate the licensees' requalification program as well as the individual operators. The following are a few examples of the observations that were made by the NRC regarding examination administration:

- The licensee did a good job of maintaining examination security.
- The licensees' examination schedule effectively precluded operator and evaluator stress related to excessively long days and delays.
- There was too much "dead time" during dynamic simulator examinations. This time could be filled with additional events such as required surveillances or additional equipment malfunctions.
- During the dynamic simulator examinations, the operators performance decreased significantly when the operators were rotated out of their "normal" shift position. This decrease in Operator performance was

especially noticeable in the Shift Supervisor (SS) and Control Room Supervisor (CRS) positions.

- Crew communications during dynamic simulator examinations were generally poor in that the communications often lacked acknowledgements and repeat backs, and were considered to be "open ended."
- The operating crews ability to recognize and comply with Technical Specifications was very good.
- The SS's ability to complete administrative requirements such as work requests and event reports for affected equipment was very good.

#### 5. Evaluation of Facility Evaluators

During examination administration, the NRC assessed the licensee evaluator's ability to conduct consistent and objective examinations as well as their ability to provide unbiased evaluations of the operators. The following observations were made by the NRC examiners regarding the facility evaluators:

- The evaluations of the operating crews performance on the dynamic simulator examinations were very detailed and comprehensive regarding identified deficiencies.
- The licensee evaluators should ensure that the "root cause" of operating deficiencies is identified when completing operator competency evaluation ratings.

#### 6. Examination Evaluations

Co-evaluation of the operators performance was performed by the NRC and the licensee. This provided the NRC with the necessary information to assess the individual operator's performance, as well as the licensees' requalification program performance.

In general, the overall evaluation on all phases of the examination were consistent between the NRC and the licensee for each licensed operator.

NUREG 1021, ES-601, Revision 6, Section C.1.b.4 states that a program evaluation will be based on a sample of at least 12 examinees. For this evaluation only 11 licensed operators were administered the examination and therefore, an evaluation of the requalification program will be deferred until the next annual requalification examination.

#### 7. Additional Examiner Observations

The following are a few examples of procedure deficiencies that were identified by the NRC examiners during the examination administration:

- There is no specific procedure guidance regarding how to perform local emergency boration.
- N-TB-4, "Turbine and Generator Operation," Figure 4, "Recommended Operational Regions for Nuclear Units with 2-Double Flow Low Pressure Ends" was very difficult to read.
- A-RHR-34, "Loss of Residual Heat Removal Cooling," does not address a loss of one train of RHR cooling and does not provide guidance regarding how to place the idle train of RHR cooling into service.
- A-SI-33, "Filling, Draining, Pressurizing and Venting the Safety Injection (SI) Accumulators," directs the operator to take the drain valve control switch to open until only the red (open) light is lit, and then to the closed position until valve is fully closed and repeat as necessary to drain the accumulator. This resulted in excessive cycling of the SI accumulator drain valve to achieve the desired level.
- A-MI-87, "Bistable Tripping for Failed Reactor Protection or Safeguards Instruments," step 4.16 should read verify "PR N41" light lit vice "PR-N42." Additionally, a step needs to be added to direct the operator to reset the rate mode trip on the power range drawer in order to accomplish the procedural task of restoring power range instrument N41 to service.

All of the identified procedural deficiencies were given to the licensee representatives. None of the procedural deficiencies identified were considered to be safety significant. However, the deficiencies could delay or possibly preclude completion of procedural tasks and therefore the facility is urged to review the identified procedures and make revisions as appropriate.

#### 8. Post-Exam Review of Written Examinations

The post-exam review of the written examinations by the NRC identified the following deficiencies in the candidates' knowledge as evidenced by the majority of the candidates failing to provide the correct response for each particular area examined. This information is being provided as input to the licensees' system approach to training (SAT) process:

- Inputs to the "Rod Bottom Rod Drop" annunciator and Rod Bottom Light. (Part A2, Question 3)
- Operator responsibilities during threatening calls to the control room in accordance with administrative procedure ACD 11.10, "Bomb Threats and other threatening Calls." (Part B RO Question 26; SRO Question 27).

SIMULATION FACILITY REPORT

Facility Licensee: Kewaunee Nuclear Power Plant

Facility Licensee Docket No. 50-305

Operating Tests Administered On: Week of August 19, 1991

During the conduct of the simulator portion of the operating tests, the following items were observed:

<u>ITEM</u>	<u>DESCRIPTION</u>
1.	The fire pump switches do not have a pull-to-lock position as in the control room. This item was previously identified by the licensee.
2.	During simulator dynamic examination 021, channel three pressurizer level transmitter was failed low. However, the plant computer indicated that channel one pressurizer level transmitter had failed low.

REQUALIFICATION PROGRAM EVALUATION REPORT

Facility: Kewaunee Nuclear Power Plant

Examiners: J. Lennartz, T. Guilfoil, D. Lane, K. Parkinson

Date of Evaluation: Week of August 19, 1991

Areas Evaluated: X Written X Oral X Simulator

Examination Results:

	<u>RO</u> <u>Pass/Fail</u>	<u>SRO</u> <u>Pass/Fail</u>	<u>Total</u> <u>Pass/Fail</u>	<u>Evaluation</u> <u>(S or U)</u>
Written Examination	1/0	10/0	11/0	S
Operating Examination				
Oral	1/0	9/1	10/1	S
Simulator	1/0	10/0	11/0	S
Evaluation of facility written examination grading				S

Crew Examination Results:

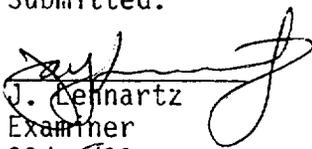
	<u>Crew 1</u> <u>Pass/Fail</u>	<u>Crew 2</u> <u>Pass/Fail</u>	<u>Crew 3</u> <u>Pass/Fail</u>	<u>Evaluation</u> <u>(S or U)</u>
Operating Examination	Pass	Pass	Pass	S

Overall Program Evaluation

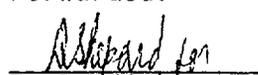
Not Evaluated

NUREG 1021, "Operating Licensing Examiner Standards," ES-601, Rev. 6, Administration of NRC Requalification Program Evaluations, Section C.1.b.4 states that a program evaluation will be based on a sample of at least 12 examinees. Because only 11 licensed operators were administered the requalification examination an overall program evaluation will be deferred until the next annual requalification examinations.

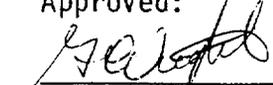
Submitted:

  
J. Lennartz  
Examiner  
09/25/91

Forwarded:

  
T. Burdick  
Section Chief  
09/25/91

Approved:

  
G. Wright  
Branch Chief  
09/25/91