

U.S. NUCLEAR REGULATORY COMMISSION  
REGION III

Report No: 50-282/88003(DRS); 50-306/88002(DRS)

Docket No: 50-282; 50-306

License No: DPR-42; DPR-60

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

Facility Name: Prairie Island Nuclear Generating Plants, Unit 1 and 2

Inspection At: Red Wing, MN

Inspection Conducted: January 20-February 10, 1988

Inspectors: R. S. Love *[Signature]*

2/18/88  
Date

D. L. Shepard *[Signature]*

2/18/88  
Date

Approved By: *Paul R. Sundeland for*  
T. M. Burdick, Chief  
Operator Licensing Section 2

2/18/88  
Date

Inspection Summary

Inspection on January 20-February 10, 1988 (Report No. 50-282/88003(DRS);  
50-306/88002(DRS))

Areas Inspected: Special announced safety inspection to verify the implementation of the actions described in Confirmatory Action Letter (CAL) RIII-87-013, Amendment 1, dated August 18, 1987, relating to your licensed operator requalification program.

Results: No violations or deviations were identified during the course of the inspection. One unresolved item is identified in Paragraph 2.d.(3).

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## DETAILS

### 1. Persons Contacted

#### Northern States Power Company (NSP)

- \*M. Sellman, General Superintendent of Operations
- \*L. Waldinger, Manager, Production Training
- #\*D. Reynolds, Operations Training Supervisor
- \*M. Werner, Senior Instructor
- \*T. Amundson, Superintendent of Training

#### U.S. Nuclear Regulatory Commission (NRC)

- \*D. DiIanni, Licensing Project Manager (NRR)
- \*J. Hard, Senior Resident Inspector

The inspectors also contacted other licensee personnel during the inspection.

\*Denotes those present at the exit interview on January 22, 1988.

#Denotes those present during the telephone exit interview on February 17, 1988.

### 2. Licensee Action on CAL RIII-87-013

#### a. Background

During the period of June 16-26, 1987, the NRC administered requalification examinations to 20% of the licensed personnel at the Prairie Island Nuclear Generating Plant. It was determined that 53% of those persons examined had failed one or more portions of the examinations. The Prairie Island licensed operator requalification program was rated as unsatisfactory and CAL RIII-87-013 was issued on August 3, 1987. The persons that failed the NRC examination were removed from all licensed duties. A management meeting with the licensee was conducted in Region III office on August 10, 1987. The purpose of this meeting was to discuss NSP's assessment of the June NRC examination results and NSP's plans to implement both short term and long term corrective measures to the Prairie Island requalification program. Based on the August 10 meeting, Amendment 1 to the subject CAL was issued on August 18, 1987. This amendment delineated the short and long term corrective actions and are discussed in more detail in the following paragraphs.

#### b. CAL Action Item A

(1) Item A states, "Conduct an accelerated retraining program as described by your staff (August 10 meeting) for those who failed the NRC requalification exam."

#### (2) Licensee Action

Three separate training programs were established for five of

the individuals who failed the NRC examination and who will continue to hold NRC licenses. The remaining four individuals who failed the examination have dropped their NRC licenses. The three training programs were based on the degree of failure on the NRC examination.

The first program involved a four week training schedule for three individuals and covered: neutron kinetics; turbine thermodynamics and rankin cycle; fluid mechanics in pumps and piping; heat exchangers; steady state operations and normal transients; steam generator water level control system; cooling water system; fuel handling; pressurizer pressure and level control; rad waste liquid and gas control; radiation safety and protection; safety injection; emergency operating procedure review; reactor coolant system; reactor coolant pumps; and classification of emergencies.

The second program was designed for one individual that only failed one section of the NRC examination. This training consisted of attending a select eight days of the four week training program.

The third program, established for the fifth individual, was ten weeks in length and included full participation in the classroom portion of the License Review Course.

(3) NRC Followup

During the inspection, the inspectors reviewed the licensee's accelerated retraining programs for the five individuals who failed the NRC requalification examination and who will continue to hold their NRC licenses. These training programs were as described in the August 10, 1987, meeting. The inspectors also reviewed the individual's quiz grades and based on the quiz grades and examination results (see Item 2.c. below), the accelerated retraining programs were determined to be adequate to meet the intent of CAL Action Item A.

c. CAL Action Item B

(1) Item B states, "Make all accelerated retraining final exams and their schedule for completion available to Region III for review and approval in advance of administration."

(2) Licensee Action

The licensee provided the scheduled examination dates (September 11, 1987, for three individuals and November 22, 1987, for the other two individuals) and copies of the examinations to Region III. Copies of the examination answers for the first three individuals were also forwarded to Region III for dual grading.

(3) NRC Followup

Prior to this inspection, Region III licensing examiners reviewed the licensee's accelerated retraining examinations and provided

verbal approval, telephonically, for their use. In addition, the examinations for the first three individuals were dual graded and the licensee's grading was found to be adequate, i.e., although the examiner was not in complete agreement with the licensee's grading, the differences would not have failed any of the three individuals.

d. CAL Action Item C

- (1) Item C states, "Incorporate greater emphasis in the areas of normal, abnormal and emergency procedures and heat removal systems into your current requalification training schedule for this year. Make the annual requalification exams and their schedule of administration available to Region III at the earliest opportunity for review."

(2) Licensee Action

Requalification training schedules (Cycles 6, 7 and 8) for the period August 24, 1987, through December 25, 1987, were provided to Region III. The following topics were covered during this training:

- ° Cycle 6 - Guided Study on System Abnormal Procedures and Offsite Protective Actions.
- ° Cycle 7 - Emergency Operating Procedure Review, Functional Restoration Procedures, and the Emergency Core Cooling System.
- ° Cycle 8 - Residual Heat Removal System.

During the simulator portion of the above cycle training, the following normal procedures were also addressed:

- ° Unit Startup Procedure
- ° Unit Shutdown Procedure
- ° Power Operation
- ° Rod Control System
- ° Chemical and Volume Control System

(3) NRC Followup

As directed by Mr. G. C. Wright, Chief, Operations Branch, the annual requalification examinations were not forwarded to the Region III office.

To verify that the licensee place greater emphasis in the areas of normal, abnormal and emergency procedures and heat removal systems, the inspectors reviewed the training schedules for Cycles 6, 7 and 8, attendance sheets for the cycle training, quiz grades, annual requalification examinations and applicable procedures and Appendix B of the USAR.

A review of the Cycle 6, 7 and 8 training schedules indicates that the scheduled training addressed emergency, abnormal, and normal procedures and heat removal systems, i.e., Residual Heat Removal System and Emergency Core Cooling Systems.

During a review of the Cycle 6-8 attendance and quiz scores, the following observations were made:

- ° Cycle 6 - Of 53 licensed operators (LS and LR) scheduled to receive this training, 19 had a 100% attendance record, 28 attended part-time (14.3-85.7% attendance), and six of the licensed operators did not receive any of the Cycle 6 training. The inspectors were informed that Prairie Island does not have a requirement for operators to make up missed cycle training.

With respect to the quiz grades, 23 of 53 licensed operators did not take the quiz, and of the 30 licensed operators tested, 24 individuals failed (approximately 80%) the quiz with grades averaging between 43.8% and 79.2%. Again, the inspectors were informed that Prairie Island does not have a requirement for operators to makeup missed quizzes nor to retake failed quizzes. The corrective action for failed quizzes is for the plant training superintendent to write a letter to the individual with a copy to the individuals supervisor, assigning self-study areas identified by the quiz.

- ° Cycle 7 - Of 53 licensed operators scheduled to receive this training, 22 had an 100% attendance, 24 attended part-time (50-75%), and seven licensed operators did not receive any of the cycle training. No written quizzes were given for this training.
- ° Cycle 8 - Of 53 licensed operators scheduled to receive this training, 48 had an 100% attendance and the other five attended part-time (25-75%). No written quizzes were given for this training.

During a review of Appendix B, Revision 7, "Licensed Operator Qualification Program", of the Prairie Island's USAR, it was noted that subsection 2.2. states, "All licensed personnel shall attend lectures related to; (a) Normal, Abnormal, and Emergency Operating Procedures; (b) Radiation Protection and Safety; (c) Subjects of the annual examination in which an area grade of less than 80% was obtained by the individual."

Subsection 4.4 of this same document states, "Accelerated Qualification Programs SHALL be assigned by the Plant Training Superintendent based on (a) Unsatisfactory performance on an annual written, oral or simulator examination; (b) Unsatisfactory performance ( 80%) on a periodic examination."

10 CFR 55.59(a) states, in part, "Each licensee shall successfully complete a requalification program developed by the facility

licensee that has been approved by the Commission. This program shall be conducted for a continuous period not to exceed 24 months in duration."

NUREG-1262 question number 412 states, "Where preplanned lectures are part of the requal program, is it necessary that the licensees participate in all of these lectures, notwithstanding successful completion of the written examinations following these lectures, in order to be able to say that the licensee has met the requal program requirements on the NRC-398 application?" The answer for question number 412 states, "Under revised 55.59, no provisions for exemption of lectures is provided. If currently provided programs contain exemption provisions for licensed instructors, the programs should continue until the programs are accredited. INPO guideline 82-026 contains exemption provisions for instructors who teach specific subjects; however, they must attend lectures in subjects they do not teach."

Question 414 of NUREG-1262 states, "How will individuals who are in non-compliance with accredited requalification training programs (i.e., extended illness, jury duty, etc.) be requalified? The answer for this question states, "Operators will be required to makeup missed portions of the requalification program and to submit evidence to the Commission of successful completion of the training."

The licensee was informed that failure to require all licensed operators, except certain instructors, to receive all cycle training, take all cycle quizzes, and to take makeup quizzes for all failed quizzes appears to be in violation of 10 CFR 55 and the Prairie Island USAR. Pending a detailed review of your training program, this item is unresolved (282/88003-01; 306/88002-01).

During the inspection, the inspectors reviewed the annual written requalification examination grades for 1987. It was noted that 46 individuals were tested and nine failed one or more sections ( 70%) and/or had an overall grade of 80%. However, of the nine failures, the licenses are being terminated for four individuals, and two of the failures were non-licensed individuals. The remaining three individuals will retain their license and have been entered into an accelerated requalification program. The list of 46 individuals was reduced to 31 licensed operators who are retaining their license. From this list of 31, the inspectors selected 14 names for review of their annual requalification examinations. These examinations were reviewed for content and grading. There were several instances where the inspectors had minor differences with the grading, however, it would not have changed the pass-fail of the individual, i.e., the grades would not have increased sufficiently for any of the three failures to have passed nor would the grades have dropped sufficiently to have failed any additional licensed operators. Overall, the content and grading of the examinations were found to be adequate.

The inspectors determined that the above actions satisfied the licensee's commitments identified in the CAL with no further actions required except for the unresolved item identified in Paragraph 2.d.(3) above.

3. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violations, or deviations. An unresolved item disclosed during the inspection is discussed in Paragraph 2.d.(3).

4. Exit Interview

The inspectors met with the licensee representatives (denoted under Paragraph 1) at the conclusion of the onsite portion of the inspection on January 22, 1988 and at the conclusion of the in-office review on February 17, 1988. The inspectors summarized the scope and findings of the inspection and also discussed the likely information content of the inspection report with regard to documents or processes reviewed during the inspection. The licensee acknowledged this information and did not identify any such document or processes as proprietary.