

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-282/84-12(DRSS); 50-306/84-14(DRSS)

Docket Nos. 50-282; 50-306

Licenses No. DPR-42; DPR-60

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

Facility Name: Prairie Island Nuclear Generating Plant, Units 1 and 2

Inspection At: Prairie Island Site, Red Wing, MN

Inspection Conducted: October 3-5, 1984

Inspectors: *William B. Gloersen*
W. B. Gloersen

10/22/84
Date

J. Patterson
J. Patterson

10/22/84
Date

Approved By: *M. P. Phillips*
M. P. Phillips, Chief
Emergency Preparedness Section

10/23/84
Date

Inspection Summary

Inspection on October 3-5, 1984 (Reports No. 50-282/84-12(DRSS); 50-306/84-14(DRSS))

Areas Inspected: Routine announced inspection of the following areas of the emergency preparedness program: knowledge and performance of duties (training); changes to the emergency preparedness program; licensee audits; maintenance of emergency preparedness; and implementation of the emergency plan. The inspection involved 86 inspector-hours onsite by two NRC inspectors and three consultants.

Results: No items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

- *E. Watzl, Plant Manager
- *D. Mendele, Plant Superintendent, Engineering and Radiation Protection
- *D. Schuelke, Superintendent, Radiation Protection
- *R. Stenroos, Principal Production Engineer
- *J. Oelkers, Quality Assurance/Quality Control Specialist
- *T. Amundson, Superintendent of Training
- *M. Reddemann, Technical Training Supervisor
- *D. Larimer, Radiochemistry Supervisor
- *A. Johnson, Radiation Protection Supervisor
- *D. Ludwig, Radiation Protection Specialist
- *R. Lindsey, Plant Superintendent, Operations and Maintenance
- J. Gonyeau, Manager, Production Training Department (Corporate)
- G. Hudson, Administrator, Emergency Preparedness (Corporate)
- G. Woodhouse, Shift Supervisor
- R. Hoelthe, Shift Supervisor
- D. Zimmerman, Shift Supervisor
- F. Fey, General Superintendent, Radiation Protection and Chemistry (Corporate)
- D. Musolf, Manager, Nuclear Support Services (Corporate)

*Denotes those attending the exit interview.

2. Implementation of the Emergency Plan

During the period July 15, 1983 to October 1, 1984, the licensee declared two Notification of Unusual Events (NUEs). The licensee provided complete records for both NUEs. The NUEs occurred on September 16, 1983 and May 31, 1984. The average response time for notifying the State and local governmental agencies was within 15 minutes after declaring the NUEs. The NRC Operations Center was notified 50 minutes and 23 minutes after declaring the 1983 and 1984 NUEs, respectively. Although the NRC was notified within an hour of event declaration, it is recommended that the wording of EIPs F3-3 (Step 4), F3-4 (PINGP 579, Step 10), and F3-5 (PINGP 580, Step 11) be revised to reflect the current wording of 10 CFR 50.72(a)(3), which states in part that the NRC shall be notified immediately after notification of the appropriate State or local agencies and not later than one hour after the time the licensee declares one of the Emergency Classes. This regulation is not intended to place less emphasis on notifying the State and local agencies, nor the licensee's emergency response organization.

3. Changes to the Emergency Preparedness Program (82204)

The inspectors determined that changes to the emergency plan and implementing procedures, both Corporate and Prairie Island have been submitted to Region III within 30 days of such changes, as required by 10 CFR 50.54(q) and 10 CFR Appendix E, Section V. However, two sets of Prairie Island EIPs appeared to have been submitted beyond the 30 day limit, based on the Operations Committee (OC) date on the EIP cover

sheets. The Emergency Planning Coordinator explained that this date was not the effective date or implementation date of the EIPs. The inspector recommended that the effective date of the EIPs be placed on the EIP in addition to the OC date. Revision 4 of the Prairie Island Emergency Plan was reviewed by Region III in August 1984. This review determined that the submitted changes were consistent with the requirements of 10 CFR 50.54(q) and did not decrease the effectiveness of the plan. However, it was noted that Section 8.1.2, Exercises, Drills and Tests did not address Radiological Monitoring Drills as described in NUREG-0654, N.2.d. Also, Section 8.1.2 of the Emergency Plan did not address the 10 CFR Part 50, Appendix E, IV.E.9.d requirement for monthly communications checks with the NRC. It was recommended that these changes be included in the next site emergency plan revision.

The inspectors discussed with the Emergency Planning Coordinator and other corporate representatives any significant changes in the licensee's organization and the management of the emergency preparedness program. The most significant changes since the last inspection occurred at the licensee's corporate office. The General Superintendent, Radiation Protection and Chemistry (RP&C) position has been established and has the responsibility for administration of the overall NSP Emergency Preparedness Program. Also, the Administrator, Emergency Preparedness position was established. This individual reports to the General Superintendent RP&C and is responsible for program maintenance, for the preparation of the Corporate Nuclear Emergency Plan and the Corporate EIPs, serves as liaison with other corporate departments having emergency preparedness input and with the two Site Emergency Planning Coordinators. The General Superintendent RP&C, the Manager Nuclear Technical Services and the Assistant to General Manager Nuclear Plants are new corporate positions which can act as Emergency Manager alternates.

The inspectors also reviewed EIP F3-13, "Offsite Dose Calculation" (Revision 5). After reviewing Attachment B, MIDAS Operations, the inspector made the recommendation that a MIDAS Users Manual with examples, explanations of when to use various options, and how to use the utility programs should be added to the EIPs to aid occasional users.

Based on the above findings, this portion of the licensee's program is acceptable; however, the following item should be considered for improvement:

- . The licensee should consider adding a place on the EIP cover sheet for the effective date or implementation date.

4. Knowledge and Performance of Duties (82206)

The inspectors reviewed the licensee's emergency preparedness training program including training program policy, maintenance and development of course outlines, lesson plans, training schedules, drills, written exams, attendance records, and individual training records. The inspectors also interviewed a representative sample of key emergency response personnel.

Individual training records of all personnel designated as potential Emergency Directors, Emergency Managers, and Radiological Emergency Coordinators were examined. A random sampling of individual training records were also reviewed to verify initial training and retraining had been presented to other key emergency response personnel. The licensee's training records indicated that the primary Emergency Director (ED) had not received his specialized emergency preparedness training as specified in NSP Corporate EPIP 1.2.1, Section 5.2.2(c) since July 7, 1983, however, this individual was the ED during the March 1984 exercise. Another ED designee had not received the required formal emergency classification training session during the last year, however, this material was covered as part of his simulator refresher course which was not documented clearly in his records. One EOF Coordinator's training record did not document clearly that all elements of his specialized training had been obtained, however, this individual did participate in several emergency drills during the past year. This person is scheduled for this training in mid-October 1984. In addition, the licensee agreed to provide aspects of the specialized training to the primary ED by mid-October 1984.

The inspectors also conducted walkthroughs with Shift Supervisors (SS), an Emergency Director (ED), EOF Coordinator, Radiological Emergency Coordinator (REC), Radiation Protection Support Supervisor (RFSS), and an offsite dose assessment operator. Both SSs interviewed felt that more emergency preparedness and ED training would be beneficial. The inspector determined that the two SSs had been taught the material, however, they need more practice and drills in locating the needed information more rapidly in the EIPs. The inspectors also determined the following uncertainties resulting from the SS interviews: (1) the difference between an emergency action level and an emergency classification; (2) the angular width of the "keyhole" when describing protective action recommendations; and (3) the duties of the ED which may not be delegated. The remainder of the individuals interviewed satisfactorily demonstrated their knowledge of their assigned emergency response position. The offsite dose assessment operator was presented with several scenarios and asked to perform dose calculations resulting from various radiological release pathways. Calculations were performed on both the primary and backup system and the operator performed adequately.

The inspectors determined that the required annual training program for offsite emergency support personnel was conducted and training records were adequate. This program included training sessions for medical treatment facilities, offsite fire fighting and rescue organizations, and police personnel. The licensee also performed an annual review of EALs with State and county authorities.

Based upon the above findings, this portion of the licensee's program is acceptable; however, the following items should be considered for improvement:

- The licensee should more clearly document individual participation in emergency drills, exercises, and table top discussions in order to receive training credit for these activities. This documentation should include specific references as to the type of training covered

by making a reference to lesson plans or EIPs covered during these activities.

The licensee should provide additional EIP and ED training to the Shift Supervisors.

5. Licensee Audits (82210)

The Nuclear Operations - Quality Assurance Branch conducted the annual independent audit of the licensee's emergency preparedness program on an intermittent basis from March 16 to April 17, 1984. Audited organizations included Nuclear Generation, Production Training, Prairie Island Plant and the Communications Department. The inspector confirmed that this audit included an evaluation of licensee interfaces with State and local governments including their participation in recent drills and exercises.

Corrective actions are being taken on recommendations resulting from critiques following exercises and drills. A tracking system has been established for followup on these items, and it is maintained as an Action Item List by the Administrator, Emergency Preparedness. The inspector determined that not all items on the tracking system list had due dates for completion, although the major items did have a date including exercise weaknesses requiring a licensee response to NRC inspection reports. The Administrator, Emergency Preparedness is usually notified by telephone of the completion of corrective actions by the Site Emergency Coordinator. Documentation is provided for the major recommendations from exercise and drill critiques whether licensee or NRC identified. A response form is being considered which would require a written response for all items whether improvement-type items or weaknesses identified as a result of exercise and drill critiques. The inspectors concluded that corrective actions resulting from drills and exercises are being taken, however, a more thorough, formalized form of documentation would improve the program.

The independent audit report stated that exercise critiques did not require the determination of whether or not the exercise had met all of the required objectives. This evaluation would have provided a means to assure that all major elements of the plans and preparedness organizations were exercised every five years. The Production Training Department responded to this finding by revising Program Policy No. 23, Emergency Plan Training, to state which objectives are required for drills and exercises. However, a statement should be added to assure that the exercise program tests all major elements of the plans and preparedness organizations within a five year period as described in Criterion II.N.1.b of NUREG-0654, Revision 1. The inspector noted that exercise critique correspondence following the Prairie Island exercise of March 13, 1984 did state which exercise objectives were met. The inspectors concluded that this independent review was thorough and meets the requirements of 10 CFR 50.54(t).

Based on the above findings, this portion of the licensee's program is acceptable.

6. Maintaining Emergency Preparedness (92706)

The inspectors reviewed documentation of required drills, exercises, and inventories to ascertain how emergency preparedness is maintained. Documentation related to the semiannual health physics drills, which involved response to and analysis of simulated elevated airborne and liquid releases and direct radiation measurements in the environment, was satisfactory. An annual post-accident sample drill which involved analysis of inplant liquid samples with actual elevated radiation levels was also documented satisfactorily. The inspector also reviewed the various communication test records and verified that the monthly communication tests, which are required by 10 CFR 50, Appendix E and the licensee's Emergency Plan, were being performed.

In addition, the inspector reviewed the shift augmentation drill that was conducted on July 10, 1983. The drill involved the licensee's radio alert system activation and phone response verification. During the phone verification test, the licensee determines whether or not (1) the radio alert was operable, (2) the activation tones were heard, (3) the message was loud and clear, and (4) the individual contacted was able to report to the plant and the time it would take to respond. The licensee only tested the 30-minute augmentation goals of Figure 5-3 of the Prairie Island Emergency Plan. The radio alert monitor system is the primary means for the licensee to notify the emergency response organization during offshift hours. Should that system fail, the call list in EPIP F3-5, Figure 5 would be used. There are approximately 60 individuals on this call list. The call list is not necessarily prioritized to allow the licensee to augment the onsite emergency organization within the 30 and 60-minute goals of Figure 5-3 in the Emergency Plan. The licensee should note that these 30 and 60-minute response-time goals of Figure 5-3 indicate the time it would take to augment the onshift staff after emergency declaration.

The inspectors interviewed a representative of the Corporate Communications Department and determined that the annual, updated version of the Emergency Planning Guide was distributed in March 1984. Some minor changes were made in the wording of County and local governments actions when a Notification of Unusual Event or Alert emergency classification occurs. Also, a wallet-sized calendar was enclosed which instructs the residents on how to respond when the emergency sirens activate.

Based on the above findings, this portion of the licensee's program is acceptable; however, the following item should be considered for improvement:

The licensee should test the backup call list procedure by using a prioritized list so that the capability of augmenting the onsite emergency response organization within the 30 and 60-minute goals of Figure 5-3 can be tested in the event of a failure with the radio alert system.

7. Exit Meeting

The inspectors met with licensee representatives (denoted in Section 1), at the conclusion of the inspection October 5, 1984. The inspectors summarized the scope and findings of the inspection. The licensee agreed to review and consider the improvement items discussed.