

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-282/82-02(DEPOS); 50-306/82-02(DEPOS)

Docket Nos. 50-282; 50-306

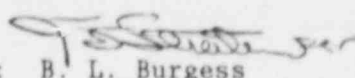
Licenses No. DPR-42; DPR-60

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

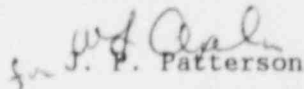
Facility Name: Prairie Island Nuclear Generating Plant, Units 1 and 2

Inspection At: Prairie Island Plant Site, Red Wing, MN

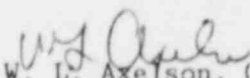
Inspection Conducted: January 19-29, 1982

Inspectors:  B. L. Burgess

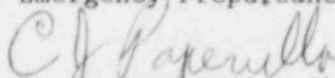
3/15/82

 J. P. Patterson

March 15, 1982

Approved By:  W. L. Axelson, Chief  
Emergency Preparedness Section

March 15, 1982

  
C. J. Paperiello, Chief  
Emergency Preparedness and  
Program Support Branch

3/15/82

Inspection Summary

Inspection on January 19-29, 1982 (Reports No. 50-282/82-02(DEPOS);  
No. 50-306/82-02(DEPOS))

Areas Inspected: Special Announced inspection of Prompt Notification/  
Warning System and testing of the system. The inspection involved 42  
inspector-hours onsite by one NRC inspector and an in-office review by  
one NRC inspector.

Results: No items of noncompliance or deviations were identified.

On February 1, 1982, the licensee must demonstrate that physical and administrative means exist for alerting and providing prompt instructions to the public within the plume exposure pathway EPZ. The design objective of the system shall be to have the capability to essentially complete the initial notification of the public within about 15 minutes. The technical basis for review of the system is given in Appendix 3 to NUREG-0654, Revision 1.

This special inspection is not in the usual format, but consists of questions directed at the licensee. The questions and answers provided are the bases for determining if the prompt public notification system installed is as described in your Emergency Plan or other correspondence sent to the Commission.

1. Physically verify that the sirens are in place by observing a random sample (i.e., about 20%) of siren locations.

The inspector verified the actual position of 15 of 59 of the newly installed sirens to insure that the observed position correlated with map locations provided by the licensee.

2. The following questions were directed to the licensee:

- a. Will the system provide both an alert and an informational or instructional message to the population throughout the ten mile (five miles for LaCrosse and Big Rock Point) Emergency Planning Zone within 15 minutes?

No. The alert notification of the population within the 10 mile Emergency Planning Zone is accomplished by the activation of the siren system. An informational message is transmitted to the population within the 10 mile Emergency Planning Zone (EPZ) by their tuning to local radio stations.

- b. What system (if messages cannot be transmitted through a. above) would be used to provide an instructional message to the public after the sirens have been activated?

In Minnesota, the State Division of Emergency Services will issue the public informational message based upon information received from the Prairie Island Plant nearsite Emergency Offsite Facility (EOF). The message will be delivered to the National Weather Service Office which will transmit the message via the National Oceanic and Atmospheric Administration (NOAA) Alert Radio System. The Emergency Broadcast System (EBS) networks monitor NOAA broadcasts and disseminate the emergency messages they receive to the general public via local radio and television stations.

The Pierce County Sheriffs Office will form and deliver the public informational message for Wisconsin residents directly to local radio stations for broadcasting.

- c. Does the public information distribution program provide information regarding this system? (Explain)

Last April the licensee distributed brochures containing a printed map of the local area describing evacuation routes and radio stations to turn to in case of an emergency. These brochures were delivered to local County Civil Defense Directors for dissemination. Pierce County distributed their brochures by mailing them to all the local residents within the 10 mile EPZ. Goodhue County (which contains the largest population within the 10 mile EPZ) delivered their brochures to local schools, motels and restaurants for distribution.

More recently the licensee has notified the public of siren installation and testing by articles ran in the local papers and radio announcements made by local radio stations.

In addition to the above, the licensee will distribute by April 1, 1982, a regional road map and a plant newsletter. The regional road maps will provide a road map of areas surrounding the plant and emergency information. These maps are intended to provide practical use to the local residents so as not to be as easily disposed of as the brochures previously described. The plant newsletter will be distributed annually and contain information of recent plant news and emergency information.

Additionally, the licensee expects to collaborate with the State of Minnesota to prepare a booklet describing all weather and nuclear emergencies. Issue date of the booklet has not been determined.

- d. Does the initial alerting system assure direct coverage of essentially 100% of the population within 5 miles of the site? (Explain)

The initial alerting system will cover 100% of the population within the 5 mile zone by the use of alert sirens. For Prairie Island near-site residents, a tone alert radio system is used in addition to the sirens, however, the licensee takes credit only for the sirens.

- e. What percent of the population between 5 and 10 miles will not hear the initial signal?

Twenty-two percent of the population within 5 to 10 miles area may not hear the sirens. However, the licensee designed the fixed sirens at a 70db conservative basis and they believe that a substantial increase in the coverage will be found after their in-service testing program is completed. We will await FEMA findings relevant to this area.

- f. What special arrangements have been made to assure 100% coverage within 45 minutes of the population within the entire 10 mile EPZ who may not have received the initial notification?

Comment: Mobile sirens driven by the local sheriff and police departments will be used to notify first those persons immediately in the downwind plume path and those areas adjacent to the plume path. Those areas who do not hear the siren and are the most remote from the plume path will be the last notified.

- g. What special arrangements for prompt public notification have been made for special facilities such as schools, hospitals, and nursing homes?

Comment: Prompt public notification for the schools, hospitals, nursing homes, and industrial areas will be provided with tone alert radios which are triggered by the NOAA system in Minnesota. The local County Civil Defense Directors distributed the sirens.

In Wisconsin the tone alert radios are activated by the Pierce County Sheriffs Office. Verbal messages can also be transmitted by the Pierce County Sheriffs Office over the tone alert radios. The radios were also distributed by the Pierce County Civil Defense Director.

- h. Have the sirens and/or other alerting devices been tested?

The tone alert radios were tested prior to distribution by the plant calling the Weather Service and having them activate the NOAA System. Radios that did not respond were not distributed. 140 of 150 radio's were distributed.

Goodhue County sirens were tested on January 19, 1982. 3 of 12 sirens failed and these sirens were repaired and retested locally by Federal Signal Company.

The City of RedWing sirens were tested on January 15, 1982 and all 20 sirens failed to respond to the signal. The sirens were retested on January 25, 1982 with 16 of 20 sirens responding. The four sirens were repaired and tested by Federal Signal Company.

Dakota County sirens were tested on January 12, 1982 and 1 of 4 failed. The siren was repaired and retested locally by Federal Signal Company.

Pierce County sirens were tested on January 22, 1982 and 16 of 25 failed. Federal Signal investigated and repaired the system. The sirens were retested on January 28, 1982.

- i. Who is responsible for maintenance of the alerting (siren) system (e.g., licensee, local government, or State)?

NSP is presently discussing with the local county emergency organizations the possibility of their testing and maintaining the sirens within their counties. Until agreement is reached with these organizations, NSP will have the responsibility for testing and maintaining the newly installed sirens. Those sirens that were previously installed will remain the local counties responsibility.

- j. Who has the authority to activate the alerting (siren) system?

In Minnesota the State Division of Emergency Services will give the authority to the local sheriffs offices in Dakota and Goodhue Counties to activate the siren system. This is done off hours by the plant calling the Capitol guard force who are on duty 24 hours a day. They then call a Duty Officer who will then call the local county Civil Defense Directors. During normal hours the plant will call the Division of Emergency Services directly. If the plant emergency were to escalate quickly the plant may call the local county Sheriffs Office directly.

In Wisconsin the plant will call the Pierce County Sheriffs Office directly. The Pierce County Sheriffs Office verifies the call with the Pierce County Civil Defense Director and then activates the siren.

- k. What QA/QC program has been established to assure continued reliability of the alerting (siren) system?

No formal program has been established.

- l. Name of licensee contact:

Elmont (AL) C Ward

3. Operational Test of Siren System

- a. What type of test? (Explain):

Local test of all sirens in Pierce County to respond to the alert signal.

- b. Was State and County involved:

No.

- c. Was FEMA present:

No.

- d. Who witnessed the test:

The Resident Inspector, Bruce Tam of NSP, and a crew of four siren maintenance personnel witnessed the test for Pierce County only.

e. Names of licensee personnel who witnessed the test:

Bruce Tam, Siren Project Engineer and a crew of 4 siren maintenance personnel.

f. Review records of the test (Comment):

The inspector reviewed the individual siren installation/test procedures performed after each siren was installed. Actual records of each county siren test were kept on notepaper, and records of each county siren test were kept on notepaper, and will be retained in the form of an overall siren testing summary.

4. List of deficiencies identified as a result of the inspection:

Installation: Installation of the sirens was accomplished by Midland Constructors, a contractor of NSP. Midland Constructors do not have any formal QA/QC program. NSP's position was that the entire siren system was not a part of their plant or corporate QA/QC programs, or a part of 10 CFR 50, Appendix B. After discussions by the inspector with NSP's Emergency Preparedness Coordinator, he agreed to formalize the documentation associated with the siren project, and to retain siren testing records with project documentation. This is an Open Item. (50-282/82-02-01; 50-306/82-02-01).

Test Result: None.

Records: As described in the installation Paragraph 4 above.

Others: The inspector conducted interviews with residents from both Goodhue and Pierce Counties. The inspector concluded that Goodhue County did not provide for adequate distribution to the majority of the residents within the 10 mile EPZ, therefore a large percent of the population within the Goodhue County 10 mile EPZ does not have available emergency preparedness information. The inspector considers this a weakness in the licensee's program. The inspector realizes that the licensee has in progress the necessary means to provide an upgraded public education program by April 1, 1982. Distribution of upgraded public information brochures is an open item. (50-282/82-02-02; 50-306/82-02-02).

5. Persons Contacted

Mr. Bruce Tam, NSP Siren Project Engineer

\*Mr. R. Stenroos, Site Emergency Planning Coordinator

\*Mr. E. C. Ward, Corporate Emergency Planning Coordinator

\*Denotes those present at the exit interview.

6. Exit Interview

The inspectors met with the licensee representatives (denoted in Paragraph 5) at the conclusion of the inspection on January 29, 1982. The inspectors summarized the scope and findings of the inspection.