

APPENDIX A

U. S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 30-05004/90-01

License: LP-08799-02

Docket: 30-05004

Licensee: Northern States Power Company  
414 Nicolet Mall, IN04  
Minneapolis, Minnesota

Inspection At: Pathfinder Atomic Power Plant

Inspection Conducted: December 5-6, 1990

Inspectors:

William L. Fisher  
William L. Fisher, Chief, Nuclear Materials  
Licensing Section

1/2/91  
Date

Wesley L. Holley  
Wesley L. Holley, Nuclear Material Licensing  
Section

1/9/91  
Date

Approved:

Bill Beach  
A. Bill Beach, Director, Division of Radiation  
Safety and Safeguards

1/10/91  
Date

Inspection Summary

Inspection Conducted December 5-6, 1990 (Report 30-05004/90-01)

Areas Inspected: This was the initial, routine, unannounced radiation safety inspection following issuance of License Amendment No. 10, on June 28, 1990, which authorized the licensee to begin decommissioning activities.

Results: The licensee appears to have prepared thoroughly before starting to remove and dispose of equipment and debris. Work appears to be progressing rapidly, safely, and in compliance with NRC regulations and the license.

## DETAILS

### 1. Individuals Contacted

- \*A. M. Kuroyama, Decommissioning Project Manager
- M. A. Davis, Supervisor of Radiation Protection
- \*M. R. Vaughan, Project Engineer
- \*J. L. Dunlop, Quality Assurance Site Representative
- \*G. Noggle, Administrative Specialist

\*Indicates individuals present at exit meeting.

### 2. Background

On June 28, 1990, Northern States Power Company's License No. 22-08799-02 was amended (Amendment 10) to authorize decommissioning of the Pathfinder Atomic Power Plant fuel handling and reactor buildings. The purpose of this initial inspection under the amended license was to review licensee procedures, records, and accomplishments to date.

### 3. Organization and Management

The licensee indicated that all site activities related to the decommissioning project are the responsibility of the decommissioning project manager (DPM), whose office is at the site. The Pathfinder site organization includes radiation protection, engineering, decontamination personnel, administration, project control, quality assurance, and security. It is supported by various Northern States Power Company corporate organizations, such as licensing, industrial hygiene, training, and public relations. At the time of the inspection, about 37 people were involved in decommissioning activities at the site.

No violations were identified.

### 4. Facilities

The inspectors, accompanied by the DPM and the Supervisor of Radiation Protection, toured the reactor, fuel handling, and waste storage buildings to observe decommissioning activities and progress. The removal, monitoring, and packaging of waste appeared to have been conducted safely. Building and local ventilation systems were being used effectively to control airborne concentrations within and effluents from the reactor and fuel handling buildings. Accompanied by the DPM and the Project Engineer, the inspectors also observed the security fence, which is the restricted area boundary, and the locations of air sampling and external radiation monitoring stations at and beyond the security fence.

No violations were identified.

5. Waste Handling

A very large amount of equipment and debris has been removed. Radioactive and potentially radioactive waste has been placed into large metal boxes for shipment for burial. At the time of the inspection, the licensee had accumulated about 60 such boxes. Some of the boxes will be shipped directly to the radiological burial site, while others will be shipped to a Washington state licensee for salvage of certain components and materials. During this portion of the inspection, the inspectors reviewed File I400, "Radioactive Material Shipping," which included vehicle survey, radiation protection survey, and waste manifest records.

Nonradioactive, salvageable material has been monitored and accumulated for removal by a contract salvage company.

Nonradioactive waste has been monitored before being accumulated in large containers for shipment to the Runge Landfill for burial. The loaded containers also have been monitored before being removed from the site.

No violations were identified.

6. Radiation Protection Activities

The licensee had five health physicists covering the decommissioning activities. The current average quarterly exposure was approximately 25 millirem and the current annual maximum exposure was 62 millirem for the Pathfinder decommissioning. The inspectors initiated a preliminary review of procedures in several areas of the decommissioning. The procedural review will become more thorough and extensive at a future inspection.

In accordance with License Condition 15, the licensee submitted to the Commission a report, "High Radiation Alarm Setpoint," on September 24, 1990, as justification for the selection of the high radiation alarm setpoints for the fuel handling building and reactor building ventilation unit continuous air monitors (CAM). The inspectors reviewed the report and found the alarm setpoints acceptable for a fixed filter CAM. However, during the inspection, the inspectors learned that the fixed filters had been dust loading excessively and were not being used as planned. The licensee has developed high radiation alarm setpoints for a moving filter CAM, which also will be submitted to the Commission for review. Of necessity, the licensee has been using moving filter CAMs in conjunction with fixed filter CAMs.

The inspectors reviewed File J000 E-89N030, "Health Physics Records," which contained the personnel contamination log. These records indicate that contamination has been controlled adequately.

No violations were identified.

7. Decommissioning Schedule

The licensee discussed with the inspectors the tentative decommissioning schedule. See the attached Appendix B for the tentative schedule of milestones.

8. Exit Interview

The inspectors met with the Decommissioning Project Manager and members of his staff at the end of the inspection on December 6, 1990. The licensee was advised that the inspection had revealed no significant findings and that site activities appeared to have been conducted in accordance with applicable regulations and license conditions. The inspectors observed that the licensee's lack of knowledge about the nature and history of site monitoring wells could limit the usefulness of well water analytical data.

APPENDIX B

SCHEDULE MILESTONES

- ° Complete railroad upgrade November 90
- ° Contract packages - vessel shipment (HEXCEL, shipping saddles/shielding, RPV removal, railcar, shipping, RPV unloading) December 90
- ° Refine grout materials, procedure, with mock up testing December 90
- ° Cut recirc and install blanks January 91
- ° Grout vessel January 91
- ° Ship heavy fabrication March 91
- ° Railcar on site April 91
- ° Deliver HEXCEL May 91
- ° Crane on site March 91
- ° Lift reactor vessel April 91
- ° Remove bio-shield May 91
- ° Finish saddles June 91
- ° Vessel ship milestone July 91
- ° Balance of FHB July 91
- ° Balance of RB & FTV September 91
- ° Final survey November 91
- ° License amendment approval March 92
- ° Demolition of RB May 92
- ° Project complete July 92