

E-002/CN-91-19 ORDER APPROVING RADIATION MONITORING PLAN IN PART
AND REQUIRING FURTHER FILINGS

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Don Storm	Chair
Tom Burton	Commissioner
Cynthia A. Kitlinski	Commissioner
Dee Knaak	Commissioner
Norma McKanna	Commissioner

In the Matter of an Application
for a Certificate of Need for
Construction of an Independent
Spent Fuel Storage Installation

ISSUE DATE: February 26, 1993

DOCKET NO. E-002/CN-91-19

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PROCEDURAL HISTORY

I. Proceedings to Date

On August 10, 1992 the Commission issued its ORDER GRANTING LIMITED CERTIFICATE OF NEED in this case. The Order authorized Northern States Power Company (NSP or the Company) to build an earth-sheltered dry cask nuclear waste storage facility at its Prairie Island nuclear power plant. The facility was authorized to store up to 17 casks containing spent fuel from the two Prairie Island reactors until the federal Department of Energy transported the fuel to a national nuclear waste storage facility.

The August 10 Order placed conditions on the certificate of need, including Company compliance with its representation that radiation exposure from the facility to the person living nearest the plant would at no point exceed .054 millirem per year. Order, at 32 and 34. The Order also required the Company to prepare a plan for monitoring radiation from the facility after consulting with the Minnesota Department of Health and the Prairie Island Indian Community.

On October 9, 1992 the Company filed its proposed radiation monitoring plan. The Indian Community filed comments on October 27, 1992. The Department of Health filed comments on the Company's plan on October 9; it filed comments on the Indian Community's filing on November 16.

The matter came before the Commission on February 4, 1993.

FINDINGS AND CONCLUSIONS

II. The Parties' Filings

In its filing the Company described its full radiation monitoring program, including those portions already in place specifically designed to comply with the requirements of the federal Nuclear Regulatory Commission. To fulfill the requirements of the August 10 Order, the Company proposed the following measures, all of which were agreed to by the Indian Community and the Minnesota Department of Health:

1. Three months before loading the first cask, the Company will provide detailed calculations of the expected dose, based on actual fuel characteristics;
2. The Company will allow the Department of Health to conduct an independent survey of gamma and neutron radiation from each cask when placed in the facility;
3. The Company will allow the Department of Health to place gamma and neutron dosimeters inside the berm and on the perimeter fences of the facility;
4. The Company will confer with the Department of Health on the calibration and interpretation of data from the neutron dosimeters;
5. The Company will allow the Department of Health to place gamma dosimeters at mutually agreed upon locations on plant property outside the facility;
6. The Company will place two gamma dosimeters at mutually agreed upon locations within the Community and will arrange for regular analysis of dosimeter readings;
7. The Company will provide designated representatives of the Community and the Department of Health with the results of the radiation surveys and dosimeter readings discussed above.

The Department of Health concurred in the need for the seven measures described above, but also advocated installing four pressurized ion chamber (PIC) measurement devices, with telecommunications links to the offices of the Department of Health. The Department asked the Company to fund the equipment purchases, consultants' fees, and employee time necessary for PIC monitoring. The Community supported the Department's position.

The Company opposed PIC monitoring, saying it was redundant and would increase costs and worker exposure to radiation unnecessarily.

The Community, in addition to concurring in the request for PIC monitoring, filed comments suggesting ten technical changes to the Company's Radiation Environmental Monitoring Program (REMP), a protocol required by and submitted to the federal Nuclear Regulatory Commission. The Department of Health agreed with the Community that the Company's REMP should provide specifications for its thermoluminescent dosimeters, corrected what it believed to be a technical error on the environmental sensitivity of the Panasonic thermoluminescent dosimeter, and took no issue with the Community's other comments.

III. Commission Action

A. Measures Agreed Upon

The Commission finds that the seven monitoring strategies agreed upon by the parties are reasonable, meet the requirements of the August 10 Order, and should be approved. The Commission will so order.

B. Proposed Changes to REMP

The Commission will not act on the parties' proposals to require changes in the Company's Radiation Environmental Monitoring Program (REMP). The REMP was not developed in response to the August 10 Order. It is required by federal law. It is filed with the Nuclear Regulatory Commission for review and approval, and comments on it should be directed to that agency.

C. PIC Monitoring

The Department of Health recommended placing four pressurized ion chambers (PICs) within the berm surrounding the facility to measure radiation on an ongoing basis. PIC readings would be transmitted continuously by telecommunications technology to Health Department offices off-site. The Department emphasized that this system would provide continuous, real-time monitoring of radiation levels and would allow the agency to reassure the public at any time about the safety of the facility. The Department also claimed the PICs would enhance its ability to determine whether the facility is operating within the .054 millirem per year limit.

The Company claimed the PICs would merely duplicate the functions of the other monitoring devices and that the expense and increased worker exposure they would entail were not justified.

The Commission is not convinced the PIC system is necessary for public information purposes. If the PICs would add nothing to the Department's ability to measure radiation levels from the facility, the public's right to know could probably be served by other, less expensive means.

At this point, however, the record is unclear on whether adding PICs to the Company's radiation monitoring plan would make the radiation measurements taken or extrapolated under the plan more accurate. The Department of Health claimed it would, but did not provide documentation. The Company claimed it would not, also without documentation. The Commission will invite the Department to file a more complete explanation of the scientific and technical basis for any claim that PICs would enhance its ability to measure radiation from the facility. The Company and the Indian Community will be invited to comment on the Department's filing before the Commission decides the issue.

D. Cost Allocation

The Department of Health asked the Commission to require the Company to pay the costs of the Department's future participation in the radiation monitoring plan, with or without PICs. The Company opposed this as an unauthorized regulatory assessment. The issue was not fully developed by either party. The Commission will require both parties to file fuller explanations of their positions.

E. Public Information and Communication Issues

The Department of Health and the Indian Community supported the PIC proposal in part because it would provide continuous information on radiation levels at the facility, which could be transmitted to the public on request. The Commission believes public information issues should be addressed in more detail apart from the PIC issue. The radiation monitoring plan should specify, for example, how often the reports discussed in item 7 will be provided. The parties should also have some understanding on procedures for disseminating information to the public, both in response to routine inquiries from individuals and in the event of an actual or perceived contingency. The Commission invites discussions by the parties and will require further filings on these issues.

ORDER

1. The Company's radiation monitoring plan is approved, with the following exceptions. The Company's rejection of the proposal to install pressurized ion chambers and its rejection of the Health Department's request for ratepayer funding of future Department participation in the radiation monitoring plan are deferred for future action.

2. The Commission invites the Department of Health to file, within 20 days of the date of this Order, a more complete explanation of the technical and scientific basis for the claim that pressurized ion chambers would enhance its ability to measure radiation from the dry cask storage facility. Any comments on the Department's filing shall be filed within 10 days of the date of the Department's filing.
3. Within 20 days of the date of this Order, interested parties shall file comments on whether the Commission should require the Company to fund future Department of Health participation in the nuclear radiation monitoring program. Reply comments shall be filed within 10 days of the end of that 20-day period.
4. The Commission invites the parties to meet and discuss the communication and public information issues raised by the dry cask storage facility, including the issues detailed above. Within 30 days of the date of this Order, the Company, the Department of Health, and the Indian Community shall make filings detailing what they consider adequate procedures for serving the public interest in receiving ongoing information about the dry cask storage facility.
5. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Richard R. Lancaster
Executive Secretary

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