



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 120 AND 113 TO
FACILITY OPERATING LICENSE NOS. DPR-42 AND DPR-60
NORTHERN STATES POWER COMPANY
PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-282 AND 50-306

1.0 INTRODUCTION

Section 50.48, "Fire protection," of Part 50 of Title 10 of the Code of Federal Regulations (10 CFR Part 50) requires that each operating nuclear power plant have a fire protection plan that satisfies Criterion 3 (GDC 3), "Fire protection," of Appendix A to 10 CFR Part 50. The fire protection plan must describe the overall fire protection program for the facility, outline the plans for fire protection, fire detection, and fire suppression capability, and limitations of fire damage. The program must also describe specific features necessary to implement the program, such as administrative controls and personnel requirements for fire prevention and manual fire suppression activities, automatic and manually operated fire detection and suppression systems, and the means to limit fire damage to structures, systems, or components important to safety so that the capability to safely shut down the plant is ensured. The U.S. Nuclear Regulatory Commission (NRC) staff approved the Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2, (Prairie Island) fire protection program in Safety Evaluation Reports dated February 14, 1978, September 6, 1979, April 4, 1980, December 29, 1980, July 28, 1981, September 12, 1984, June 25, 1985, and October 27, 1989.

By letter dated July 11, 1994, as supplemented by letter dated April 18, 1995, the Northern States Power Company (the licensee) submitted a request for changes to the Prairie Island fire protection program in accordance with the guidance provided in Generic Letter (GL) 86-10, "Implementation of Fire Protection Requirements," and GL 88-12, "Removal of Fire Protection Requirements from Technical Specifications." Specifically, the licensee proposed to incorporate the NRC-approved fire protection program and major commitments, including the fire hazard analysis, into the Updated Safety Analysis Report (USAR), and to revise the Operating Licenses to include the NRC's standard fire protection license condition. In addition, the licensee proposed to relocate the requirements of Technical Specifications (TS) Section 3.14 (Fire Protection and Detection Systems - Limiting Conditions for Operation), TS Section 4.16 (Fire Detection and Protection Systems - Surveillances), TS Section 6.1 (Administrative Controls, Organization), and TS Section 6.2 (Administrative Controls, Review and Audit) from the TS to the revised fire protection program.

GL 86-10 and GL 88-12 referred to removing fire protection requirements from TS. License amendments that relocate the fire protection requirements to the FSAR in accordance with GL 86-10 and GL 88-12 do not revise the requirements for fire protection operability, testing, or inspections. Such amendments simply replace the fire protection TS sections with the standard fire protection license condition. The license condition implements and maintains the NRC-approved fire protection program, including the fire protection requirements previously specified in the TS, in accordance with 10 CFR 50.48. Therefore, such amendments, including the one proposed by the licensee, are administrative in nature and have no effect on the public health and safety.

The letter of April 18, 1995, provided clarifying information within the scope of the original submittal and did not change the staff's initial proposed no significant hazards consideration determination.

2.0 BACKGROUND

Section 182a of the Atomic Energy Act (the "Act") requires applicants for nuclear power plant operating licenses to state TS to be included as part of the license. The Commission's regulatory requirements related to the content of TS are set forth in 10 CFR 50.36. That regulation requires that the TS include items in five specific categories, including (1) safety limits, limiting safety system settings and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. However, the regulation does not specify the particular requirements to be included in a plant's TS.

The Commission has provided guidance for the contents of TS in its "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors" ("Final Policy Statement"), 58 FR 39132 (July 22, 1993), in which the Commission indicated that compliance with the Final Policy Statement satisfies Section 182a of the Act. In particular, the Commission indicated that certain items could be relocated from the TS to licensee-controlled documents, consistent with the standard enunciated in *Portland General Electric Co.* (Trojan Nuclear Plant), ALAB-531, 9 NRC 263, 273 (1979). In that case, the Atomic Safety and Licensing Appeal Board indicated that "technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations upon reactor operation is deemed necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety." The criteria set forth in the policy statement have been incorporated into 10 CFR 50.36 (60 FR 36953).

Following the fire at the Browns Ferry Nuclear Power Plant on March 22, 1975, the Commission undertook a number of actions to ensure that improvements were implemented in the fire protection programs for all power reactor facilities. Because of the extensive modification of fire protection programs and the number of open issues resulting from staff evaluations, a number of revisions and alterations occurred in these programs over the years. Consequently, licensees were requested by GL 86-10 to incorporate the final NRC-approved fire protection program in their Final Safety Analysis Reports (FSARs). In

this manner, the fire protection program, including the systems, certain administrative and technical controls, the organization, and other plant features associated with fire protection, would have a status consistent with that of other plant features described in the FSAR. In addition, the Commission concluded that a standard license condition, requiring compliance with the provisions of the fire protection program as described in the FSAR, should be used to ensure uniform enforcement of the fire protection requirements. Finally, the Commission stated that with the required actions, licensees may request an amendment to delete the fire protection TS that would now be unnecessary. Subsequently, the NRC issued GL 88-12 to give guidance for the preparation of the license amendment request to implement GL 86-10.

3.0 PROPOSED CHANGES

The specific TS changes proposed by the licensee are as follows:

1. Revise License Condition 2.C.(4) for both units as follows:

Northern States Power Company shall implement and maintain in effect all provisions of the approved fire protection program as described and referenced in the Updated Safety Analysis Report for the Prairie Island Nuclear Generating Plant, Unit 1 and 2, and as approved in Safety Evaluation Reports dated February 14, 1978, September 6, 1979, April 4, 1980, December 29, 1980, July 28, 1981, September 12, 1984, June 25, 1985, October 27, 1989, April 21, 1995, and October XX, 1995 subject to the following provision:

The licensee may make changes to the approved Fire Protection Program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

2. Delete TS 3.14.A (Fire Detection Instrumentation), TS 3.14.B (Fire Suppression Water System), TS 3.14.C (Spray and Sprinkler Systems), TS 3.14.D. (Carbon Dioxide System), TS 3.14.E (Fire Hose Stations), TS 3.14.F (Yard Fire Hydrant Hose Houses), TS 3.14.G (Penetration Fire Barriers) and their associated bases and Table, and incorporate them, by reference, into the Prairie Island USAR.
3. Delete TS 4.16.A (Fire Detection and Protection Systems), 4.16.B (Fire Detection Instrumentation), 4.16.C (Spray and Sprinkler Systems), 4.16.D (Carbon Dioxide System), 4.16.E (Fire Hose Stations), 4.16.F (Fire Hydrant Hose House), 4.16.G 9 (Penetration Fire Barriers), and their associated bases and Table, and incorporate them, by reference, into the Prairie Island USAR.
4. Delete definition of "Fire Suppression Water System" from the TS.
5. Delete TS 6.1.C.6, Fire Brigade staffing, and its associated footnote and TS 6.1.E and incorporate them, by reference, into the Prairie Island USAR.

6. Add new TS 6.2.B.4.m under Operations Committee responsibilities.
7. Revise the Table of Contents and List of Tables to reflect the TS changes.

4.0 EVALUATION

The NRC staff reviewed the license amendment requests for Prairie Island against the guidance provided in GLs 86-10 and 88-12. GL 86-10 requested that the licensee incorporate the NRC-approved fire protection program in its USAR for the facility and specified a standard fire protection license condition. GL 88-12 addressed the elements a licensee should include in a license amendment request to remove the fire protection requirements from the plant TS. These elements are (1) the NRC-approved fire protection program must be incorporated into the USAR; (2) the Limiting Conditions for Operation (LCOs) and Surveillance Requirements associated with fire detection systems, fire suppression systems, fire barriers, and the administrative controls that address fire brigade staffing would be relocated from the TS (the existing administrative controls associated with fire protection audits and specifications related to the capability for safe shutdown following a fire would be retained); (3) all operational conditions, remedial actions, and test requirements presently included in the TS for these systems, as well as the fire brigade staffing requirements, shall be incorporated into the fire protection program; (4) the standard fire protection license condition specified in GL 86-10 must be included in the facility operating license; (5) the Unit Review Group (Onsite Review Group) shall be given responsibility for the review of the fire protection program and implementing procedures and for the submittal of recommended changes to the Company Nuclear Review and Audit group (Offsite or Corporate Review Group); and (6) fire protection program implementation shall be added to the list of elements for which written procedures shall be established, implemented, and maintained. The licensee incorporated the NRC-approved fire protection program by reference into the Prairie Island USAR in December 1981. The licensee has, therefore, satisfied Element 1 of GL 88-12.

The licensee stated in its submittal of July 11, 1994, that it will incorporate the current TS LCOs and surveillance requirements for the fire detection systems, fire suppression systems, and the TS requirements related to fire brigade staffing into the Prairie Island Fire Protection Program. Therefore, the licensee will have satisfied Elements 2 and 3 of GL 88-12, with the exception of technical specifications for alternate safe shutdown equipment. The staff will pursue implementation of alternative safe shutdown equipment TS, consistent with GL 81-12, independent of this license amendment.

The licensee proposed incorporating the standard fire protection license condition specified in GL 86-10 for Prairie Island. The licensee has, therefore, satisfied Element 4 of GL 88-12.

To satisfy Element 5 of GL 88-12, the licensee addressed changes to the administrative controls sections of the TS. The licensee will require the Operations Committee to review the fire protection program and implementing

procedures as well as recommended changes as an additional responsibility. The licensee has, therefore, satisfied Element 5 of GL 88-12.

Element 6 of GL 88-12 specified that the licensee add fire protection program implementation to the administrative controls Section of the TS. This change is made to the list of elements for which written procedures shall be established, implemented, and maintained. Since TS 6.5 currently addresses the fire protection program, and this TS will remain in place following this amendment, no changes are required and the licensee has, therefore, satisfied Element 6 of GL 88-12.

The licensee's proposed TS amendments for Prairie Island are in accordance with NRC staff guidance provided in GLs 86-10 and 88-12.

In summary, the licensee has proposed to incorporate the existing TS fire protection requirements as stated above into the fire protection program which is, by reference, incorporated in the USAR. This conforms to staff guidance in GL 86-10, "Implementation of Fire Protection Requirements," and GL 88-12, "Removal of Fire Protection Requirements from Technical Specifications," for removing unnecessary fire protection TS in four major areas: fire detection systems, fire suppression systems, fire barriers and fire brigade staffing requirements. In addition, incorporating these requirements in the USAR is consistent with NUREG-1434 and 10 CFR 50.36, as amended, because these TS do not impact reactor operations, do not identify a parameter which is an initial condition assumption for a design-basis accident or transient, do not identify a significant abnormal degradation of the reactor coolant pressure boundary and do not provide any mitigation of a design-basis event.

The fire protection plan required by 10 CFR 50.48, as implemented and maintained by the fire protection license condition, provides reasonable assurance that fires will not give rise to an immediate threat to public health and safety. Although there are aspects of the fire detection and mitigation functions that have been determined to be risk significant, such that Criterion 4 of 10 CFR 50.36 would otherwise seem to apply, the minimum requirements for those functions were established in GDC 3 and 10 CFR 50.48, and further controls are not necessary since the licensee must comply with these minimum requirements regardless of whether they are restated in the TS or not.

The licensee's fire protection program is required by 10 CFR 50.48, and any changes to that program are governed by 10 CFR 50.48 and license condition 2.C.(4), set forth above. Therefore, the requirements relocated to the USAR may be controlled in accordance with 10 CFR 50.59.

These relocated requirements relating to fire protection features are not required to be in the TS under 10 CFR 50.36 or other regulations, or by Section 182a of the Atomic Energy Act, and are not required to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety. In addition, the staff finds that sufficient regulatory controls exist under 10 CFR 50.48 and 10 CFR 50.59 to

address future changes to these requirements. Accordingly, the staff has concluded that these requirements may be relocated from the TS to the licensee's USAR.

During our review of the TS pages a page number error was detected on Table of Contents page TS-v in that page number changes made in Amendments 101/94 were not carried through with Amendments 103/96. This typographical error introduced by the staff with Amendments 103/96 is hereby corrected by changing the page number for "4.0 Surveillance Requirements," to read "TS.4.0-1." The corrected pages are included with these amendments.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Minnesota State official was notified of the proposed issuance of the amendments. The State official had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The amendments also change administrative procedures and requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding (59 FR 65818). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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