



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 70 AND 64

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

Introduction

By letter dated April 10, 1984 as supplemented July 9, 1984, Northern States Power Company (NSP), the licensee, requested amendments to Facility Operating License Nos. DPR-42 and DPR-60 for the Prairie Island Nuclear Generating Plant Unit Nos. 1 and 2 (PINGP). The requested amendments proposed changes to the Technical Specifications (TS) in the following areas.

1. TS 6.5.B.4 - Administrative requirements related to Post Accident Sampling (NUREG-0737 Items II.B.3 and II.F.1.2) (Pages TS.6.5-2 and 6.5-3).
2. TS.4-10 - Radiation Environmental Monitoring Program - Change the maximum lower limit of detection for Cs 134 and 137 in food products (Table TS.4.10-2; page 1 of 2).
3. TS.4.10 - Radiation Environmental Monitoring Program - Delete Figures TS.4.10-1 and TS.4.10-2.
4. TS.6.1 - Administrative Controls Organization - Change the title of the Nuclear Engineering department head from Senior Nuclear Engineer to Superintendent Nuclear Engineering appearing in the plant organization chart of the technical specification (Figure TS.6.1-2).
5. TS.3.5 - A wording change involving operator action related to the number of operable instrumentation channels associated with the containment ventilation isolation system. The change clarifies the purge valve position during fuel handling while the plant is shutdown having no effect when the plant is above cold shutdown (Table TS.3.5-4).
6. The licensee reviewed the TS for typographical and spelling errors. The following corrections were proposed based on the review.
 - a. Correct typo on page TS-iv line 6.1-1 by changing "On-site to "On-Site".
 - b. Correct typo in TS 3.1.A.4.c by changing "that" to "than".

- c. Correct typo in TS 3.1.A.4.g by changing "blocks" to "block".
- d. Correct typo in second paragraph on page TS.3.5-3 by changing "exhause" to "exhaust".
- e. Correct typo in TS 3.14.F by changing "Hydant" to "Hydrant".
- f. Correct typo in TS 3.14.F.1.e by changing "house" to "House".
- g. Correct typo in Table TS.4.2-1 by changing "ASME B & PB" to "ASME B & PV".
- h. Correct typo in note at the bottom of Table TS.4.4-1 (pg 4 of 5) by changing "refuleing" to "refueling".
- i. Correct typos on page TS.4.5-4 by changing "Devaiitons" to "Deviations", "throughtout" to "throughout", "presure" to "pressure" and "performance" to "performance".
- j. Correct typo in TS.6.5.B.3 by changing "March 31, 1979" to "March 13, 1980".
- k. Correct typo in TS.6.7.A.5 by changing "Table 4.16.1" to "Table 4.10-1".
- l. Correct typo in TS.6-6 by changing "zirconium reactors" to "zirconium reaction".

Items 1 and 2 above fall into the category where the licensee proposes to expand the scope of limited conditions for plant operation and expand the maintenance surveillance of plant equipment due to the NRC staff imposing additional plant requirements. Items 3 thru 6 above fall in the category of administrative changes related to eliminating areas in the TS that could lead to confusion and inaccuracies. By letter dated July 9, 1984 the licensee has withdrawn the proposed TS related to the surveillance of the toxic gas monitors (i.e., ammonia, formaldehyde and hydrochloric acid).

1. TS 6.5.B.4 - Administrative requirements for Post Accident Sampling - NUREG-0737 Items II.B.3 and II.F.1.2

The licensee has provided a post accident sampling system (PASS) that was designed based on the criteria guidelines of NUREG-0737 Item II.B.3. PASS permits the licensee to promptly obtain reactor coolant and containment atmosphere samples under accident conditions. The samples are then analyzed for certain radionuclides (i.e., noble gases, iodine, cesiums and nonvolatile isotopes) to determine the degree of core damage. By letter dated November 23, 1983, the NRC staff issued a safety evaluation concluding that the licensee met four of the five criteria and the last remaining criterion dealing with estimating the extent of core damage was found acceptable on an interim basis. By letter dated December 22, 1983, the licensee responded to areas in the safety evaluation requiring clarification. The staff finds the licensee's response to the clarifications acceptable. The procedure for estimating core damage, based on the Westinghouse Owners Group Generic criterion, has been

submitted by the licensee and is under staff review. This is the only remaining open issue related to PASS and has no effect on the proposed administrative requirement associated with PASS that would appear in the TS. The licensee used the staff's model standard technical specifications (STS) as guidance in preparing proposed administrative requirements for PASS. The staff's review of the licensee's proposed TS change shows that the proposed administrative requirements of the proposed TS meet the guidance of the model STS. On this basis, the proposed TSs associated with PASS are acceptable.

The licensee has also proposed TS to sample and analyze plant effluents, NUREG-0737, Item II.F.1.2. The proposed TS are consistent with the guidance of the model STS and are, therefore, acceptable.

2. TS.4.10 - Radiation Environmental Monitoring Program changing the maximum lower limit of detection (LLD) for Cs 134 and 137 (Table TS.4.10-2 Page 1 of 2)

The licensee proposed a change to Table TS.4.10-2 dealing with the maximum lower limit of detection (LLD) for Cesium 134 and 137 in analyzing for the presence of these nuclides in food products. Amendment Nos. 59 and 53 issued by letter dated October 21, 1982 contained an error regarding the maximum LLD requirement for the radioanalysis of Cesium 134 and 137. The change would lower the maximum LLD from the existing 80 to 60 PCi/Kg wet for Cs 134 and Cs 137 which would agree with the licensee's existing plant procedures. The proposed change would be more restrictive than the existing requirement, thus increasing the level of plant safety. On this basis, the proposed change to Table TS 4.10-2 is acceptable.

3. TS.4.10 - Radiation Environmental Program Figures TS.4.10-1 and TS.4.10-2

The licensee proposed to correct an error related to Amendment Nos. 59 and 53 issued by our letter dated October 21, 1982 which consisted of deleting Figure TS.4.10-1 and TS.4.10-2. This is considered an administrative error in that the deletion of Figures TS.4.10-1 and TS.4.10-2 were to be part of Amendment Nos. 59 and 53 but were inadvertently omitted. Figures TS.4.10-1 and TS.4.10-2 show the locations of the radiation environmental monitors in the surrounding area of the plant site. The locations of these radiation environmental monitors are identified in greater detail in Table 4.10-1. Therefore, Figures TS.4.10-1 and TS.4.10-2 are no longer needed and serve no useful purpose in the TS. On this basis, the staff finds the proposed change of deleting these figures to be acceptable.

4. TS.6-1 - Administrative Controls Plant Site Organization

The licensee proposed to change the title from "Senior Nuclear Engineering" to "Superintendent Nuclear Engineering" in the title block of TS Figure TS.6.1-2. The title change would make the title appearing in the TS figure agree with the title existing in the actual plant organization. This change is administrative in nature and has no effect on the management function, the

authority or the responsibility of the position identified in the figure. On this basis, the staff concludes that the change will not reduce the level of the plant safety and therefore is acceptable.

5. TS.3.5 - Instrument Operating Conditions for Isolation Functions
(Table TS.3.5-4)

The licensee proposes to modify the action statement for the containment ventilation isolation system when a certain minimum number of operable channels cannot be met during the refueling outages. The proposed change would affect the wording appearing in the action column for Item 2, Containment Ventilation Isolation, in Table TS.3.5.4. The present wording requires that the inservice containment purge and inservice purge valves be closed when one train of the containment ventilation isolation is taken out of service for maintenance. The maintenance of this ventilation system is normally performed during a refueling outage. The proposed change clarifies the requirement so that the main purge and inservice purge valve would be closed only during the fuel handling phase of the refueling outage if the minimum number of operable channels of the containment ventilation isolation system are not met. It was never the intent of the staff to have the action statement effective during other periods of the refueling outage since the containment atmosphere is susceptible to contamination only during the fuel handling phase of the outage. The staff agrees with the licensee that it is undesirable to close the purge and inservice purge valves because eventually such a condition would lead to a degradation of the containment atmosphere that could be detrimental to operating personnel. The staff considers the proposed change a clarification of the purge and inservice purge valve position during refueling outages which has no effect when the plant is above cold shutdown and therefore does not change the level of plant safety. On this basis, the staff finds the proposed change acceptable.

6. Typographical corrections and misspelled words throughout TSs

The licensee requested change throughout the TS involving typographical correction and misspelled words which was the result of a review of the TS the purpose of which was to uncover such errors. The findings resulting from the review are as follows.

- a. Correct typo on page TS-iv line 6.1-1 by changing "On-site to "On-Site".
- b. Correct typo in TS 3.1.A.4.c by changing "that" to "than".
- c. Correct typo in TS 3.1.A.4.g by changing "blocks" to "block".
- d. Correct typo in second paragraph on page TS.3.5-3 by changing "exhause" to "exhaust".
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- g. Correct typo in Table TS.4.2-1 by changing "ASME B & PB" to "ASME B & PV".

- h. Correct typo in note at the bottom of Table TS.4.4-1 (pg 4 of 5) by changing "refuleing" to "refueling".
- i. Correct typos on page TS.4.5-4 by changing "Devaiatons" to "Deviations", "throughtout" to "throughout", "presure" to "pressure" and "performance" to "performance".
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The proposed typographical changes b, c, d, e, and i listed above do not appear in the TSs located at our office and therefore these corrections would apply only to the TSs located at the licensee's offices. All other corrections listed above would be made to the TSs located at NRC and the licensee's offices. Proposed change item l above has been added to the list by the staff. The staff has reviewed all of these proposed changes and agrees with the licensee that these changes are merely corrections of misspelled words and typographical errors. These corrections have no effect on the TS requirements nor do they change the intent of the TS. On this basis, the staff finds the proposed changes acceptable.

NUREG-0737 Item III.D.3.4, Control Room Habitability, requires licensees to assure that control room operators are adequately protected against the effects of accidental release of toxic and radioactive gases. By letter of April 9, 1982, the staff found the licensee's response to Item III.D.3.4 in NUREG-0737 acceptable. The staff's acceptance of these requirements was predicated on the proper installation and maintenance of the toxic gaseous detection system that monitors ammonia, formaldehyde and hydrochloric acid. By letter dated July 9, 1984 the licensee informed the staff that a new study for estimating incapacitation times following exposure to toxic gases (i.e., ammonia, formaldehyde and hydrochloric acid) indicates that existing detection systems for these toxic gases are no longer necessary. Consequently, the licensee withdrew the proposed technical specifications change request related to the toxic gas monitoring system (i.e., Item 2 of TS change requested by letter dated April 10, 1984). The staff is presently reviewing this study that was performed by Bechtel Corporation under contract to the licensee. The licensee is requested to maintain the toxic gaseous detection systems in an operable condition until such time that the staff completes the evaluation of the licensee's submittal.

Environmental Consideration

The part of the amendment dealing with correcting errors in the radiation environmental monitoring program technical specifications involves an

administrative change. Accordingly, this part of the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). The remaining parts of the amendments involve a change in the installation or use of a facility component located within the restricted area or a change to a surveillance requirement. The staff has determined that the amendments involve no significant increase in the amounts of any effluents that may be released and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, the remaining parts of the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR §51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

Conclusion

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: September 12, 1984.

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