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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 63 AND 57

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 October 29, 1982, Northern States Power Company (NSP or 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 propose changes in the Technical Specifications (TS) in the following areas.

1. TS 3.6 and Table TS 4.4-1, Containment Ventilation System
2. TS 3.8, Refueling and Fuel Handling
3. TS 3.1.2, Snubbers
4. TS 3.15, Event Monitoring Instrumentation
5. TS 4.5, Engineered Safety Feature

## 1. TS 3.6 and Table TS 4.4-1, Containment Ventilation System

By our letter dated September 9, 1982 related to the containment purge issue B-24 and NUREG-0737 Item II.E.4.2, we requested the licensee to propose changes to the TS as discussed in our safety evaluation. This proposed TS is in response to our request. Proposed changes to Table TS 4.4-1, which are found acceptable, are addressed in our safety evaluation (note part 2 IV) issued by letter dated February 23, 1983 for Amendment Nos. 62 and 56. The proposed TS change TS 3.6 requires the double gasketed blind flanges at the 36 inch and the 18 inch purge systems to be in place whenever the reactor is above cold shutdown. In addition, the flange seals are to be subjected to a Type B leak test as specified in 10 CFR Part 50 Appendix J when the

blind flanges are removed during cold shutdown and during each refueling shutdown prior to returning the reactor to power operation. The proposed TS also requires that a Type C leak test, as prescribed by 10 CFR Part 50 Appendix J be performed on the purge valves prior to operating the 18 inch containment inservice purge system for plant safety reasons.

Our technical basis for requiring the blind flanges and testing of the purge valves in the 18 inch purge system is discussed in Sections II.B and II.C.2 of our Safety Evaluation issued to the licensee by letter dated September 9, 1982.

We have reviewed the proposed TS and except for leak testing the blind flanges after purging (3.6.A.7.c.4) we find the licensee has adequately addressed the request in our letter dated September 9, 1982. The leak rate testing requirement of the blind flanges after purging was inadvertently omitted by the licensee. The proposed change was modified to include this omission which was discussed with and agreed to by the licensee. On this basis, we find the proposed TS change acceptable.

2. TS 3.8 - Refueling and Fuel Handling

The existing TS 3.8.A.7 is as follows:

> If the water level above the top of the reactor vessel flange is less than 20 feet, except when the cavity is being drained for head replacement or control rod latching and unlatching operations, both residual heat removal loops shall be operable.

The licensee proposes to delete the phrase "when the cavity is being drained for head replacement". By deleting this phrase, the licensee is required to have both residual heat removal loops operable during periods when the reactor vessel head is being reinstalled and the water level is less than 20 feet above the reactor vessel flange. Having both residual heat removal loops operable when there is less than 20 ft of water above the reactor vessel flange ensures that a single failure of one operating loop will not result in a complete loss of residual heat removal capability. The licensee's purpose for requesting this change is 1) to clarify the requirement of operability of both residual heat removal during the control rod latching and unlatching operation and the reactor head replacement operation since these two operations are performed in series and the elapsed time between them could be lengthy; and 2) the requirements of the proposed change are consistent with those of the standard technical specifications and represent an improvement in the requirements over that presently existing in the technical specifications.

Based on our review, we agree with the licensee that the proposed change clarifies the operability status of the residual heat removal loops during reactor vessel head replacement and control latching and unlatching operations and the change would result in meeting the objectives of the standard TS.

Based on this evaluation, we find the proposed change does not reduce the level of plant safety and does clarify the requirement. Therefore we find the proposed change acceptable.

In addition, the licensee proposes to correct a typographical error appearing in the basis of TS 3.8 regarding the adsorber and the discussion of charcoal efficiency testing. We have reviewed this typographical correction and find that the proposed correction does not change any of the TS requirements nor the intent of the statement that is affected by this proposed correction. Since this change serves only to correct the error as described above, it does not involve significant new safety information of a type not considered by a previous Commission safety review of the facility. We therefore find this proposed change to correct the typographical error acceptable.

3. TS Table 3.12-1 - Safety Related Snubbers

The licensee proposes additions and corrections to TS Table 3.12-1 which lists hydraulic snubbers related to safety systems. TS 3.12 establishes the operability requirements of the safety related snubbers to ensure structural integrity of safety related systems when the reactor is above cold shutdown. TS Table 3.12-1 identifies the snubbers, by number and plant location, that must meet the operability requirements. The proposed change includes corrections that resulted from a plant audit to have the table agree with as-built field conditions. This phase of the proposed change merely serves to clarify and to assure that there will not be any misinterpretations when the table is compared to the actual snubber locations throughout the plant.

The proposed additonal snubbers shown in Table TS 3.12-1 resulted from changes to the pipe support systems related to the issues raised in I&E Bulletins 79-02 and 79-14. Specifically, I&E Bulletin 79-02 requested all licensees to review pipe support systems with concrete expansion anchor bolts to assure the designs meet the criterion for seismic

category I systems as defined by Regulatory Guide 1.29, "Seismic Design Classification, Revision 1," dated August 1973, or as defined in the applicable FSAR. I&E Bulletin 79-14 requested all licensees to verify that seismic analysis applies to the actual field configurations of safety-related pipe systems. Therefore results of these reviews identified additional snubbers associated with the main steam lines from the steam generators for both units that must be operable to assure safe reactor operations.

Based on the above, we conclude that this proposed change improves the level of plant safety and therefore is acceptable.

4. TS 3.15 - Event Monitoring Instrumentation

The licensee proposes to place limiting conditions for operation and surveillance requirements in the TS for the radiation monitoring instrumentations as required by NUREG-0737 Items II.F.1.1 and II.F.1.2. A post implementation review of these two items was performed by Region III and Report Nos. 50-282/8203, 50-306/8203, 50-282/8207 and 50-306/8207 addressing these items were issued on February 25 and June 4, 1982, respectively. These reports concluded that the licensee meets the objectives of NUREG-0737 Items II.F.1.1 and II.F.1.2. By letter dated November 9, 1981 we provided the licensee a model TS that could be used as guidance in preparing the TSs for Items II.F.1.1 and II.F.1.2. Based on our review, we conclude that the licensee's proposed TS changes, except for the surveillance requirements in TS Table 4.1-1, are within these guidelines. The licensee proposed surveillance for the radiation monitoring instrumentation that requires a monthly check and a calibration check during each refueling outage but no functional test nor any response test. We agree with the licensee that a response test does not serve a useful purpose and therefore is not applicable. However, in order to meet the objective of the model TS, the licensee's proposed change was modified to include a monthly functional test and a daily check. This modification to the proposed change was discussed with and agreed to by the licensee. On this basis, we find the proposed TSs related to the limiting conditions for operations and the surveillance requirements for NUREG-0737, Items II.F.1.1 and II.F.1.2 acceptable.

5. TS 4.5 - Engineered Safety Feature

The licensee proposes to revise TS 4.5.A.5(b) to read, "At least once every 18 months, subject each diesel engine to a thorough inspection in accordance with procedures prepared in conjunction with the manufacturer's recommendations for this class of standby service". The existing TS states that each diesel engine shall be inspected at each refueling shutdown. The purpose of the proposed TS change is to clarify the inspection interval since the Prairie Island Nuclear Generating Plant has two refueling shutdowns each year. The existing requirement can be interpreted to mean that each diesel engine would be inspected every six months since they service both units. Such an interpretation is in conflict with TS 4.6 "Periodic Testing of Emergency Power System" which requires an 18 month inspection interval for this component. The 18 month periodic testing of the diesel generators and engines is a standard requirement appearing in our standard TS. In addition the diesel engines are tested at monthly intervals and during each refueling shutdown to satisfy the requirements of TS 4.5.A.5(a) and 4.5.B.1(b). Therefore, the engines are tested 14 times per year which would give early indication of a potential problem.

We have reviewed this change and find that neither the TS requirements nor objectives of what now exists in the TS are affected by the proposed change. Since this proposed change serves to correct a conflict that exists in the TS as described above, it does not involve significant new safety information of a type not considered by a previous Commission safety review of the facility. We therefore find the proposed change acceptable.

Environmental Consideration

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated, do not create the possibility of an accident of a type different from any evaluated previously, and do not involve a significant reduction in a margin of safety, the amendments do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: March 23, 1983

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