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Northern States Power Company

414 Nicol Mall
Minneapolis, Minnesota 55401-1927
Telephone (612) 330-5500

U S Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 License Nos. DPR-42
50-306 DPR-60

Request for Regional Temporary Waiver of Compliance to
Auxiliary Feedwater Surveillance Requirements

The purpose of this letter is to confirm the results of a teleconference between Northern States Power Company and the NRC Staff on June 4, 1992, in which Northern States Power requested a Regional Waiver of Compliance from the Auxiliary Feedwater System surveillance test requirements of Prairie Island Technical Specification Section 4.8.A.8.

As a result of not completing all of the individual surveillance test requirements specified in Section 4.8.A.8, all of the auxiliary feedwater pumps on both Prairie Island units were declared inoperable at 1055 on June 4, 1992. A Unit 2 auxiliary feedwater pump was subsequently returned to operable status at 1232 on June 4, 1992. Northern States Power requests a 24 hour delay in the completion of the test requirements as specified in Specification 4.8.A.8 and operability verification prior to the application of the shutdown requirements of Specification 3.0.C for Unit 1.

Requirements for Which Relief is Requested

Section 4.8.A.8 of the Prairie Island Technical Specifications requires verification, at least once every 18 months during shutdown, that each auxiliary feedwater pump starts as designed automatically and each automatic valve in the flow path actuates to its correct position upon receipt of each auxiliary feedwater actuation test signal. These surveillance requirements were incorporated into the Prairie Island Technical Specifications by License Amendment Nos. 46 and 40, dated March 2, 1981.

Circumstances Leading to Request and Need for Prompt Action

During a verification of compliance with the Auxiliary Feedwater System surveillance testing requirements, it was identified on June 4, 1992 that a portion of the surveillance testing required by Section 4.8.A.8 had not been adequately tested within the required time frame. Based on incomplete surveillance testing, both auxiliary feedwater pumps on each unit were declared inoperable at 1055 on June 4, 1992. A Unit 2 auxiliary feedwater pump was subsequently returned to operable status at 1232 on June 4, 1992.

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There is no action statement specified in Section 3.4 of the Prairie Island Technical Specifications for the condition where both auxiliary feedwater pumps on a unit are inoperable. Therefore, the requirements of Specification 3.0.C must be applied, which provides one hour to prepare to shutdown and an additional six hours to reach hot shutdown. Currently, both units are at full power. The proposed Temporary Waiver of Compliance is necessary to avoid the initiation of a shutdown of Unit 1 at 1555 on June 4, 1992.

Due to the nature of a missed surveillance event, it was not possible to foresee the occurrence of this event and take measures to avoid it. Due to the short time duration allowed by Specification 3.0.C, it is not possible to complete the required surveillance testing and operability verification prior to the required shutdown of Unit 1. For these reasons, it was not possible to avoid the submittal of this request for a Temporary Waiver of Compliance.

Evaluation of Safety Significance and Potential Consequences

Generic Letter 87-09, "Sections 3.0 and 4.0 of the Standard Technical Specifications (STS) on the Applicability of Limiting Conditions for Operation and Surveillance Requirements", provided guidance on improvements to Section 4.0 of the Standard Technical Specifications which could be voluntarily adopted by licensees. One of the improvements described in Generic Letter 87-09 revised Standard Technical Specification 4.0.3 to clarify when a missed surveillance constitutes a violation of the operability requirements of a Limiting Condition for Operation and to clarify the applicability of the action requirements and the time during which the limits apply. The revised Specification reads as follows:

"Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.2, shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours."

The proposed Temporary Waiver of Compliance conforms with the guidance provided in this revision to Standard Technical Specification 4.0.3.

It is overly conservative to assume that systems or components are inoperable when a surveillance requirement has not been performed. The opposite is in fact the case; the vast majority of surveillances demonstrate that systems or components in fact are operable. When a surveillance has been missed, it is primarily a question of operability that has not been verified by the performance of the required surveillance.

The NRC Staff concluded in Generic Letter 87-09, after taking several factors into account, that 24 hours would be an acceptable time limit for completing a missed surveillance when the allowed out of service times of the action requirements are less than this time limit or when shutdown action

requirements apply. The NRC Staff concluded that the 24 hour time limit would balance the risks associated with an allowance for completing the surveillance within this period against the risks associated with the potential for a plant upset and challenge to safety systems when the alternative is a shutdown to comply with action requirements before the surveillance can be completed.

Discussion of Compensatory Actions

Even though the Unit 1 auxiliary feedwater pumps have been declared inoperable, the pumps and their actuation functions which have been successfully tested in accordance with Specification 4.8.A.8, remain available and capable of responding to any plant transient requiring auxiliary feedwater. There is a high probability that all pump actuation functions are fully operable. If for any reason a component is found to be inoperable during the performance of the Auxiliary Feedwater System surveillance testing, actions will be taken immediately to return the component to operable status.

Even though there is a high probability that the Auxiliary Feedwater System will function as designed, an operator has been positioned in the control room for manual actuation of the Auxiliary Feedwater System if necessary.

Justification of Duration of the Request

The proposed Temporary Waiver of Compliance requests a 24 hour delay in the shutdown requirements of Specification 3.0.C. As discussed above, this delay conforms with the guidance provided in Generic Letter 87-09. The proposed 24 hour delay also provides adequate time to perform the required testing in a controlled and safe manner and to review and verify that previous surveillance testing, in addition to the testing performed on June 4, 1992, are adequate to assure that the requirements of Specification 4.8.A.8 have been met.

Significant Hazards Consideration Evaluation

The proposed changes to the Operating License have been evaluated to determine whether they constitute a significant hazards consideration. This analysis is provided below:

1. The proposed Temporary Waiver of Compliance will not involve a significant increase in the probability or consequences of an accident previously evaluated.

Even though the Unit 1 auxiliary feedwater pumps have been declared inoperable, the pumps and their actuation functions which have been successfully tested in accordance with Specification 4.8.A.8, remain available and capable of responding to any plant transient requiring auxiliary feedwater. There is a high probability that all pump actuation functions are fully operable.

The proposed short duration of continued plant operation with the Unit 1 Auxiliary Feedwater System potentially degraded will not significantly affect the probability of an accident.

Therefore, the proposed Temporary Waiver of Compliance will not significantly affect the probability or consequences of an accident previously evaluated.

2. The proposed Temporary Waiver of Compliance will not create the possibility of a new or different kind of accident from any accident previously analyzed.

There are no new failure modes or mechanisms associated with the proposed Temporary Waiver of Compliance. The proposed Temporary Waiver of Compliance does not involve any modification of operational limits.

The proposed delay for completion of the missed surveillance testing is consistent with the NRC Staff guidance provided by Generic Letter 87-09. The NRC Staff concluded in Generic Letter 87-09, after taking several factors into account, that 24 hours would be an acceptable time limit for completing a missed surveillance when the allowed out of service times of the action requirements are less than this time limit or when shutdown action requirements apply.

Since the proposed changes conform with the guidance in Generic Letter 87-09, and because the Unit 1 auxiliary feedwater pumps and their actuation functions remain available and capable of responding to any plant transient requiring auxiliary feedwater the proposed Temporary Waiver of Compliance does not create the possibility of a new or different kind of accident from any previously evaluated, and the accident analyses presented in the Updated Safety Analysis Report will remain bounding.

3. The proposed Temporary Waiver of Compliance will not involve a significant reduction in the margin of safety.

The proposed delay for completion of the missed surveillance testing is consistent with the NRC Staff guidance provided by Generic Letter 87-09. The NRC Staff concluded in Generic Letter 87-09, after taking several factors into account, that 24 hours would be an acceptable time limit for completing a missed surveillance when the allowed out of service times of the action requirements are less than this time limit or when shutdown action requirements apply. The NRC Staff concluded that the 24 hour time limit would balance the risks associated with an allowance for completing the surveillance within this period against the risks associated with the potential for a plant upset and challenge to safety systems when the alternative is a shutdown to comply with action requirements before the surveillance can be completed.

Therefore, the proposed Temporary Waiver of Compliance will not result in any reduction in the plant's margin of safety.

Based on the evaluation described above, Northern States Power Company has determined that operation of the Prairie Island Nuclear Generating Plant in accordance with the proposed Temporary Waiver of Compliance does not involve any significant hazards considerations as defined by NRC regulations.

Environmental Assessment

The proposed Temporary Waiver of Compliance does not change effluent types or total effluent amounts nor does it involve an increase in power level. Therefore, this change will not result in any significant environmental impact.

Operations Committee Review and Approval

The Plant Operations Committee has reviewed and approved the proposed Temporary Waiver of Compliance.

Please contact us if you have any questions related to the proposed Temporary Waiver of Compliance.



Thomas M Parker
Manager
Nuclear Support Services

- c: Regional Administrator - Region III, NRC
- Senior Resident Inspector, NRC
- NRR Project Manager, NRC
- J E Silberg