



JUL 11 2008

L-PI-08-046
10 CFR 50.90

U S Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Prairie Island Nuclear Generating Plant Units 1 and 2
Dockets 50-282 and 50-306
License Nos. DPR-42 and DPR-60

Application for Technical Specification Improvement to Revise Actions for One Steam Supply to Turbine Driven Auxiliary Feedwater (AFW) Pump Inoperable Using Consolidated Line Item Improvement Process

In accordance with the provisions of 10 CFR 50.90 of Title 10 of the Code of Federal Regulations (10 CFR), Nuclear Management Company, LLC (NMC) is submitting a request for an amendment to the Technical Specifications (TS) for the Prairie Island Nuclear Generating Plant (PINGP) Units 1 and 2.

The proposed amendment establishes Conditions, Required Actions, and Completion Times in the PINGP TS for the Condition where one steam supply to the turbine driven Auxiliary Feedwater (AFW) pump is inoperable concurrent with an inoperable motor driven AFW train. In addition, this amendment establishes changes to the TS that establish specific Actions for when the turbine driven AFW train is inoperable either (a) due solely to one inoperable steam supply, or (b) due to reasons other than one inoperable steam supply. The change is consistent with NRC-approved Technical Specification Task Force (TSTF) Traveler, TSTF-412, Revision 3, "Provide Actions for One Steam Supply to Turbine Driven AFW/EFW Pump Inoperable." The availability of this technical specification improvement was announced in the Federal Register on July 17, 2007 as part of the consolidated line item improvement process (CLIIP).

Enclosure 1 provides a description of the proposed change and confirmation of applicability. Enclosure 2 provides the existing TS pages marked-up to show the proposed change. Enclosure 3 provides the existing TS Bases pages marked-up to reflect the proposed change.

NMC requests approval of the proposed license amendment within one calendar year of the submittal date, with the amendment being implemented within 90 days.

In accordance with 10 CFR 50.91, a copy of this application, with enclosures, is being provided to the designated State of Minnesota Official.

A001
NRB

Please address any comments or questions regarding this license amendment request to Marlys Davis at 651-388-1121.

Summary of Commitments

This letter contains no new commitments and no revisions to existing commitments.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on JUL 11 2008



Michael D. Wadley
Site Vice President, Prairie Island Nuclear Generating Plant Units 1 and 2
Nuclear Management Company, LLC

cc: Administrator, Region III, USNRC
Project Manager, Prairie Island, USNRC
Resident Inspector, Prairie Island, USNRC
State of Minnesota

Enclosures:

1. Description and Assessment
2. Proposed Technical Specification Changes
3. Proposed Technical Specification Bases Changes

Enclosure 1

Description and Assessment

1.0 DESCRIPTION

The proposed license amendment establishes a new Completion Time in the Prairie Island Nuclear Generating Plant (PINGP) Technical Specifications (TS) Section 3.7.5 where one steam supply to the Turbine Driven Auxiliary Feedwater (AFW) pump is inoperable concurrent with an inoperable motor driven AFW train. This amendment also establishes specific Conditions and Action requirements for when the turbine driven AFW train is inoperable either (a) due solely to one inoperable steam supply, or (b) due to reasons other than one inoperable steam supply

The changes are consistent with NRC approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-412, Revision 3, "Provide Actions for One Steam Supply to Turbine Driven AFW/EFW Pump Inoperable." The availability of this technical specification improvement was announced in the Federal Register (FR) on July 17, 2007 (FR 39091) as part of the consolidated line item improvement process (CLIIP).

2.0 ASSESSMENT

2.1 Applicability of Published Safety Evaluation

The Nuclear Management Company, LLC (NMC) has reviewed the safety evaluation published on July 17, 2007 (FR 39091) as part of the CLIIP. This verification included a review of the NRC staff's evaluation as well as the supporting information provided to support TSTF-412, Revision 3. NMC has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to Prairie Island Nuclear Generating Plant (PINGP) Units 1 and 2 and justify this amendment for the incorporation of the changes to the PINGP Technical Specifications.

2.2 Optional Changes and Variations

NMC is proposing a variation from the technical specification and bases changes described in TSTF-412, Revision 3, published in the Federal Register on July 17, 2007 (FR 39091).

PINGP's AFW system varies slightly from the AFW system described in TSTF-412, Revision 3. The AFW system is configured into two redundant trains. One train has a turbine driven AFW pump and the other train has a single motor driven AFW pump. Each AFW pump feeds the designated unit's two steam generators with 100% of the required flow.

Since PINGP does not have two motor driven AFW pumps per unit, the TSTF provisions regarding two inoperable motor driven AFW pumps are not applicable and have not been included in the TS and bases changes.

3.0 REGULATORY ANALYSIS

A description of the proposed change and its relationship to applicable regulatory requirements and guidance was provided in the Notice of Availability published on July 17, 2007 (FR 39091).

3.1 No Significant Hazards Consideration Determination

NMC has reviewed the proposed no significant hazards consideration determination published on July 17, 2007 (FR 39091) as part of the CLIIP. NMC has concluded that the proposed determination presented in the notice is applicable to PINGP and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

3.2 Verification and Commitments

There are no new regulatory commitments associated with this proposed change.

4.0 ENVIRONMENTAL EVALUATION

NMC has reviewed the environmental evaluation included in the model safety evaluation published in the Federal Register on July 17, 2007 (FR 39091) as part of the CLIIP. NMC has concluded that the NRC staff's findings presented in that evaluation are applicable to PINGP and the evaluation is hereby incorporated by reference for this application.

Enclosure 2

Proposed Technical Specification Changes (markup)

Technical Specification Page

3.7.5-2
3.7.5-3
3.7.5-4

3 pages follow

ACTIONS

-----NOTE-----

LCO 3.0.4.b is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. <u>Turbine driven AFW train inoperable due to one inoperable steam supply. One steam supply to turbine driven AFW pump inoperable.</u></p> <p><u>OR</u></p> <p>-----NOTE----- Only applicable if MODE 2 has not been entered following refueling.</p> <p>----- One turbine driven AFW pump inoperable in MODE 3 following refueling.</p>	<p>A.1 Restore affected equipment to OPERABLE status.</p>	<p>7 days</p> <p><u>AND</u></p> <p>10 days from discovery of failure to meet the LCO</p>
<p>B. One AFW train inoperable in MODE 1, 2, or 3 for reasons other than Condition A.</p>	<p>B.1 Restore AFW train to OPERABLE status.</p>	<p>72 hours</p> <p><u>AND</u></p> <p>10 days from discovery of failure to meet the LCO</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p><u>C.</u> <u>Turbine driven AFW train inoperable due to one inoperable steam supply.</u></p> <p><u>AND</u></p> <p><u>Motor driven AFW train inoperable.</u></p>	<p><u>C.1</u> <u>Restore the steam supply to the turbine driven train to OPERABLE status.</u></p> <p><u>OR</u></p> <p><u>C.2</u> <u>Restore the motor driven AFW train to OPERABLE status.</u></p>	<p><u>24 hours</u></p> <p><u>24 hours</u></p>
<p><u>€D.</u> <u>Required Action and associated Completion Time for of Condition A, B or CB not met.</u></p> <p><u>OR</u></p>	<p><u>€D.1</u> <u>Be in MODE 3.</u></p> <p><u>AND</u></p> <p><u>€D.2</u> <u>Be in MODE 4.</u></p>	<p><u>6 hours</u></p> <p><u>12 hours</u></p>
<p><u>DE.</u> <u>Two AFW trains inoperable in MODE 1, 2, or 3 for reasons other than Condition C.</u></p>	<p><u>DE.1</u> -----NOTE-----</p> <p>LCO 3.0.3 and all other LCO Required Actions requiring MODE changes are suspended until one AFW train is restored to OPERABLE status.</p> <p>-----</p> <p>Initiate action to restore one AFW train to OPERABLE status.</p>	<p><u>Immediately</u></p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<u>EE</u> . Required AFW train inoperable in MODE 4.	<u>EE</u> .1 Initiate action to restore AFW train to OPERABLE status.	Immediately

Enclosure 3

Proposed Technical Specification Bases Changes (markup)

Technical Specification Bases Page

B 3.7.5-1

B.3.7.5-6

B.3.7.5-7

B.3.7.5-8

B.3.7.5-9

B.3.7.5-10

6 pages follows

B 3.7 PLANT SYSTEMS

B 3.7.5 Auxiliary Feedwater (AFW) System

BASES

BACKGROUND The AFW System automatically supplies feedwater to the steam generators to remove decay heat from the Reactor Coolant System upon the loss of normal feedwater supply.

The AFW system is configured into two redundant trains. One train has a turbine driven AFW pump; the other has a motor driven AFW pump. Each AFW pump feeds the designated unit's two steam generators. In addition, each motor driven pump has the capability to be realigned locally to feed the other unit's steam generators.

The AFW pumps take suction from:

- a. The nonsafety-related condensate storage tank (CST) supply header (LCO 3.7.6, Condensate Storage Tank); or
- b. The safety-related Cooling Water System (LCO 3.7.8, Cooling Water (CL) System).

The AFW pumps supply water to the steam generator secondary side via connections to the main feedwater (MFW) piping adjacent to the steam generators inside containment.

The steam generators function as a heat sink for core decay heat. The heat load may be dissipated by releasing steam to the atmosphere from the steam generators via the main steam safety valves (MSSVs) (LCO 3.7.1, Main Steam Safety Valves), steam generator power operated relief valves (SG PORVs) (LCO 3.7.4, Steam Generator Power Operated Relief Valves), or steam dump valve.

If the main condenser is available, steam may be released via the steam dump valve. Each unit's AFW System consists of:

BASES (continued)

APPLICABILITY In MODES 1, 2, and 3, the AFW System is required to be OPERABLE in the event that it is called upon to provide heat removal. In addition, the AFW System is required to supply enough makeup water to replace the steam generator secondary inventory, lost as the unit cools to MODE 4 conditions.

In MODE 4 the AFW System may be used for heat removal via the steam generators.

In MODE 5 or 6, the steam generators are not normally used for heat removal, and the AFW System is not required to perform a safety function.

ACTIONS

A Note prohibits the application of LCO 3.0.4.b to an inoperable AFW train. There is an increased risk associated with entering a MODE or other specified condition in the Applicability with an AFW train inoperable and the provisions of LCO 3.0.4.b, which allow entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, should not be applied in this circumstance.

A.1

If ~~one of the two steam supplies to the turbine driven AFW train is inoperable due to one inoperable steam supply~~, or if a turbine driven pump is inoperable for any reason while in MODE 3 immediately following refueling, action must be taken to restore the inoperable equipment to an OPERABLE status within 7 days. The 7 day Completion Time is reasonable, based on the following reasons:

- a. For the inoperability of ~~a steam supply to the turbine driven AFW pump due to one inoperable steam supply~~, the 7 day Completion Time is reasonable since there is a redundant steam supply line for the turbine driven pump and the turbine driven train is still capable of performing its specified

BASES

ACTIONS

A.1 (continued)

function for most postulated events.

- b. For the inoperability of a turbine driven AFW pump while in MODE 3 immediately subsequent to a refueling outage, the 7 day Completion Time is reasonable due to the minimal decay heat levels in this situation; and
- c. For both the inoperability of ~~a steam supply line to the turbine driven pump~~ due to one inoperable steam supply and an inoperable turbine driven AFW pump while in MODE 3 immediately following a refueling outage, the 7 day Completion Time is reasonable due to the availability of the redundant OPERABLE motor driven AFW pump, and due to the low probability of an event requiring the use of the turbine driven AFW pump.

The second Completion Time for Required Action A.1 establishes a limit on the maximum time allowed for any combination of Conditions to be inoperable during any continuous failure to meet this LCO.

The 10 day Completion Time provides a limitation time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which Conditions A and B are entered concurrently. The AND connector between 7 days and 10 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.

Condition A is modified by a Note which limits the applicability of the Condition for an inoperable turbine driven AFW pump in Mode 3 when the unit has not entered MODE 2 following a refueling. Condition A allows one AFW train to be inoperable for 7 days vice the 72 hour Completion Time in Condition B. This longer Completion Time is based on the reduced decay heat following refueling and prior to the reactor being critical.

BASES

ACTIONS
(continued)

B.1

With one of the required AFW trains (pump or flow path) inoperable in MODE 1, 2, or 3 for reasons other than Condition A, action must be taken to restore OPERABLE status within 72 hours. This Condition includes the loss of two steam supply lines to the turbine driven AFW pump. The 72 hour Completion Time is reasonable, based on the redundant capabilities afforded by the AFW System, the time needed for repairs, and the low probability of a DBA occurring during this time period.

The second Completion Time for Required Action B.1 establishes a limit on the maximum time allowed for any combination of Conditions to be inoperable during any continuous failure to meet this LCO.

The 10 day Completion Time provides a limitation time allowed in this specified Condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which Conditions A and B are entered concurrently. The AND connector between 72 hours and 10 days dictates that both Completion Times apply simultaneously, and the more restrictive must be met.

C.1 and C.2

With the motor driven AFW train (pump or flow path) inoperable and the turbine driven AFW train inoperable due to one inoperable steam supply, action must be taken to restore the affected equipment to OPERABLE status within 24 hours. Assuming no single active failures when in this condition, the accident (a FLB or MSLB) could result in the loss of the remaining steam supply to the turbine driven AFW pump due to the faulted SG. In this condition, the AFW system may no longer be able to meet the required flow to the SGs assumed in the safety analysis.

BASES

ACTIONS

C.1 and C.2 (continued)

The 24 hour Completion Time is reasonable based on the remaining OPERABLE steam supply to the turbine driven AFW pump and the low probability of an event occurring that would require the inoperable steam supply to be available for the turbine driven AFW pump.

CD.1 and CD.2

When Required Action A.1, ~~or~~ B.1, C.1, or C.2 cannot be completed within the required Completion Time, or if two AFW trains are inoperable in MODE 1, 2, or 3, for reasons other than Condition C the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours, and in MODE 4 within 12 hours.

The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

In MODE 4 with two AFW trains inoperable, operation is allowed to continue because only one motor driven pump AFW train is required in accordance with the Note that modifies the LCO. Although not required, the unit may continue to cool down and initiate RHR.

BASES
ACTIONS

DE.1

If both AFW trains are inoperable in MODE 1, 2, or 3, the unit is in a seriously degraded condition with no safety related means for conducting a cooldown, and only limited means for conducting a cooldown with nonsafety related equipment. In such a condition, the unit should not be perturbed by any action, including a power change, that might result in a trip. The seriousness of this condition requires that action be started immediately to restore one AFW train to OPERABLE status.

Required Action DE.1 is modified by a Note indicating that all required MODE changes ~~or power reductions~~ are suspended until one AFW train is restored to OPERABLE status. In this case, LCO 3.0.3 is not applicable because it could force the unit into a less safe condition.

EF.1

In MODE 4, either the reactor coolant pumps or the RHR Loops can be used to provide forced circulation. This is addressed in LCO 3.4.6, "RCS Loops-MODE 4." With one required AFW train inoperable, action must be taken to immediately restore the inoperable train to OPERABLE status. The immediate Completion Time is consistent with LCO 3.4.6.