



NOV 19 2007

L-PI-07-087
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

Supplement to License Amendment Request (LAR) to Revise Technical Specification (TS) 3.5.3 Operability Requirements for Safety Injection (SI) Subsystem (TAC Nos. MD4209 and MD4210)

Reference: 1. License Amendment Request (LAR) to Revise Technical Specification (TS) 3.5.3 Operability Requirements for Safety Injection (SI) Subsystem, dated January 29, 2007, Accession Number ML070300113.

In Reference 1, Nuclear Management Company, LLC (NMC) submitted an LAR for the Prairie Island Nuclear Generating Plant (PINGP) Units 1 and 2 to revise TS 3.5.3, "ECCS (Emergency Core Cooling Systems) – Shutdown" operability requirements for the SI subsystem by addition of a Limiting Condition for Operation (LCO) Note. Pursuant to telephone discussions with the NRC Staff, this supplement proposes to revise this LAR as discussed in Enclosure 1. NMC submits this supplement in accordance with the provisions of 10 CFR 50.90.

The supplemental information provided in this letter does not impact the conclusions of the Determination of No Significant Hazards Consideration and Environmental Assessment presented in the January 29, 2007 submittal.

In accordance with 10 CFR 50.91, NMC is notifying the State of Minnesota of this LAR by transmitting a copy of this letter and enclosure to the designated State Official.

Please address any comments or questions regarding this LAR supplement to Mr. Dale Vincent, P.E., 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 NOV 19 2007



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

Enclosures (1)

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

Enclosure

Reference 1 proposed to add a Limiting Condition for Operation (LCO) Note to Technical Specification (TS) 3.5.3, "ECCS [Emergency Core Cooling Systems] – Shutdown" which would state conditions for safety injection (SI) operability. This TS change was proposed to allow placement of both SI pump switches in pull to lock (pullout) during all of the applicability of TS 3.5.3, Mode 4 down to 218 °F. As discussed in Reference 1, Exhibit A on pages 4 and 8, this change will reduce the likelihood of a mass injection during water solid conditions which will result in loss of decay heat removal and eliminate difficulties at 218 °F when the plant transitions from TS 3.5.3 to TS 3.4.13, "LTOP – RCSCLT [Low Temperature Overpressure Protection – Reactor Coolant System Cold Leg Temperature] ≤ SI Pump Disable Temperature".

Pursuant to telephone discussions with the NRC Staff, this supplement proposes to revise the LCO Note as shown in Attachments 1 and 3 to this Enclosure; these Attachments supersede in their entirety Attachments 1 and 3 in Reference 1. This supplement also provides in Attachment 2 to this Enclosure, for NRC information, revised Bases which supersede those provided in Attachment 2 in Reference 1.

In lieu of the LCO Note proposed in Reference 1, the Nuclear Management Company (NMC) proposes in this supplement to add an LCO Note stating, "An SI train may be considered OPERABLE when the pump is capable of being manually started from the control room." This proposed Note would allow the pump switch to be in a configuration other than the normal "AUTO" position and the train would be considered operable providing it can be started from the control room. With this change it is clearly understood that the Note only applies to the SI pump. The balance of the SI train will continue to be capable of injecting water into the reactor coolant system since Surveillance Requirement (SR) 3.5.2.1 and SR 3.5.2.3 will continue to require the valves to be aligned for ECCS injection.

With the proposed TS 3.5.3 changes, the plant will be maintained in a safe condition. As discussed in Reference 1, Exhibit A on pages 5 and 6, in Mode 4 the probability of a design basis accident (DBA) is reduced and an event will progress slowly. Since an event progresses slowly, the operators have ample time to manually start the SI pumps. The Updated Safety Analysis Report (USAR) does not evaluate a design basis loss of coolant accident (LOCA) in Mode 4, and thus, there is no basis for requiring automatic actuation of the SI system in Mode 4. As discussed in Reference 1, Exhibit A on pages 6 and 7, the TS do not have any instrumentation required to be operable in Mode 4 to automatically actuate SI. Thus, plant safety is maintained and manually starting the SI pump from the control room is acceptable.

Bases changes have been made to support the proposed TS 3.5.3 changes and are provided in Attachment 2 to this Enclosure for information only. The Bases do not modify TS requirements, but provide information on the reason for the TS requirements

Enclosure

and may provide guidance for compliance with the TS requirements. Since an event progresses slowly in Mode 4, the capability to manually respond to an event from the control room assures that the reactor core is protected. This Bases discussion provides guidance that the SI pump switch may be in pullout and the reason for putting it in this configuration.

The NRC Staff noted that the proposed TS 3.5.3 LCO Note departs from the guidance provided in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants", Revision 3.0. Deviations from the content guidance of NUREG-1431 are justified when the plant design or operating conditions differ from those described in NUREG-1431. PINGP differs from NUREG-1431 in that both SI pumps are required by analysis to be incapable of injecting into the RCS in Mode 4 below 218 °F and Modes 5 and 6 as specified in TS 3.4.13 Applicability. This is sufficiently different from NUREG-1431 that a separate, unique specification, TS 3.4.13, is included in the Prairie Island Nuclear Generating Plant TS.

NMC considered alternative approaches for establishing a regulatory basis for considering an SI pump operable while in the pullout configuration and concluded that NRC approval of an LCO Note in TS 3.5.3 is the preferable method. The changes proposed in this supplement continue to support the original objectives of this license amendment request (LAR) discussed in the first paragraph of this Enclosure. Thus, NMC requests NRC review and approval of the TS 3.5.3 changes presented in this supplement Enclosure and in Attachment 1 and 3 to this supplement Enclosure. The TS changes requested in this LAR supplement do not impact the conclusions of the Determination of No Significant Hazards Consideration and Environmental Assessment presented in the January 29, 2007 submittal.

Reference: 1. License Amendment Request (LAR) to Revise Technical Specification (TS) 3.5.3 Operability Requirements for Safety Injection (SI) Subsystem, dated January 29, 2007, Accession Number ML070300113.

ENCLOSURE, ATTACHMENT 1

Technical Specification Pages (Markup)

3.5.3-1

1 page follows

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

3.5.3 ECCS – Shutdown

LCO 3.5.3 One ECCS train shall be OPERABLE.

-----NOTES-----

1. An RHR train may be considered OPERABLE during alignment and operation for decay heat removal, if capable of being manually realigned to the ECCS mode of operation.
 2. An SI train may be considered OPERABLE when the pump is capable of being manually started from the control room.
-

APPLICABILITY: MODE 4 when both RCS cold leg temperatures are > SI pump disable temperature specified in PTLR.

ACTIONS

-----NOTE-----
LCO 3.0.4.b is not applicable to ECCS safety injection (SI) subsystem.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Required ECCS residual heat removal (RHR) subsystem inoperable.	A.1 Initiate action to restore required ECCS RHR subsystem to OPERABLE status.	Immediately
B. Required ECCS safety injection (SI) subsystem inoperable.	B.1 Restore required ECCS SI subsystem to OPERABLE status.	1 hour

ENCLOSURE, ATTACHMENT 2

Bases Pages (Markup)

(For Information Only)

B 3.5.3-2

1 page follows

BASES (continued)

LCO

In MODE 4, one of the two independent (and redundant) ECCS trains is required to be OPERABLE to ensure that sufficient ECCS flow is available to the core following a DBA.

In MODE 4, an ECCS train consists of an SI subsystem and an RHR subsystem. Each train includes the piping, instruments, and controls to ensure an OPERABLE flow path capable of taking suction from the RWST and transferring suction to the containment sump.

During an event requiring ECCS actuation, a flow path is required to provide an abundant supply of water from the RWST to the RCS via the SI subsystem capable (through manual actions) of injecting into each of the cold leg injection nozzles and reactor vessel upper plenum nozzles. In the long term, a flow path is required to provide recirculation flow via the RHR subsystem from the containment sump into each of the reactor vessel upper plenum nozzles.

This LCO is modified by two Notes. Note 1 that allows an RHR train to be considered OPERABLE during alignment and operation for decay heat removal, if capable of being manually realigned (remote or local) to the ECCS mode of operation and not otherwise inoperable. This allows operation in the RHR mode during MODE 4.

Note 2 allows an SI train to be considered OPERABLE when the pump is capable of being manually started for ECCS injection from the control room. The OPERABLE SI train pump may be rendered incapable of injecting into the RCS due to the switch being placed in pullout which reduces the possibility of inadvertent SI injection with the RCS in a water solid condition during MODE 4 while ensuring adequate injection capability for loss of RCS inventory events.

APPLICABILITY

In MODES 1, 2, and 3, the OPERABILITY requirements for ECCS are covered by LCO 3.5.2.

ENCLOSURE, ATTACHMENT 3

Technical Specification Pages (Retyped)

3.5.3-1

1 page follows

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

3.5.3 ECCS – Shutdown

LCO 3.5.3 One ECCS train shall be OPERABLE.

-----NOTES-----

1. An RHR train may be considered OPERABLE during alignment and operation for decay heat removal, if capable of being manually realigned to the ECCS mode of operation.
 2. An SI train may be considered OPERABLE when the pump is capable of being manually started from the control room.
-

APPLICABILITY: MODE 4 when both RCS cold leg temperatures are > SI pump disable temperature specified in PTLR.

ACTIONS

-----NOTE-----
LCO 3.0.4.b is not applicable to ECCS safety injection (SI) subsystem.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Required ECCS residual heat removal (RHR) subsystem inoperable.	A.1 Initiate action to restore required ECCS RHR subsystem to OPERABLE status.	Immediately
B. Required ECCS safety injection (SI) subsystem inoperable.	B.1 Restore required ECCS SI subsystem to OPERABLE status.	1 hour