



August 18, 2004

NRC-04-101  
10 CFR 50.90

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

KEWAUNEE NUCLEAR POWER PLANT  
DOCKET 50-305  
LICENSE No. DPR-43

**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION RELATED TO  
LICENSE AMENDMENT REQUEST 197 TO THE KEWAUNEE NUCLEAR POWER  
PLANT TECHNICAL SPECIFICATIONS**

- References:
- 1) Letter from Nuclear Management Company, LLC to Document Control Desk, "License Amendment Request 197 to the Kewaunee Nuclear Power Plant Technical Specifications, 3.3.e, Service Water System", dated July 7, 2003. (ML031980490)
  - 2) Letter from John G. Lamb, (NRC) to Thomas Coutu (NMC), "Kewaunee Nuclear Power Plant - Request For Additional Information For Proposed Amendment Request to Revise Technical Specification 3.3.E, "Service Water System" (TAC NO. MB9944)," dated January 21, 2004. (ML040150183)
  - 3) Letter from Nuclear Management Company, LLC to Document Control Desk, "Response To Request For Additional Information Related To License Amendment Request 197 To The Kewaunee Nuclear Power Plant Technical Specifications", dated March 17 2004. (ML040850547)
  - 4) Letter from Thomas Coutu (NMC) to Document Control Desk (NRC), "Response to Request for Additional Information Related to License Amendment Request 197 to The Kewaunee Nuclear Power Plant Technical Specifications", dated May 18, 2004. (ML041480158)

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During conference calls between the Nuclear Regulatory Commission (NRC) staff and the Nuclear Management, LLC, (NMC) staff, the NRC staff requested the Technical Specifications (TS) submitted be reviewed. This review was requested to determine the feasibility of a revision to reduce the complexity and to increase the clarity of the TS submitted in reference 1 and 3. This letter is NMC's response to the NRC's request.

During the review of the service water TS, NMC removed the items included in the proposed TS 3.3.e.3 and replaced these steps with item TS 3.3.e.1.A.3, which stated the operability condition. This change replaces the requirements which stated how the operability of the service water train could be maintained, with a statement that describes the operability requirements for the turbine building header isolation valve, which will maintain the service water train operable.

Enclosure 1 to this letter contains the revised marked up TS pages. Enclosure 2 contains the TS pages as they are requested to be changed. Enclosure 3 contains the associated TS Bases pages; included for information on clarification of the TS.

As the response does not alter the conclusions reached in NMC's submittal of reference 1, the safety analysis, significant hazards determination, and the environmental considerations statements contained in reference 1 are still applicable and support the changes contained herein. Also, this submittal contains no new commitments.

NMC requests approval of this license amendment request in accordance with the date contained in reference 1. If you have any questions concerning this submittal, please contact Mr. Gerald Riste at (920) 388-8424.

I declare under penalty of perjury that the foregoing is true and correct.  
Executed on August 18, 2004.



Thomas Coutu  
Site Vice-President, Kewaunee Nuclear Power Plant  
Nuclear Management Company, LLC

Enclosures (3)

cc: Administrator, Region III, USNRC  
Project Manager, Kewaunee Nuclear Power Plant, USNRC  
Senior Resident Inspector, Kewaunee Nuclear Power Plant, USNRC  
Electric Division, PSCW

**ENCLOSURE 1**

**NUCLEAR MANAGEMENT COMPANY, LLC,  
KEWAUNEE NUCLEAR PLANT, DOCKET 50-305  
REVISED SERVICE WATER ISOLATION LOGIC LAR 197 (TAC MB9944)**

**TECHNICAL SPECIFICATIONS MARKED UP PAGES**

**1 page follows**

e. Service Water System

1. The reactor shall not be made critical unless the following conditions are satisfied, except for LOW POWER PHYSICS TESTS and except as provided by TS 3.3.e.2.
  - A. TWO service water trains are OPERABLE with each train consisting of:
    1. TWO service water pumps
    2. An OPERABLE flow path consisting of all valves and piping associated with the above train of components and required to function during accident conditions. This flow path shall be capable of taking a suction from the forebay and supplying water to the redundant safeguards headers.
    3. An OPERABLE turbine building service water header isolation valve and associated isolation logic capable of closing the header isolation valve, or a closed and deactivated turbine building service water header isolation valve.
  - B. The Forebay Water Level Trip System is OPERABLE.
2. During power operation or recovery from an inadvertent trip, ONE service water train may be inoperable for a period of 72 hours. If OPERABILITY is not restored within 72 hours, then within 1 hour action shall be initiated to:
  - Achieve HOT STANDBY within the next 6 hours.
  - Achieve HOT SHUTDOWN within the following 6 hours.
  - Achieve and maintain Reactor Coolant System  $T_{avg}$  less than 350°F by use of alternate heat removal methods within an additional 36 hours.

**ENCLOSURE 2**

**NUCLEAR MANAGEMENT COMPANY, LLC,  
KEWAUNEE NUCLEAR PLANT, DOCKET 50-305  
REVISED SERVICE WATER ISOLATION LOGIC LAR 197 (TAC MB9944)**

**TECHNICAL SPECIFICATIONS REVISED PAGES**

**1 page follows**

**e. Service Water System**

- 1. The reactor shall not be made critical unless the following conditions are satisfied, except for LOW POWER PHYSICS TESTS and except as provided by TS 3.3.e.2.**
  - A. TWO service water trains are OPERABLE with each train consisting of:**
    - 1. TWO service water pumps**
    - 2. An OPERABLE flow path consisting of all valves and piping associated with the above train of components and required to function during accident conditions. This flow path shall be capable of taking a suction from the forebay and supplying water to the redundant safeguards headers.**
    - 3. An OPERABLE turbine building service water header isolation valve and associated isolation logic capable of closing the header isolation valve, or a closed and deactivated turbine building service water header isolation valve.**
  - B. The Forebay Water Level Trip System is OPERABLE.**
- 2. During power operation or recovery from an inadvertent trip, ONE service water train may be inoperable for a period of 72 hours. If OPERABILITY is not restored within 72 hours, then within 1 hour action shall be initiated to:**
  - Achieve HOT STANDBY within the next 6 hours.**
  - Achieve HOT SHUTDOWN within the following 6 hours.**
  - Achieve and maintain Reactor Coolant System  $T_{avg}$  less than 350°F by use of alternate heat removal methods within an additional 36 hours.**

**ENCLOSURE 3**

**NUCLEAR MANAGEMENT COMPANY, LLC,  
KEWAUNEE NUCLEAR PLANT, DOCKET 50-305  
REVISED SERVICE WATER ISOLATION LOGIC LAR 197 (TAC MB9944)**

**TECHNICAL SPECIFICATIONS REVISED BASES PAGES**

**1 page follows**

The spray additive system may be inoperable for up to 72 hours. The containment spray system would still be available and would remove some iodine from the containment atmosphere in the event of a Design Basis Accident. The 72-hour completion time takes into account the containment spray system capabilities and the low probability of the worst case Design Basis Accident occurring during this period.

One component cooling water pump together with one component cooling heat exchanger can accommodate the heat removal load either following a loss-of-coolant accident or during normal plant shutdown. If, during the post-accident phase, the component cooling water supply were lost, core and containment cooling could be maintained until repairs were effected.<sup>(8)</sup>

A total of four service water pumps are installed and a minimum of two are required to operate during the postulated loss-of-coolant accident. <sup>(9)</sup> The service water valves in the redundant safeguards headers have to be OPERABLE in order for the components that they supply to be considered OPERABLE.

The various trains of equipment referred to in the specifications are separated by their power supplies (i.e.: SI Pump 1A, RHR Pump 1A and Valve SI-4A, etc.). Shared piping and valves are considered to be common to both trains of the systems.

#### Service Water Header Isolation Logic (TS 3.3.e.1.A.3)

The turbine building service water (SW) header isolation logic automatically closes valves SW-4A and SW-4B on a Safety Injection (SI) signal coincident with a service water low-pressure signal. Failure to isolate the turbine building from the service water header during a design basis accident may result in insufficient pressure in the containment fan coil units discharge piping or decreased heat removal capability in other safety-related components. The isolation logic is only required to function for the SW train aligned to the turbine building header during a design basis accident.

The isolation logic is OPERABLE when turbine building service water header isolation valves (SW-4A and SW-4B) are capable of automatically closing from a safety injection signal coincident with a low header pressure signal from the service water header pressure switches. If either input into the isolation logic is inoperable, the isolation function can be returned to OPERABLE status by tripping the affected circuit.

To prevent a change in the valve position by a single active failure when the valve or isolation logic is inoperable, the turbine building service water header isolation valve is deactivated. Removing or interrupting the valves motive force deactivates the isolation valve. De-activation may be accomplished by isolating air to the valve, removing the supply fuse for the solenoid, or any other means for ensuring the valve cannot be affected by a single active failure.

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<sup>(8)</sup> USAR Section 9.3

<sup>(9)</sup> USAR Section 9.6