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SUBJECT: Forwards Amend 55 to Tech Specs & License DPR-54 re  
 compliance w/updated inservice insp program for updating NRC  
 copy of Tech Specs,

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# WISCONSIN PUBLIC SERVICE CORPORATION



P.O. Box 1200, Green Bay, Wisconsin 54305

July 20, 1984

Mr. Don Neighbors  
Project Manager (DOR)  
U. S. Nuclear Regulatory Commission  
7920 Norfolk Avenue  
Bethesda, MD 20014

Dear Mr. Neighbors:

Amendment No. 55 of the KNPP Technical Specifications and Operating License

The NRC has issued Amendment No. 55 to the KNPP Technical Specifications and Operating License. The amendment is in response to Proposed Amendment No. 57, and is effective as of July 3, 1984.

The amendment revises the Technical Specifications as required by 10 CFR 50.55a(g)4(ii) to comply with an updated ISI program. This amendment revises items in the areas of Limiting Conditions for Operation, Surveillance Requirements, and Administrative Controls.

Please follow the instructions on the attached page for updating your copy(s) of the KNPP Technical Specifications. Should you have any questions regarding this amendment, please contact me at (414) 433-1315.

A handwritten signature in cursive script that reads "David W. Sauer".

David W. Sauer  
Nuclear Licensing Supervisor

smv

Attachment

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Handwritten initials "Hoo!"

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physical form for sample analysis or instrument calibration or associated with radioactive apparatus or components:

- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility".
- C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR, Chapter 1: Part 20, Section 30.34 of Part 30 Section 40.41 of Part 40, Section 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensees are authorized to operate the facility at steady state reactor core power levels not in excess of 1650 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 55, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

- (3) The licensee may proceed with and is required to complete the modifications identified in Paragraphs 3.1.1, 3.1.2 and 3.1.4 through 3.1.28, of the Fire Protection Safety Evaluation Report. These modifications shall be completed by the dates specified in Table 3.1. Dates for resolution of items are specified in Table 3.2. In the event that these dates for completion cannot be met, the licensee shall submit a report explaining the circumstances and propose a revised schedule.

(4) Physical Protection

The licensee shall fully implement and maintain in effect all provisions of the following Commission approved documents, including amendments and changes made pursuant to the authority of 10 CFR 50.54(p). These approved documents consist of information withheld from public disclosures pursuant to 10 CFR 2.790 (d).

- a) "Industrial Security Manual" dated May 25, 1977, January 9, 1978, December 18, 1978, January 30, 1979, March 7, 1979 and March 27, 1979.
- b) Kewaunee Nuclear Power Plant Safeguards Contingency Plan, as originally submitted by letter of March 27, 1979, and subsequently revised and re-submitted by letter of February 20, 1981, pursuant to 10 CFR 73.40. The Safeguards Contingency Plan shall be fully implemented, in accordance with 10 CFR 73.40(b) within 30 days of this approval by the Commission.

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- F.1. Isolation valves 8806A (S19A), 8801A (S11A) and 8801B (S11B) in the discharge of the high head SIS and block valve 8809C (S13) are in the open position with their power breaker locked out
2. Accumulator isolation valves 8800A (S120A) and 8800B (S120B) shall be opened with their power breaker locked out before reactor coolant system pressure exceeds 1000 psig.
- G. Automatic valves, instrumentation, piping, and interlocks associated with the above components and required to function during accident and/or post-accident conditions are operable.
- H. During the Quarterly Valve Operation Surveillance Testing of the Safety Injection System it is permissible to close the hand operated valve isolating the Concentrated Boric Acid Tanks from the Safety Injection Pump Suction. During this short test period an operator shall stand by the valve to open it if Safety Injection is required. He will have headset communication with the Control Room. At completion of the test he will verify the valve is returned to open, and this will be checked by at least one additional person.
2. During power operation or recovery from inadvertent trip, any one of the following conditions of inoperability may exist during the time intervals specified. The reactor shall be placed in the hot shutdown condition if operability is not restored within the time specified, and it shall be placed in the cold shutdown condition if operability is not restored within an additional 48 hours.
- A. ONE safety injection pump may be out of service, provided the pump is restored to operable status within 24 hours. The other safety injection pump shall be tested to demonstrate operability prior to initiating repair of the inoperable pump.
- B. ONE residual heat removal pump may be out of service, provided the pump is restored to operable status within 24 hours. The other residual heat removal pump shall be tested to demonstrate operability prior to initiating repair of the inoperable pump.
- C. ONE residual heat exchanger may be out of service for a period of no more than 48 hours.

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## 4.2 ASME CODE CLASS IN-SERVICE INSPECTION AND TESTING

Applicability

Applies to in-service structural surveillance of the ASME Code Class components and supports and functional testing of pumps and valves.

Objective

To assure the continued integrity and operational readiness of ASME Code Class 1, 2 and 3 components.

Specification

## a. ASME Code Class 1, 2 and 3 Components and Supports

1. Inservice inspection of ASME Code Class 1, Class 2 and Class 3 components and supports shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50 Section 50.55a(g), except where relief has been granted by the Commission pursuant to 10 CFR 50, Section 50.55a(g)(6)(i). The testing and surveillance of shock suppressors (snubbers) is detailed in Technical Specification Sections 3.14 and 4.14.
2. Inservice testing of ASME Code Class 1, Class 2 and Class 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g), except where relief has been granted by the Commission pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).
3. Surveillance testing of pressure isolation valves:
  - a. Periodic leakage testing (1) on each valve listed in Table TS 3.1-2 shall be accomplished prior to entering the operating mode after every time the plant is placed in the cold shutdown condition for refueling, after each time the plant is placed in a

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cold shutdown condition for 72 hours if testing has not been accomplished in the preceding 9 months, and prior to returning the valve to service after maintenance, repair, or replacement work is performed.

- b. Whenever integrity of a pressure isolation valve listed in Table TS 3.1-2 cannot be demonstrated, the integrity of the remaining pressure isolation valve in each high pressure line having a leakage valve shall be determined and recorded daily. In addition, the position of the other closed valve located in the high pressure piping shall be recorded daily.

(1) To satisfy ALARA requirements, leakage may be measured indirectly (as from the performance of pressure indicators) if accomplished in accordance with approved procedures and supported by computations showing that the method is capable of demonstrating valve compliance with the leakage criteria.

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TS 4.2-2.A

Amendment No. 55  
July 3, 1984

5. Reports

- a. Following each inservice inspection of steam generator tubes, if there are any tubes requiring plugging, the number of tubes plugged shall be reported to the Commission within 15 days.
- b. The results of the steam generator tube inservice inspection shall be included in the Annual Operating Report for the period in which this inspection was completed. This report shall include:
  1. Number and extent of tubes inspected.
  2. Location and percent of wall-thickness penetration for each indication of a degradation.
  3. Identification of tubes plugged.
- c. Results of steam generator tube inspection which fall into Category C-3 and require prompt notification of the Commission shall be reported pursuant to Specification 6.9.2.a. prior to resumption of plant operation. The written followup of this report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.

### Basis

The plant was not specifically designed to meet the requirements of Section XI of the ASME Code; therefore, 100 percent compliance may not be feasible or practical. However, access for inservice inspection was considered during the design and modifications have been made where practical to make provisions for maximum access within the limits of the current plant design. Where practical, the inspection of ASME Code Class 1, Class 2 and Class 3 components is performed in accordance with Section XI of the ASME Code. If a code required inspection is impractical, a request for a deviation from the requirement is submitted to the Commission for approval.

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The Surveillance Requirements for inspection of the steam generator tubes ensure that the structural integrity of this portion of the RCS will be maintained. The program for inservice inspection of steam generator tubes is based on the general guidance of Regulatory Guide 1.83, Revision 1. Inservice inspection of steam generator tubing is essential in order to maintain surveillance of the conditions of the tubes in the event that there is evidence of mechanical damage or progressive degradation due to design, manufacturing errors, or inservice conditions that lead to corrosion. Inservice inspection of steam generator tubing also provides a means of characterizing the nature and cause of any tube degradation so that corrective measures can be taken.

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## 2. Containment Vessel Internal Spray System

- A. System tests shall be performed once every operating cycle or once every 18 months, whichever occurs first. The test shall be performed with the isolation valves in the supply lines at the containment blocked closed. Operation of the system is initiated by tripping the normal actuation instrumentation.
- B. The spray nozzles shall be checked for proper functioning at least every five years using either air with telltales or smoke tests to determine that all nozzles are clear.
- C. The test will be considered satisfactory if control board indications or visual observations indicate all components have operated satisfactorily.

## 3. Containment Fan-Coil Units

Each fan-coil unit shall be tested once every operating cycle or once every 18 months, whichever occurs first, to verify proper operation of the motor-operated service water outlet valves.

### b. Component Tests

#### 1. Pumps

- A. The safety injection pumps, residual heat removal pumps, and containment spray pumps shall be started and operated on recirculation flow quarterly during power operation and within one week after the plant is returned to power operation, if the test was not performed during plant shutdown. | 55
- B. Acceptable levels of performance shall be that the pumps start, reach their required developed head at miniflow, and operate for at least fifteen minutes on the miniflow line.

## 2. Valves

- A. The Refueling Water Storage Tank and containment sump outlet valves shall be tested in performing the pump tests.
- B. The accumulator check valves shall be checked for operability during each major refueling outage. The accumulator block valves shall be checked to assure "valve open" requirements during each major refueling outage.
- C. The boric acid tank isolation valves to the safety injection pumps shall be tested at intervals not to exceed quarterly during power operation. 55
- D. Spray additive tank valves shall be tested during each major refueling outage.
- E. Closing of the boric acid tank isolation valves and concurrent opening of refueling water storage tank valves upon receipt of simulated Lo Lo boric acid tank level signal shall be tested at intervals not to exceed quarterly during power operation. 55
- F. Residual Heat Removal System valve interlocks shall be tested once per operating cycle (not to exceed 18 months).

### Basis

The Safety Injection System and the Containment Vessel Internal Spray System are principal plant safety systems that are normally inoperative during reactor operation. Complete systems tests cannot be performed when the reactor is operating because a safety injection signal causes containment isolation and a Containment Vessel Internal Spray System test requires the system to be temporarily disabled. The method of assuring operability of these systems is therefore to combine system tests to be performed during periodic shutdowns with more frequent component tests, which can be performed during reactor operation.

The systems tests demonstrate proper automatic operation of the Safety Injection and Containment Vessel Internal Spray Systems. With the pumps blocked from starting, a test signal is applied to initiate automatic action and verification is made that the components receive the safety injection signal in the proper sequence. The test demonstrates the operation of the valves, pump circuit breakers, and automatic circuitry. (1)

During reactor operation, the instrumentation which is depended upon to initiate safety injection and containment spray is checked daily and the initiating and logic circuits are tested monthly (in accordance with Specification 4.1). In addition, the active components (pumps and valves) are to be tested quarterly to check the operation of the starting circuits and to verify that the pumps are in satisfactory running order. The quarterly test interval is based on the judgment that more frequent testing would not significantly increase the reliability (i.e., the probability that the component would operate when required), yet more frequent testing would result in increased wear over a long period of time. 55

Testing of the closure of the boric acid tank isolation valves with concurrent opening of the refueling water storage tank valves upon receipt of simulated 10-10 boric acid tank level signal is performed to verify proper operation to prevent inadvertent spillage of refueling water storage tank water through the boric acid tank should the isolation valves fail to close.

Other systems that are also important to the emergency cooling function are the accumulators, the Component Cooling System, the Service Water System, and the containment fan-coil units. The accumulators are a passive safety feature. In accordance with Specification 4.1, the water volume and pressure in the accumulators are checked each shift. The other systems mentioned operate when the reactor is in operation and by these means are continuously monitored for satisfactory performance.

Reference: (1) FSAR Section 6.2

#### 4.8 AUXILIARY FEEDWATER SYSTEM

##### Applicability

Applies to periodic testing requirements of the turbine-driven and motor-driven auxiliary feedwater pumps.

##### Objective

To verify the operability of the auxiliary feedwater equipment and its ability to respond properly when required.

##### Specification

- a. The operability of individual auxiliary feedwater pumps as required by Specification 3.4.a.2 shall be demonstrated quarterly during power operation and within one week after the pumps are required to be operable by the Technical Specifications, if the test was not performed during plant shutdown.
- b. The valves on the discharge side of the turbine-driven pump that direct flow to either steam generator shall be tested by operator action whenever the turbine-driven pump is tested.
- c. The service water supply valves to the auxiliary feedwater pump suction shall be tested by operator action following the auxiliary feedwater pump tests.
- d. These tests shall be considered satisfactory if control board indication or visual observation of the equipment demonstrate that all components have operated properly.

##### Basis

Quarterly testing of the auxiliary feedwater pumps will verify their operability. The discharge valves of the two motor-operated pumps are normally open, as are the suction valves from the condensate storage tanks and the two valves on a cross tie line that directs the turbine driven pump discharge to either or both steam generators. The only valve required to function upon initiation of

TABLE 4.1-3

MINIMUM FREQUENCIES FOR EQUIPMENT TESTS  
(Page 1 of 2)

| <u>Equipment Tests***</u>                           | <u>Test</u>  | <u>Frequency</u>   | <u>Maximum<br/>Time Between<br/>Test (Days)</u> |
|---|--|--|---|
| 1. Control Rods                                     | Rod drop times of all full length rods                             | Each refueling outage                                      | N.A.  |
|   | Partial movement of all rods                                       | Every 2 weeks  | 17  |
| 1a. Reactor Trip Breakers                           | Open trip  | Monthly  | 37  |
| 1b. Reactor Coolant Pump Breakers-Open-Reactor Trip | Operability  | Each refueling outage                                      | N.A.  |
| 2. Deleted  |  |  | 55  |
| 3. Deleted  |  |  | 55  |
| 4. Containment Isolation Trip                       | Operability  | Each refueling outage                                      | N.A.  |
| 5. Refueling System Interlocks                      | Operability  | Prior to each refueling outage                             | N.A.  |
| 6. Ventilation System                               | Halide, DOP and Methyl Iodide Pressure Drop Test Visual Inspection | During each refueling outage except as specified in Note** | N.A.  |
| a. Shield Building                                  |  |  |   |
| b. Auxiliary Building SV Zone                       |  |  |   |
| c. Spent Fuel Pool                                  |  |  |   |
| 7. Fire Protection Pump and Power Supply            | *Operability   | Monthly  | 37  |
| 8. RCS Leak Detection                               | Operability  | Weekly   | 8   |
| 9. Diesel Fuel Supply                               | *Fuel inventory  | Weekly   | 8   |
| 10. Turbine Stop and Governor Valves                | Operability  | Monthly <sup>(1)(2)</sup>                                  | 37 <sup>(1)(2)</sup>                            |
| 11. Fuel Assemblies                                 | Visual Inspection  | Each refueling outage                                      | N.A.  |
| 12. Guard Pipes                                     | Visual Inspection  | Each refueling outage                                      | N.A.  |

Table TS 4.2-1 has been deleted.

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