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 RECIP.NAME: RECORDS MANAGEMENT BRANCH (DOCUMENT CONTROL DESK)

SUBJECT: Requests one-time exemption from plant TS 4.2.a.9.a, to allow plant operation until next cold shutdown evolution, at which time PIV SI-22B will be tested.

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Wisconsin Public Service Corporation
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October 21, 1999

U.S. Nuclear Regulatory Commission
 Attention: Document Control Desk
 Washington, D.C. 20555

Ladies/Gentlemen:

Docket 50-305
 Operating License DPR-43
 Kewaunee Nuclear Power Plant
Subject: Request for Notice of Enforcement Discretion from TS 4.2.a.3.a

This letter requests a one-time exemption from KNPP TS 4.2.a.3.a. TS 4.2.a.3.a States:

3. Surveillance testing of pressure isolation valves:
 - a. Periodic leakage testing 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 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.

As part of Kewaunee's review of the Updated Safety Analysis Report (USAR), we identified that the current method for testing one of the reactor coolant system (RCS) pressure isolation valves (PIV) may not be in verbatim compliance with this TS. Specifically pressure isolation valve S1-22B was tested prior to the plant reaching cold shutdown. Although this test provides a high degree of confidence in the operability of the valve's isolation capability, it is not in literal compliance with the TS.

Testing the valves while at power places the plant in a condition that may be allowed by our TSs and USAR, it is not one normal to power operation. Therefore, WPSC is requesting enforcement discretion to allow plant operation until the next cold shutdown evolution, at which time the valve will be tested. The maximum time for this enforcement discretion would be until our next scheduled refueling outage scheduled for April of 2000.

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Attachment 1 to this letter contains the basis for our request and follows the guidance provided in inspection procedure 9900 Enforcement Policy Section VII C Exercise of Enforcement Discretion.

Sincerely,



Mark L. Marchi
Vice President-Nuclear

TJW

Attach.

cc - US NRC Region III
US NRC Senior Resident Inspector

Attachment 1

To the Letter

To:
Document Control Desk (NRC)

From:
Mark L. Marchi

Dated:
October 21, 1999

Re:
Request for enforcement Discretion to TS 4.2.a.3.a

4.1 Identify the TS or other License conditions that will be violated.

Kewaunee is asking for relief from TS 4.2.a.3.a, which states:

3. Surveillance testing of pressure isolation valves:

- a. Periodic leakage testing 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 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.

4.2 Describe the circumstances surrounding the situation. Including the apparent root causes, the need for prompt action and identification of any relevant historical events.

Past practice has been to leak test pressure isolation valve (PIV) SI-22B prior to reaching cold shutdown for each refueling evolution. During a review of Kewaunee's USAR; it was discovered that this practice did not meet the literal requirements of the TS. Namely, the test is required to be performed after reaching cold shutdown but prior to entering the operating mode. This test has historically been scheduled for the cool down portion of an outage and, therefore the cause of the misinterpretation is not known. However, the test is scheduled as it is because:

1. Valve SI-22B is a check valve that is in line with the residual heat removal (RHR) system. Therefore when RHR system is required to be in operation, which is most of the outage, the valve can not be tested. When the RHR system can be removed from service during the outage, there is insufficient pressure in the RCS to perform the test.
2. Testing going into an outage provides time to develop advance plans to repair the valve if excessive leakage is found. This is crucial since a core off load is required to repair the valve. Handling the fuel twice in one outage is considered an additional unnecessary risk.
3. If leakage is discovered during power escalation, an additional cycle is placed on the plant in order to repair the valve.

Since this is a failure to perform a surveillance requirement, WPSC is required to declare the component inoperable in accordance with TS 4.0.c. In accordance with TS 4.0.c, the action statement for PIV SI-22B can be delayed up to 24 hours to perform the surveillance.

For reasons that are stated later in this attachment, performing a leakage test while at power is not desirable and does not provide any assurance of the valve's operability beyond that provided by past testing. Therefore, to prevent a plant shutdown in accordance with TS 3.1.b.4.c and eliminate the need to unnecessarily challenge the plant by performing the leak test procedure at power, we are requesting your expedient review of our request.

- 4.3 Describe the safety basis for the request, including an evaluation of the safety significance and potential consequences of the proposed course of action. This review should at least contain a qualitative risk assessment derived from the Licensee's PRA.

The test performed on the valve during the cooldown evolution is identical to the test that would be performed during startup. Furthermore no maintenance, repair, or replacement was performed on the valve during the 1998 refueling outage. However it is recognized that there was RHR normal flow through the valve following the test. The most recent test provides a high degree of confidence in the valve's leak tightness and operability. Additionally, the existing TS recognizes that additional testing is not required if testing has been performed in the last 9 months. Therefore the existing TS allows for normal RHR through the valve without requiring a leak test of the valve. The time between test performance during the cooldown and plant startup was less than 9 months. Therefore the existing test provides the same level of safety as the verbatim compliance with the TS.

Since the same level of safety is provided by the current testing schedule, KNPP's PRA would show no increase in risk. However, a forced shutdown or reconfiguring the system to perform a test on line introduces unnecessary risk to the plant due to placing the plant in an off normal condition. While these risks can not be quantified, they are real.

The PRA models and results for the inter-system LOCA (ISL) event were reviewed to provide risk insights associated with leak testing of valve SI-22B

There are nine (9) ISL paths identified in the PRA and include the SI-22B/RHR-11 path in question. These paths were used to quantify the initiating event frequency (IEF) for the ISL event. The path in question contributes approximately 1% ($9E-07$ /year) to the total IEF for ISL ($8E-05$ /year).

The core melt quantification for the ISL event results in a core damage frequency (CDF) of $1E-06$ /year which is approximately 2.9% of the plant total CDF ($3.6E-05$ /year). The ISL path in question is estimated to contribute less than .03% to the plant total CDF.

- 4.4 Provide the basis for the conclusion that the noncompliance will not be of potential detriment to the public health and safety and that no significant hazard consideration is involved.

The existing test as performed provides a high degree of the assurance of isolation capability of PIV SI-22B. Therefore, allowing continued operation of the Kewaunee plant without additional testing is not detrimental to public health and safety.

This request for enforcement discretion was reviewed in accordance with 10CFR50.92 to determine if a significant hazard existed. It was determined that the requested discretion would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

The existing test provides a high degree of confidence in the leak tightness of the valve as the verbatim interpretation.

KNPP's TS also allow the test to be cancelled if the plant is entering cold shutdown and the test was performed in the last 9 months. This allowance recognizes the inherent reliability of the valves and that flow through the valves does not in itself cause failure. The time between test performance and plant startup was less than 9 months. The current TS provides adequate assurance that the valve meets its operability requirements. Therefore the test performed during the last refueling outage ensures the valve meets its leakage requirements. Therefore there is no significant increase in the probability or consequences of an accident previously evaluated if this request is approved.

2. Create the possibility of a new or different type of accident.

The concern is the potential to cause an intersystem loss of coolant accident. Since the requested enforcement discretion does not decrease the confidence in isolation capability or reliability of PIV SI-22B, there is no possibility of creating a new or different type of accident.

3. Involve a significant reduction in the margin of safety.

As described previously, existing test provides the same degree of confidence as the verbatim interpretation of the TS and is consistent with the requirements of NUREG 1431. Therefore the proposed request would not significantly decrease the margin of safety.

4.5 Provide the basis for the conclusion that the noncompliance will not involve adverse consequences to the environment.

This proposed request involves a change to the scheduling of the leak test of PIV SI-22B. Wisconsin Public Service Corporation has determined the proposed request involves no significant hazards considerations and no significant change in the types of any effluent that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. Accordingly, this proposed request meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with this request. On the other hand, it should be noted that any shutdown to test the valve would result in additional unnecessary discharges and worker exposure.

4.6 Described proposed compensatory measures.

Since the same level of protection is provided by the existing test, compensatory measures are not required. However, you should note there is a normally closed motor operated valve (RHR-11) up stream of SI-22B located in containment. This valve has an interlock that prevents it from opening when reactor coolant pressure is greater than 450 psig and its power is locked off during power operation. This provides added assurance that an intersystem LOCA will not occur.

4.7 Justify the duration of the noncompliance.

Kewaunee is requesting this noncompliance to be in effect, at the latest, until the end of our 2000 refueling outage scheduled for April. However, it is our intent that should a cold shutdown evolution occur prior to our 2000 outage, a test will be performed and the duration of this request will be reduced. The purpose of this test, as described in our Order for Modification of License dated April 20, 1981, is to determine if there is any gross failure of SI-22B which could lead to an intersystem LOCA. Based upon the past acceptable tests and the probability of failure of this valve during the duration of the noncompliance the additional risk is insignificant.

As stated previously, the current test provides the same level of assurance as verbatim compliance with TS. Therefore the proposed duration does not adversely affect the health and safety of the public.

4.8 Statement that the request for this Notice of Enforcement Discretion has been approved by the Kewaunee onsite review committee.

This request for a Notice of Enforcement Discretion was approved by the Kewaunee Nuclear Power Plants Plant Operational Review Committee (PORC) on October 21, 1999.

4.9 NOED Plant Criteria satisfied from section B and how it is satisfied.

The NOED criteria Kewaunee satisfies is Section B Part 2.0, Situations affecting Radiological Safety, item 1b. This request is intended to eliminate testing, inspection, or system realignment that is undesirable for the full power condition we are presently in. The specific testing would perform a leak test on one of our pressure isolation valves listed in Technical Specification Table TS 3.I-2. Normally this valve is tested at shutdown and reduced pressure conditions. The reduced conditions lessen the challenge to test equipment and personnel safety. During our last refueling shutdown, SI-22B was tested prior to entering cold shutdown.

4.10 Is follow-up license amendment required?

We are reviewing the need for a follow-up technical specification amendment.

4.11 Does this NOED involve severe weather or other natural disasters?

This NOED does not involve severe weather or other natural disasters.