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10 CFR 50.4, 50.59, 50.90

February 21, 1992

U.S. NUCLEAR REGULATORY COMMISSION
Document Control Desk
Mail Station P1-137
Washington, D.C. 20555

Gentlemen:

DOCKETS 50-266 AND 50-301
TECHNICAL SPECIFICATION CHANGE REQUEST 149
MAIN STEAM SYSTEM VALVE TESTING AND OPERABILITY
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

In accordance with the requirements of 10 CFR 50.59(c), 50.90, and 50.4, Wisconsin Electric Power Company, Licensee for Point Beach Nuclear Plant, Units 1 and 2, hereby requests amendments to Facility Operating Licenses DPR-24 and DPR-27, respectively, to incorporate changes into the plant Technical Specifications. The changes requested in this amendment application include new limiting conditions for operation (LCOs) addressing the main steam stop valves (MSSVs) and the main steam non-return check valves (NRCVs). Also proposed are revisions to Specification 15.4.7, "Main Steam Stop Valves," to clarify the definition of acceptable periodic testing for the MSSVs and to propose a surveillance requirement for the NRCVs. This specification and its bases are also revised to clarify the permissible valve testing conditions. Marked-up Technical Specification pages which include these changes are attached to this application.

Technical Specification 15.3.4, "Steam and Power Conversion System," lists the LCOs that apply to the operating status of the steam and power conversion system. This specification presently does not address the operability of the MSSVs or the NRCVs. The Standardized Technical Specifications include an LCO for main steam line isolation valves. The main steam isolation valves are equivalent to our MSSVs. In this amendment application, we have proposed a new specification, 15.3.4.D, which states the operability requirements for the main steam stop valves.

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Specification 15.3.4.D states that if the reactor is in power operation when one MSSV is discovered to be inoperable, but open, reactor operations may continue, provided the valve is restored to an operable status within four hours. Otherwise, the reactor shall be placed in the hot shutdown condition within the following six hours. The proposed LCO permits continued operation in the hot shutdown condition provided the inoperable valve or valves are maintained closed. The specification provides for the MSSVs to be opened while in hot shutdown for the purpose of operability testing.

Although the Standardized Technical Specifications do not include a specification for main steam NRCVs, the safety analysis for the Point Beach Nuclear Plant takes credit for the operability of these valves to limit the consequences of the "Rupture of a Steam Pipe" accident. The NRCVs are swinging disk check valves whose function is to stop the steam blowdown of both steam generators in the event of a rupture of a steam pipe upstream of an MSSV with a single failure of the other MSSV. The NRCVs are passive and, during normal operation, the valve disk swings open in the direction of steam flow. The new LCO for the main steam NRCVs proposed in this application is the same as that proposed for the MSSVs.

Technical Specification 15.4.7 presently requires periodic testing of the MSSVs to verify the ability of the valves to close upon initiation of a valve closure signal. The valves are required to close within five seconds of the initiating signal. Recently the Point Beach Unit 2 MSSVs failed to function properly during a plant shutdown for a refueling outage. This event was reported in Licensee Event Report 91-001 dated October 28, 1991. As part of the evaluation of this event, we concluded that clarification of this surveillance specification would be appropriate.

The present specification states that the five-second closure time shall be measured from the time of signal initiation until the valve disk is brought to a halt by the dashpot. As discussed in the bases and the FSAR, the purpose of these valves is to limit an excessive reactor coolant system cool down and resultant reactivity insertion during a postulated rupture of a steam pipe accident. The expectation and intent of this specification are for the MSSVs to fully shut upon an initiating signal. Accordingly, we are proposing that the specification be revised to read, in part, "The five seconds shall be measured from the time of signal initiation until the valve indicates closed."

Valve closure can be verified by shut indication in the control room and by mechanical indication at the valve itself. The reference to the dashpot in this specification has been removed. This reference was no longer correct, since the dashpots no longer function as an arresting device for the valve disk closure.

We have also proposed a clarification of when the surveillance testing of the MSSVs is required. The revised specification requires MSSV testing during plant start-up following a major fuel reloading prior to admitting steam to the turbine. We have replaced the words "reactor shutdown" with "plant shutdown" in this specification to clarify that the surveillance may be conducted with the reactor critical. Reactor power generation may be necessary in order to achieve low steam flow conditions for the test. Finally, we have defined low flow conditions to be 5% steam flow or less.

In addition to the changes to surveillance for the MSSVs, we have also added a surveillance specification for the NRCVs. The function of the NRCVs is to shut in the event of reverse steam flow in the main steam line. The NRCVs will be tested for operability during plant outages for major fuel reloading. Presently, although we can visually confirm valve disk motion, there is no indication for verifying that an NRCV disk is fully closed. A modification is being prepared to install a local valve disk position indication. We request that the NRC notify us prior to issuance of the license amendment for implementation of these proposed Technical Specifications so that we may confirm the installation of the NRCV position indicators.

To reflect the more comprehensive nature of this surveillance specification, 15.4.7 has been retitled "Main Steam System Valves." The applicability and objective statements have been revised to include the NRCVs and the specification organized into two sections.

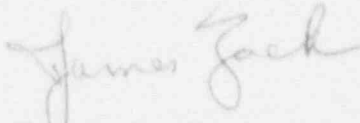
We are also making changes to the bases for this specification. We have deleted the last two sentences of the first paragraph as being redundant and added a paragraph regarding the purpose of the NRCVs.

We have evaluated these proposed changes to the specifications in accordance with the requirements of 10 CFR 50.91(a) against the standards for significant hazards considerations in 10 CFR 50.92. The results of this evaluation are provided in Enclosure 1.

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Please contact us if you have any questions concerning these proposed changes.


Sincerely,



James J. Zach
Vice President
Nuclear Power

Copies to NRC Regional Administrator, Region III
NRC Resident Inspector
Mr. L. L. Smith, PSCW

Subscribed and sworn to before me
this 21st day of February, 1992.



Notary Public, State of Wisconsin

My Commission expires 5-22-94.

ENCLOSURE 1

NO SIGNIFICANT HAZARDS DETERMINATION

We have evaluated the changes proposed in Technical Specification Change Request 149 in accordance with the requirements of 10 CFR 50.91(a) against the standards for significant hazards considerations in 10 CFR 50.92. Previously analyzed accidents considered in this determination include the main steam line break evaluation and the containment performance evaluation presented in the Point Beach Nuclear Plant PSAR Chapter 14. Our evaluation of these changes against each of the criteria in 10 CFR 50.92 and the basis for our conclusion that the changes involve "no significant hazards" are presented in the following paragraphs.

Criterion 1

Operation of a facility in accordance with a proposed amendment does not present a significant hazard if it does not result in an increase in the probability or consequences of an accident previously analyzed.

The revisions to Specification 15.3.4 add new LCOs not previously presented in the Point Beach Nuclear Plant Technical Specifications and thus represent additional requirements for plant operations.

The proposed changes to 15.4.7 serve to:

1. Clarify that the main steam stop valves (MSSVs) must be closed within five seconds.
2. Better define when the MSSV testing must take place. Testing will be required during the start-up following major fuel reloadings prior to admitting steam to the turbine. Steam flow during the test will be at or less than 5%.
3. Add a surveillance specification for the non-return check valves (NRCVs) which is presently not in the specifications.
4. Rename and rearrange the layout of the specifications.

These changes have no significant impact on the probability or consequences of previously evaluated accidents. The assumptions for the analyzed accidents are not altered by these proposed specification changes. In fact, the new operability and LCO requirements provide additional assurance that the equipment necessary to mitigate the consequences of these accidents, that is the MSSVs and the NRCVs, will be available. The changes to the surveillance specifications also provide additional assurance that the valves are operable prior to returning the plant to operation by requiring testing in the as-left condition during the plant start-up from a major refueling. The revised

surveillance specification also provides for a check of the NRCVs to assure they close and are, therefore, capable of performing their safety function. These added, or revised checks, increase the probability that the valves will be capable of performing their safety functions.

Criterion 2

Operation of a facility in accordance with a proposed amendment does not present a significant hazard if it cannot create the possibility of an accident different from any previously evaluated.

These changes do not result from any physical changes or modifications to the facility or its operation. The operability of equipment necessary for accident mitigation, such as the MSSVs and the NRCVs, is assured by periodic surveillance and testing. Testing of the MSSVs to establish operability will be performed when returning the plant to operation following a shutdown for major fuel reloading. The acceptance criteria for the specification have been clarified to specify that the valve must indicate closed within five seconds. This criteria is in accordance with the assumptions of the accident analysis. The LCO and surveillance for the NRCVs are new restrictions added to the specifications but do not change the operating philosophy of assuring operability of these valves. Once operability is established through the successful completion of the prescribed surveillance, the presumption is that the valves will function as designed and the LCO requiring operability has been met. Establishment of this new LCO and upgrading of the surveillance requirements cannot result in a new or different kind of accident from any previously analyzed.

Criterion 3

Operation of the facility in accordance with a proposed amendment will not present a significant hazard if it does not result in a significant reduction in a margin of safety.

Closure of the MSSVs within five seconds has been demonstrated by previous analyses to provide an adequate margin of safety for the applicable accidents. The existing verification of the valves to meet this surveillance requirement assured a reasonable probability that the MSSVs would function during a postulated accident scenario. Requiring that the test of the MSSVs be performed following a shutdown for major fuel reloading ensures valve operability prior to plant operation. The proposed change to Specification 15.4.7 does not alter the criterion that the valve be capable of closing in five seconds. Thus the previously accepted margins to safety are not reduced by these changes. The inclusion of an LCO on the operability of the MSSVs further ensures the valves will be available during plant operations that potentially may require the operation of the valves.

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The LCO and the surveillance for the NRCVs are new specifications and represent new restrictions on plant operations not previously contained in the specifications. By providing additional assurance that the NRCVs will be capable of performing their safety function, one may conclude that the margin to safety for the analyzed accidents is actually increased. However, since previous operation of the facility assumed that these valves were operable (even though no specification existed in the Technical Specification) based on normal plant maintenance and inspections, there actually should be no change in the margin of safety. Therefore, we conclude that the proposed changes do not involve a significant hazards consideration.