NPC-27809

Wisconsin Electric POWER COMPANY
231 W. MICHIGAN, P.O. BOX 2046, MILWAUKEE, WI 53201

February 4, 1980

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. NUCLEAR REGULATORY COMMISSION
Washington, D. C. 20555

plant 12.1.1 FSAR
(CR 5.5.1, 12.2.4)

Attention: Mr. D. G. Eisenhut, Acting Director
Division of Operating Reactors

Gentlemen:

DOCKET NOS. 50-266 AND 50-301
ADDITIONAL INFORMATION AUXILIARY FEEDWATER SYSTEMS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Your letter dated September 21, 1979, advised of additional requirements for the auxiliary feedwater systems at the Point Beach Nuclear Plant. The letter requested an evaluation of these requirements and an associated schedule and commitment for implementation of required changes or actions. We provided a partial response to that request with our letter dated October 29, 1979. We have addressed the remaining items in this letter. The items are identified by the same coding provided in your letter.

RECOMMENDATION GS-4

The emergency procedures have been modified to include the transfer of auxiliary feedwater from the normal condensate storage tanks to the backup supply, service water. The two cases specified in your September 21, 1979 letter are (1) primary source not available and (2) depletion of normal source.

1. The Point Beach Technical Specifications require the normal source of water to the auxiliary feedwater pumps to be available at all times. The monthly test of the auxiliary feedwater pumps, plus the monthly check of auxiliary feedwater valve position, verify this water source and its associated piping to be intact. There is no need in the Point Beach design, therefore, to proceduralize for a lack of primary water supply. It is operable by the basic definition of operability in accordance with the Point Beach Technical Specifications.

A129

2. The depletion of the primary water source has been added to the emergency procedures in conjunction with the rewrite of emergency procedures per the requirements of both Bulletin 79-06C and NUREG-0578.

RECOMMENDATION GS-5/GL-3

The plant modifications are being designed to provide the required cooling water to the auxiliary feedwater pump bearings using fire water from the diesel-driven fire pump. This modification will be complete prior to January 1, 1981.

An Operations Group special order has been issued to have the auxiliary feedwater station manned continuously in the event of a total loss of all AC current. It should be noted that this modification is in total disregard to the design basis of Point Beach. There is no credible possibility in our opinion that this combination of conditions can occur.

RECOMMENDATION GS-6

The present administrative controls at Point Beach are considered adequate and proper to ensure the operability of the auxiliary feedwater system at all times when it is required. There does not appear to be any justification in a Westinghouse PWR design, with its 30-minute delay inherent in the steam generator capacity, to add the double man verification to the present administrative control. The present system requires the component taken out-of-service to be tested prior to placing the system back in service. This plus the periodic check of the auxiliary feedwater valves on a monthly basis ensures the system is operable.

The addition of a new Technical Specification to verify the normal flow path of the auxiliary feedwater system after each extended cold shutdown does not appear to be necessary. The operability of the auxiliary feedwater pumps must be demonstrated by present Technical Specifications prior to criticality. This is done after an extended cold shutdown by conducting a valve lineup on the entire system and testing the pumps in accordance with their normal monthly test. These tests are performed prior to criticality. A full flow test is periodically run on the auxiliary feedwater system to verify proper flow can be passed through the valves in accordance with the Point Beach Nuclear Plant inservice inspection and testing program as submitted on May 20, 1977 for Unit 1 and February 26, 1979 for Unit 2. This is done once per quarter if plant operations result in a cold shutdown during that quarter.

RECOMMENDATION GS-7/GL-5

These recommendations are concerned with the verification that the automatic start AFW system signals and associated circuitry are safety grade or with upgrading the circuits to meet safety grade requirements. Our response to these items is contained in our letter to you dated December 17, 1979. That letter provided a response to your telecopied request for additional information on NUREG-0578 short-term lessons learned, Item 2.1.7.a, "AFW System Automatic Initiation".

ADDITIONAL SHORT-TERM RECOMMENDATIONS

2. The 72 hour endurance tests were completed on all auxiliary feedwater pumps by December 30, 1979. These tests were accomplished using the guidance presented in your letter of September 21, 1979. The tests demonstrated that the pumps remain within design limits with respect to bearing/bearing oil temperature and vibration and that pump room ambient conditions do not exceed environmental qualification limits for safety related equipment in the room.

   We have since received, on January 25, 1980, a telecopied notification, consisting of an internal NRC memorandum dated December 3, 1979, relaxing this endurance test to 48 hours. Since our tests have already been completed, we intend no further action on this memorandum.

4. The design of Point Beach has two backups available during normal testing, the two motor-driven auxiliary feedwater pumps shared between the two units and one steam-driven auxiliary feedwater pump per unit. There is no reason, therefore, to propose a Technical Specification change for Point Beach. In fact, the operator who is at the pumps during the test is in continuous communication by two-way radio and would realign the valves upon instructions to do so.

RECOMMENDATION GL-4

An examination of the Point Beach design has been completed considering a seismic event or a tornado. The requirement of maintaining a minimum of 10,000 gallons per unit in the condensate storage tanks (the normal auxiliary feedwater supply) and the low level alarms on the tank give sufficient time to shift to the alternative source if required. The shifting to service water is done by operation from the main control room of one motor-driven valve per pump. Automatic switchover is not necessary on the Point Beach design.

The addition of automatic pump trips on low suction pressure has been evaluated as unnecessary. The addition of such automatic switching could very well cause more problems than would be solved.

Your September 21 letter also included a request for information regarding the design basis for the auxiliary feedwater system flow requirements. The information requested includes identification of transient and accident conditions considered in establishing auxiliary feedwater flow requirements, acceptance criteria and technical bases for each initiating event, and a description of the analyses, assumptions and technical justification used with each of these events to verify that the auxiliary feedwater pumps supply the necessary flow to the steam generators. The gathering of this information involves a major effort with, we believe, little benefit in addition to that gained from the results of our latest detailed review of the Point Beach auxiliary feedwater system documented herein and in our October 29, 1979 letter. Based on the demonstrated operational effectiveness, redundancy and reliability of the auxiliary feedwater system at Point Beach Nuclear Plant, we do not believe an effort such as requested in Enclosure 2 to your September 21 letter is necessary to establish the safe operation and maintenance of the plant.

If, after your review, you believe additional information is necessary, we would be pleased to discuss with you the extent, scope and use which might be made of such additional information.

Very truly yours,

C. W. Fay, Director
Nuclear Power Department

Blind copies to Messrs. C. S. McNeer
Sol Burstein
R. H. Gorske/A. W. Finke
D. K. Porter
G. A. Reed
Gerald Charnoff

Received 5-19

NPC-30751

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

May 16, 1980

Dockets Nos. 50-266
and 50-301

Mr. Sol Burstein
Executive Vice President
Wisconsin Electric Power Company
231 West Michigan Street
Milwaukee, Wisconsin 53201

Dear Mr. Burstein:

In conducting our review of your responses to our letter of September 21, 1979 relating to NRC requirements for the auxiliary feedwater system at Point Beach Nuclear Plant, Units Nos. 1 and 2, we have determined that we will need the additional information and your response to the positions resulting from our review identified in the enclosure to complete the review.

In order for us to maintain our review schedule, your response is requested within 45 days of your receipt of this letter. The open items identified in the enclosure must be resolved in a manner acceptable to the NRC staff before the Safety Evaluation Report related to this matter can be issued.

Please contact us if you have any questions concerning this request.

Sincerely,

R. A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Enclosure:
Request for Additional
Information and NRC
Staff Positions

cc w/enclosure:
See next page

Copies to Messrs. C. S. McNeer
P. H. Corake/A. W. Zinke
C. W. Fay
D. F. Porter
C. A. Reed

SN 5/19/80

RECEIVED
MAY 21 1980
POINT BEACH

Mr. Sol Burstein
Wisconsin Electric Power Company

cc: Mr. Bruce Churchill, Esquire
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N.W.
Washington, D. C. 20036

Document Department
University of Wisconsin
Stevens Point Library
Stevens Point, Wisconsin 54481

Mr. Glenn A. Reed, Manager
Nuclear Operations
Wisconsin Electric Power Company
Point Beach Nuclear Plant
6610 Nuclear Road
Two Rivers, Wisconsin 54241

Ms. Kathleen M. Falk
General Counsel
Wisconsin's Environmental Decade
302 E. Washington Avenue
Madison, Wisconsin 53703

Enclosure

POINT BEACH NUCLEAR PLANT, UNITS 1&2
AUXILIARY FEEDWATER SYSTEM REQUIREMENTS
DOCKET NOS. 50-266 & 50-301

A. Short Term Recommendations

1. Recommendation GS-1

The licensee's response to this recommendation is unacceptable and indicates that the licensee may have misinterpreted our requirement. We require that all four AFW pumps be operable prior to taking the reactor critical for two unit operation and three of the four AFW pumps (including two motor driven and the associated turbine driven pump) be operable for single unit operation. Under two unit operation, with one motor driven AFW pump inoperable, both units should be shutdown within 72 hours if the pump cannot be restored. The licensee should revise the appropriate Technical Specifications and submit them to us for review.

2. Recommendation GS-2

The licensee's response to this recommendation is acceptable.

3. Recommendation GS-4

The licensee's response to this recommendation is acceptable.

4. Recommendation GS-5

The licensee's response to this recommendation is insufficient for us to complete our review. For the short term the licensee should verify that emergency procedures for a complete loss of AC power are available or propose emergency procedures that includes necessary steps to assure cooling water to the turbine driven pump bearings or that require an operator to be stationed at the pump (to monitor bearing temperature)

in communication with the control room to allow for on-off control of the turbine driven pump if necessary. The licensee should also verify adequate lighting and communications are available for all operator actions outside the control room. (See Recommendation GL-3 for long term.)

5. Recommendation GS-6

The licensees response to the first part of this recommendation is unacceptable. We require that plant procedures be revised to include a second operator independent verification that AFW system valves have been properly aligned to their normal position following performance of periodic testing or maintenance.

The licensees response to the second part of this recommendation is acceptable. However, the licensee should verify that the periodically performed full flow inservice inspection test provides AFW flow to the steam generators.

6. Recommendation GS-7

The licensee's response to this recommendation is currently under review. We will provide the results of our review at a later date.

B. Additional Short Term Recommendations

1. The licensees response to this recommendation is acceptable.

2. The licensee indicates that 72-hour endurance tests were completed on all AFW pumps by December 30, 1979. In order that we may review the test results, provide us with a copy of the test procedure and resulting test data. The type of information we require is described in the NRC

memorandum dated December 3, 1979 which reduced the test from 72 to 48 hours and which you indicate you have in your possession. The licensee should provide as much of the information identified in the December 3, 1979 memorandum as possible.

3. The licensee's response to this recommendation is currently being evaluated by the Lessons Learned Implementation Task Force.

4. The licensee's response to this recommendation is acceptable.

5. We have the following additional concern based on Preliminary Notification of Event or Unusual Occurrence - PNO III-80-25, dated February 5, 1980. The notice describes an incident where the pressure transmitters on the discharge of the two motor driven AFW pumps were valved out. The transmitters sense pump pressure and open the motor driven pump discharge valves. Describe the measures taken such as independent operator verification or other procedural changes to prevent occurrence of similar errors in the future.

C. Long Term Recommendations

1. Recommendation GL-3

The licensee response to this recommendation indicates that the proposed modification to the turbine driven AFW pump bearing cooling system described for Recommendation GS-5 is intended as a long term solution for assuring AFW pump operation independent of all AC power. We do not consider the design for providing bearing cooling water from the diesel driven fire pump adequate as a final solution since manual operator action

is required. An acceptable solution is to provide bearing cooling water from a recirculation line directly off the AFW pump discharge. It is our position that the licensee provide a long term design which will automatically initiate and assure AFW flow and be capable of being operated independently of any AC power for at least two hours. No credit will be given for any operator actions outside the control room for two hours.

2. Recommendation GL-4

The licensees response to this recommendation is unacceptable. The licensee has failed to demonstrate that AFW pump protection can be adequately provided by manual action in the event of a failure in the condensate storage tanks due to a seismic event or torando. It is our position that the licensee provide automatic switchover to the service water system on low suction pressure to the AFW pumps, or upgrade the primary water supply to meet seismic Category I requirements and tornado protection.

3. Recommendation GL-5

See Recommendation GS-7 above.

D. Basis for AFW System Flow Requirements

The licensee has indicated that he feels a response to Enclosure 2 of our September 21, 1979 letter concerning a request for information on AFW system flow requirements is unnecessary in view of the already performed AFW system review. We disagree and it is our position that the licensee respond to Enclosure 2 expeditiously.