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NPL 97-0782

10 CFR 2.201

December 12, 1997

Document Control Desk
U. S. NUCLEAR REGULATORY COMMISSION
Mail Station P1-13
Washington, DC 20555

Ladies/Gentlemen:

DOCKETS 50-266 AND 50-301
REPLY TO A NOTICE OF VIOLATION
NRC INSPECTION REPORT NOS. 50-266/97017 (DRP) AND 50-301/97017 (DRP)
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

In a letter from Mr. John A. Grobe dated September 17, 1997, the Nuclear Regulatory Commission forwarded the results of an inspection conducted between March 4 and August 5, 1997. This inspection report included a Notice of Violation which identified two alleged violations of NRC requirements.

We have reviewed the Notice of Violation and, pursuant to the provisions of 10 CFR 2.201, have attached hereto a written response. We believe that the attached response is responsive to the Notice of Violation, fulfills the requirements identified in your September 17, 1997, letter, and is timely submitted pursuant to an agreement between our counsel, John O'Neill, and Terrance Reis, NRC Office of Enforcement, which resulted in an extension of time within which to reply to the Notice of Violation.

While we are not disputing Violation 1, it is our view that the statement at issue was perhaps incomplete, but it was not inaccurate. The Point Beach Nuclear Plant had the capability on February 20, 1997, and has the capability now, to cross-connect the Units 1 and 2 component cooling water systems should the system in either unit fail. The systems can be cross-connected by either opening the two normally shut cross-connect valves, or by opening the component cooling water pump suction cross-connect valve and properly positioning the component cooling water heat exchanger inlet and outlet valves. It is true, however, that the cross-connect valves required to be operated by the abnormal operating procedure in effect at the time had not been tested and one valve subsequently failed to open when recommended opening torque was applied. Thus, the statement made to the NRC regarding the capability of Point Beach to cross-connect the component cooling

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water systems was not complete, in that it did not reflect the fact that the cross-connect valves had not been tested and it was not immediately updated to reflect the information subsequently obtained regarding the degree to which the valves had been torqued shut.

In the attached response to the Notice of Violation, we have set forth in some detail the circumstances that led to the February 20, 1997, letter. We have reviewed this matter very carefully, both with outside counsel and by requesting our outside nuclear consultant, Dr. Terence Sullivan, to review the circumstances and facts and to report his conclusions regarding the integrity of the communications made to the NRC relating to the Notice of Enforcement Discretion. Based on these reviews, I am confident that all communications made to the NRC were made in good faith. Every individual involved believed that the component cooling water system cross-connect valves would open, even after the disclosure of over-torquing the valves was brought to light. Additionally, there was no intent to withhold relevant information to the NRC. Relevant facts concerning the condition of the cross-connect valves known to the Plant Manager were also provided contemporaneously to an NRC Resident Inspector.

With the benefit of hindsight, we believe that in this case the Point Beach Plant Manager and his staff acted correctly and prudently (1) in analyzing the conflict between the two Technical Specifications, (2) in deciding to request enforcement discretion to remain in hot shutdown, (3) in suggesting the capability to cross-connect the component cooling water system as a compensatory measure, (4) in the actions taken to ensure the operating personnel were apprised of the abnormal operating procedure and location of relevant valves, (5) in directing the employee who raised the question of the degree of torque in shutting the cross-connect valves to write a Condition Report, (6) in deciding to pursue withdrawal of the compensatory measure relating to the cross-connect of the component cooling water system when the employee suggested that the valve may have been damaged (which was subsequently determined not to be correct), and (7) in electing not to open the stuck cross-connect valve with the additional torque and thereby risk unnecessary damage and additional maintenance activity when the valve need not be opened for any operational requirement.

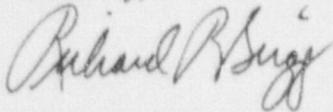
We also believe that the Region III staff was aware of this matter on a real time basis. Within hours of the Plant Manager learning of the opinion of an employee that the stems of the valves may have been damaged as a result of being overtorqued (an opinion which turned out to be incorrect), the Plant Manager decided to advise the NRC formally at a previously scheduled conference call. The Resident Inspectors already were aware of the information, having observed the key meetings and having reviewed the Condition Report. The information regarding the potential condition of the two valves was reviewed by the Point Beach Manager's Supervisory Staff and was determined to not influence the safety basis leading to the request for enforcement discretion.

We do not dispute Violation 2 that a test program was not in place to demonstrate the satisfactory performance of component cooling water cross-connect valves CC-722A and CC-722B. These valves were included in an abnormal operating procedure to cross-connect the component cooling water systems. We subsequently revised the plant Technical Specifications and established by procedure an alternate path to cross-connect the component cooling water systems so these two cross-connect valves will not need to be opened. Testing the valves could result in leakage between the two component cooling water systems, if the valves failed to seat properly. This was a concern to us because it would interfere with the primary purpose of the valves in isolating the two systems. We acknowledge here that we should have included valves CC-722A and CC-722B as part of a test program when they were included in the abnormal operating procedure.

Commitments made in our attached response to the Notice of Violation which have not been previously docketed are identified in italics.

If you have any questions or require additional information concerning this matter, please contact us.

Sincerely,



Richard R. Grigg, President,
Chief Operating Officer, and
Chief Nuclear Officer

cc: NRC Regional Administrator
NRC Resider.: Inspector
PSCW

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REPLY TO A NOTICE OF VIOLATION
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In a letter from Mr. John A. Grobe dated September 17, 1997, the Nuclear Regulatory Commission forwarded the results of an inspection conducted between March 4 and August 5, 1997. This inspection report included a Notice of Violation which identified two alleged violations of NRC requirements as set forth below.

In accordance with the instructions provided in the Notice, our reply to the alleged violations includes: (1) the reason for the violation; (2) corrective action taken; (3) corrective action to be taken to avoid further violations; and (4) the date when full compliance will be achieved. In accordance with the instructions provided in the Notice, our reply makes reference to previously-docketed correspondence as appropriate.

Violation 1:

"10 CFR 50.9(a) requires, in part, that information provided to the Commission by a licensee be complete and accurate in all material aspects.

Contrary to the above, the licensee did not provide to the Commission information that was accurate in all material respects. Specifically, oral information provided to the Commission on February 19, 1997, and written information provided to the Commission on February 20, 1997, to support a Notice of Enforcement Discretion asserted that the licensee had the capability to open the pump suction valve and discharge cross-connect valve to cross connect the Unit 1 and Unit 2 component cooling water (CCW) systems. This information was inaccurate in that a stuck-closed CCW pump discharge valve (CC-722B) prevented the cross-connection of the two systems. This information was material to the NRC because it directly related to the availability of an alternate CCW pump.

This is a Severity Level IV violation (Supplement VIII)."

Reply to Violation 1:

We do not dispute Violation 1. We believe that it is more correct to state that the information communicated was incomplete, rather than it was inaccurate.

This violation resulted from insufficient appreciation of the significance of the CCW pump cross-connect valve condition to the Notice of Enforcement Discretion (NOED) and of the need for more timely communication of this information directly to Region III management.

Point Beach service water pump P-32A, one of three Train A service water pumps, was declared inoperable on February 17, 1997, at 1558 hours. Point Beach Unit 1 component cooling water pump 1P-11A was declared inoperable on February 17, 1997, at 1800 hours. Because we were unable to return these pumps to an operable status within the time periods specified in the Technical Specifications, Unit 1 reactor shutdown was initiated within 24 hours of the earlier event at 1500 hours on February 18, 1997. Unit 1 was placed in hot shutdown at 2138 hours on February 18, 1997. Unit 2 was in cold shutdown. This action met the requirements of Technical Specification 15.3.3.C.2 for the component cooling water pump and Technical Specification 15.3.3.D.2 for the service water pump for placing Unit 1 in hot shutdown.

Technical Specification 15.3.3.C was in potential conflict with requirements for decay heat removal contained in Technical Specification 15.3.3.A.3, which contains requirements related to the residual heat removal system. Component cooling water provides cooling to the residual heat removal heat exchangers during post-accident conditions and for shutdown cooling. With Train A of the component cooling water system inoperable due to the inoperable pump, Train A of the residual heat removal system is also not operable. If a residual heat removal loop is not being relied upon for decay heat removal, Technical Specification 15.3.3.A.3 requires the reactor to be maintained at greater than 350°F so both steam generators and the secondary system are available for decay heat removal. On the other hand, Technical Specification 15.3.3.C.2 requires placing the reactor in cold shutdown if an operable component cooling water pump cannot be restored to an operable status within 72 hours.

The Point Beach Nuclear Plant Manager's Supervisory Staff (MSS) (on-site nuclear safety review committee) recognized the inconsistency and acknowledged that a license amendment may be warranted. (A license amendment request is presently under development to remedy this inconsistency. As committed in our November 14, 1997, letter response to Violation 2 in NRC Inspection Report Nos 50-266/ and 50-301/97016, we presently expect to submit this amendment request in January 1998.) The MSS determined that the safest condition for Unit 1 was to remain in hot shutdown above 350°F so that both steam generators and the secondary system were available for decay heat removal. Compliance with the shutdown requirements of Technical Specification 15.3.3.C.2 would not provide an overall safety benefit and could be detrimental in that certain transients could provide additional risk under the stipulated Technical Specification conditions. Evaluation by the Point Beach management and the MSS led to the decision to seek enforcement discretion.

On the afternoon of February 19, 1997, a conference call was held between the Point Beach Plant Manager, other Point Beach senior managers, Region III personnel, and the Point Beach Resident Inspectors to discuss the conflict between the Technical Specification requirements and explore the possibility for enforcement discretion. The conversation focused on the technical justification for the enforcement discretion. Point Beach personnel were asked by Region III staff at one point about compensatory measures. During that conversation, the Point Beach Plant Manager noted the capability to cross-connect the Unit 1 and Unit 2 component cooling water systems and a

recent abnormal operating procedure that had been written to accomplish the cross-connection of the systems. He discussed that capability as a potential compensatory measure.

After the initial conference call with Region III, the Point Beach Plant Manager convened a MSS meeting to discuss the request for enforcement discretion. The MSS meeting concluded with a decision to formally seek enforcement discretion to maintain Point Beach Unit 1 in hot shutdown. The MSS suggested additional compensatory measures. Subsequently, the Point Beach Plant Manager called the Region III Deputy Director, Division of Reactor Projects, to request enforcement discretion. Eight compensatory measures were discussed, including the capability to cross-connect the component cooling water system. Verbal enforcement discretion was granted. The Point Beach Plant Manager committed to submit a written request for enforcement discretion by 1600 hours the following day.

The written request for enforcement discretion was drafted on the evening of February 19, 1997, and submitted to the Point Beach Manager, Regulatory Services & Licensing, who began reviewing it with members of his staff the following morning (February 20). It was reviewed and approved by the Point Beach Plant Manager and was also reviewed by other senior Point Beach managers. The written request for enforcement discretion was sent by facsimile to Region III prior to 1600 hours on February 20, 1997, as promised. With the benefit of hindsight, we believe that the written request for enforcement discretion correctly analyzed the licensing and technical safety issues, was professionally drafted, and was the correct decision.

The compensatory measure that has been questioned involved the capability to cross-connect the Units 1 and 2 component cooling water systems should the system in one unit fail. Operations personnel were directed (on February 19, 1997) to review the abnormal operating procedure to cross-connect the two systems to ensure that they were familiar with the actions necessary to cross-connect the systems should a loss of the operable Unit 1 component cooling water pump occur prior to restoring the redundant pump to an operable condition. In addition, auxiliary operators on each shift were directed to locate the cross-connect valves that would be manipulated to effect a cross-connection of the component cooling water systems.

On the morning of February 20, 1997, in response to the Plant Manager's night orders regarding the abnormal operating procedure to cross-connect the component cooling water systems, an employee recalled that the cross-connect valves may have been overtightened some years ago to prevent leakage past the valves. This issue was raised during the 0645 hours morning staff meeting. The Plant Manager thanked the employee for raising the issue and asked that he write a Condition Report. Neither the employee who raised the issue nor the Plant Manager believed that this information called into question the ability of the cross-connect valves to open. A Point Beach NRC Resident Inspector was at the 0645 hours morning staff meeting.

The Condition Report on the cross-connect valves for the component cooling system was submitted on either February 20 or February 21, 1997. The employee had obtained additional input from another Point Beach operator who actually recalled personally torquing the cross-

connect valves shut. In the Condition Report, the employee raised for the first time a concern that the cross-connect valves might be damaged. The Plant Manager first saw the Condition Report sometime late morning on February 21, 1997. The Point Beach Resident Inspectors have access to all Condition Reports and regularly review them.

The Plant Manager raised the Condition Report regarding the cross-connect valves at an MSS meeting at approximately 1300 hours on February 21, 1997. While there was no conclusive evidence to suggest that the cross-connect valves would not function, the MSS concluded that the cross-connection of the component cooling water system pursuant to the abnormal operating procedure should not be included as a compensatory measure regarding extension of the enforcement discretion. The MSS also concluded that this development did not influence the safety basis of the enforcement discretion to maintain Unit 1 in hot shutdown at a temperature in excess of 350°F. This information was to be communicated to the NRC Region III staff at a previously scheduled 1400 hours conference call on February 21, 1997. A Point Beach Resident Inspector attended the MSS meeting and was aware of the discussion of the cross-connect valves and the plan to raise the issue with the NRC at 1400 hours.

In fact, the Resident Inspector had briefed Region III personnel on the Condition Report prior to the 1400 hours conference call. Region III staff raised the issue in the conference call before the Plant Manager had the opportunity to complete his planned status update. The Point Beach Plant Manager requested an extension to the enforcement discretion, which was denied at 1900 hours on February 21, 1997.

The statement in the February 20, 1997, letter at issue is: "Point Beach Nuclear Plant has the capability to cross-connect the Unit 1 and Unit 2 component cooling water systems should the system in one unit fail." The basis for this statement is found in the PBNP Final Safety Evaluation Report (FSAR) Section 9.3: "The component cooling water (CCW) system is normally aligned such that Unit 1 and Unit 2 have hydraulically independent systems. However, the CCW systems for each unit were designed with the capability to be hydraulically connected under abnormal conditions."

The FSAR does not specify the number of ways or the specific method for cross-connecting the component cooling water systems. To be sure, the Plant Manager had in mind cross-connecting the Units 1 and 2 component cooling water systems pursuant to the abnormal operating procedure, which required opening two normally shut cross-connect valves CC-722A (component cooling pump suction cross-connect) and CC-722B (component cooling pump discharge cross-connect). However, the component cooling water system can also be cross-connected by opening CC-722A and through the properly positioned component cooling water heat exchanger inlet and outlet valves. Contrary to the statement of Violation 1, the oral information and written information provided to the Commission did not state, "that the licensee had the capability to open the pump suction valve and discharge cross-connect valve to cross connect the Unit 1 and Unit 2 component cooling water (CCW) systems." However, it was reasonable to infer that meaning because of the reference to the abnormal operating procedure.

Furthermore, Point Beach management personnel believed at the time of the conference call with the NRC on February 21, 1997, that the component cooling water cross-connect valves, CC-722B and CC-722A, were capable of opening even if additional torque had been applied to close them. They are large ten inch gate valves which had been strongly torqued shut and have not been opened in many years. In a test conducted on March 4, 1997, to cycle the valves, CC-722A opened and closed as designed, and CC-722B failed to open when the manufacturer's recommended torque was applied. Point Beach plant management elected not to apply additional torque to open the valve CC-722B and risk damage to it. This decision was based in part on the fact that there is the separate path to cross-connect the component cooling water system. Consequently, it was not deemed prudent to risk damage to the valve by opening it with additional torque, since there is no need to cross-connect the system by opening the stuck valve. Nonetheless, if it were important to open the stuck valve, there is a reasonable probability (based on the radiography of the valve internals which show no damage) that it could be opened with additional torque applied.

Since we elected not to open CC-722B by applying additional torque, it may be inaccurate to state that the component cooling water systems at Point Beach can be cross-connected in the manner contemplated at the time of the discussions leading to the verbal NOED and the submittal of the February 20, 1997, NOED. As was made clear in the interview transcripts of the individuals interviewed by the OI investigator, however, no one questioned the ability of the valves to open, notwithstanding the additional torque applied to close the valves. Thus, until the Condition Report was reviewed by the Plant Manager on February 21, 1997, no one considered the history of the component cooling water system cross-connect valves to have an adverse impact on the compensatory measure.

Corrective Action Taken:

Shortly after the Plant Manager read the Condition Report which suggested that the component cooling water cross-connect valves may be damaged (which turned out not to be true), he raised the issue with the MSS and noted his intent to inform Region III in a previously scheduled conference call. This issue was discussed with Region III in conference calls conducted by the Plant Manager during the afternoon of February 21, 1997.

The Point Beach Technical Specifications have been revised to eliminate the requirement to cross-connect the component cooling water systems for redundancy. However, the capability to cross-connect still remains through the heat exchanger passway. The abnormal operating procedure to cross-connect the component cooling systems through CC-722B has subsequently been canceled. Thus, we believe there will never be an occasion to open the valve or to test it.

A contributing factor to this event was the fact that a potentially degraded component or system had not previously been identified and documented to ensure proper disposition of the condition. In late April 1997, Wisconsin Electric's President and Chief Nuclear Officer sent a letter to all

Nuclear Power Business Unit employees and retirees requesting assistance in identifying any other undocumented degraded equipment or systems that may have safety implications at Point Beach. Employees and retirees were asked to reflect upon their past work to identify and bring to management's attention any other undocumented conditions that may have been known or suspected.

In addition, improvements have been made to our Condition Reporting system and Corrective Action Program to document and communicate potentially degraded conditions to our management team in a timely manner for resolution for timely resolution. These improvements and additional planned actions have been previously communicated to the NRC in our October 10, 1997, response to Enforcement Action EA 97-075.

Corrective Action to Prevent Recurrence:

The situation has reinforced with plant management the need to provide complete and accurate communications to the NRC. We believe that a unique set of circumstances lead to this violation and therefore is not indicative of our communication practices and standards. We do believe that our communications with the NRC have improved during the past several months. However, we acknowledge our ongoing obligation to diligently, timely, and completely communicate with the NRC and therefore plan to take additional corrective actions.

To further improve our communications with the NRC, the following actions are planned:

A clarification of expectations for verbal communication of important information to the NRC Resident Inspectors, Region III, and NRC Headquarters, including how and to whom the information should be conveyed, will be developed and disseminated to NPBU personnel. Point Beach Nuclear Plant policy AM 5-1, "Nuclear Regulatory Commission Interface Policy," will be revised to include the clarifying expectations. These actions will be completed by February 28, 1998.

Increased rigor in defining requirements for review and documenting concurrence in significant written correspondence to the NRC will be implemented. Point Beach Nuclear Plant procedure NP 5.2.2, "Notice of Enforcement Discretion" will be revised to include more rigorous requirements for the review and concurrence of enforcement discretion submittals. Point Beach Nuclear Plant procedure NP 5.1.1, "Nuclear Regulatory Commission Interface Protocol," will also be reviewed and revised as deemed appropriate to include revised review and concurrence requirements for written communications to the NRC. These actions will be completed by February 28, 1998.

Date of Full Compliance:

Complete and accurate information regarding the component cooling water system cross-connect has been communicated to the NRC.

Violation 2:

"10 CFR 50, Appendix B, Criterion XI, "Test Control," requires, in part, that a test program be established to assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. The test program shall include, as appropriate, proof tests prior to installation, preoperational tests, and operational tests during nuclear power plant operations of structures, systems, and components.

Contrary to the above, as of February 1997, the test program did not ensure that testing required to demonstrate the satisfactory performance of the CCW cross-connect valves, CC-722A and CC-722B, was identified and performed in accordance with written test procedures. Specifically, the valves were not subject to operational tests during nuclear power plant operations to ensure that they would open as designed.

This is a Severity Level IV violation (Supplement I)."

Reason for Violation:

Operational testing of safety-significant pumps and valves is performed in accordance with the PBNP Inservice Testing (IST) Program. Manual valves are included in the program when it is determined that they must be manually repositioned to support the function of shutting down the reactor to the cold shutdown condition or in mitigating the consequences of an accident (i.e., perform a safety-related active function). Licensing and IST Program personnel have reviewed the PBNP IST Background Document to determine the probable cause for not including the subject component cooling water (CCW) valves (CC-722A and B).

The original IST Program review did not recognize CCW valves CC-722A and B as the valves that would be used under abnormal conditions to cross-connect the Unit 1 and Unit 2 CCW systems. Rather, the IST Program only recognized the CCW heat exchanger cross-connect valves (1CC-726C, 1CC-728C, 2CC-726B, 2CC-728B) as a potential system cross-connection. Furthermore, the IST Background Document described that the basis for this cross-connect was to allow splitting or cross-connecting the CCW headers in response to a passive failure (e.g., a pipe break), and not for a pump failure. This was reinforced by the fact that the Technical Specifications in effect allowed indefinite operation with a single CCW pump. Therefore, the review of the CCW cross-connect function concluded that testing the cross-connect manual valves (1CC-726C, 1CC-728C, 2CC-726B, 2CC-728B) was not required.

Contributing to the original oversight were: (1) licensing basis and design basis documents did not explicitly identify the cross-connect function, (2) abnormal operating procedures, at the time of IST program development, did not provide guidance for cross-connecting the CCW system for an accident which included a failure to the only operable CCW pump, and (3) the original review of the IST Background Document was not sufficiently rigorous to identify such functions.

In conclusion, the failure to perform operational testing of the subject CCW cross-connect valves was an incomplete review of manual valve functions during the development of the IST Program.

Corrective Action Taken:

PBNP Technical Specification 15.3.3.C.2 was amended (amendments 174/178) to ensure that a Limiting Condition of Operation (LCO) is declared when any one CCW pump of an operating unit is inoperable. Prior to this amendment, the Technical Specifications would have allowed the CCW system to operate indefinitely (i.e., no declaration of an LCO) with the CCW pump of one unit inoperable. Under the provisions of LCOs, if an accident were to occur during the LCO allowed outage time, the postulation of a single failure is not required, therefore there would be no necessity to cross-connect the CCW system under the current Technical Specifications.

Corrective Action to Prevent Recurrence:

An IST Improvement Project has been initiated to re-evaluate systems and components to ensure compliance with the cited regulation and the ASME Code Section XI. A complete review of credible operating configurations will be conducted using operating procedures, abnormal operating procedures, emergency operating procedures, Technical Specifications, Technical Specification Bases, and the experience of operators and industry experts.

Date of Full Compliance:

Full compliance with the cited regulation was achieved for this issue when the Technical Specifications were amended to require an LCO when any CCW pump is inoperable.