



Wisconsin  
Electric  
POWER COMPANY

231 W. Michigan, P.O. Box 2046, Milwaukee, WI 53201

(414) 221-2345

VPNPD-92-066  
NRC-92-019

10 CFR 2.201

CERTIFIED MAIL

February 5, 1992

Director  
Office of Enforcement  
U. S. NUCLEAR REGULATORY COMMISSION  
Mail Station P1-137  
Washington, D. C. 20555

Attention: Document Control Desk

Gentlemen:

DOCKETS 50-266 AND 50-301  
REPLY TO NOTICE OF VIOLATION  
INSPECTION REPORTS 50-266/91025; 50-301/91025  
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

In a letter dated January 10, 1992, from Mr. A. Bert Davis, the Nuclear Regulatory Commission forwarded to Wisconsin Electric Power Company, licensee for the Point Beach Nuclear Plant, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice). The Notice described violations identified during the special inspection conducted at Point Beach Nuclear Plant from October 1 to November 1, 1991.

We have reviewed this Notice and, pursuant to the provisions of 10 CFR 2.201, have prepared a written statement of explanation concerning these violations as an attachment to this letter. We have also enclosed a check payable to the Treasurer of the United States in the amount of \$150,000 for payment of the civil penalties imposed by the Notice.

#302303

Rec'd w/ check # 907144  
For \$150,000

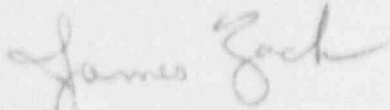
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NRC Office of Enforcement  
February 5, 1992  
Page 2

We believe this statement and the actions described are fully responsive to the concerns identified in the January 10, 1992, letter. Should you have any questions concerning our activities or proposed actions in this regard, please let us know.

Sincerely,

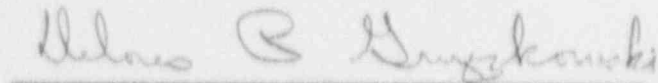


James J. Zach  
Vice President  
Nuclear Power

Enclosures (Check 907144)

Copies to NRC Regional Administrator, Region III  
NRC Resident Inspector

Subscribed and sworn to before me  
this 5<sup>th</sup> day of February, 1992.

  
Notary Public, State of Wisconsin

My Commission expires 2-5-92.

REPLY TO NOTICE OF VIOLATION AND  
PROPOSED IMPOSITION OF CIVIL PENALTIES

Wisconsin Electric Power Company  
Point Beach Nuclear Plant, Units 1 and 2  
Dockets 50-266 and 50-267

During an inspection conducted from October 1 to November 1, 1991, at the Point Beach Nuclear Plant, two violations of NRC requirements were identified. The Notice of Violation (transmittal of January 10, 1992) identified two violations. We agree that the events and circumstances described in these violations have been correctly characterized. We also agree that the factors involving the discovery and corrective actions concerning these violations have been correctly applied in the escalation or mitigation of the associated civil penalties.

I.A. Violations Associated with MSIV Reporting

"10 CFR 50.72(b)(2) requires, in part, that the licensee notify the NRC as soon as practical and in all cases within four hours of the occurrence of any event or condition that alone could have prevented the fulfillment of the safety function of a system that is needed to mitigate the consequences of an accident.

"10 CFR 50.73(a)(2) requires, in part, that the licensee submit a Licensee Event Report within 30 days after the discovery of any event or condition that could alone have prevented the fulfillment of the safety function of a system that is needed to mitigate the consequences of an accident.

"Section 14.2.5.1 of the Point Beach Safety Analysis Report (SAR) states that the fast acting steam line isolation valves are designed to close in less than five seconds with low steam flow.

"Contrary to the above, the licensee failed to adhere to these reporting requirements as evidenced by the following examples:

- "1. On September 29, 1991, at 9:30 a.m., Unit 2 main steam stop valves/MSIVs No. 2MS-2017 and 2MS-2018 failed to close under low steam flow conditions during reactor shutdown for major fuel reloading, and the licensee did not notify the NRC until the afternoon of September 30, 1991, a period in excess of 4 hours as required by 10 CFR 50.72(b)(2). These failures alone could have prevented the fulfillment of a safety function of a system needed to mitigate the consequences of accidents described in the SAR.

- "2. On August 16, 1987; September 24, 1989; and October 6, 1990; Unit 2 MSIV 2MS-2017 failed to fully close under low steam flow conditions during reactor shutdown, and the licensee did not notify the NRC as soon as practical or within 4 hours as required by 10 CFR 50.72(b)(2), and the licensee did not submit a written report within 30 days after discovery as required by 10 CFR 50.73(a)(2). These MSIV failures alone could have prevented the fulfillment of a safety function needed to mitigate the consequences of accidents described in the SAR."

#### RESPONSE

We acknowledge that the circumstances identified in this violation are accurate and agree that our failure to provide proper or timely reporting constitutes a violation of the NRC regulations. The reason for this violation was our perception, based on the early operating experiences with the MSIVs during high steam flow conditions (which were discussed in some detail during the Enforcement Conference), that the failure of an MSIV to close under low steam flow during a plant shutdown was not a significant safety concern. We believed that during a postulated steam line rupture downstream of the valve, the steam pressure and high steam flow would act to swiftly shut and seat the MSIVs. We further did not consider a failure of the MSIV to fully close during a unit shutdown to be a significant safety concern if the valve was tested and proven to be operable before any subsequent power operation. We acknowledge that these interpretations were not conservative and did not meet the intent of the regulations. We assure you, however, that those interpretations developed because of an operating-experience-based mind-set and not because of any deliberate disregard for plant safety or the NRC regulations.

As a result of this violation, a number of corrective actions have been completed or have been proposed to avoid further violations of this nature. The following corrective actions were discussed at the Enforcement Conference and have previously been documented in our letter to Mr. Davis dated December 3, 1991.

1. For any condition where a single MSIV would not have performed its safety function if called upon, we have committed to report to the NRC in accordance with 10 CFR 50.72 and 50.73.

2. If any safety-related component or system does not meet its surveillance testing requirements or is not capable of performing its safety function as analyzed in the FSAR, we will consider that component inoperable unless it can be otherwise shown that the safety function can be satisfied.
3. In those cases where a safety-related component or system is inoperable and there is no governing LCO in the Technical Specifications, we are committed to notify the Resident Inspector or the NRC Headquarters Duty Officer in four hours. We will continue this extra report until the Region III Administrator determines otherwise.

In the past year to eighteen months, we have initiated several management processes, including the Condition Reporting System with its associated operability and reportability determinations, which are expected, as the processes mature, to become more effective in identifying situations of this type and avoiding similar violations. We are increasing management attention to the programs by evaluating them for adequacy, adopting changes as necessary, and enhancing the training of our personnel on the implementation of the programs.

As a result of this incident, we have taken the following additional steps which are intended to ensure that equipment problems are identified and promptly evaluated for reportability and operability:

1. In order to determine whether we have any chronic or repetitive problems with other safety-related equipment, we are conducting a written Operator and Maintenance Worker Survey seeking information from these plant personnel as to whether situations similar to those experienced with the MSIVs exist anywhere else in the plant. The survey has been distributed and will be collected and summarized by February 14, 1992. Follow-up interviews and/or focus group discussions will be conducted as necessary.
2. We are revising the Maintenance Work Request defect tag to initiate concurrent reportability and operability determinations. This revision will be completed by February 28, 1992.
3. We have issued an Operations Night Order and Standing Order to reemphasize to the operating crews the importance of communicating equipment problems to management.

We expect to report to you on the progress of these additional corrective actions during a scheduled meeting with the NRC Regional representatives on February 24, 1992.

I.B. Violations Associated with MSIV Testing

"10 CFR Part 50, Appendix B, Criterion XI, Test Control, requires, in part, a test program be established to assure that all testing required to demonstrate that 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, that test program shall include operational tests of systems and components during nuclear power plant operation, and the test results shall be documented and evaluated to assure that test requirements have been satisfied.

"Technical Specification 15.4.7 requires that the main steam stop valves (alternatively known as the main steam isolation valves, or MSIVs) shall be tested under low steam flow conditions during reactor shutdowns for major fuel reloading. Closure time of five seconds or less shall be verified.

"Contrary to the above, as of September 29, 1991, Point Beach Procedure IT-280/285, "In-Service Testing of Main Steam Stop Valves," did not demonstrate that the main steam stop valves (MSIVs) would perform satisfactorily in service due to pre-conditioning of the valves by other procedures. Specifically, Point Beach Procedure No. OP-13B, "Secondary System Shutdown," Revision 1, dated March 30, 1989, paragraph 4.7 directed closure of the MSIVs without measuring the closure time and Point Beach Procedure No. OP-13A, "Secondary System Start-up," Revision 40, dated October 3, 1990, paragraph 4.5.5 directed the operator to cycle the MSIV prior to performing the Technical Specification surveillance test that measures valve closure time."

RESPONSE

We agree with the conclusion of this violation that cycling the MSIVs during OP-13A prior to conducting the surveillance test may serve to precondition the valves and, therefore, detracts from the ability of the surveillance test to demonstrate that the MSIVs would perform satisfactorily when placed in service. We



believe, however, that the portion of Procedure OP-13B which directs closure of the MSIVs during a secondary system shutdown without measuring the closure time should not be considered as preconditioning of the valve.

We hope to discuss this matter with the NRC staff at our meeting on February 24 and will adhere to any agreement developed at that time regarding this issue.

This violation occurred because plant start-up procedures for the testing of these MSIVs originally required the operators to conduct the Technical Specification surveillance test by cycling the valves. Later, when a specific test procedure was developed to document this surveillance test, the cycling of the MSIVs was not removed from Procedure OP-13A.

Our corrective measures to assure there was no operability questions because of testing methodology included additional testing of both the Unit 2 and Unit 1 MSIVs during the months of October and November 1991. These tests were reported to you in our letters dated October 8 and November 4, 1991, and during the Enforcement Conference. The Unit 1 valves were successfully tested on October 5 and October 26, 1991. For the latter outage, the tests were conducted both before and after the cleaning and refurbishment of the valve operators. As we have previously reported, the valves met the acceptance criteria of the more rigorous surveillance test. The Unit 2 valves were successfully surveillance tested during the unit start-up in November 1992. We have also committed to a mid-cycle test of the Unit 2 valves in February or March 1992. This mid-cycle test, as indeed all the recent tests of the MSIVs mentioned above, will not include any cycling of the valves prior to measuring the valve closure time. Since Operating Procedure OP-13A have been revised to remove the valve cycling steps prior to the Technical Specification surveillance test, our program is now in compliance with the regulation.

## II. Violation Associated with Corrective Actions

"10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, requires, in part, that measures be established to assure that conditions adverse to quality, such as failures and malfunctions, are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall also assure that the cause of the condition is determined, corrective action is taken to preclude repetition, and the cause of the condition and the corrective action are documented and reported to appropriate levels of management.

"Section 14.2.5.1 of the Point Beach Safety Analysis Report states that the fast acting steam line isolation valves are designed to close in less than 5 seconds with low steam flow.

"Contrary to the above, on August 26, 1987; September 24, 1989; and October 6, 1990; Unit 2 MSIV 2MS-2017 failed to function as described in Section 14.2.5.1 of the Safety Analysis Report, which is a significant condition adverse to quality, and the licensee did not adequately determine the cause of the failure or take adequate corrective action to preclude repetition. Specifically, on each of those occasions, the MSIV failed to close with low steam flow and the licensee failed to determine the cause of the failure."

#### RESPONSE

We acknowledge that the information in this citation is accurate and agree with the observation that our corrective actions to prevent recurrence of the MSIV malfunctions were inadequate. The reason for this violation was our failure to properly identify the root cause of the MSIV failures.

In each of the three valve failures cited in this violation, valve adjustments and/or maintenance was completed and the valve satisfactorily tested prior to returning the unit to power. The fact that these corrective actions were insufficient to prevent recurrence of the valve closure failures, and thus did not address the root cause of the valve problems, is correct.

Our immediate corrective actions to return the Unit 2 MSIVs to an operable condition and to determine the cause of the recurring valve failures have been documented in our letter dated November 4, 1991, and the NRC's November 15, 1991, Inspection Report. We also discussed our findings with the NRC staff during the management meeting on November 1, 1991. Briefly, these measures consisted of cleaning and refurbishment of both MSIV valve operators, replacement of valve shafts and packing in both valves, and replacement of the MS-2017 shaft bushing. The Unit 1 valve operators were also cleaned and refurbished during the October 26, 1991, unit outage.

On October 7, 1991, a Human Performance Evaluation Systems investigation of the September 29 incident was initiated. This investigation focused on the history of operation of safety-related valves and equipment and the practices used by operators during the conduct of procedures and tests. The investigation also examined the interface and feedback between operators and plant management. Initial results of this investigation were



shared with the NRC at the November 1, 1991, management meeting. Additional actions resulting from this investigation were also shared with you at the Enforcement Conference and documented in our December 3, 1991, letter. These include the operator survey mentioned previously, our decision to initiate a systematic review covering the past five years of operating and machinery history of safety-related equipment to uncover previously unidentified repetitive problems, and the review of assumptions in our FSAR against the limiting conditions for operation and surveillance requirements in the Technical Specifications and our preventive maintenance program.

As described in our November 4, 1991, letter, we are closely monitoring the condition of the MSIVs in both units for any signs of conditions detrimental to the valves or the operators leaks. Any packing steam leakage which we observe will be evaluated to determine the impacts of the leakage on the valve and valve operator. Condensation will be addressed by diversion of the water away from the operators. If packing adjustment is determined to be appropriate, the affected valve will be subsequently tested for operability.

We are at this time also planning additional hardware modifications to the MSIVs. These modifications were discussed in our Supplemental LER 91-001-01 dated January 24, 1992. They include replacement of the non-operator end of the MSIV valve shaft packing box with a bearing cap which would require no packing. At the operator end of the shaft, we are planning to implement the recommendation of the valve manufacturer to install an additional shaft support bearing. This modification will provide additional support to the valve shaft and reduce the amount of shaft bending and uplift. We believe this valve shaft bending and uplift contribute to the valve packing leakage we have observed which, in turn, has contributed to the corrosion problems observed on the valve operator cylinder. We are also planning to install a stronger spring in the valve operator cylinder which would provide a larger closing force on the valve.

We will be contacting licensees having good root cause identification programs. From these discussions, we expect to identify enhancements which may be made to our Operating Experience Review Program which will contribute to prevent recurrent equipment failures. INPO has provided us with lesson plans and other information concerning a training program for teaching root cause evaluations.

As discussed above, we are planning to meet with the NRC staff on February 24, 1992, to summarize our progress towards resolution of the MSIV operability problems.

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

FEB. 5, 1992

CHECK NUMBER 907144 79-184 759

ONE HUNDRED FIFTY THOUSAND DOLLARS AND 00 CENTS\*\*\*\*\*000150,000.00

TREASURER OF THE UNITED STATES  
DIRECTOR, OFFICE OF ENFORCEMENT  
US NUCLEAR REGULATORY  
COMMISSION  
WASHINGTON DC

D. A. Wilkins

TO FIRST WISCONSIN - BANK OF PORTAGE  
PORTAGE, WISCONSIN

0907144# 075901846: 700-053#

**WISCONSIN ELECTRIC POWER COMPANY**  
231 W. MICHIGAN ST., P.O. BOX 2046, MILWAUKEE, WI 53201

CHECK  
NUMBER 907144

DATE	INVOICE/REFERENCE NUMBER	GROSS	DISCOUNT	NET AMOUNT
	FEB. 5, 1992			
01/23/92	SPECIAL HANDLING : DELORES @ 2123 3 RECORDS \$150,000.00 ADIV NOV CIVIL PENALTY SEE ATTACHED DETAIL	\$150,000.00	0.00	\$150,000.00

THE ATTACHED CHECK IS IN FULL PAYMENT OF ACCOUNT AS SHOWN ABOVE  
DETACH BEFORE PRESENTATION AT BANK. NO RECEIPT OTHER THAN ENDORSEMENT ON CHECK NECESSARY  
IF SETTLEMENT IS NOT SATISFACTORY, RETURN BOTH CHECK AND STATEMENT

SALES TAX REMITTED BASED ON DISCOUNTED  
UNIT PRICE PURSUANT TO WISCONSIN STATUTES

\* Payment of Civil Penalty issued pursuant to 10 CFR Part 2 for violations of NRC Regulations at the Point Beach Nuclear Plant Units 1 and 2.

RC 068851