



**Wisconsin
Electric**
POWER COMPANY

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PBL 96-0013

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

Ladies and Gentlemen:

DOCKETS 50-266 AND 50-301 PUMP AND VALVE INSERVICE TESTING PROGRAM VALVE
RELIEF REQUESTS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Enclosed is a request for a one time relief (VRR-4A) from the previously approved relief request VRR-4 (NRC SER - October 28, 1993). Request VRR-4A asks for a one year extension to the required six year time interval between the disassembly, inspection and manual stroke testing of valve ISI-00867A. This valve is currently scheduled to be worked during the Spring 1996 Unit 1 refueling outage to meet this six year requirement. Currently, this is the only outage activity scheduled which will require the unit to go to reduced reactor coolant system inventory with fuel remaining in the reactor core. This plant condition is the most significant contributor to core damage in a PWR. Therefore, Point Beach believes the additional risks of going to reduced inventory are greater than the risk involved in not disassembling valve SI-00867A. The past performance of similar valves on Unit 1 and Unit 2 at Point Beach and also within the industry support this request.

We look forward to receipt of your response concerning this request. It is our intent to implement this interval extension during our next Unit 1 refueling outage in late March. Consequently, a response to this request by March 1, 1996, would be greatly appreciated.

Should you have any questions or require additional information, please do not hesitate to call us.

Sincerely,

G. J. Maxfield
Plant Manager

Attachment

CJN/caw

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PDR ADOCK 05000266
P PDR

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RELIEF REQUEST NO. VRR-4A

COMPONENT: UNIT 1 (Drawing 110E017 Sh. 1): SI-00867A

CATEGORY: A/C

FUNCTION:

This valve opens to provide a flow path from the safety injection pumps and the SI Accumulators to the RCS cold leg under accident conditions. It closes to isolate the SI System from the RCS and protect SIS system components from potential damage caused by over-pressurization and is tested in accordance with Technical Specification 15.3.16.

CURRENT REQUIREMENT PER VRR-4 (NRC SER - OCTOBER 28, 1993):

Valves SI-00842A and SI-00867A will each be disassembled, inspected, and manually stroked once every six years, rotating sequence of valves being inspected such that a different one is completed each time until all have been inspected and the sequence repeats.

ALTERNATE TESTING:

Valve SI-00867A will be disassembled, inspected, and manually stroked after a seven year interval.

BASIS FOR RELIEF:

Valve SI-00867A is currently scheduled to be disassembled, inspected, and manually stroked during the Spring 1996 Unit 1 refueling outage. If this valve is worked as scheduled, the six year interval requirement per VRR-4 will be met. Currently, this is the only outage activity scheduled which will require the unit to go to reduced inventory with fuel remaining in the reactor core. This plant condition is the most significant contributor to core damage in a PWR. Therefore, Point Beach feels the additional risks of going to reduced inventory are greater than the risk involved in not disassembling valve SI-00867A. If granted, this valve will be disassembled and inspected during the 1997 Unit 1 refueling outage.

The following information is being provided per NRC GL 89-04, Position 2 in support of this relief request. A total of seven other similar valves have been disassembled or full flow tested within the last three years. All of the valves have been disassembled within the last six years. To date, no degradation of valve operability or performance has been noted in any disassembly and inspection or full flow test performed on these valves. The following table lists each specific valve, the individual work order (WO) or outage activity (OA) under which the work was performed, and the completion date:

UNIT 1

SI-00842A	WO 45881	4/14/93
	WO 890172	4/11/90
	WO 872759	4/14/88
SI-00842B	WO 45639	4/14/93
	WO 890174	4/21/90
SI-00867A	WO 3637	5/1/90
	WO 890176	4/24/90
	WO 872755	4/15/88
SI-00867B	OA 8739	Spring 95*
	OA 8739	Spring 94*
	WO 890178	4/21/90

UNIT 2

SI-00842A	WO 9510056	10/17/95
	WO 890173	10/5/89
	WO 872760	10/18/87
SI-00842B	WO 9510057	10/17/95
	WO 890175	11/4/89
SI-00867A	WO 9510060	10/21/95
	WO 890177	10/5/89
	WO 872753	10/20/87
SI-00867B	OA 8739	Fall 95*
	OA 8739	Fall 94*
	WO 50730	10/8/93
	WO 890179	11/3/89

* Full Flow Test

An industry wide search utilizing NPRDS (Nuclear Plant Reliability Data System) on similar valves also indicated no failures, although leakage through the seat was reported in 34 instances, including three instances at Point Beach. Additionally, these valves are not installed in a problematic location based on their orientation in the piping system.

RELIEF REQUEST NO. VRR-4

SYSTEM: Safety Injection (110E017, Sh 1/110E035, Sh 1)

COMPONENTS: SI-00842 A and B (Units 1 and 2)
SI-00867 A and B (Units 1 and 2)

CATEGORY: A/C

FUNCTION:

These valves open with differential pressure to provide flow paths from the safety injection (SI) pumps and SI accumulators to the reactor coolant system (RCS) cold legs during an accident. They are normally closed. In the closed position, they serve as RCS pressure isolation valves.

SECTION XI REQUIREMENT:

Check valves shall be exercised at least once every 3 months, except as provided by IWV-3522. (IWV-3521)

BASIS FOR RELIEF:

During normal operation, neither SI pump discharge pressure of 1500 psi nor SI accumulator pressure of 760 psig, is sufficient to overcome RCS pressure. Full or partial stroke testing therefore is not possible.

During cold shutdown, partial or full stroke testing via the use of SI pumps or SI accumulators is not permitted so as to prevent the possibility of a low-temperature over-pressurization event.

A full stroke test to the RCS could be possible during refueling when the reactor vessel head is removed, but the volume and flow rate required for the test could result in damage to the core internals. There is also the potential of forcing a nitrogen bubble into the RCS piping and refueling cavity resulting in possible safety implications, which makes this testing concept inadvisable.

ALTERNATE TESTING:

The following alternate testing will be performed:

1. At a minimum for these valves, partial open and shut stroke tests will be done at each refueling outage. In addition, partial open and shut stroke tests will be conducted at each cold shutdown which requires an Event V test. (See Technical Specification 15.3.16)
2. Seat leakage tests of SI-00867 A and B will be performed in accordance with Point Beach Technical Specification 15.3.16, "Reactor Coolant System Pressure Isolation Valve Leakage Tests."
3. Seat leakage tests of SI-00842 A and B will be performed quarterly coincident with SI pump tests. A seat leakage rate of 5 gpm or less will be considered acceptable.
4. Valves SI-00842A and SI-00867A will each be disassembled, inspected, and manually stroked once every 6 years; rotating the sequence of valves being inspected such that a different one is completed each time until all have been inspected and the sequence repeats. Should a failure be detected, the other valve for that unit shall be disassembled and proper operation verified prior to completion of that outage. The opposite unit's two valves will be disassembled and inspected during that unit's next scheduled refueling outage.
5. Valves SI-00842B and SI-00867B require a complete core offload in order to disassemble and inspect. One valve of the four will be disassembled, inspected, and manually stroked each outage in which a complete core offload is scheduled. Typically this will be done concurrently with reactor vessel inspections. The disassembly schedule will be arranged such that a different valve is disassembled, inspected, and manually stroked during each core offload and all valves are completed at least once every 120 months. Should a failure be detected, the other valve for that unit will be disassembled and proper operation verified prior to the completion of the outage.
6. In the inspections which result from the detection of a failure, should an additional failure be detected, all remaining six valves will be disassembled, inspected, and manually stroked. Valves associated with the unit in outage will be completed prior to the return of that unit to service, even if it requires an unscheduled core offload to be performed. Valves associated with the opposite unit will be completed during the next scheduled refueling outage, even if a complete core offload was not previously planned.

BASIS FOR EXTENDED INSPECTION INTERVAL:

The NRC, in Generic Letter (GL) 89-04, Position 2, requested information to support extension of valve disassembly and inspection intervals of greater than once every 6 years. Within the last 3 years, each valve of the eight identified in this request has been disassembled, inspected, and manually stroked per the criteria in GL 89-04, Position 2. This maintenance was performed in conjunction with retaining block stud replacement done in response to NRC Information Notice 88-05. To date, no degradation of valve operability or performance has been noted in any disassembly and inspection performed on these valves. The following table lists each specific valve, the individual maintenance work request (MWR) under which the inspection was performed, and the completion date:

UNIT 1

SI-00842A	MWR 872759	April 14, 1988
	MWR 890172	April 11, 1990
SI-00842B	MWR 890174	April 21, 1990
SI-00867A	MWR 872755	April 15, 1988
	MWR 890176	April 24, 1990
SI-00867B	MWR 890178	April 21, 1990

UNIT 2

SI-00842A	MWR 872760	October 18, 1987
	MWR 890173	October 05, 1989
SI-00842B	MWR 890175	November 04, 1989
SI-00867A	MWR 872753	October 20, 1987
	MWR 890177	October 05, 1989
SI-00867B	MWR 890179	November 03, 1989

The request to provide basis for extended inspection interval only applies to SI-00842B and SI-00867B, as these are the only valves which will go beyond the 6-year period specified in GL 89-04, Position 2. The maintenance history of all eight valves is provided for completeness when attempting to show the trouble-free history of the valves in general.

Additional justification for the extended inspection interval may be found in the NRC Safety Evaluation Report (SER) on the In-Service Test Program at Point Beach dated April 17, 1992. The Technical Evaluation Report (TER), Section 3.14.3.4, attached to the SER states, "...it would be an extreme hardship to require the licensee to comply with the 6-year inspection interval for the two valves which require the reactor to be defueled and drained in order to be tested (SI-00842B)."

The drawings referenced by this request will show that the conditions which must exist to permit the disassembly of SI-00842B must also exist to permit the disassembly of SI-00867B. Thus, the extended period for inspection should apply to both (four valves total, two per unit).

STATUS:

Relief granted per NRC SE of October 28, 1993.