



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

VPNPD-86-284
NRC-86-59

July 3, 1986

Mr. J. G. Keppler, Regional Administrator
Office of Inspection and Enforcement,
Region III
U. S. NUCLEAR REGULATORY COMMISSION
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Attention: Mr. W. G. Guldemon, Chief
Reactor Projects Branch 2

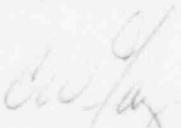
Dear Mr. Keppler:

DOCKETS 50-266 AND 50-301
ADDITIONAL RESPONSE TO IE BULLETIN 85-03
MOTOR-OPERATED VALVE SWITCH SETTINGS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

As requested in your June 3, 1986 letter, we are providing additional information to supplement our May 2, 1986 response to IE Bulletin 85-03. The attachment to this letter describes in more detail how we plan to accomplish the recommendations.

If you have any additional questions on this information, please contact us.

Very truly yours,


C. W. Fay
Vice President
Nuclear Power

Attachment

Copy to Resident Inspector

8607150152 860703
PDR ADOCK 05000266
Q PDR

JUL 8 1986

11
11

ATTACHMENT

IE BULLETIN 85-03 PROGRAM PLAN

The scope of this program consists of those motor-operated valves (MOV's) that are in the high-head safety injection system (high-pressure coolant injection) and the auxiliary feedwater system (emergency feedwater) and are required to be tested for operational readiness in accordance with 10 CFR 50.55a(g). Only those MOV's that are required to change position to perform their safety function are included, and are only evaluated for that particular motion (i.e., open or close). Safety injection system valves included are only those required for the high-head injection mode.

The following section provides (1) clarification on the results of Item (a) of the Bulletin (Table 1 of our May 2, 1986 response, attached) and (2) a more detailed description of the program to accomplish Items (b) through (d) of the Bulletin, including our proposed schedule for completion (Table 2 of our May 2, 1986 response, attached). These sections are identified by the associated action Item (a) through Item (d) of IE Bulletin 85-03:

- a. This item required the review and documentation of the design basis for the operation of each valve at Point Beach that is in the scope of this Bulletin. The design basis operation of each valve was obtained by using FSAR system descriptions, accident analyses, and operating procedures where necessary. Using these sources, the direction that a valve must stroke to perform its safety function and the system conditions under which it will be operating (i.e., pressures) were determined. The differential pressures (dP's) under which the valve may be operated were determined using the above sources, as well as Piping and Instrument Diagrams (P&ID's), equipment layout drawings, and equipment specifications. Worst case dP's were determined for these valves, using assumptions that are within the existing, approved design basis. For example, auxiliary feedwater pump discharge valves were assumed to have a dP across them resulting from the auxiliary feedwater pump at shutoff head and the steam generator completely depressurized. The dP's obtained were compared to the valve's design dP from vendor data sheets to ensure that the calculated dP is within the design dP. Where applicable and within the design basis, valve alignments were assumed that resulted in the maximum dP. The dP calculations were documented, reviewed, and approved in accordance with our Nuclear Engineering Administrative Manual.

- b. This item requires establishing the correct switch settings using the results from Item (a) above. For the torque switches, this will be accomplished in two phases. First, the calculated dP's from Part (a) will be supplied to the valve vendor, along with the associated valve shop order numbers. Stem thrusts will be calculated by the valve vendor for each valve. These stem thrusts will then be given to Limitorque for determination of proper torque switch settings. Limit switches will be set according to their design functions. The full open limit switch will be set to allow the disc to coast to within 1/8" of the backseat, with visual verification of the stem position as a check. The torque switch bypass limit switch will be set based on the full hammer blow travel, plus the lifting of the gate off the seat. This will be visually verified by electrically opening the valve and ensuring that any torque switch movement takes place before the bypass switch opens, which indicates that the valve operator has undergone its normal maximum unseating torque. Motor overloads will be sized according to operator nameplate current and manufacturer's recommended sizing, with conservatism towards valve operability.
- c. Item (c) outlines changing switch settings and testing. Valve switch settings will be changed as appropriate. Our previous submittal indicated that we could test 20 of 24 valves at, or near, their maximum dP. During our Point Beach Unit 1 spring 1986 refueling outage, Operations tested all Unit 1 valves at, or near, the maximum dP. All of these valves successfully cycled and were documented using plant maintenance work requests. If switch adjustments are made, they will again be tested at, or near, the maximum dP.
- d. This item addresses procedures to ensure that correct switch settings are determined and maintained throughout the life of the plant. Switch settings are being determined by way of the above Items (a) and (b). These settings will be incorporated into the plant maintenance instructions, along with the appropriate procedures for verifying them [see Item (b)]. In addition, the valves that are in the scope of this Bulletin are also part of the plant maintenance call-up system (periodic maintenance inspections).

Table 1

IE Bulletin 85-03, Item a Results
Point Beach Nuclear Plant, Units 1 and 2

<u>Valve Tag No.</u>	<u>Design-Basis Operation</u>	<u>Maximum dP (PSIG)</u>	<u>Design dP (PSIG)</u>
1-4020; 1-4021; 1-4022; 1-4023	Must be able to close to isolate auxiliary feedwater flow from the motor-driven auxiliary feedwater pumps to the steam generators of the unaffected unit. This ensures full auxiliary feedwater flow to the affected unit.	1305	1560
1,2-2019; 1,2-2020	Must open to admit steam to the turbine-driven auxiliary feedwater pump.	1085*	1085
1,2-825A; 1,2-825B	Opens to provide suction to the high head safety injection pumps from the refueling water storage tank.	30	150
1,2-826B; 1,2-826C	Opens to provide suction to the high head safety injection pumps from the boric acid tank.	12	200
1,2-878A; 1,2-878C	To be opened at the operators discretion if high head core deluge is deemed beneficial. This function is not considered safety related.	1617	2485
1,2-4006; 1-4009; 1-4016	Opens to provide service water to the suction of the auxiliary feedwater pumps.	76	150

*These valves are of the globe, stop-check type that only open on differential pressure, and do not use the motor operator to lift the plug off of the seat. The motor operator is only used to close the valve, or hold it in a closed position. Therefore, the differential pressure will not affect the stem thrust for the opening (safety-related) direction.

Table 2

IE Bulletin 85-03, Items b Through d, Schedule
Point Beach Nuclear Plant, Units 1 and 2

<u>Bulletin Item</u>	<u>Description of Actions</u>	<u>Estimated Date of Completion</u>
b	Document existing switch settings, stroke test most valves at or near maximum dP (20 out of 24 can be tested as such), and stroke test other valves (4 out of 24).	Unit 1: JUN 86 Unit 2: DEC 86
b	Establish correct switch settings by supplying vendors with maximum dP's.	JAN 87
c	Change valve settings, if necessary, to those determined by part b, and stroke test at or near maximum dP (if practical).	Unit 1: JUN 87 Unit 2: NOV 87
d	Revise existing maintenance instructions, if necessary, to incorporate correct switch settings.	MAR 87