



**Consumers
Power
Company**

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 788-0550

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July 31, 1980

Mr James G Keppler
Office of Inspection and Enforcement
Region III
U S Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

DOCKET 50-155 - LICENSE DPR-6 -
BIG ROCK POINT PLANT - RESPONSE
TO IE BULLETIN NO 80-14 - DEGRADATION
OF BWR SCRAM DISCHARGE VOLUME CAPABILITY

IE Bulletin No 80-14, dated June 12, 1980, "Degradation of BWR Scram Discharge Volume Capability" requested a review of certain aspects of the control rod drive system scram discharge volume related to operation and equipment. IE Bulletin 80-17, dated July 3, 1980, "Failure of 76 of 185 Control Rods to Fully Insert During a Scram at a BWR", has requested additional actions and reviews with respect to the scram discharge volume; therefore, additional pertinent information may be found in Consumers Power Company's responses to those Bulletins.

Consumers Power Company has completed the required actions as follows:

Item 1

Review plant records for instances of degradation of any SDV level switch which was or may have been caused by a damaged or bent float assembly. Identify the cause and corrective action for each instance.

Response to Item 1

No instances of degradation of any SDV level switch were identified during the review of plant records.

Item 2

Review plant records for instances of degradation of SDV vent and drain valve operability. Provide the closure times required and typically observed for these valves and the basis for the required closing times. Identify the cause and corrective action for each instance of degradation.

Response to Item 2

Plant records indicate one instance of such degradation. In May, 1976, drain valve NC-12 developed air leakage due to a ruptured diaphragm. The diaphragm was replaced and the valve subsequently stroked satisfactorily. No recurrence of this problem has occurred.

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The purpose of automatic scram dump tank vent and drain valve closure at Big Rock Point is to limit the amount of water displaced from the reactor during a scram. Specified closure times are not currently required for these valves, but are being developed from surveillance test data in conjunction with ASME Boiler and Pressure Vessel Code Section XI Valve Testing.

Closure times typically observed for the scram dump tank vent and drain valves are approximately 45 seconds when closed with the manual handswitch 4S6 and approximately 17 seconds when automatically closed by a scram signal. The difference in these closure times is due to the higher venting rate of the scram valve pilot air header during a scram (operation of solenoid valves NC-22 A, B, C, and D) than that which occurs during operation of the 4S6 handswitch (operation of solenoid valve NC-22E only). On-line surveillance testing is of necessity limited to operation of the 4S6 handswitch.

Item 3

By procedures, require that the SDV vent and drain valves be normally operable, open and periodically tested. If these valves are not operable or are closed for more than one (1) hour in any 24 hour period during operation, the reason shall be logged and the NRC notified within 24 hours (Prompt Notification).

Response to Item 3

Big Rock Point operating procedures already address scram dump tank vent and drain periodic testing and require that the valves be normally open and operable. A revision to these procedures has been made to incorporate Prompt Notification (within 24 hours) for inoperability of the valves.

Item 4

Review instances in which water hammer or damage which may have been caused by water hammer has occurred in SDV related piping. Identify the cause and corrective action for each instance.

Response to Item 4

No instances were identified during the review of plant records in which water hammer or damage which may have been caused by water hammer have occurred in SDV-related piping.

Item 5

Review surveillance procedures to ensure that degradation of any SDV level switch due to a damaged float or other cause would be detected and that inoperability from any cause would be reported to the NRC.

Response to Item 5

Existing surveillance procedures address surveillance of the SDV level switches.

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Instances of such degradation are considered reportable in accordance with Technical Specifications, Section 6.9.2.b.(1).

Item 6

If no functional test or inspection which would detect degradation of each SDV level switch has been performed during the past three (3) months, make provisions to perform an inspection and functional test of all SDV level-switch assemblies at the next reactor shutdown of greater than 48 hours duration.

Response to Item 6

Functional testing of each scram dump tank level switch was last performed on October 14, 1979. Accordingly, this testing and associated inspection has been scheduled to be performed during the next reactor shutdown of greater than 48 hours duration.

Big Rock Point Plant has recently completed scram tests pursuant to IE Bulletin No 80-17 which demonstrated the satisfactory design and operation of the scram discharge volume system. No instances of equipment malfunction or inadequacy were observed.

The cover letter to IE Bulletin No 80-14 requested an estimate of the manpower expended on this Bulletin. Review and response preparation expended approximately 40 man hours. Corrective actions involved an estimated one (1) man-hour for incorporation of new reporting requirements into existing operating procedures.

David P Hoffman (Signed)

David P Hoffman
Nuclear Licensing Administrator

CC Director, Office of Nuclear Reactor Regulation
Director, Office of Inspection and Enforcement
NRC Resident Inspector - Big Rock Point Plant