UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

JUL 22 1980

In Reply Refer To:
RII:JPO
50-518, 50-519
50-520, 50-521
50-553, 50-554

REGULATORY DOCKET FILE COPY

Tennessee Valley Authority
ATTN: H. G. Parris
Manager of Power
500A Chestnut Street Tower II
Chattanooga, TN 37401

Gentlemen:

The enclosed Supplement No. 2 to IE Bulletin No. 80-17 is forwarded to you for information. No written response is required. If your desire additional information regarding this matter, please contact this office.

Sincerely,

James P. O'Reilly
Director

Enclosures:
1. Supplement No. 2 to
IE Bulletin No. 80-17
2. List of Recently Issued
IE Bulletins

cc w/encl:
R. T. Hathcote, Project Manager
J. F. Cox, Supervisor, Nuclear
Licensing Section
J. E. Wills, Project Engineer
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

DUPLICATE

July 22, 1980

IE Bulletin No. 80-17
Supplement No. 2

FAILURES REVEALED BY TESTING SUBSEQUENT TO FAILURE OF CONTROL RODS TO INSERT DURING A SCRAM AT A BWR

Description of Circumstances:

At about 3:35 a.m. on July 19, 1980, a manual scram test was initiated at Dresden Unit No. 3. This test was initiated in accordance with the requirements of IE Bulletin No. 80-17. The scram itself was accomplished (i.e., control rods inserted). Following the scram, the Scram Discharge Volume (SDV) was monitored by UT in accordance with Item #3 of IE Bulletin No. 80-17. The UT check followed the normal draining of the SDV at a time when personnel conducting the test believed the SDV to be empty. However, the UT check revealed the scram discharge west header bank to be 80% filled with water (i.e., apparently the drain was not successful).

Upon investigation, it appeared that the SDV vent system did not function due to a stuck ball check valve (i.e., a ball check valve functioning as a vacuum breaker). This ball check valve is installed in a tee connection downstream of the vent valve in a one-inch vent header which terminates in the reactor building equipment drain tank (RBEDT). The ball check valve provides a vent path to the reactor building atmosphere in the event the vent header does not. The vent header itself provides a path to other interconnections and extends into the RBEDT under the surface of water normally contained there.

Additional information has also resulted from scram testing at other BWRs as follows:

1. At Duane Arnold, the Scram Discharge Instrument Volume (SDIV) drain valve was found installed so that pressure in the SDIV tended to unseat the drain valve disk. This resulted in leakage out of the SDIV during the scram. This was corrected by reversing and reinstalling the valve. The scram tests were performed on July 12 and 13 and the drain valve was corrected before return to power operations on July 17, 1980.

2. At the Millstone Unit 1, the scram tests were performed successfully on July 11 through 14. The function of the 10-second delay on scram reset (per Item #2.(j) of IE Bulletin No. 80-17) was tested separately from the scram tests. Review of the separate test results by plant personnel established that the scram reset delay feature was not functioning in the scram circuits due to a wiring error on the circuit boards. This was corrected.

3. At Browns Ferry Unit No. 1, a test scram involving two rods was performed on July 19, 1980. The test showed normal response of level switches in the SDIV. When proceeding to drain the SDIV, however, the SDV did not empty as required and expected. A vacuum in the SDV apparently existed which kept the system from draining. Subsequently, the vacuum was cleared by operator actions and the volume drained properly. Tests are continuing toward determination of the cause and to measure the vacuum.

4. At Nine Mile Point Unit No. 1, one rod failed to scram during the manual scram test on July 14, 1980. This was due to a failure of the scram pilot valve for that rod.

In view of the above-described events, the following actions in addition to those specified in IE Bulletin No. 80-17, including Supplement No. 1, are to be taken by BWR licensees.

1. Each BWR licensee with a SDV vent system that depends on any component other than the vent valve alone for proper venting must provide an alternate vent path continuously open to building atmosphere on the side of the vent valve piping away from the SDV. This alternate vent path must be positive in its function at all times (i.e., a vent must be effective regardless of component operability other than the vent valve).

   Plants have made corrections by providing a vent through a standpipe open to building atmosphere. This was done at Browns Ferry Unit No. 3 and is being done at Dresden Units 2 and 3. It is noted that due consideration to radiological aspects should be included.

   An alternate vent path must be provided within 48 hours following the telephone notification on July 19, 1980 in order to continue or commence operations.

2. Report in writing within 5 days of the date of this Bulletin Supplement the confirmation of your action in response to the above. Reports shall be submitted to the Director of the appropriate NRC Regional Office and a copy shall be forwarded to the NRC Office of Inspection and Enforcement, Division of Reactor Operations Inspection, Washington, D.C. 20555.

More information on the details of the Dresden and Browns Ferry events and modifications can be obtained by contacting the Dresden and/or Browns Ferry operating supervision. In addition, we understand that a General Electric Company task force is available for consultation at (408)925-3188.

For all boiling water power reactor facilities with a construction permit, this Bulletin is for information only and no written response is required.

Approved by GAO, B180225 (R0072); clearance expires 7-31-80. Approval was given under a blanket clearance specifically for identified generic problems.

Enclosure

RECENTLY ISSUED
IE BULLETINS

Bulletin No.	Subject	Date Issued	Issued To
Supplement 1 to 80-17	Failu[illegible] of Control Rods to Ins[illegible]rt During a Scram at a BWR	7/18/80	All BWR power reactor facilities holding OLs
80-17	Failure of Control Rods to Insert During a Scram at a BWR	7/3/80	All BWR power reactor facilities holding OLs
80-16	Potential Misapplication of Rosemount Inc., Models 1151 and 1152 Pressure Transmitters with Either "A" or "D" Output Codes	6/27/80	All Power Reactor Facilities with an OL or a CP
80-15	Possible Loss Of Hotline With Loss Of Off-Site Power	6/18/80	All nuclear facilities holding OLs
80-14	Degradation of Scram Discharge Volume Capability	6/12/80	All BWR's with an OL
80-13	Cracking In Core Spray Spargers	5/12/80	All BWR's with an OL
80-12	Decay Heat Removal System Operability	5/9/80	Each PWR with an OL
80-11	Masonry Wall Design	5/8/80	All power reactor facilities with an OL, except Trojan
80-10	Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release to Environment	5/6/80	All power reactor facilities with an OL or CP
80-09	Hydramotor Actuator Deficiencies	4/17/80	All power reactor operating facilities and holders of power reactor construction permits
80-08	Examination of Containment Liner Penetration Welds	4/7/80	All power reactors with a CP and/or OL no later than April 7, 1980