

UNITED STATES NUCLEAR REGULATORY COMMISSION REGION II

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In Reply Refer To:

RII: JPO 50-259

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

Gentlemen:

The enclosed IE Bulletin No. 80-17 is forwarded for action. Prepare to perform the scram tests contained in the Bulletin; however, the 20-day time clock for completing will begin upon notification by telephone from the IE Regional Office. The testing shall be performed as directed unless shutdown would severely impact the power reliability in your area as shown by appropriate and timely documentation to the Director of the Office of Inspection and Enforcement.

A written response to the Bulletin is required. If you desire additional information regarding this matter, please contact this office.

Sincerely,

James P. O'Reilly &

Director

Enclosure:

IE Bulletin No. 80-17

cc w/encl:

H. L. Abercrombie, Plant Superintendent

R. E. Rogers, Project Engineer

H. N. Culver, Chief, Nuclear Safety Review Staff

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UNITED STATES NUCLEAR REGULATORY COMMISSION OFFICE OF INSPECTION AND ENFORCEMENT

JULY 3, 1980

IE BULLETIN NO. 80-17

FAILURE OF 76 OF 185 CONTROL RODS TO FULLY INSERT DURING A SCRAM AT A BWR

Description of Circumstances:

On June 28, 1980, 76 of the 185 control rods failed to fully insert during a routine shutdown at TVA's Browns Ferry Unit No. 3 located at Athens, Alabama. The reactor was manually scrammed from about 30 percent power in accordance with routine shutdown procedures. The shutdown was initiated to repair the feedwater system. The 76 control rods that failed to fully insert were all on the east side of the core.

Following scram discharge volume (SDV) high level bypass and a short drain period of the SDV, a second manual scram was initiated and all partially inserted rods were observed to drive inward, but 59 remained partially withdrawn. A third manual scram was made, again following high level in the SDV and bypassing for another short drain of the SDV, with the result that 47 rods, remained partially withdrawn. Following a longer drain of the SDV, an automatic scram occurred that was initiated by a scram discharge volume tank high water level signal when the scram reset switch was placed in "Normal"; with this scram all remaining rods fully inserted. The total time elapse from the initial scram to the time that all rods were inserted was approximately 15 minutes. Core coolant flow, temperature and pressure remained normal for plant conditions. The unit is now shutdown and additional testing indicates that a possible cause of the malfunction was the retention of a significant amount of water in the east bank scram discharge volume. In view of these interim findings and pending results of continued investigation, the following actions are to be taken.

Actions To Be Taken By Licensees:

All General Electric Boiling Water Reactors with operating licenses which are operating at any power on the date of this Bulletin shall perform the following steps in the time stated. Those that are presently shutdown shall perform the following steps prior to operation at

1. Within 3 days from the tests to verify that th Discharge Volume (SDV) are operable and vent s

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