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

In Reply Refer To:
RII:JPO
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AUG 2 2 1980

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

Gentlemen:

Enclosed is IE Supplement No. 3 to Bulletin No. 80-17 which requires action by you with regard to your power reactor facility(ies) with an operating license.

In order to assist the NRC in evaluating the value/impact of each Bulletin on licensees, it would be helpful if you would provide an estimate of the manpower expended in conduct of the review and preparation of the report(s) required by the Bulletin. Please estimate separately the manpower associated with corrective actions necessary following identification of problems through the Bulletin.

Should you have any questions regarding this Bulletin or the actions required by you, please contact this office.

Sincerely,

James P. O'Reilly
Director

Enclosures:
1. IE Supplement No. 3 to Bulletin No. 80-17
2. List of Recently Issued IE Bulletins

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
WASHINGTON, D.C. 20555

August 22, 1980

IE Supplement 3 to Bulletin No. 80-17: FAILURE OF CONTROL RODS TO INSERT DURING A SCRAM AT A BWR

NRC staff evaluation of a potential single failure mechanism of the control rod drive control air system has identified the need for licensee actions in addition to those requested by IEB 80-17 and Supplements 1 and 2.

The potential single failure was discussed in IE Information Notice 80-30, which was issued on August 19, 1980. It involves gradual or partial loss of control air system pressure, which could cause partial opening of scram outlet valves without rod motion. The resultant accumulated seal leakage could conceivably fill the scram discharge volume in a few minutes. Since not all operating BWR's have instrumentation presently installed to continuously indicate water level in the scram discharge volume headers and to provide a control room alarm or scram function, the possibility exists for the scram discharge volume to fill to a level which could prevent reactor scram before automatic protective action or before the operators could be warned.

In view of the possible single failure mechanism described above, the following actions are requested in addition to those specified in IE Bulletin 80-17, Supplements 1 and 2:

1. For those plants in which the scram discharge volume headers are connected to the instrument volume by a 2 inch pipe, within five days of the date of this Bulletin, provide or verify that procedures are in effect to:

   a. Require an immediate manual scram on low control rod drive air pressure with a minimum 10 psi margin above the opening pressure of the scram outlet valves.

   b. Require an immediate manual scram in the event of:

      (1) Multiple rod drift-in alarms, or

      (2) A marked change in the number of control rods with high temperature alarms.

   Installation of water level instrumentation in the scram discharge volume with level alarm and continuous level indication in the control room, in response to Item B.1 of IEB 80-17 Supplement No. 1, may provide a basis for relaxation of the time for initiating a manual scram.

2. In addition, every BWR licensee is requested within five days of the date of this bulletin to provide and implement procedures which require a functional test using water for the instrument volume level alarm, rod block and scram switches after each scram event, before returning to power. This procedure should remain in effect until modifications in addition to Item B 1 of IEB 80-17 supplement No. 1 are completed to substantially increase reliability of water level indication in the scram discharge volume(s).

Licensees of all operating BWRs shall submit a report summarizing action taken in response to the above items within 10 days of the date of this Bulletin Supplement. Accordingly, you are requested to provide within 10 days as specified above, written statements of the above information signed under oath or affirmation. Reports shall be submitted to the Director of the appropriate NRC Regional Office and a copy forwarded to the Director, Division of Reactor Operations Inspection, NRC. Office of Inspection and Enforcement, Washington, D.C. 20555

Approved by GAO, B180225 (R0072); clearance expires July 31, 1980. (Application for renewal pending before GAO.) Approval was given under a blanket clearance specifically for identified generic problems.

IE Bulletin No. 80-17
Supplement 3

August 22, 1980

RECENTLY ISSUED
IE BULLETINS

Bulletin No.	Subject	Date Issued	Issued To
Supplement 3 to 80-17	Failure of Control Rods to Insert During a Scram at a BWR	8/22/80	All BWR power reactor facilities holding OLs
80-20	Failures of Westinghouse Type W-2 Spring Return to Neutral Control Switches	7/31/80	To each nuclear power facility in your region having an OL or a CP
80-19	Failures of Mercury-Wetted Matrix Relays in Reactor Protective Systems of Operating Nuclear Power Plants Designed by Combustion Engineering	7/31/80	All nuclear power facilities having either an OL or a CP
80-18	Maintenance of Adequate Minimum Flow Thru Centrifugal Charging Pumps Following Secondary Side High Energy Line Rupture	7/24/80	All PWR power reactor facilities holding OLs and to those PWRs nearing licensing
Supplement 2 to 80-17	Failures Revealed by Testing Subsequent to Failure of Control Rods to Insert During a Scram at a BWR	7/22/80	All BWR power reactor facilities holding OLs
Supplement 1 to 80-17	Failure of Control Rods to Insert 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