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T/C

September 2, 1980

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

Subject: Dresden Station Units 2 and 2
Quad Cities Station Units 1 and 2
Response to IE Bulletin 80-17
Supplement 3
"Failure of Control Rods to Insert
During a Scram at a BWR"
NRC Docket Nos. 50-10/237/249 and
50-254/265

Reference (a): J. G. Keppler letter to C. Reed dated
August 22, 1980

Dear Mr. Keppler:

Reference (a) transmitted IE Bulletin 80-17 Supplement 3
requesting a response to concerns identified with a postulated loss
of the control rod drive control air systems.

The Commonwealth Edison Company responses for Dresden Units
2 and 3 and Quad Cities Units 1 and 2 are provided in the enclosure
to this letter.

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Please address any questions you may have in this regard to this office. Approximately 80 man-hours were expended in the review and preparation of this report, 24 of which were for corrective actions.

Very truly yours,

Thomas J. Rausch

Thomas J. Rausch
Nuclear Licensing Administrator
Special Projects

Attachment

cc: Director, Division of Reactor Operations Inspection
NRC Office of Inspection and Enforcement
Washington, DC 20555

SUBSCRIBED and SWORN to
before me this 2ND, day
of September, 1980

[Signature]
Notary Public

Enclosure
Commonwealth Edison Company
Response to IE Bulletin 80-17 Supplement 3

The subject bulletin has been reviewed at the stations, and the following responses are provided:

Dresden Units 2 and 3

Item 1.a.

The appropriate procedure has been changed to require an immediate manual scram when air pressure reaches 60 psi. The pressure required to open the scram outlet valves is 50 psi.

Item 1.b.(1)

The appropriate procedure has been changed to require an immediate manual scram when three rods have drifted.

Item 1.b.(2)

The temperature recorder used for the CRD high temperature alarm is located on the back panel in the control room. The recorder is a combination electrical-mechanical type that takes approximately 13 minutes to scan all the drives. The recorder and front panel alarms must be reset after each high temperature condition is detected on every scram. The recorder was installed for long-term monitoring of the CRD's, which is used for planning maintenance on the drives at the end of each cycle. It was not designed with the intent to provide rapid indication of multiple CRD high temperatures which may suddenly appear.

Based on the above reasons, Dresden is not implementing an immediate manual scram, based solely on a marked change in CRD's with high temperature alarms. Adequate assurance of all rod insertion for the bulletin scenario is provided by the manual scram measures taken in items 1.a and 1.b.(1).

Item 2

An operating order has been issued to include testing the scram instrument volume level switches after each scram event.

Quad Cities Units 1 and 2

- 1.a. Per telephone conversations and letter from GE and CECO., the opening air pressure for the scram outlet valves is 50 psig decreasing pressure. Pressure switch PS-1(2)-302-81 senses instrument air pressure to the scram outlet valves and is annunciated in the Control room. Instrument Setpoint Change 224 was written to have the alarm setpoint on PS-1(2)-302-81 changed to 60 psig decreasing pressure. This setpoint provides a 10 psi margin requested in the Bulletin. In addition, a procedure change to QOA-900-5-A

was written requiring an immediate manual reactor scram if this alarm setpoint is reached.

- 1.b.(1) A procedure change to QOA 900-5-A was written requiring an immediate manual reactor scram if three or more control rods are drifting in at the same time.
- 1.b.(2) Control rod drive temperature is monitored and recorded on TRS-1(2)-340-16. This recorder is located behind the main control boards and takes approximately 13 minutes to sequence through all the control rods. The purpose of this instrument is to establish long term trends on the condition of the drive units such that preventative maintenance can be planned. It was not designed with the intent to provide rapid indication of multiple CRD high temperatures which may suddenly appear.

Therefore, we will not initiate a manual reactor scram solely on "a marked change in the number of control rods with high temperature alarms". Requiring a reactor scram on the low air pressure alarm, or when three or more rods are drifting in, provide adequate assurance of full rod insertion in the scenario described in the Bulletin.

2. Procedure changes to QGP 1-1, 1-2, 2-3. and QIP-S1 have been written to functionally test the level alarm, rod block and scram switches on the instrument volume following each scram event, prior to going to reactor power operation. These procedures will remain in effect until modifications have been made to increase the reliability of the water level indication in the scram discharge volume.

