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YANKEE ATOMIC ELECTRIC COMPANY

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B.4.2.1
WYR 79-83

July 16, 1979

United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Attention: Boyce H. Grier, Director

Reference: (a) License No. DPR-3 (Docket No. 50-29)
(b) Letter USNRC to YAEC dated June 25, 1979;
I&E Bulletin No. 79-13

Dear Sir:

Subject: Response to I&E Bulletin 79-13 (Item No. 5)

In accordance with your request for preliminary information and schedules per I&E Bulletin NO. 79-13 (ref. b) we are providing the following information. This information satisfies the request of Item 5. The remaining items will be addressed subsequent to the prescribed inspection.

a. A volumetric examination of the steam generator feedwater nozzles in accordance with reference (b) is currently scheduled to be performed during a plant shutdown, scheduled explicitly for this purpose, in mid-September, 1979. In any case, the inspections shall be performed prior to the 90 day limit stated in Bulletin 79-13.

b. Yankee Rowe's Emergency Operating Procedures provide symptom descriptions that help the operator to recognize a feed line break in several locations; namely inside the Vapor Container (V.C.), inside the V.C. between the steam generator and feed line check valve and outside the V.C. The procedure describes to the operator the causes of Loss of Feedwater, 1) Feed pump tripping, and 2) Feed line breaks. The "Loss of Feedwater" emergency procedure provides the operator with instructions on how to reestablish feed flow via several methods using diverse systems depending on the location of the feed line break and availability of equipment. The procedure provides the operator with instructions on when and how to operate the emergency boiler feed pump and at what pressure to operate. The procedure is broken down into 4 cases for reestablishing feed.

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Case A . Assumes normal Boiler Feed System cannot be used and the Emergency Boiler Feed System will have to be initiated.

Case B. Assumes normal Boiler Feed can be used.

Case C. Neither Case "A" or "B" can be used - Feedwater provided via S.I. pumps or an existing charging line cross connect.

Case D. Neither Case "A", "B", or "C" can be used - Emergency feed is supplied with charging pumps or S.I. pumps via an existing cross connect to the steam generator blowdown lines.

c. Several methods are available to the operator for detecting feedwater leaks inside containment.

1. Vapor Container Drain Tank Level Change

The Vapor Container Drain Tank volume is 330 gallons. A one inch change in level would result from a mere 8 gallon addition. The alarm setpoint is maintained between one and two inches above the indicated level and therefore, would indicate a small addition (<20 gal.) quite rapidly. The level is recorded on each shift and the alarm is tested daily. In addition, the Shift Supervisor utilizes any level change in the water balance calculations done for each Shift.

2. Relative Humidity

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The Relative Humidity indicator for the Containment atmosphere normally indicates <50%. The readings are recorded each shift by the Control Room Operators. A significant increase in relative humidity combined with a Vapor Container Drain Tank level increase with little or no corresponding increase in the Vapor Container Air particulate radiation monitor readings would be indicative of a feedwater line or steam line leakage inside of the Vapor Container.

3. Vapor Container Sound Monitoring

A leak in a high energy line in the Vapor Container would produce an increase in the noise level within Containment and thereby alert the Control Room Operators to an abnormal situation.

These three methods, in addition to direct indications of Steam Generator level and pressure will provide diverse indications of leakage to the operator in the event of a feedwater leak in containment.

We trust that this information is satisfactory; however, should you desire additional information please contact us.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

D. E. Moody

D. E. Moody
Manager of Operations

JKT/dmp