TOLEDO EDISON

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Docket No. 50-346
License No. NPF-3
Serial No. 538
August 31, 1979

Director of Nuclear Reactor Regulation
Attention: Mr. Robert W. Reid, Chief
Operating Reactors Branch No. 4
Division of Operating Reactors
United States Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Reid:

This letter is in response to Mr. D. F. Ross's letter of August 21, 1979 (Log No.423) to all Babcock & Wilcox Operating Plants. Attachment A addresses items 1, & 4 relating to requirements of the Davis-Besse Nuclear Power Station, Unit 1 Order of May 16, 1979. Additionally, items 5, 7 and 8 of the subject letter are addressed.

Very truly yours

Lowell E. Roe

LER/TJM

cc:
R. A. Capra
Project Management Group
Bulletins and Orders Task Force
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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Attachment A

Items of NRC Letter
August 21, 1979 (TECo Log No. 423)

The item numbers below are consistent with those of Enclosure 1 of the subject letter.

Item 1 - Failure Mode and Effects Analysis of the Integrated Control System (ICS)

The ICS Reliability Analysis (BAW-1564) was published August 17, 1979. Our preliminary review has indicated general endorsement with the following deviations:

1. Page 4-1, Section 4.1.1

   Davis-Besse Unit 1 PORV setpoint is 2400 psig.
   RPS setpoints: 2300 psig/1985 psig.

2. Page 4-6, Section 4.2.3.1

   Davis-Besse rate of change is limited to 3% per minute above 90% full power and below 20% full power.

3. Page 4-9, Section 4.2.3.5

   During a reactor trip, the atmospheric vent valves are modulated when the turbine header pressure exceeds its setpoint by 155 psi. Also, the atmospheric vent valves control header pressure on loss of condenser vacuum or loss of Circulating Water pumps.

4. Page 4-9, Section 4.2.3.6

   The throttle pressure error signal is modified in the same manner as for the atmospheric vent valves but with a 50/125 psi bias versus 75/155 psi bias.

5. Page 4-11, Section 4.2.3.10

   Error must be greater than +0.95% or less than -0.95% for rod movement.

6. Page 4-11, Section 4.2.3.11

   Feedwater demand is modified when the error is greater than +10% or less than -5%. This change was to reduce feedwater input on a load rejection.

7. Page 4-47, Table 4-4, Item 5-22, Failure Mode-open

   At Davis-Besse Unit 1, the feedwater valves are about 45 to 55% open, and a signal to open these valves would overcool the RCS and result in a low pressure trip.

The above deviations are noted, but are not significant enough to affect the results and conclusions of this report.

ATTACHMENT 1

Response to Ross Letter of August 21, 1979

Item 1 - Failure Mode and Affects Analysis of the Integrated Control System

On August 17, 1979, B&W submitted to you for your review, copies of the report entitled "BAW--1564, Integrated Control System (ICS) Reliability Analysis". This letter is to advise you that this report is applicable to Crystal River Unit 3. Although this was a generic report developed by B&W, and there are differences in the secondary system designs at the various B&W plants, we feel that the conclusions reached in this report can be applied to Crystal River Unit 3. Florida Power Corporation is presently reviewing the recommendations listed in Section 3 of this report to determine what possible changes are necessary at Crystal River Unit 3 to enhance reliability and safety.

Item 4 - Auxiliary/Emergency Feedwater System Reliability Upgrade

This letter is to inform you of Florida Power Corporation's commitment to the AFW/EFW System Reliability Study proposed by B&W and discussed with you and your staff on July 19, 1979, and August 9, 1979. The draft report for Crystal River Unit 3 will be submitted by October 22, 1979, and the first report will be submitted by December 3, 1979.

Item 5 - Detailed Analysis of the Thermal-Mechanical Conditions in the Reactor Vessel During Recovery from Small Breaks With Extended Loss of All Feedwater

The above analysis will be submitted by December 21, 1979.

Item 7 - Small Break LOCA Analysis

The following is our schedule of response to the six (6) items contained in Attachment A of your letter:

1) A. Report will be submitted on December 1, 1979.
   B. Report will be submitted on September 30, 1979.

2) A. Report will be submitted on September 30, 1979.
   B. In response to this request, we are proposing three (3) options in preference of order:

      1) Provide a statement by September 30, 1979, that no small break with auxiliary feedwater will pressurize the system to the PORV setpoint.

      2) Provide by December 30, 1979, a qualitative assessment of the transient.

      3) Provide core analysis by February 1, 1980, using 0.01 ft^2 break with no AFW available.

      We are presently proceeding with option #1, unless otherwise notified by the NRC by September 7, 1979.

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