

TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE
37401



March 21, 1974

50-259

Mr. John F. O'Leary, Director
Directorate of Licensing
Office of Regulation
U.S. Atomic Energy Commission
Washington, DC 20545

Dear Mr. O'Leary:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 1 -
DOCKET NO. 50-259 - FACILITY OPERATING LICENSE DPR-33 - ABNORMAL
OCCURRENCE REPORT BFAO-7416W

The enclosed report is to provide details concerning HPCI failure which
occurred on Browns Ferry Nuclear Plant unit 1 on March 12, 1974, and
is submitted in accordance with Appendix A to Regulatory Guide 1.16,
Revision 1, October 1973.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

E. F. Thomas
Director of Power Production



Enclosure
CC (Enclosure):

Mr. Norman C. Moseley, Director
Region II Regulatory Operations Office, USAEC
230 Peachtree Street, NW., Suite 818
Atlanta, Georgia 30303

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ABNORMAL OCCURRENCE REPORT

Report No.: BFAO-7416W
Report Date: March 21, 1974
Occurrence Date: March 12, 1974
Facility: Browns Ferry Nuclear Plant unit 1

Identification of Occurrence

HPCI failure.

Conditions Prior to Occurrence

The reactor was operating at 1,533 MWt.

Description of Occurrence

At approximately 3:00 p.m., the HPCI turbine failed to reach rated speed and flow during surveillance testing. The auxiliary oil pump was cycling on and off at the same time the turbine was losing speed.

Designation of Apparent Cause of Occurrence

The apparent cause of the failure was the inability of the governor to respond when an increase to speed was called for. The maximum signal obtainable for an increase in speed from the ECM control box to the governor actuator was only 4 percent of what it should have been. The response was normal for a decrease in speed.

Analysis of Occurrence

Safe shutdown of the reactor would have been possible because the remaining core cooling systems were operable. Required surveillance testing was conducted after the failure and all systems proved operable.

Corrective Action

An investigation was conducted to ensure that the oil system was functioning properly. No abnormalities were found. The ECM control box was replaced and calibrated. The HPCI was tested and met acceptance criteria. The cause of the ECM control box failure is being investigated.

Failure Data

A previous failure to the HPCI ECM control box was reported in BFAO-747W. That failure was caused when the signal to the ECM control box was shorted by external test leads. The ECM control box, part number 8270-811, is manufactured by Woodward Governor Corporation.