TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

January 31, 1975

Mr. Edson G. Case
Acting Director of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20545

Dear Mr. Case:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 2 - DOCKET NO. 50-260 - FACILITY OPERATING LICENSE DPR-52 - ABNORMAL OCCURRENCE REPORT BFAO-50-260/754W

The enclosed report is to provide details concerning four Bergen-Paterson arrestors which were found with an unacceptable low amount of oil present in the arrestor unit and is submitted in accordance with Appendix A to Regulatory Guide 1.16, Revision 1, October 1973. This event occurred on Browns Ferry Nuclear Plant unit 2 on January 23, 1975.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

for E. F. Thomas
Director of Power Production

Enclosure
CC (Enclosure):
Mr. Norman C. Moseley, Director
U.S. Nuclear Regulatory Commission
Regional Office
230 Peachtree Street, NW., Suite 818
Atlanta, Georgia 30303

50-260 inquiry

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COPY SENT REGION II

ABNORMAL OCCURRENCE REPORT

Report No.: BFAO-50-260/754W
Report Date: January 31, 1975
Occurrence Date: January 23, 1975
Facility: Browns Ferry Nuclear Plant unit 2

Identification of Occurrence

During an inspection of shock arrestors, the following four Bergen-Paterson arrestors were found with an unacceptable low amount of oil present in the arrestor unit.

One arrestor on the control rod drive pump suction line inside the drywell.

One arrestor on a residual heat removal containment spray line outside the drywell.

Two arrestors on the reactor core isolation cooling system turbine discharge line.

Conditions Prior to Occurrence

The reactor was in the cold shutdown condition during an outage.

Description of Occurrence

The deficiencies in the arrestor units were found during an inspection of all Grinnell and Bergen-Paterson hydraulic shock and sway arrestors.

Designation of Apparent Cause of Occurrence

The apparent cause of the low fluid level in the arrestors on the control rod drive and residual heat removal lines was a small nick in the sealing surface of the accumulator piston seal. This seal contains an "O" ring inside a U-cup. This "O" ring retards diametrical compression of the entire seal during installation of the seal and operation of the arrestor. The two arrestors on the reactor core isolation cooling system turbine discharge line had an unacceptable low amount of oil because all the polyurethane seals in the valve assemblies had not been replaced. It appears that, during the rebuild program in which the polyurethane seals were to be replaced with ethylene propylene seals, an error was made which resulted in leaving one polyurethane seal in one arrestor and two polyurethane seals in the other. These polyurethane seals had deteriorated and allowed fluid to leak out.

Analysis of Occurrence

No damage to systems, components, or structures was experienced; no personnel injuries or exposures were involved; no radioactive materials were released; and there were no adverse effects to the public health and safety as a result of this occurrence.

Corrective Action

The Bergen-Paterson arrestors which had an unacceptable low amount of oil were disassembled, inspected, and reassembled using the recommended ethylene propylene seals and "O" rings. Care was taken to prevent inadvertent nicks on seal surfaces when rebuilding.

Failure Data

Hydraulic Pipe Shock Arrestors

Manufacturer - Bergen-Paterson