LICENSEE EVENT REPORT (LER)													U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMB NO. 3150-0104 EXPIRES 8/31/85										
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Surveillance testing of the centrifugal charging pumps discovered the injection flow rates failed to meet the Technical Specification requirement of 346 gpm.

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NRC Form 366A (9-83)	LICENSEE EVENT REPORT (LER) TEX	T CONTINUATION	U.S. NUCLEAR REGULATORY COMMISS APPROVED OMB NO. 3150-0104 EXPIRES: 8/31/85				
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Surveillance Instruction SI-260.2, "BIT Cold Leg Injection Flow Balance, Pump Performance and Check Valve Test," is performed to satisfy Technical Specification Surveillance Requirement 4.5.2.h.2.a for the centrifugal charging pumps (CCPs). The requirement basically states that with one charging pump running, the sum of the injection line flow rates, excluding the highest flow rate, must be greater than or equal to 346 gpm.

2A-A CCP was tested on 10/17/84 with the "as found" flow rate found to be 336 gpm. The system throttle valves were repositioned in order to obtain the proper flow rate of 346 gpm. The new throttle positions for the valves were documented and the valves then returned to their "as found" position to allow for testing the 2B-B CCP in its "as found" condition. With the valves returned to their original positions, the 2B-B CCP was tested on 10/18/84 and found to have a simulated "as found" flow rate of 331 gpm. Inaccuracies in repositioning the valves may have altered the 2B-B CCP "as found" flow rate, and the 2B-B CCP would possibly have met the 346 gpm had it been tested prior to repositioning of the valves. The system valves were repositioned to obtain the required 346 gpm flow rate for the 2B-B CCP, and the 2A-A CCP was retested to ensure the required flow rate was still met.

The most probable cause of the low flow rates has been attributed to expected degradation of the pumps. Several possible methods to correct the low flow condition from recurring are being evaluated. One possible solution being considered is to obtain technical justification from the pump manufacturer to allow increasing the total pump runout flow, which is presently restricted to 555 gpm by technical specifications. This would allow the throttle valves to be opened up more without exceeding pump runout flow and consequently provide 346 gpm as required by technical specifications. A second option being evaluated is to maintain and use positive displacement charging as much as possible to limit degradation of the CCPs. Additionally, a new LOCA analysis may be purchased, reducing the required CCP flow.

Unit 2 was in mode 6 (refueling) during the testing of the CCPs. There was no effect on public health or safety. For 1984, there have been no previous occurrences.

TENNESSEE VALLEY AUTHORITY

Sequoyah Nuclear Plant Post Office Box 2000 Soddy Daisy, Tennessee 37379

November 16, 1984

U.S. Nuclear Regulatory Commission Document Control Desk Washington, DC 20555

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 2 - DOCKET NO. 50-328 - FACILITY OPERATING LICENSE DPR-79 - REPORTABLE OCCURRENCE REPORT SQR0-50-328/84019

The enclosed licensee event report provides details concerning centrifugal charging pump injection line flow rates failing surveillance requirements. This event is reported in accordance with 10 CFR 50.73, paragraph a.2.vii.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

P.R. Walla

P. R. Wallace Plant Manager

Enclosure cc (Enclosure):

> James P. O'Reilly, Director U.S. Nuclear Regulatory Commission Suite 2900 101 Marietta Street, NW Atlanta, Georgia 30323

Records Center Institute of Nuclear Power Operations Suite 1500 1100 Circle 75 Parkway Atlanta, Georgia 30339

NRC Inspector, NUC PR, Sequoyah



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