

November 12, 1992

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Vice President - Nuclear GroupU. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20553

Subject: Beaver Valley Power Station, Unit No. 1  
Docket 50-334, License No. DPR-66  
Test: Method for the Safety Injection  
Accumulator Discharge Check Valves

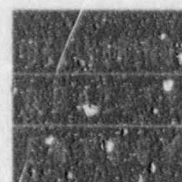
In the "Supplement to Safety Evaluation Dated May 6, 1991 Regarding the Beaver Valley Unit 1 Second-Interval Inservice Testing Program for Pumps and Valves (TAC M80470/M61257)" dated January 24, 1992, the Nuclear Regulatory Commission (NRC) concluded that the Beaver Valley Power Station (BVPS) method for verifying full stroke opening of the safety injection (SI) accumulator discharge check valves should be revised to meet either Position 1 or Position 2 of Generic Letter (GL) 89-04.

BVPS has evaluated several different methods for verifying the full stroke open capability of the valves. The method chosen to be used at BVPS Unit 1 during the ninth refueling outage was developed by the Fort Calhoun Station and presented at the ASME/NRC Pump and Valve Symposium in July 1990 in NUREG/CP-0123, page 271. This method utilizes a reduced pressure blowdown of the SI accumulator tank while monitoring accumulator and reactor coolant system (RCS) pressures and levels. The pressures and levels are used to calculate a flow coefficient ( $C_v$ ) value. The  $C_v$  is compared to an acceptance criteria  $C_v$  value calculated using design quantities. The Fort Calhoun method received interim approval from the NRC in a Safety Evaluation Report dated May 5, 1992.

The major physical configuration and test method differences required to perform the check valve full stroke exercise at BVPS are listed below:

1. BVPS will perform the test with the fuel in the reactor vessel and the head installed. The RCS will be vented through two power operated relief valves or an equivalent area.
2. BVPS Unit 1 has 12 inch Anchor Darling swing check valves and BVPS Unit 2 has 12 inch Westinghouse valves.

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3. Temporary narrow range pressure transducers will be installed on the RCS and accumulators to reduce the gage inaccuracy.
4. A temporary wide range level transducer will be installed on the accumulator.
5. The stroke time of the motor operated isolation valves at BVPS is approximately 14 seconds.
6. At BVPS, the accumulators are located below the reactor vessel. Therefore, there is a difference in height between the accumulators' and the reactor vessel's pressure transmitters which will be considered when calculating the flow coefficient.
7. BVPS is a three loop plant.

The data collection and manipulation methods, however, will be the same. The acceptance criteria was calculated in a similar manner and are comparable to those developed for Fort Calhoun.


C<sub>v</sub> ACCEPTANCE CRITERIA

<u>Loop</u>	<u>Ft. Calhoun</u>	<u>Beaver Valley Unit #1</u>
A	1189	1154
B	1164	1173
C	1131	1181
D	1159	--

In conclusion, as required by the Supplement to Safety Evaluation Report, BVPS plans to revise the test method used to verify the full stroke open of the SI accumulator discharge check valves. The Fort Calhoun test method with the above mentioned differences will be used. Interim approval to use this methodology during the ninth refueling outage is requested by January 31, 1993. If interim approval is granted for Unit 1 during the ninth refueling outage and the testing is successful, the same test method will be planned for Unit 2 during the fourth refueling outage.

If you have any questions or comments concerning this issue, please call J. D. Carl at (412) 393-5235.

Sincerely,

  
J. D. Sieber

cc: Mr. L. W. Rossbach, Sr. Resident Inspector  
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