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United States Nuclear Regulatory Commission
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Gentlemen:

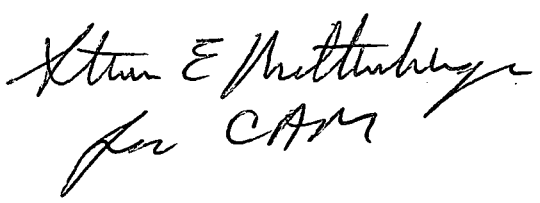
BF-19 FEEDWATER VALVE LEAKS
SALEM GENERATING STATION
UNIT NO. 2
DOCKET NO. 50-311

This letter documents the telephone conversation held with Mr. Don Fischer, USNRC Licensing Project Manager, on August 6, 1987, concerning maintenance to be performed on Feedwater Isolation Valve 24 BF-19. The conversation was initiated to request an adjustment of the torque on the 24BF-19 valve to stop a packing leak. However, just prior to the conversation, Unit 2 had tripped thus eliminating the need for approval to do a partial stroke test after the torque adjustment.

Along with the approval for the 24BF-19 maintenance, Mr. Fischer requested information as to why only Unit 2 experienced the BF-19 packing leaks and how the Unit 2 BF-19 valves would be permanently fixed during shutdown. This information is provided in the Attachment.

Should you have any questions concerning this matter, please do not hesitate to contact us.

Sincerely,



Attachment

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C Mr. D. C. Fischer
USNRC Licensing Project Manager

Mr. T. J. Kenny
USNRC Senior Resident Inspector

Mr. W. T. Russell, Administrator
USNRC Region I

Mr. D. M. Scott, Chief
Bureau of Nuclear Engineering
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380 Scotch Road
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ATTACHMENT

On August 6, 1987, the packing hold down nuts were adjusted on the 24BF-19 valve in order to eliminate a small packing leak which had developed. The unit was in hot standby (MODE 3) at the time, allowing the valve to be stroke time tested. The torque values on the hold down nuts were 10 ft-lbs. This value is below the vendor's recommended value of 13 ft-lbs and is similar to a situation found previously on the 22BF-19 and 23BF-19 valves. In each case the packing nuts were re-adjusted and the leakage eliminated with no re-occurence. As a precautionary step, the 21BF-19 valve packing hold down nuts were checked, and they were found to be at the recommmended value.

In discussions with the Maintenance Department and Chesterton, the packing manufacturer, it appears that the leakage is due to the hold down nuts not being properly torqued initially. Both units utilize Chesterton live loaded packing for the BF-19 valves. Unit 1 valves have been in service for 16 months with no leakage. Unit 2 valves have been in service for 8 months with 3 leaks. For each case of leakage, the initial loading torque was found to be below the recommended value. Recent industrial experience has shown that the packing torque may vary during the initial strokes after installation. This could account for the difference between Unit 1 and Unit 2, since Unit 1 was the initial installation. As such, it is likely that excessive testing was conducted. Also, the fact that a Chesterton representative was present may have aided the installation process. A Chesterton representative is presently kept on call around the clock for maintenance support.

An inspection of the 23BF-19 valve packing has been conducted (after the hold down nuts were tightened to stop leakage). The packing was found to be installed properly and there was no evidence of packing damage that would have caused the leakage.

The Unit 2 valves have all been checked for proper torque. It is not expected that further leaks will develop. To ensure that the problem does not re-occur, the procedure, MP7.1 "General Instruction For Valve Packing", has been revised to require that live loaded valves be stroked several times and that the torque checked until a consistent value is achieved. As an additional step, guide bushings are to be installed at the next Unit 2 refueling outage. This is a vendor recommendation that will reduce the excessive item movement that is present in the BF-19 valves. This should improve the valve packing reliability.


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