



## Omaha Public Power District

1623 HARNEY ■ OMAHA, NEBRASKA 68102 ■ TELEPHONE 536-4000 AREA CODE 402

May 20, 1982

LIC-82-210

Mr. W. C. Seidle, Chief  
Reactor Project Branch 2  
U. S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011

Reference: Docket No. 50-285

Dear Mr. Seidle:

### Potential Failure of Turbine Driven Auxiliary Feedwater Pump Steam Supply Line

In accordance with the Fort Calhoun Station Technical Specifications, the District informed Mr. John Jaudon of your office of a potential concern identified during the District's review of INPO SOER 81-17. This letter is to provide confirmation of that notice, which was made on May 19, 1982 by telephone.

In reviewing INPO SOER 81-17, the District identified a condition not specifically considered in the Fort Calhoun Station Safety Analysis Report. This condition involves the unlikely event of a significant release of steam into Room 19, which houses both the steam driven and motor driven auxiliary feedwater pumps, FW-10 and FW-6 respectively. A single failure in the steam supply line of FW-10 could potentially subject FW-6 to an environment in which it is not qualified to operate.

Actions which have been taken or will be taken by the District to prevent the development of such a steam release are detailed below. The design of this portion of the auxiliary feedwater system is being evaluated in order to identify design changes which will prevent the consequences of a significant steam release in this room from affecting the proper operation of auxiliary feedwater pump FW-6. The exact nature of these changes has not been determined; however, the design and procurement process will be expedited so that the installation can proceed during the next cold shutdown of sufficient duration after receipt of the materials or sooner, if an outage is not needed for implementing the design change.

The following interim corrective actions were taken on May 19, 1982. FW-10's steam system was inspected for leaks during a special run of the pump surveillance test. This inspection included the two inch supply line, the supply valve upstream of the turbine, and the FW-10 turbine itself. No leaks were identified. This test and inspection will be performed monthly rather than quarterly and after any maintenance outage of the FW-10 steam system, until the modification is completed.

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Further, special instructions to operators have been issued, making them aware of the steam release concerns and requiring the following actions:

- (1) Provide preferential operation of FW-6. Following initiation of the feedwater system, the operators will verify auxiliary feedwater flow to the steam generators, operation of FW-6, and shut down FW-10. This reduces operating time of FW-10.
- (2) During operation of FW-10, the operator shall monitor Room 19 for potential steam conditions using the fire detection system alarms and security system television monitor. The fire detection ionization instruments located in this room will sense any significant release of steam which would actuate the fire system annunciation circuits, thus alerting the operators.
- (3) Should a steam release be verified, the operator will isolate FW-10 from the control room or, if necessary, manually at the steam isolation valves located in Room 81 which is within a few seconds walk of the control room.

The likelihood of a significant steam leak developing undetected is reduced by the increased frequency of testing and special inspections. In addition, the FW-10 steam supply line is maintained in a heated condition, thereby reducing thermal cycling of the system and reducing the probability of developing a leak. The constant steam pressure maintained in this line will also aid in detection of piping leaks during routine tours of the auxiliary building by operators. It should also be noted that the probability of FW-6 and FW-10 initiation due to loss of offsite power and subsequent FW-10 steam supply pipe rupture is estimated at  $10^{-5}$  using the WASH-1400 data base.

Based upon the interim measures initiated and the very low probability of such an event occurring, the District believes that there is adequate assurance that the steam release event in Room 19 does not pose a threat to public safety and continued operation of the Fort Calhoun Station is justified. Additionally, the District will continue to expedite the development of a permanent resolution to this concern.

Sincerely,



W. C. Jones  
Division Manager  
Production Operations

cc: LeBoeuf, Lamb, Leiby & MacRae  
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