

Omaha Public Power District
1623 Harney Omaha, Nebraska 68102
402/536-4000

August 10, 1983
LIC-83-190

Mr. Robert A. Clark, Chief
U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Licensing
Operating Reactors Branch No. 3
Washington, D.C. 20555

References: (1) Docket No. 50-285
(2) Letter (LIC-83-103) to R. A. Clark from
W. C. Jones dated April 26, 1983
(3) Letter (LIC-83-146) to R. A. Clark from
W. C. Jones dated June 17, 1983
(4) Letter (LIC-83-189) to R. A. Clark from
W. C. Jones dated August 2, 1983

Dear Mr. Clark:

Reactor Pressure Vessel
Thermal Shield

In the above referenced letters, the Omaha Public Power District provided information on the Fort Calhoun Station's reactor vessel thermal shield (RVTS). This information included the results of inspections of the thermal shield, supports, and positioning pins which were completed during the 1983 refueling outage. These inspections were performed by qualified inspectors from Southwest Research Institute, Combustion Engineering, and the Omaha Public Power District. These inspections verified the structural integrity of the RVTS and supporting hardware after almost ten years of service.

Reference (4) provided the findings of a safety analysis of the effects of a dropped thermal shield. This safety analysis indicates that no significant safety hazards exist in the event the thermal shield failed, as discussed in the referenced analysis.

The results of the inspections and safety analysis referenced above provide the basis for the District's position that no significant safety concerns currently exist for the Fort Calhoun Station's RVTS.

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The District is aware of and has been following, via the Fort Calhoun Station's NSSS vendor (Combustion Engineering, Inc.), the thermal shield problems at other utilities. The identification of the causes of these thermal shield failures is of concern to the District. Measures are being taken to obtain the available information on these failures, and the applicability of this information to the Fort Calhoun Station's RVTS will be assessed. While determination of the causes of these failures is underway, the District is taking the following actions to assure the continued integrity of the Fort Calhoun Station's RVTS.

Since the RVTS inspection at the Fort Calhoun Station, additional information has become available regarding the specific areas of the RVTS experiencing problems at other utilities. The District has initiated with Combustion Engineering, Inc. a more detailed review of the video tapes from the 1983 Fort Calhoun Station RVTS inspection. Particular attention will be directed toward those areas of the RVTS experiencing failures at other utilities. It is expected that this review will be completed by October 15, 1983. The results of this review be factored into the District's plans on future activities regarding the RVTS.

Since the removal of the RVTS for inspection involves a major effort including personnel radiation exposures, exposure of the RVTS to damage during removal and installation, and results in at least a two-week extension to the plant critical path outage time, the District is exploring other methods of performing inspections on critical portions of the RVTS. RVTS inspection using boroscopic or fiber-optical devices through the penetrations in the core barrel flange near the reactor surveillance capsule penetrations will be assessed. It is the District's plans to have this assessment completed on a schedule which would provide adequate time to prepare for an inspection during the 1984 refueling outage, if it is determined that such an inspection is necessary.

The District is also evaluating the need, cost, and benefit of upgrading the existing reactor vessel loose parts monitoring system. This evaluation will include other elements of the District's activities regarding the RVTS. This evaluation is scheduled to be completed by October 15, 1983.

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The District fully recognizes the importance of assuring the integrity of the Fort Calhoun Station's reactor vessel thermal shield. The actions which have been taken, coupled with the comprehensive program discussed above, will provide assurance that this integrity is maintained.

Sincerely,

R. L. Jaworski for

W. C. Jones
Division Manager
Production Operations

WCJ/KJM:jmm

cc: LeBoeuf, Lamb, Leiby & MacRae
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Mr. E. G. Tourigny, Project Manager
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