

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Report: 50-285/83-01

License: DPR-40

Docket: 50-285

Licensee: Omaha Public Power District  
1623 Harney Street  
Omaha, Nebraska 68102

Facility Name: Fort Calhoun Station

Inspection At: Fort Calhoun Station, Blair, Nebraska

Inspection Conducted: January 1-31, 1983

Inspector: L. A. Yandell  
L. A. Yandell, Senior Resident Reactor Inspector

2/4/83  
Date

Approved: W. D. Johnson  
W. D. Johnson, Chief, Reactor Project Section C

2/10/83  
Date

Inspection Summary

Inspection conducted January 1-31, 1983 (Report 50-285/83-01)

Areas Inspected: Routine, announced inspection of plant conditions during long term shutdown, surveillance testing, containment integrated leakage rate test, plant outage activities, and followup on previously identified items. The inspection involved 86 inspector-hours onsite by one NRC inspector.

Results: Within the five areas inspected, one violation was found in the area of containment integrated leakage rate test (violation - failure to follow procedures - paragraph 4).

1. Persons Contacted

- \*G. R. Peterson, Supervisor, Maintenance
- R. J. Mueller, I&C Engineer
- J. E. Lechner, Test Engineer
- K. C. Hyde, Test Engineer
- S. Abel, Test Engineer
- \*M. R. Core, Supervisor, I&C and Electrical Field Maintenance
- \*J. J. Foley, Electrical Technician
- T. L. Patterson, Licensing Administrator
- R. F. Mehaffey, Supervisor, Electrical and I&C Technical Services
- T. J. McIvor, Manager, Operations Technical Support Services
- \*W. G. Gates, Manager, Fort Calhoun Station

\*Denotes attendance at the exit interview.

The NRC inspector also talked with, and interviewed, other licensee employees during the inspection. These employees included licensed and unlicensed operators, craftsmen, engineers, and office personnel.

2. Operational Safety Verification

The NRC inspector performed activities as described below to ascertain that the facility is being maintained in conformance with regulatory requirements and that the licensee's management control system is effectively discharging its responsibilities for continued safe shutdown.

- a. The NRC inspector made several control room observations to verify proper shift manning, operator adherence to approved procedures, and adherence to selected Technical Specifications specific to the shutdown condition. Selected logs, records, recorder traces, annunciators, panel indications, and switch positions were reviewed to verify compliance with regulatory requirements. Radiation controlled area access points were observed at various times to verify that they were being maintained in accordance with approved procedures. The licensee's equipment control was reviewed for proper implementation by reviewing the maintenance order and tag-out logs, and by verifying selected safety-related tag-outs. The NRC inspector observed several shift turnovers and attended a number of the outage planning meetings.
- b. The NRC inspector verified operability of the spent fuel pool cooling system by performing a walkdown and switch verification of the accessible portions of the system in accordance with Checklist SF-1-CL-B.
- c. The NRC inspector toured the plant at various times to assess plant and equipment conditions. The following items were observed during these tours:

- . general plant conditions
- . vital area barriers not degraded or appropriately manned by security personnel
- . adherence to requirements of radiation work permits (RWPs)
- . proper use of protective clothing and respirators
- . plant housekeeping and cleanliness practices including fire hazards and the control of combustible material
- . the presence of fire watches when required
- . work activities being performed in accordance with approved activities
- . physical security
- . HP instrumentation is operable and calibrated

No violations or deviations were identified.

### 3. Surveillance Testing

The NRC inspector observed portions of Surveillance Test ST-ISI-MS-4, F.2, "Main Steam Hydro Test," for Steam Generator 2B. A separate Radiation Work Permit (RWP) was issued for this test in accordance with Prerequisite D.1. Quality Control personnel were present and certified for visual examination as specified in ASME Section XI. In addition, qualified craft personnel were operating the hydro pump installed in the basement of the turbine building.

No violations or deviations were identified.

### 4. Containment Integrated Leakage Rate Test

The third periodic containment integrated leakage rate test at Fort Calhoun Station was conducted on January 6-10, 1983. The test was conducted in accordance with Surveillance Test ST-CONT-7, "Type "A" Test (Containment)," Revision 7, dated December 29, 1982. The NRC inspector attended a number of plant planning meetings regarding the test and reviewed the valve lineup sheets in the control room.

In preparation for the test, the NRC inspector verified that; (1) the approved procedure was available and in use by test personnel, (2) special test equipment had been installed and calibrated, (3) test prerequisites and initial conditions (Section D and F.1.a) had been met, and (4) proper plant systems were in operation. The NRC inspector reviewed the results of the Type "B" test performed on the equipment access hatch in accordance with Procedure ST-CONT-2, "Containment Local Leak Detection Tests." A sampling of valves was selected by the NRC inspector for independent veri-

fication and to identify any artificial leakage barriers that might have been present. The NRC inspector observed the temporary piping and instrumentation installed for containment pressurization and the controlled leakage test.

The containment was initially pressurized on January 6, 1983, but the dew-point sensors were found to be inoperable and pressure was reduced to allow personnel access into the containment for repairs. The NRC inspector noted that a containment air sample had been taken and a purge permit was completed to allow depressurization of the containment. Repressurization occurred on January 7, 1983, and the NRC inspector observed operator actions at the temporary station in Room 59 and the shifting of RM 050/051 to the stack.

During the performance of the test, the NRC inspector observed the taking of data at 15-minute intervals and verified that proper correction factors were being applied to the pressure/temperature readings. The NRC inspector performed an independent calculation using the procedure in Appendix 6 to ST-CONT-7, and observed OPPD engineers performing separate calculations at various times during the test. At the completion of the test period, the plant initiated the controlled leak rate test (verification test). The NRC inspector observed the controlled leak rate instrumentation and calculations, and verified that the acceptable criteria for a valid test were satisfied. The test was considered completed at 8:45 a.m. on January 10, and authorization to depressurize was given later that morning. Copies of the raw pressure/temperature data, calibration tables, and final test calculations by the OPPD sub-contractor were provided to the NRC inspector to be forwarded to the regional office for further review.

The NRC inspector performed a review of the completed test procedure and identified that one of the three temporary jumpers (wire HCV-1749 and V5 to VIAS) had not been entered in the jumper log as required by Step F.1.a(18). This failure to adhere to instructions is an apparent violation against Technical Specification 5.8.1, which requires that "written procedures . . . be established, implemented, and maintained that meet or exceed the minimum requirements of Sections 5.1 and 5.3 of ANSI N18.7-1972, and Appendix A of USNRC Regulatory Guide 1.33 . . . ." (8301-01). It was noted that a procedure change had moved part of Step F.1.a(18) to a point later in the procedure to allow V6 to be jumpered to VIAS just before commencing the test, but was not required to be entered into the jumper log. The NRC inspector expressed concern that the procedure change had failed to include this requirement, and that the safety evaluation had been done in a perfunctory manner. It was verified by the NRC inspector that the jumpers identified above had been removed at the completion of the test.

No other violations or deviations were identified.

5. Plant Outage Activities

During this reporting period the licensee performed visual and surface examinations of the steam generator primary manway studs in accordance with ASME Code Section XI to fulfill the requirements of IE Bulletin 82-02. The NRC inspector reviewed the qualifications of the personnel performing the tests and sampled the documentation in the licensee's files. The results of these examinations will be covered in a separate report to the NRC.

Following completion of the containment leak rate test, hydrostatic testing of "A" Steam Generator was performed. The vessel head was lifted and the refueling cavity filled. The NRC inspector observed preparations for and initial steps to remove a surveillance capsule using Procedure ST-SC-1, "Reactor Surveillance Capsule Removal and Handling." During this period the NRC inspector observed work being performed under RWP 129 to remove reactor vessel head insulation. It was noted that two HP technicians were assigned to the task, special dosimetry and extremity monitoring were utilized, and that a remote readout system (with constant supervision) was in operation. Discussions with some of the workers indicated their understanding of the work hazards involved, stay times allowed, and an appreciation of total cumulative dose.

The reactor is presently defueled and the 10-year inservice inspection of the reactor vessel is in progress. The licensee anticipates completion of this inspection by mid-February.

No violations or deviations were identified.

6. Followup on Previously Identified Items

- a. LER 82-08, "Steam-Driven Auxiliary Feedwater Pump back pressure trip lever found in the "tripped" position." The licensee examined this under EEAR/FC-82-046 and has installed a remote alarm device to provide indication in the control room when this condition occurs. This item is closed.
- b. LER 82-12, "Potential failure of motor-driven auxiliary feedwater pump from failure of steam supply line to turbine-driven auxiliary feedwater pump." This LER resulted from the review of INPO SOER No. 81-17 by OPPD and an assessment of potential consequences at the Fort Calhoun Station. The licensee initiated the following immediate actions:
  - . The frequency of the Surveillance Test (ST-FW-1, F.2) of the steam-driven auxiliary feedwater pump has been changed from quarterly to monthly.
  - . Operators were instructed to give preference to the motor-driven auxiliary feedwater pump if auxiliary feedwater is initiated.

- . Monitored for possible steam leaks in the auxiliary feedwater pump room by periodic operator tours, the fire detection system, and the security system TV monitor.
- . Operators were reminded that in the event of a steam release from this line, the turbine-driven auxiliary feedwater pump should be removed from service immediately by closing the supply valves from the main steamlines.

The NRC inspector has observed the performance of these actions since they were instituted in May, 1982. The licensee has completed additional study on the matter and concluded that no further action is necessary. This item is closed.

#### 7. Exit Interview

The NRC inspector met with licensee representatives on February 1, 1983, to summarize the scope and findings of the inspection.