ENCLOSURE 2

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket No: 50-285
License No: DPR-40

Report No: 50-285/97-007

Licensee: Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
P.O. Box 399, Hwy. 75 - North of Fort Calhoun
Fort Calhoun, Nebraska

Facility: Fort Calhoun Station

Location: Blair, Nebraska

Dates: March 23 through May 3, 1997

Inspectors: W. Walker, Senior Resident Inspector
V. Gaddy, Resident Inspector
S. Campbell, Project Engineer

Approved: W. D. Johnson, Chief, Project Branch B

Attachment: Supplemental Information

EXECUTIVE SUMMARY

Fort Calhoun Station
NRC Inspection Report 50-285/97-07

This routine announced inspection included aspects of licensee operations, engineering, maintenance, and plant support. The report covers a 6-week period of resident inspection.

Operations

- The pressurizer cooldown, the reactor coolant system draining to midloop to repair the seal package for Reactor Coolant Pump RC-3B, and subsequent refilling of the reactor coolant system were performed in a controlled and effective manner. The inspectors noted good communication among operators. Senior reactor operators maintained their command and control function during the evolutions (Sections 01.2 and 01.3).

- During rounds over a 3-day period following notification of the shift supervisor of the leak by the inspector, nonlicensed operators did not notice a steam plume that had increased to approximately 6 to 8 inches on the steam trap inlet valve for the turbine-driven auxiliary feedwater pump steam supply line (Section 02.1).

- Although the maintenance work document to resolve an operator work around was ready to work, operations personnel did not ensure the operator work around was resolved in a timely manner (Section 02.2).

Maintenance

- In general, maintenance and surveillance activities were conducted in a controlled and professional manner (Sections M1.1 and M1.2).

- A violation was identified when maintenance personnel failed to follow their procedure to document the blockage of the raw water supply header flow transmitter sensing lines while blowing down the lines (Section M1.3).

- A notification of unusual event was declared when approximately 100 gallons of component cooling water leaked to the floor drain during the waste evaporator abandonment (Section M1.4).

- Personnel performing maintenance and surveillance activities were noted to be qualified to perform the observed task (Section M5).

Engineering

- A violation was identified when engineering personnel failed to initiate a condition report to identify a steam leak on the steam trap inlet valve for the turbine-driven auxiliary feedwater pump (Section 01.2).

- The raw water pump impelier supplied by the vendor was not manufactured to meet the original design requirements. The licensee began the 10 CFR Part 21 evaluation process (Section E1.1).

Plant Support

- The licensee's radiological controls were well implemented. Areas throughout the radiation controlled area were properly posted following the initiation of shutdown cooling (Section R1.1).

- The emergency drill was an effective training tool for emergency response personnel (Section P.5).

Report Details

Summary of Plant Status

The Fort Calhoun Station began this inspection period operating at essentially 100 percent power. On April 21, the unit was manually tripped due to the rupture of a 12-inch extraction steam line from the high pressure turbine to a low pressure feedwater heater. Details of this event will be documented in NRC Inspection Report 50-285/97-09.

I. Operations

O1 Conduct of Operations

O1.1 General Comments (71707)

Using Inspection Procedure 71707, the inspectors conducted frequent reviews of ongoing plant operations. In general, the conduct of operations was professional and safety conscious; specific events and noteworthy observations are detailed in the sections below. In particular, the inspectors observed excellent performance by the operating crews while cooling down the pressurizer and filling and draining the reactor coolant system.

O1.2 Pressurizer Cooldown and Venting

a. Inspection Scope (71707)

The inspectors observed control room operators cool down the pressurizer to less than 200°F.

b. Observations and Findings

On April 22, 1997, the inspectors observed control room operators cool down the pressurizer to less than 200°F. The cooldown was conducted using Attachment 1, "Pressurizer Cooldown," of Operating Instruction OI-RC-4A, "Pressurizer Cooldown and Venting," Revision 4.

Prior to the cooldown, the inspectors observed the pre-cooldown brief given by the shift supervisor. The brief was very good. The shift supervisor provided an overview of the activity to be accomplished as well as the Technical Specification implications if the power operated relief valves or the low temperature over-pressurization protection function became inoperable. The shift supervisor also covered historical events surrounding the power operated relief valves.

The inspectors noted that an operator was dedicated to perform the cooldown. The dedicated operator performed the cooldown in a controlled manner and maintained the reactor coolant system within the reactor coolant system pressure and temperature limits. Good verbal communication was exhibited during the cooldown. Procedure adherence was observed and senior reactor operators maintained their

command and control function during the cooldown. Operations management was present during portions of the pressurizer cooldown. The cooldown was completed without any anomalies.

c. Conclusions

Operators performed the pressurizer cooldown in a very controlled manner. Senior reactor operators maintained their supervisory functions during the cooldown.

01.3 Reactor Coolant System Draindown to Midloop and Subsequent Refilling

a. Inspection Scope (71707)

The inspectors observed operators drain the reactor coolant system inventory to midloop for maintenance. Following maintenance, the inspectors observed operators refill the reactor coolant system.

b. Observations and Findings

On April 24 and 25, 1997, the inspectors observed operators drain the reactor coolant system to midloop and refill the reactor coolant system to approximately 40 percent level in the pressurizer. The draining to midloop was to allow maintenance personnel to replace the degrading seal package on Reactor Coolant Pump RC-3C. The fill and drain evolutions were controlled by Operating Instruction OI-RC-2A, "Reactor Coolant System Fill and Drain Operations."

Since the draining to midloop was an infrequently performed evolution, a pre-evolution briefing was required. The briefing was given by the operations manager. The briefing was very thorough and covered industry experience, potential problems, and termination criteria. The operations manager emphasized the importance of draining to midloop, discussed crew responsibilities, and reenforced expectations. The actual draindown was completed in accordance with the procedure in a very controlled manner. Good communication was exhibited among all operations personnel. Similar performance was noted during the refilling evolution.

The inspectors reviewed the list of maintenance activities that were allowed during midloop operation and verified they did not affect shutdown cooling equipment and that they did not contribute to the likelihood of breaching the reactor coolant system.

c. Conclusions

The briefing from operations management to control room operators prior to draining to midloop was good. The brief covered personnel responsibilities, reenforced

expectation, and discussed potential problems that could occur. Senior reactor operators maintained their command and control function during the draining to midloop. Good communications were demonstrated by operators.

O2 Operational Status of Facilities and Equipment

O2.1 Steam Leak on Steam Trap ST-15 Inlet Valve

a. Inspection Scope (71707)

The inspectors identified a body-to-bonnet steam leak on the steam trap inlet valve for Turbine-Driven Auxiliary Feedwater Pump FW-10.

b. Observations and Findings

On March 28, 1997, while touring Room 19 (air compressor room), the inspectors observed an approximate 2 to 3-inch plume of steam coming from Valve MS-234 (Steam Trap ST-15 Inlet Valve for Turbine-Driven Auxiliary Feedwater Pump FW-10). The steam plume resulted from a body-to-bonnet leak on the valve. There was no deficiency tag on the valve. The inspectors immediately notified the shift supervisor. The shift supervisor indicated that operators would investigate the steam leak.

On March 31, while touring the area, the inspectors noted that the steam leak had gotten worse. The steam plume was approximately 6 to 8 inches and a puddle of water was on the floor beneath the valve. No deficiency tag had been hung on the valve. The inspectors informed a different shift supervisor of the steam leak and a deficiency tag was hung. The valve was subsequently repaired.

On April 8, the shift supervisor that the inspectors had originally informed of the leak indicated that an auxiliary operator was dispatched to check on the leak on March 28. The auxiliary operator reported back to the shift supervisor that the valve did not have a steam leak. The steam leak was not noticed during any operator rounds during the 3-day period.

The inspectors learned that the steam leak had been identified as a packing leak by a design engineer on March 26, 1997. The system engineer, after being informed of the deficient valve by the design engineer, initiated Maintenance Work Request 97000970 but did not verify the location of the steam leak. Although the maintenance work request was written, neither a deficiency tag was hung, nor was a condition report initiated. The inspectors reviewed Standing Order SO-R-2, "Corrective Action Program," and noted that Step 2.2 required the origination of a condition report to document defective materials and equipment, abnormal occurrences, and nonconformances affecting structure, systems, or components. Failing to initiate a condition report to document the deficient valve is a violation of 10 CFR Part 50, Appendix B (50-285/97007-01).

c. Conclusions

The inspectors identified that engineering personnel did not initiate a condition report as required to document a steam leak on the steam trap inlet valve for the turbine-driven auxiliary feedwater pump. Although the valve was identified as being deficient by design engineering personnel on March 26, and again by the inspectors on March 28, operators did not notice the steam leak during their daily plant tours.

O2.2 Feedwater Trouble Annunciator

a. Inspection Scope (71707)

The inspectors followed up on a feedwater trouble annunciator alarm card that was pulled by operators.

b. Observations and Findings

On March 8, 1997, control room operators initiated Maintenance Work Request 9700771 to document that the feedwater system valves trouble annunciator had been alarming spuriously. Operators referred to the annunciator response procedure and verified that all possible valves and breakers that could cause the alarm were in their correct positions. Since the annunciator continued to alarm, an operator pulled the annunciator card. Maintenance personnel initially replaced an annunciator card, but the annunciator still alarmed spuriously.

By pulling the annunciator card, operators created an operator workaround. The licensee defined an operator workaround as a plant condition which was deficient or inoperable and required some alternate action by an operator to compensate for the condition of the component. With the card pulled, operations personnel were required to compensate for the deficiency by checking the position of each valve that fed into the annunciator as well as verifying the breaker position for each valve every 4 hours.

On March 31, 1997, the inspectors asked why the work package that had been initiated to repair the condition still had not been worked. The inspectors determined that the package initiated to repair the annunciator was ready to be worked on March 14, 1997. The inspectors determined that the work was scheduled for April 14, 1997. After the inspectors' questions, the job was rescheduled and a reflash card was replaced on April 4, 1997. This corrected the spurious alarm problem.

c. Conclusions

Operations personnel did not aggressively pursue resolution to a feedwater annunciator card that was pulled which resulted in an operator workaround. Compensation for the pulled annunciator card required actions by operators every 4 hours.

II. Maintenance

M1 Conduct of Maintenance

M1.1 General Comments

a. Inspection Scope (62703)

The inspectors observed all or portions of the following activities:

- Raw Water Pump AC-3B motor bearing replacement
- Blowdown of raw water supply header sensing lines
- Charging Pump CH-1A accumulator charge
- Various motor control center repair and cleanup throughout the turbine building

b. Observations and Findings

The work observed by the inspectors was performed in a thorough and professional manner. Work observed was performed with the work package present and in active use. Maintenance craft personnel were knowledgeable of the work being performed. The inspectors verified that the test equipment used by maintenance personnel was calibrated. Specific observations are discussed below.

c. Conclusions

Maintenance activities were generally completed thoroughly and professionally by knowledgeable maintenance craft personnel. An exception is discussed in Section M1.3.

M1.2 Surveillance Activities

a. Inspection Scope (61726)

The inspectors observed portions of the following activities:

- OP-ST-ESF-0009, Channel A Safety Injection, Containment Spray and Recirculation Actuation Signal Test

- OP-ST-RC-3004, Power Operated Relief Valve Low Temperature Low Pressure Exercise Text (PCV-102-1 and PCV-102-2)

b. Observations and Findings

The inspectors noted that these surveillance tests were performed in accordance with their procedures. Surveillance procedures were present and in use during the observations. Communications among personnel performing the tests were good.

c. Conclusions

The surveillance tests observed by the inspectors were completed in a controlled manner and in accordance with procedure.

M1.3 Raw Water Supply Header Flow Sensing Lines

a. Inspection Scope (62707)

The inspectors observed maintenance personnel blowing down the raw water supply header flow transmitter sensing lines.

b. Observations and Findings

On April 7, 1997, during a tour of Room 19 (air compressor room) the inspectors observed an instrumentation and control technician blow down the Raw Water Supply Header Flow Transmitter Sensing Line FIC-2890. The inspectors observed a nitrogen bottle near the work site and asked if nitrogen was used to clear the sensing line. The instrumentation and control technician stated that he had used the nitrogen to blow down the sensing line because the line was partially blocked with sand. He also stated that nitrogen was routinely used to blow down the sensing lines.

Following the completion of the work, the inspectors reviewed the preventive maintenance order used to perform the work and noted that it directed maintenance personnel to blow down the sensing lines by opening Valve RW-FT-2890 (Isolation Valve). Subsequent steps in the preventive maintenance order indicated, if sensing lines could not be cleared, to initiate a maintenance work document. The instrumentation and control technician did not initiate a maintenance work document when the sensing lines could not be cleared by opening the isolation valve. The preventive maintenance order was performed weekly.

The inspectors discussed the apparent differences with the instrumentation and control supervisor. The supervisor stated that using small containers of nitrogen to blow down the sensing lines was acceptable and could be performed without the

initiation of a maintenance work document. However, if large bottles of nitrogen were to be used to blow down the sensing lines, then a maintenance work document was required to be initiated. The inspectors questioned whether these actions met the intent of the preventive maintenance order. The preventive maintenance order indicated, if the sensing lines could not be cleared, to initiate a maintenance work document to document the deficiency regardless of the size of the nitrogen bottle used to clear the sensing lines. Initiation of the maintenance work document would ensure that all potential clogged sensing lines were identified and provide a feedback mechanism to system engineering to keep them aware of all problems with the sensing lines. Failing to follow procedures while blowing down the raw water supply flow transmitter sensing lines is a violation of Technical Specification 5.8.1 (50-285/97007-02).

c. Conclusions

The inspectors identified that instrumentation and control personnel failed to follow procedures while blowing down the raw water supply header flow transmitter sensing lines. The inspectors also identified that the instrumentation and control supervisor's expectation for blowing down raw water supply flow transmitter sensing lines was not consistent with the preventive maintenance order.

M1.4 Waste Evaporator Abandonment

a. Inspection Scope (62707 and 71707)

The inspectors followed up on the circumstances surrounding the declaration of a notification of unusual event due to the loss of inventory from the component cooling water system.

b. Observations and Findings

On April 25, 1997, operations personnel tagged out Waste Evaporator WD-21. The evaporator was no longer used and was being abandoned in place. On April 26, 1997, maintenance personnel cut into a 3-inch component cooling water pipe to support the abandonment. Approximately 10 minutes later, 10 to 15 gallons per minute of component cooling water leaked from the area where the pipe was cut. Approximately 100 gallons of water leaked from the component cooling water system to the floor drain.

Control room operators noticed a slight decrease in the component cooling water surge tank level. After being notified of the leak, operators stopped one of the two running component cooling water pumps and expanded the isolation boundary. After stopping one of the component cooling water pumps, the system pressure dropped from 102 psig to 76 psig. This reduction in system pressure reduced the leak rate to approximately .25 cups per minute. Maintenance personnel then welded a cap on the pipe and completely stopped the leak.

Due to the loss of component cooling water, operations declared a notification of unusual event under Emergency Action Level 11.6, "Increased Plant Staff Awareness Due to a Leak in the Component Cooling Water System."

At the conclusion of the inspection period, the licensee had not determined why the component cooling water leak occurred. Two possibilities were being examined by licensee personnel. The first possibility was that Primary Isolation Valve HCV-2895A was leaking by and caused the leak. The second possibility was that sand prevented the primary isolation valve from fully seating. If the valve was not fully seated, and the sand shifted, it could have allowed component cooling water to escape past the seat of the primary isolation valve. The inspectors also reviewed the tag out and verified that it was adequate to perform the abandonment. The inspectors noted that double isolation was not required because the system was less than 200°F and 500 psig.

This item will remain open pending the licensee's determination of the cause of the component cooling water leak and completion of other corrective actions proposed by the licensee (50-285/97007-03).

c. Conclusions

During the waste evaporator abandonment, approximately 100 gallons of component cooling water was unexpectedly lost when maintenance personnel cut into component cooling water piping. This resulted in the declaration of a notification of unusual event.

M5 Maintenance Staff Training and Qualification

The inspectors reviewed the qualification and training matrix for maintenance personnel dated April 2, 1997. Maintenance personnel qualifications were controlled by Standing Order SO-G-26, "Maintenance Training and Qualification." During the inspection period, the inspectors verified that personnel performing maintenance activities met the minimum qualification standards to perform the work being accomplished. During the review, no anomalies were noted.

III. Engineering

E1 Conduct of Engineering

E1.1 Raw Water Pump Impeller

a. Inspection Scope (37551)

The inspectors followed up on the events surrounding the inoperability of Raw Water Pump AC-10D.

b. Observations and Findings

On March 18, 1997, Raw Water Pump AC-10D was declared inoperable to replace the pump rotating assembly. Following the replacement of the rotating assembly, the postmaintenance operability test on Raw Water Pump AC-10D was performed. During the operability test, the output of the pump was below the minimum operability limit on the raw water pump curve.

Following the test failure, maintenance personnel performed a pump impeller lift and the operability test was repeated on March 19. Again, the pump's output was below the minimum operability limit on the raw water pump curve.

Following the second failure, maintenance personnel replaced the rotating assembly of the pump. Following the rotating assembly replacement, the pump passed the operability test and was declared operable on March 21.

During an inspection of the removed rotating assembly, the system engineer noted that the impeller of the pump was smaller and not as thick as the original impeller. The impeller blades also appeared to be drooped. The system engineer suspected that this difference in shape of the impeller caused the pump to fail its operability test. Due to the apparent differences in the pump impellers, the system engineer verified that the correct part had been ordered.

Following this, the inspectors reviewed the receipt inspection checklist that was completed when the impeller was received into the warehouse. The impeller was receipt inspected in the first quarter of 1996. During the inspection, receipt inspectors verified part number, documentation, physical appearance, and some part dimensions. However, the checklist did not require receipt inspectors to verify the dimensions of the impeller.

The inspectors asked why the impeller dimensions were not verified during the receipt inspections. Licensing personnel stated that the vendor considered the dimensions of the impeller to be propriety information and the dimensions of the impeller could not be verified during receipt inspection. Licensing personnel also stated that, since the vendor met the 10 CFR Part 50, Appendix B, requirements, they relied on the vendor to deliver an impeller that was equivalent in form, fit, and function and was completely interchangeable with the original equipment.

Since the impeller was not fabricated in accordance with the specifications of the original equipment, the licensee initiated Condition Report 199700355 on April 8, 1997, and began the 10 CFR Part 21 evaluation process.

c. Conclusions

The raw water pump vendor supplied the licensee with a pump impeller that did not meet the original design requirements. Since the impeller supplied by the vendor did not meet the design requirements, the licensee began the 10 CFR Part 21 evaluation process.

E8 Miscellaneous Engineering Issues (92700)

E8.1 (Closed) Licensee Event Report (LER) 50-285/96-016: inadequate procedural guidance for resetting engineered safety feature signal. On December 20, the licensee discovered, after resetting an engineered safety feature signal on the simulator, that Safety Injection Leakage Cooler Valves PSV-2009, -2029, -2049 and -2069 may open and divert high pressure safety injection flow. The engineered safety feature signal closes the valves during a design basis accident. Resetting the engineered safety feature signal during high pressure safety injection operation would open the valves and divert the high pressure safety injection flow to the reactor coolant drain tank. This flow diversion may prevent high pressure safety injection from fulfilling its safety function. Also, the failure of the electropneumatic valve position controller could result in the valves failing open and diverting flow during high pressure safety injection operation.

Further, the licensee found that additional high pressure safety injection flow diversion may occur when Relief Valve SI-222, also located on the high pressure safety injection piping, opens at a setpoint of 360 psig. Valve SI-222 relieves pressure to the reactor coolant drain tank. In these two situations (early engineered safety feature reset or valves failing open), high pressure safety injection flow may be diverted through both Relief Valve SI-222 and the leakage cooler valves. Condition Report 199601625 was written to document the deficiency.

The original plant design of the leakage cooler valves was to limit pressure in the high pressure safety injection piping if check valves, used to isolate the high pressure safety injection piping from the reactor coolant system, leak. During normal operation, the leakage cooler solenoid valves open when pressure in the piping exceeds 400 psig and close when pressure reduces below 350 psig.

The inspectors found that the design and function of the leakage cooler valves were not discussed in the design basis document or in the Updated Safety Analysis Report. Further, the licensee found that they lacked procedural guidance to ensure that the engineered safety feature signal to the valves was reset below 350 psig and lacked instructions to address operator actions for a valve failing open. The inspectors concluded that the licensee failed to ensure that the design basis of the leakage cooler valves was correctly translated into specifications, procedures, and instructions and is in violation of 10 CFR Part 50, Appendix B, Criterion III.

The fuel vendor conducted an engineering assessment and found that the margin of safety of the fuel limit temperature was not challenged. The assessment concluded that a small break (2 inch) loss of coolant accident and a high pressure safety injection diversion through the valves would cause peak fuel clad temperature to reach 2056°F, which was below the regulatory limit of 2200°F.

The licensee's immediate corrective action was to issue Memorandum 96-10, instructing operators to remove fuses to the valves before engineered safety feature reset. Another corrective action included changing the emergency operating procedures to incorporate administrative controls of the leakage cooler valves. Further, the licensee proposed to modify the leakage cooler valve control circuitry so that operator action would be required to place these valves in automatic mode after engineered safety feature reset. The inspectors concluded that these corrective actions were acceptable.

This licensee-identified and corrected violation is being treated as a noncited violation, consistent with Section VII.B.1 of the NRC Enforcement Policy (50-285/97007-04).

The licensee believed the flow diversion should have been identified while evaluating IE Bulletin 80-06, "Engineered Safety Feature Reset." This bulletin described situations where safety equipment changed state (valve position, pump operation) from the accident state to the pre-accident state following engineered safety feature reset, an undesirable situation. The bulletin requested licensees to review safety-related systems for this condition.

In June 1980, the licensee listed components that changed state after engineered safety features reset in their response to the bulletin. Subsequently, the licensee documented actual component state after engineered safety feature reset in October of 1981 while performing Surveillance Test ST-ESF-2, "Safety Injection Actuation." The licensee re-evaluated their response to Bulletin 80-06, following the flow diversion potential identified on the simulator.

While re-evaluating the 1980 bulletin response, the licensee found they had failed to identify some components that changed state after engineered safety feature reset, made errors in the original Bulletin 80-06 response submittal, and did not evaluate plant modifications (after 1981) for proper operation on engineered safety feature reset. Further, the procedure used in 1980 to verify component state after reset, Emergency Procedure 35, "Reset of Engineered Safeguards," had errors. These errors included inadequate information in the procedure pertaining to component state after engineered safety feature reset.

During the 1996 re-evaluation, the licensee reviewed safety components as well as nonsafety components (waste disposal system, feedwater system) not identified in the bulletin response and found that not identifying these components in the 1980 response had no impact on safety. However, the licensee concluded that abnormal

operating procedures and emergency operating procedures should have had better administrative controls, such as a note indicating that these components change state following engineered safety feature reset. Additionally, notes were not incorporated into these procedures after plant modifications were implemented. These modifications included adding components with engineered safety reset capability or changing engineered safety feature reset logic on existing components. The inspectors concluded that failing to include these notes was a weakness in their process for updating these procedures and did not impact safe shutdown or plant operation during emergency and abnormal conditions.

The inspectors reviewed the licensee's response to IE Bulletin 80-06, Emergency Procedure 35, plant modification packages, the results of Surveillance Test ST-ESF-2, and the licensee's 1996 reassessment of IE Bulletin 80-06 (EA-FC-96-051). The inspectors concluded that the initial evaluation of IE Bulletin 80-06 was not thorough, but the licensee's 1996 re-evaluation of Bulletin 80-06 was comprehensive.

The licensee's corrective actions for their less than thorough initial evaluation of Bulletin 80-06 included:

- amending the response to Bulletin 80-06 in Letter LIC 97-027, including the correct equipment state after engineered safety feature reset;
- modifying the emergency operating procedures technical basis documents to incorporate information related to IE Bulletin 80-06;
- revising procedures governing the performance of engineering analyses, engineering requests, and evaluations to have operations perform an inter-disciplinary review for impact on operations procedures, and;
- revising abnormal operating procedures and emergency operating procedures to include references to Letter LIC 97-027.

The inspectors concluded these corrective actions were acceptable.

IV. Plant Support

R1 Radiological Protection and Chemistry Controls

R1.1 Tours of Radiation Controlled Area

a. Inspection Scope (71750)

The inspectors performed routine tours of the radiation controlled area and observed radiation work practices of plant personnel.

b. Observations and Findings

During shutdown cooling operation, the inspectors performed confirmatory surveys of radiation levels throughout the radiation controlled area. All areas surveyed were properly posted by the licensee. Areas required to be locked due to radiation levels were verified to be properly locked.

During the inspection period, the inspectors verified that personnel performing work within the radiation controlled area were aware of the requirements of their radiation work permits.

c. Conclusions

The inspectors concluded that the licensee had properly posted radiation areas throughout the radiation controlled area. Personnel were observed to be complying with all radiation protection requirements.

P5 Staff Training and Qualification in Emergency Planning

a. Inspection Scope (71750)

The licensee conducted an emergency drill on April 4, 1997. The inspectors monitored activities in the control room, technical support center, and operations support center.

b. Observations and Findings

Licensee emergency planning personnel simulated a lube oil fire in the Diesel Generator 2 room. Control room operators referred appropriately to emergency response and safe shutdown procedures. The inspectors observed that the call out pager system for contacting emergency response personnel did not appear to be initiated in a timely manner. This weakness was also identified by the licensee during the postdrill critique. This delay in activating the call out system appeared to cause a delay of approximately 15 minutes in staffing the Technical Support Center.

The inspectors observed that emergency planning personnel provided effective training in creating a challenging drill scenario and providing useful, perceptive comments in the postdrill critique.

c. Conclusion

Emergency planning personnel used an emergency drill to provide effective control room, Technical Support Center, and emergency operations facility training.

VI. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management May 6, 1997. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT
SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

C. Brunnert, Manager, Quality Assurance and Quality Control
J. Chase, Manager, Fort Calhoun Station
O. Clayton, Manager, Emergency Planning
R. Clemens, OPPD Management
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NRC

V. Gaddy, Resident Inspector
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INSPECTION PROCEDURES USED

IP 37551: Onsite Engineering
IP 61726: Surveillance Observations
IP 62707: Maintenance Observations
IP 71707: Plant Operations
IP 71750: Plant Support Activities
IP 92700: Followup-Engineering

ITEMS OPENED AND CLOSED

Opened

50-285/97007-01	VIO	failure to initiate a condition report (Section 02.1)
50-285/97007-02	VIO	raw water supply header flow sensing lines (Section M1.3)
50-285/97007-03	IFI	component cooling water leak (Section M1.4)

Closed

50-285/96016	LER	inadequate procedures for resetting engineered safety feature signals (Section E8.1)

Items Opened and Closed

50-285/97007-04	NCV	inadequate procedures for resetting engineered safety feature signals (Section E8.1)