



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
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October 21, 2002

R. T. Ridenoure  
Division Manager - Nuclear Operations  
Omaha Public Power District  
Fort Calhoun Station FC-2-4 Adm.  
P.O. Box 550  
Fort Calhoun, Nebraska 68023-0550

**SUBJECT: FORT CALHOUN STATION - NRC INTEGRATED INSPECTION  
REPORT 50-285/02-04**

Dear Mr. Ridenoure:

On September 28, 2002, the NRC completed an inspection at your Fort Calhoun Station. The enclosed report documents the inspection findings which were discussed on October 1, 2002, with Mr. Rich Clemens and other members of your staff.

This inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, the NRC has identified two issues that were evaluated under the risk significance determination process as having very low safety significance (Green). The NRC has also determined that violations are associated with these issues. These violations are being treated as noncited violations (NCVs), consistent with Section VI.A of the Enforcement Policy. These NCV's are described in the subject inspection report. If you contest the violation or significance of these NCV's, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Fort Calhoun Station facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if any, will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

*/RA/*

Claude E. Johnson, Chief  
Project Branch C  
Division of Reactor Projects

Docket: 50-285  
License: DPR-40

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NRC Inspection Report  
50-285/02-04

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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Docket: 50-285  
License: DPR-40  
Report No.: 50-285/02-04  
Licensee: Omaha Public Power District  
Facility: Fort Calhoun Station  
Location: Fort Calhoun Station FC-2-4 Adm.  
P.O. Box 399, Hwy. 75 - North of Fort Calhoun  
Fort Calhoun, Nebraska  
Dates: June 30 through September 28, 2002  
Inspectors: J. Kramer, Senior Resident Inspector  
L. Willoughby, Resident Inspector  
R. Azua, Project Engineer  
G. Pick, Senior Physical Security Inspector  
Approved By: Claude E. Johnson, Chief, Project Branch C

## SUMMARY OF FINDINGS

### Fort Calhoun Station NRC Inspection Report 50-285/02-04

IR 0500285-02-04; Omaha Public Power District; 06/30-09/28/2002; Fort Calhoun Station, Integrated Resident and Regional Report; Equipment Alignments; Operability Evaluations

The inspection was conducted by Resident and Regional office inspectors. Two Green findings of very low safety significance were identified during this inspection and were classified as noncited violations. The significance of the issues is indicated by their color (Green, White, Yellow, Red) using IMC 0609, "Significance Determination Process." The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

#### A. NRC-Identified Findings

##### **Cornerstone: Mitigating Systems**

- Green. The licensee did not have adequate documented instructions for operation of the control room air conditioner. As a result, on two separate occasions, operators attempted to start a train of control room air conditioning and the unit started under full load conditions and tripped.

This was a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," and was determined to be a finding of very low safety significance because the control room equipment remained operable (Section 1R04.2).

- Green. The licensee did not have documented instructions for ensuring that the safety-related 4 kV bus ground detection circuitry was in service. As a result, the licensee transferred power supplies for the bus and the indication of a ground cleared when the actual ground condition was still present. The licensee ultimately identified the problem and removed the ground from the bus.

This was a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," and was determined to be a finding of very low safety significance because the bus remained operable and capable of performing its design function (Section 1R15.1).

## Report Details

### Summary of Plant Status

The unit operated at approximately 100 percent power throughout the inspection period.

#### 1. **REACTOR SAFETY**

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness

#### 1R01 Adverse Weather Protection (71111.01)

##### a. Inspection Scope

During August 2002, the inspectors reviewed Procedure OI-EW-1, "Extreme Weather," Revision 7, for responding to extreme weather, specifically hot weather preparations. The inspectors verified that the design features and implementation of the procedure protected mitigating systems from the effects of adverse weather.

##### b. Findings

No findings of significance were identified.

#### 1R04 Equipment Alignments (71111.04)

##### .1 Partial Walkdowns

##### a. Inspection Scope

The inspectors performed partial walkdowns of the following trains of equipment during outages, operation, or testing of licensee redundant trains. The inspectors verified critical portions of the following equipment to identify any discrepancies between the existing alignment and alignments as determined by system piping and instrumentation drawings and plant procedures:

- Portion of the auxiliary feedwater system around motor-driven Feedwater Pump FW-6, using "Composition Flow Diagram Steam Generator Feedwater and Blowdown P&ID" DWG 11405-M-253, Sh. 4, Revision 30, on August 14, 2002
- Diesel Generator 1 using piping and instrumentation drawing pages 93, 161, 163, and 165 on September 18, 2002
- Portion of the auxiliary feedwater system associated with diesel-driven Feedwater Pump FW-54, using "Flow Diagram Steam Generator Feedwater and Blowdown P & ID" DWG 11405-M-253, Sh. 4, Revision 30, on September 27, 2002, and associated Condition Report 200203413

b. Findings

No findings of significance were identified.

.2 Complete Walkdown

.2.1 Control Room Air Conditioner VA-46A

a. Inspection Scope

The inspectors performed a complete walkdown of the control room ventilation system. The inspectors reviewed the following: Updated Safety Analysis Report; Technical Manual TM T265.0010, "Technical Manual for Control Room Air Conditioners"; Drawings 11405-M-97, Sheets 1 and 2; Procedure OI-VA-3, "Control Room Ventilation System Normal Operation," Revisions 21 and 22; Procedure SE-ST-VA-0013, "Control Room Air Conditioning Unit VA-46A Performance Test," Revision 2; Procedure SE-ST-VA-0014, "Control Room Air Conditioning Unit VA-46B Performance Test," Revision 2; and Condition Reports 200202386, 200202405, 200202498, 200202500, and 20202885. The inspectors discussed the equipment performance and performed a walkdown with the system engineer.

b. Findings

Introduction

The inspectors determined that the licensee implemented inadequate instructions for operating the control room air conditioner. As a result, on two separate occasions operators attempted to start a train of control room air conditioning under full load conditions, which caused the unit to trip. This was a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, and was determined to be a finding of very low safety significance (Green).

Description

On June 27 and July 9, 2002, operators performed a normal startup of Control Room Air Conditioner VA-46A in accordance with Procedure OI-VA-3 and the unit tripped because of attempting to start under full load conditions. A procedural step directed the operators to cycle the disconnect switch for the desired air conditioner and a subsequent step directed the operators to start the unit. The procedure did not show that, if the operators had a significant delay (greater than 12 minutes) in starting the air conditioner after cycling the disconnect switch, the unit would start under full load conditions. On the above days, the unit started under full load conditions and tripped.

Analysis

Using the significance determination process, the inspectors evaluated the significance of the issue. The inspectors determined that the issue was associated with the equipment performance attribute of the mitigating systems cornerstone. The issue is



considered more than minor because improper operation of the control room air conditioning equipment could render the systems inoperable. Failure to adequately cool the control room will cause other safety-related equipment to exceed their operability requirements. Since the control room air conditioning equipment remained operable, the issue had very low safety significance (Green).

### Enforcement

10 CFR Part 50, Appendix B, Criterion V, states, in part, that activities affecting quality shall be prescribed by documented procedures of a type appropriate to the circumstances. Procedure OI-VA-3, "Control Room Ventilation System Normal Operation," Revision 21, Attachment 1, provided instructions for the normal startup of Control Room Air Conditioner VA-46A. Contrary to the above, on June 27 and July 9, 2002, operators performed a normal startup of Control Room Air Conditioner VA-46A in accordance with Procedure OI-VA-3 and the unit tripped because of attempting to start under full load conditions. The procedure failed to provide instructions of a type appropriate to the circumstances for the start of an air conditioner by indicating that the unit must be started within 4 minutes of cycling the unit's disconnect switch. This violation of 10 CFR Part 50 is being treated as a noncited violation, consistent with Section VI.A of the Enforcement Policy (NCV 285/2002004-01). This violation is in the licensee's corrective action program as Condition Report 200202500.

### 1R05 Fire Protection (71111.05)

#### a. Inspection Scope

The inspectors performed routine fire inspection tours and reviewed relevant records for the following plant areas important to reactor safety:

- Fire Area 2 - Safety Injection and Containment Spray Pump Room
- Fire Area 10 - Charging Pump Area
- Fire Area 35A - Diesel Generator Room 1
- Fire Area 31/31A - Intake Structure
- Fire Area 46.3 - Start-up Feedwater Pump FW-54 Enclosure (El. 990')
- Fire Area 47 - Outdoor Auxiliary and Startup Transformers

The inspectors observed the material condition of plant fire protection equipment, the control of transient combustibles, and the operational status of barriers. The inspectors compared in-plant observations with commitments in the licensee's Updated Fire Hazards Analysis Report. The inspectors reviewed Condition Report 200203414 associated with Fire Area 31/31A.

#### b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06)

.1 Internal Flooding Protection Measures

a. Inspection Scope

The inspectors verified that equipment was not subject to damage as a result of internal flooding due to plugged floor drains located in the purification and waste filter room. The inspectors reviewed the internal flooding analysis that demonstrated safety-related equipment was not vulnerable to this internal flooding.

b. Findings

No findings of significance were identified.

.2 External Flooding Protection Measures

a. Inspection Scope

The inspectors reviewed the Updated Safety Analysis Report, Probability Risk Assessment Summary Notebook, Procedure GM-RR-AE-1002, "Flood Control Preparedness for Sandbagging," Revision 5; Procedure EPIP-RR-17A , "TSC Administrative Logistics Coordinator Actions," Revision 19; Procedure EPIP-TSC-2, "Catastrophic Flooding Preparations," Revision 2, and Condition Report 200203443. The inspectors evaluated the effect river flooding had on the ability to transfer diesel fuel oil from Tank FO-10 to FO-1 (auxiliary boiler fuel storage tank to diesel generator fuel oil storage tank) and to protect the contents of the tanks from being contaminated with flood waters.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

a. Inspection Scope

The inspectors reviewed licensed operator requalification training activities, including the licensed operators' performance and the evaluators' critique. The inspectors compared performance in the simulator on September 12, 2002, with performance observed in the control room during this inspection period.

The inspectors placed an inspection emphasis on high-risk licensed operator actions, operator activities associated with the emergency plan, and previous lessons-learned items. These items were evaluated to ensure that operator performance was consistent with protection of the reactor core during postulated accidents.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

a. Inspection Scope

The inspectors reviewed the implementation of the requirements of the Maintenance Rule (10 CFR 50.65) to verify that the licensee had conducted appropriate evaluations of equipment functional failures, maintenance preventable functional failures, the unplanned capacity loss factor, and system unavailability. The inspectors reviewed root causes and corrective action determinations for equipment failures and reviewed performance goals for ensuring corrective action effectiveness. The inspectors discussed the evaluations with the licensee personnel. The following systems were reviewed:

- Control Room Air Conditioning Units VA-46A and VA-46B
- 161kV House Transformer T1A-3 and 4.16kV ac / 480V ac Transformer T1B-3

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspectors reviewed the licensee's risk assessments for equipment outages as a result of planned and emergent maintenance to evaluate the licensee's effectiveness in assessing risk for the activities. The inspectors compared the licensee's risk assessment and risk management activities against requirements of 10 CFR 50.65 (a)(4). The inspectors discussed the planned and emergent work activities with planning and maintenance personnel. The inspectors verified that plant personnel were aware of the appropriate licensee-established risk category, according to the risk assessment results and licensee program procedures. The inspectors reviewed the effectiveness of risk assessment and risk management for the following activities:

- Maintenance on Raw Water Pump AC-10C and Air Compressor CA-1B on July 29, 2002
- Maintenance on Component Cooling Water Pump AC-3A and Low Pressure Safety Injection Pump SI-1A on August 7, 2002
- Removing river debris located against or near the intake structure grating while at power on August 20, 2002

- Inoperability of Diesel Generator 2 and the fast transfer of 4.16 kV Bus 1A4 on September 18, 2002
- Cleaning and inspection of Diesel Generator 2 Transfer Pump Filter FO-6A-2, Check Valve FO-104, and switchyard activities on September 19, 2002
- Troubleshooting and repair of the Reactor Protection System Channel D Reactor Power Calibration and Indication Panel and the testing of the Qualified Safety Parameter Display System Channel B on September 23, 2002

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

.1 Bus 1A3 Ground

a. Inspection Scope

The inspectors reviewed the root cause analysis for Condition Report 200202238 on Bus 1A3 electrical ground. The review focused on the technical adequacy of the root cause and the operability evaluation that provided adequate justification that the equipment could still meet its Technical Specification, Updated Safety Analysis Report, and design bases requirements. Inspectors also discussed the evaluations with cognizant licensee personnel.

b. Findings

Introduction

The licensee had no instructions to place the 22kV T1A-1 transformer ground indication circuitry in service. This resulted in operators performing incorrect verifications when a ground developed on Safety Bus 1A3. The finding is being documented as a noncited violation with very low risk significance (Green).

Description

On June 10, 2002, the control room received the "Trans T1A-3 4160V Bus Ground Alarm." Operations conducted a ground isolation procedure. When the ground could not be found, Safety Bus 1A3 was transferred from the 161kV Transformer T1A-3 to the 22kV Transformer T1A-1. The ground cleared thus leading operators to believe that the ground was associated with Transformer T1A-3. The operators then performed verifications based on the current conditions.

Troubleshooting the next day revealed the ground was still present and was on Safety Bus 1A3. Investigation found a thermocouple lead touching the 4160V windings of the Transformer T1B-3B. When this lead was removed, the ground cleared.

The earlier clearance of the ground during performance of the ground isolation procedure was due to the ground indication circuitry associated with 22kV Transformer T1A-1 not being in service. This was caused by the lack of any instructions to place the circuitry in service. Had the circuitry been in service during the ground isolation procedure, the operators would have concluded that the ground was on Safety Bus 1A3. Therefore, having no instructions to place the ground indication circuitry associated with 22kV Transformer T1A-1 in service caused the operators to do the wrong verifications.

### Analysis

Using the significance determination process the inspectors evaluated the significance of the finding. The finding involved the configuration control attribute of the mitigating systems cornerstone. The finding was considered more than minor because undetected grounds on the Safety Bus 1A3 could prevent functioning of safety-related equipment. No actual loss of safety equipment occurred since the electrical system is an ungrounded system and would require two grounds to prevent safety equipment from functioning. Since only one ground was present, the safety loads on Safety Bus 1A3 would have functioned if needed. Therefore, the finding had very low safety significance (Green).

### Enforcement

10 CFR Part 50, Appendix B, Criterion V, states, in part, that activities affecting quality shall be prescribed by documented instructions of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions. Contrary to the above, prior to June 10, 2002, the licensee did not have any instructions to place the ground indication circuitry associated with 22kV Transformer T1A-1 in service. This circuitry is used to detect grounds on Safety Bus 1A3 when the safety bus is aligned to the Transformer T1A-1. This violation of 10 CFR Part 50 is being treated as a noncited violation, consistent with Section VI.A of the Enforcement Policy (NCV 285/2002004-02). This violation is in the licensee's corrective action program as Condition Report 200202238.

## .2 Selected Operability Evaluations

### a. Inspection Scope

The inspectors reviewed selected operability evaluations to verify that the evaluations provided adequate justification that the equipment could still meet its Technical Specification, Updated Safety Analysis Report, and design bases requirements. The inspectors also discussed the evaluations with cognizant licensee personnel. The inspectors reviewed the operability evaluations and cause assessments for the following:

- Operability of the Neutron Detector Well Cooling System with one temperature indicator, TIC-733B, reading above the alarm setpoint (Condition Report 200202491)

- Operability of the Containment Filtering Unit VA-3B Inlet Damper HCV-725A with failed position indication (Condition Report 200202918)
- Technical Support Center capability of providing cooling and filtering functions as designed (Condition Report 200203313)

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds (71111.16)

a. Inspection Scope

The inspectors performed a programmatic review of the August 12, 2002, operator workaround/control room deficiency list. The inspectors focused on the cumulative effects of operator workarounds on the reliability and availability of mitigating systems. The inspectors evaluated 12 operator workarounds using the criteria documented in PRA-PR-34, "Assessment of OWA's, CRD's and SSC's in Category (a)(1)," Revision 0; Nuclear Safety Review Group Review of Operator Workarounds and Control Room Deficiencies, FC-OPS-027-02, dated July 14, 2002; and OPD 4-17, "Control Room Deficiencies and Operator Workarounds," Revision 8.

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing (71111.19)

a. Inspection Scope

The inspectors observed and/or reviewed postmaintenance testing for the following activities to verify that the test procedures and activities adequately demonstrated system operability:

- Procedure EM-RR-EX-1000, "Electric Motor Repair or Replacement," Revision 3, Procedure OP-ST-CCW-3022, "AC-3C Component Cooling Water Pump Inservice Test," Revision 13, and Condition Report 200202738 for Component Cooling Water Pump AC-3C motor bearing replacement on July 10, 2002.
- EC 14089, Construction Work Order 01-0025, Amendment 4, "Retest the Rod Supervisory Sensing System function of the Emergency Response Facility Computer System LAN system and to verify proper operation of operator interface for CEA long term insertion limits function related to CEA exposure calculations" following software modifications on August 23, 2002.

- Work Order Package 00127396 01, “Disassemble, clean and inspect the filter and check valve,” and Condition Report 200203303 associated with Diesel Generator 2 Fuel Transfer Pump FO-4A-2 on September 19, 2002
- Work Order Package 00127667 01, “Troubleshoot loss of power and repair as necessary” the Reactor Protection System Channel D Reactor Power Calibration and Indication Panel on September 23, 2002
- Work Order Package 00127563 01, Procedure IC-ST-QSP-0001, “Monthly Channel Check of Heated Junction Thermocouple Channels A and B, Revision 3, Procedure IC-ST-QSP-0003, “Channel Calibration of Qualified Safety Parameter Display System Channel B,” Revision 12, and Condition Report 200203380 for troubleshooting and repairs to Train B of the Qualified Safety Parameter Display System on September 24, 2002

The inspectors determined that the effect of testing on the plant had been adequately addressed. It was also determined that the tests were adequate for the scope of the maintenance work performed, and that the acceptance criteria were clear and consistent with design and licensing basis documents.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed and/or reviewed the performance and documentation for the following surveillance tests to verify that the structures, systems, and components were capable of performing their intended safety functions and to assess their operational readiness:

- Procedure CH-ST-CH-0002, “Phosphate Basket Inspection,” Revision 11, performed in May 2002 and associated Condition Report 200202598
- Auxiliary Feedwater Pump FW-10 Operability Test on June 19, 2002
- Room 21 SI/CS Pumps and Valve Exercise Inservice Test on August 9, 2002
- Auxiliary Feedwater Pump FW-10, Steam Isolation Valve, and Check Valve Tests on August 14, 2002
- Quarterly Functional Test of power Range Safety Channel A Trip Unit on September 17, 2002

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the following temporary plant modifications to verify that the safety functions of safety systems were not affected:

- EC 30635 modification that removed one of six condenser fan motors from service for the Control Room Air Conditioner VA-46B condenser due to a fan motor ground
- EC 30753 modification that installed a fixed resistor in place of a thermistor associated with Control Room Air Conditioner VA-46B compressor motor
- EC 30771 modification that removed a defective charging flow meter from a monitoring loop which allowed other loop components to operate correctly

b. Findings

No findings of significance were identified.

1EP6 Drill Observation (71114.06)

a. Inspection Scope

On July 23, 2002, the inspectors observed aspects of the emergency preparedness drill from the simulator and the technical support center. The purpose of the observations was to evaluate operator performance, licensee event classification, notification of state and local authorities, and the adequacy of protective action recommendations. The inspectors attended the licensee's postdrill critiques and discussed observations with licensee management. In addition, the inspectors reviewed Condition Reports 200202672, 200202673, and 200202674 associated with the drill.

b. Findings

No findings of significance were identified.



### 3. SAFEGUARDS

Cornerstone: Physical Protection (PP)

#### 3PP3 Response to Contingency Events (71130.03)

The Office of Homeland Security developed a Homeland Security Advisory System to disseminate information regarding the risk of terrorist attacks. The Homeland Security Advisory System implements five color-coded threat conditions with a description of corresponding actions at each level. NRC Regulatory Information Summary 2002-12a, dated August 19, 2002, "NRC Threat Advisory and Protective Measures System," discusses the Homeland Security Advisory System and provides additional information on protective measures to licensees.

##### a. Inspection Scope

On September 10, 2002, the NRC issued a Safeguards Advisory to reactor licensees to implement the protective measures described in Regulatory Information Summary 2002-12a in response to the Federal government declaration of threat level "orange." Subsequently, on September 24, 2002, the Office of Homeland Security downgraded the national security threat condition to "yellow" with a corresponding reduction in the risk of a terrorist threat.

The inspectors interviewed licensee personnel and security staff, observed the conduct of security operations, and assessed licensee implementation of the threat level "orange" protective measures. Inspection results were communicated to the Regional and Headquarters security staff for further evaluation.

##### b. Findings

No findings of significance were identified.

#### 3PP4 Security Plan Changes (71130.04)

##### a. Inspection Scope

The inspectors reviewed the following security plan changes to determine if requirements of 10 CFR 50.54 (p) were met:

- Site Security Plan, Revision 17, dated March 1, 2002, which reflected alternate means to verify military service employment in accordance with the interim measures approved by the Commission
- Security Training and Qualification Plan, Revision 7, dated March 1, 2002, which reflected a change in the weapons used onsite
- Safeguards Contingency Plan, Revision 3, dated March 1, 2002, which reflected the requirement to conduct annual audits not to exceed 12 months

- Site Security Plan, Revision 18, and Safeguards Contingency Plan, Revision 4, dated March 26, 2002, which reflected physical and organizational changes made to implement the revised protective strategy

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES**

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors reviewed the licensee's performance indicator data to verify its accuracy and completeness. The inspectors verified the following indicators:

- MS2 High Pressure Safety Injection System Unavailability
- MS4 Residual Heat Removal System Unavailability
- MS5 Safety System Functional Failures
- BI1 Reactor Coolant System Activity
- BI2 Reactor Coolant System Leakage

The inspectors reviewed the performance indicator data for the last two quarters of 2001 and the first two quarters of 2002. The inspectors reviewed NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," and licensee operating logs. The inspectors discussed the status of the performance indicators and compilation of data with licensee personnel. Condition Reports 200202782, 200203012, 200203386, and 200203387 were also reviewed.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Turbine-Driven Auxiliary Feedwater Pump FW-10

a. Inspection Scope

The inspectors reviewed the Turbine-Driven Auxiliary Feedwater Pump FW-10 maintenance history for the past 2 years to determine whether problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. The inspectors reviewed risk-significant corrective action documents (condition reports) that had been issued between September 15, 2000, and September 15, 2002. The inspectors evaluated the condition reports to determine if the licensee's problem identification activities were complete and accurate and that maintenance effectiveness and operability issues were appropriately evaluated and

dispositioned. Also, the licensee's personnel efforts in establishing the scope of problems, generic implications, and common cause were evaluated by reviewing pertinent work orders, engineering requests, and action plans. In addition, the inspectors also verified that the licensee had appropriately assessed the risk-significance of each condition report and had assigned the appropriate condition level. Finally, the inspectors verified that the licensee had completed the corrective actions in a timely manner, commensurate with the risk associated with the issue.

b. Findings

No findings of significance were identified.

.2 Safety Injection Refueling Water Storage Tank (SIRWT) Outlet Valve LCV-383-1 Surveillance Failure

a. Inspection Scope

On May 12, 2002, while the licensee was performing a surveillance test on the emergency core cooling system, Instrument Air Supply Check Valve LCV-383-1-C failed to hold pressure, resulting in the failure of SIRWT Outlet Valve LCV-383-1 to close as required. The licensee initiated Condition Report 200201396 to document the event. The inspectors reviewed the licensee's evaluation of the risk significance of this condition and found it to be appropriate. The inspectors then verified that the licensee reviewed this event data against the Maintenance Rule Program. This review resulted in the identification that the equipment failure in question constituted a Maintenance Rule functional failure. This required the licensee to perform a cause determination per Maintenance Rule Implementation Instruction (MRII) - 6. The licensee placed SWIRT Valve LCV-383-1 in (a)(1) status and initiated Condition Report 200201582 to track the equipment status until it could be returned to (a)(2). The inspectors reviewed the licensee's risk determination, root cause analysis, and corrective action determination and found the licensee's actions to be timely, appropriate, and consistent with their program.

b. Findings

No findings of significance were identified.

40A3 Event Followup (71153)

.1 (Closed) Licensee Event Report (LER) 285/2002-002-00: Inappropriate use of manual operator action renders multiple safety systems inoperable.

In March 2002 an NRC inspection team identified that a quarterly full flow test of the auxiliary feedwater system inappropriately took credit for manual action to isolate the full flow test line in the event that the auxiliary feedwater system was needed for an accident. The team documented the finding, enforcement, and safety significance in NRC Inspection Report 50-285/02-03, Section 1R21.6.b. The licensee initiated Condition Report 200200483 to address the issue and corrective actions. The licensee

reported this condition and inappropriate credit for manual action when isolating the emergency core cooling system pump recirculation line during surveillance testing in the LER.

The inspectors reviewed the LER and concluded that the licensee's root cause determination was adequate and the completed and proposed corrective actions were appropriate. The inspectors noted that NRC Inspection Report 50-285/02-03 documented the issue of using manual action in place of automatic actions. This LER is closed.

#### 4OA6 Meetings

##### Exit Meeting Summary

The inspectors presented the inspection results of the review of the security plan changes to Mr. E. Matzke, Licensing Engineer, telephonically on August 28, 2002. The licensee acknowledged the information presented. No proprietary information was identified.

The inspectors presented the inspection results to Mr. R. Clemens Division Manager, Nuclear Assessments at the conclusion of the Residents' inspection on October 1, 2002. 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

D. Bannister, Plant Manager  
J. Chase, Division Manager, Alliance  
R. Clemens, Division Manager, Nuclear Assessments  
M. Core, Manager, System Engineering  
J. Goodell, Manager, Operations  
R. Haug, Manager, Chemistry  
J. Herman, Manager, Nuclear Licensing  
J. McManis, Manager, Design Engineering  
R. Phelps, Division Manager, Nuclear Engineering Division  
M. Puckett, Manager, Radiation Protection  
R. Ridenoure, Division Manager, Nuclear Operations  
H. Sefick, Manager, Security and Emergency Planning  
J. Tillis, Manager, Maintenance  
D Trausch, Manager, Quality

ITEMS OPENED, CLOSED

Opened and Closed During this Inspection

50/285/04-01	NCV	Inadequate Procedure for Control Room Ventilation Operations (Section 1R04)
50/285/04-02	NCV	Inadequate Procedure for Safety-Related 4 kV Bus Ground Detection Operations (Section 1R15)

Closed

50/285/2002-002-00	LER	Inappropriate use of manual operator action renders multiple safety systems inoperable
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