



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064**

February 20, 2001

S. K. Gambhir, Division Manager
Nuclear Operations
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
P.O. Box 399
Hwy. 75 - North of Fort Calhoun
Fort Calhoun, Nebraska 68023-0399

SUBJECT: CORRECTION TO NRC INSPECTION REPORT 50-285/00-09

The enclosure to this letter contains replacement pages for the subject inspection report. The original Attachment 1, page 1, incorrectly listed two green findings when the report actually documented only one. The enclosed replacement pages also correct the numbering of the items opened and closed in Section 4OA7 of the subject report. Please replace the original pages with the enclosed replacement pages. I regret any inconvenience this may have caused.

Sincerely,

/RA/

Charles S. Marschall, Chief
Project Branch C
Division of Reactor Projects

Docket: 50-285
License: DPR-40

cc w/enclosure:
Mark T. Frans, Manager
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Branch Chief, DRP/TSS (**PHH**)
RITS Coordinator (**NBH**)
Jim Isom, Pilot Plant Program (**JAI**)
Sampath Malur, Pilot Plant Program (**SKM**)

Only inspection reports to the following:
Scott Morris (**SAM1**)
NRR Event Tracking System (**IPAS**)
FCS Site Secretary (**NJC**)
Dale Thatcher (**DFT**)

R:_FCS\FC2000-09RP Correction.wpd

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|--------------|-------------|--|--|--|
| RIV:PE:DRP/C | C:DRP/C | | | |
| WCSifre;df | CSMarschall | | | |
| /RA/ | /RA/ | | | |
| 2/18/01 | 2/20/01 | | | |

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The inspector reviewed seven condition reports involving high radiation areas.

b. Findings

The licensee relied upon the recollection of historical facts by selected individuals rather than objective evidence during the problem resolution phase of Condition Report 2000-1989 (See Section 20S1).

40A6 Exit Meeting Summary

- .1 The operator requalification inspectors presented the inspection results to Mr. S. Gambhir, Division Manager, Nuclear Operations Division, and other members of the licensee's management staff at an exit meeting on October 13, 2000. The licensee acknowledged the findings presented.
- .2 The radiation protection inspectors presented the inspection results to Mr. G. Gates, Vice President, Nuclear and other members of licensee management at the conclusion of the inspection on November 17, 2000. The licensee acknowledged the findings presented.
- .3 On November 21, 2000, the inspectors presented the resident inspection results during a meeting with Mr. Clemens and other members of your staff. The licensee acknowledged the findings as presented.

At all three exit meetings, the inspectors asked the licensee whether any materials examined during the associated part of the inspection should be considered proprietary. No proprietary information was identified.

40A7 Licensee Identified Violations

The following findings were of very low significance, were identified by the licensee, and were in violation of NRC requirements. These items met the criteria of Section VI of NRC Enforcement Policy NUREG-1600 for being dispositioned as a noncited violation:

- .1 50-285/2009-02 10 CFR Part 50, Appendix B, Criterion III, Design Control, requires that measures be established to ensure verifying and checking of the adequacy of the design. On October 10, 2000, the licensee discovered that missing clamps on seismically supported electrical conduits above a safety-related cable tray on Diesel Generator 1 could have caused the loss of direct current control power to Diesel Generator 1, rendering it inoperable. This is described in the licensee's corrective action program as Condition Report 200001904.
- .2 50-285/2009-03 Technical Specification 5.8.1 requires procedures for the radiation work permit system. Section 3.4.3.D. of Procedure RPP, "Radiation Protection Plan," Revision 16,

states, in part, that an individual must comply with the requirements on a valid radiation work permit. On May 16, 2000, two radiation workers did not follow the radiological controls listed on Radiation Work Permit 00-1024, as described in the licensee's corrective action program, reference Condition Report 2000-0975.

.3 50-285/0009-04

Technical Specification 5.11.1 requires each high radiation area (as defined in 10 CFR 20.1601) in which the intensity of radiation is 1000 mrem/hr or less shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by required issuance of a radiation work permit. A high radiation area in Room 59 was not barricaded and posted as a high radiation area for approximately 36 hours. After shutdown cooling was initiated on October 15, 2000, dose rates exceeded the threshold of a high radiation area. This item was documented in the licensee's corrective action program in Condition Report 2000-1989.

ATTACHMENT 1

KEY POINTS OF CONTACT

Licensee

M. Anderson, Technician, Radiation Protection
J. Chase, Division Manager, Nuclear Assessment
R. Clemens, Plant Manager
M. Christensen, Technician, Radiation Protection
D. Dryden, Engineer, Licensing
M. Frans, Manager, Nuclear Licensing
S. Gambhir, Division Manager, Nuclear Operations
W. Gates, Vice President
R. Hamilton, Manager, Chemistry
R. Jaworski, Acting Manager, Licensing
R. Juza, ALARA Technician, Radiation Protection
B. Kindred, Supervisor, Security
R. Phelps, Division Manager, Nuclear Engineering
M. Puckett, Manager, Radiation Protection
R. Reno, ALARA Supervisor, Radiation Protection
R. Short, Assistant Plant Manager
J. Skiles, Manager, Design Engineering
J. Spilker, Manager, Corrective Action Group
K. Steele, Supervisor, Radiation Protection Operations
D. Weaver, Supervisor, Operations and Technical Training
R. Westcott, Manager, Training
C. Williams, ALARA Technician, Radiation Protection

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed During this Inspection

| | | |
|----------------|-----|--|
| 50-285/0009-01 | FIN | Job dose exceeded projected ALARA estimates |
| 50-285/0009-02 | NCV | Diesel generator design control failure |
| 50-285/0009-03 | NCV | Failure to follow radiation work permit requirements |
| 50-285/0009-04 | NCV | Uncontrolled high radiation area |



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

December 12, 2000

S. K. Gambhir, Division Manager
Nuclear Operations
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
P.O. Box 399
Hwy. 75 - North of Fort Calhoun
Fort Calhoun, Nebraska 68023-0399

SUBJECT: NRC INSPECTION REPORT NO. 50-285/20-09

Dear Mr. Gambhir:

This refers to the inspection conducted on October 8 through November 18, 2000, at the Fort Calhoun Station facility. The enclosed report presents the results of this inspection. The inspection included input in specific areas by regional specialists.

The inspection was an examination of activities conducted under your license as they relate to safety and to compliance with the Commission's rules and regulations and with the condition of your license. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel. Based on the results of this inspection, no significant findings were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response 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/NRC/ADAMS/index.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/

Charles S. Marschall, Chief
Project Branch C
Division of Reactor Projects

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

Enclosure:
NRC Inspection Report No.
50-285/00-09

cc w/enclosure:
Mark T. Frans, Manager
Nuclear Licensing
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
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 Branch Chief, DRP/TSS (**PHH**)
 RITS Coordinator (**NBH**)
 Jim Isom, Pilot Plant Program (**JAI**)
 Sampath Malur, Pilot Plant Program (**SKM**)

Only inspection reports to the following:
 Scott Morris (**SAM1**)
 NRR Event Tracking System (**IPAS**)
 FCS Site Secretary (**NJC**)
 Dale Thatcher (**DFT**)

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|-------------------------|-----------------------|-------------|-------------|-------------|
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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.: 50-285
License No.: DRP-40
Report No.: 50-285/20-09
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: October 8 through November 18, 2000
Inspectors: W. Walker, Senior Resident Inspector
C. Osterholtz, Resident Inspector
M. Shannon, Senior Health Physicist
L. Ricketson, Senior Health Physicist
G. Johnston, Senior Operations Examiner
G. Werner, Operations Examiner
Approved by: C. Marschall, Chief, Project Branch C

ATTACHMENTS: 1. Supplemental Information
2. NRC's Revised Reactor Oversight Process

SUMMARY OF FINDINGS

Fort Calhoun
NRC Inspection Report No. 50-285/00-09 (Feeder)

Cornerstone: Occupational Radiation Safety

- Green. During the review of the licensee's Refueling Outage 18 exposure estimates and exposure performance data, the inspector identified that Radiation Work Permit 99-2507 (Reactor Head Work in High Radiation Areas) total person-rem exceeded budgeted person-rem by greater than 50 percent (10.9 verses 6.5 Rem). Post-job Evaluation Package 99-16 documented the reasons for the additional exposure. From a review of Package 99-16, the inspector noted two performance issues that caused additional exposure: (1) workers were in the reactor cavity an additional hour because the individual reading the containment polar crane hook load cell did not know how to properly read the load cell, and (2) electrical maintenance workers had turnover communication problems which caused rework. This issue is in the licensee's corrective action program as Condition Report 2000-2211.

This issue was determined to have very low safety significance, because the actual job dose was less than 25 person-rem, and there was only one occurrence (Section 2OS2).

Report Details

The Fort Calhoun Station began this inspection period at 100 percent power. On October 12, 2000, a plant shutdown and cooldown were performed to repair a degraded seal package in Reactor Coolant Pump 3A. Reduced inventory operations were performed October 16-18, 2000, to accommodate the repairs. On October 22, 2000, following a plant heatup, the plant was again cooled down to repair a steam leak on a pressurizer thermal weld the licensee identified during the containment closeout inspection. The plant was successfully restarted on November 5, 2000, and achieved 100 percent power on November 12, 2000. The plant remained at 100 percent power the rest of the inspection period.

1. REACTOR SAFETY Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather

Cold Weather Protection

a. Inspection Scope

The inspectors conducted an inspection of the raw water intake structure and reviewed Operating Instruction OI-EW-1, "Extreme Weather," Revision 6. The inspectors also reviewed temporary modifications incorporated to guard against cold weather.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignments

a. Inspection Scope

The inspectors performed a partial inspection of High Pressure Safety Injection System SI-2B and the containment cooling system. The inspectors verified that accessible system equipment was aligned in accordance with the following procedures:

- OI-SI-1, "Safety Injection - Normal Operation," Revision 47
- OI-CC-1, "Component Cooling System Normal Operation," Revision 38

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors performed inspections of the following areas to determine if fire protection controls for combustibles and ignition sources were being effectively maintained:

- Auxiliary building main floor
- Auxiliary basement floor
- Ventilation room auxiliary building
- East battery room
- West battery room

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

Examination security measures and procedures were evaluated for compliance with 10 CFR 55.49. Five weeks of written examinations were evaluated for adherence to the sample plan and compliance with 10 CFR 55.59 and NUREG-1021 as referenced in facility requalification program procedures. Maintenance of license conditions was evaluated for compliance with 10 CFR 55.53 by review of facility records, procedures, and tracking systems for licensed operator training, qualification, and watchstanding. Remedial training and examination for an individual examination failure was reviewed for compliance with facility procedures and responsiveness to address areas failed.

The inspectors interviewed five operators, four instructors, and a training supervisor. The interviews covered topics related to policies and practices for administration of requalification examinations and program effectiveness. The inspectors observed one crew in the performance of two dynamic simulator scenarios. An operations department observer/evaluator and two training department evaluators also observed and evaluated the crews. The inspectors also observed licensee staff administration of five job performance measures to two operators. Three of the observed job performance measures were performed on the simulator in a dynamic mode and two in the plant under simulated conditions.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors verified proper implementation of the maintenance rule for the following components:

- Fire Protection System Deluge Valves
- Emergency Response Facility Computer (plant computer)
- Main Steamline Radiation Monitoring Isolation Valves HCV-921 and HCV-922

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

.1 Repair of Pressurizer Thermal Weld TE-108

a. Inspection Scope

The inspectors reviewed work activities to repair a thermal weld on Pressurizer Water Space Temperature Element TE-108 after the licensee discovered it leaking steam following a plant heatup. The inspectors also reviewed work activities to install a mechanical nozzle seal assembly on Pressurizer Steam Space Temperature Element TE-107 as a precaution to guard against potential leakage.

b. Findings

No findings of significance were identified.

.2 Component Cooling Water Valve Upgrade

a. Inspection Scope

The inspectors observed and reviewed activities performed to upgrade the eight component cooling water heat exchanger inlet and outlet isolation valves. The upgrade was performed after component cooling water Heat Exchanger Inlet Isolation Valves HCV-490A and HCV-491A failed to fully open on demand during surveillance testing.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions

Pressurizer Level Reduction Response

a. Inspection Scope

The inspectors reviewed operator response to a sudden reduction in pressurizer level after noncondensable gases vented from the reactor vessel head during cold shutdown operations.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following operability evaluations for technical adequacy, applicable compensatory measures, and impact on continued operations:

- Operability for degrading Reactor Coolant Pump 3A seal package (Condition Report 200001844)
- Operability of control room ventilation for a reactor coolant pump seized rotor event (Condition Report 200001517)
- Operability of safety injection pump room ventilation charcoal filter dampers (Condition Report 200002233)
- Operability of condenser evacuation in-line Gas Radiation Monitor RM-057 (Condition Report 200002235)

b. Findings

No findings of significance were identified.

1R19 Postmaintenance Testing

b. Inspection Scope

The inspectors reviewed or observed the postmaintenance testing related to the following work orders to verify that procedures and tests adequately verified system operability:

- Work Order 454684 for the replacement of a solenoid valve on Containment Cooling Coil Component Cooling Water Outlet Valve VA-1A

- Work Order 54587 for the replacement of Inverter Bypass Transformer C

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities

a. Inspection Scope

The inspectors observed and reviewed the reactor plant drain down to reduced inventory condition to accommodate reactor coolant pump seal package replacements. The inspectors also observed and reviewed the reactor plant start up following completion of maintenance and attended multiple plant review committee and outage activity meetings during the outage. Additionally, the inspectors reviewed the contingency plan put in place to provide restrictive limits on power level should reactor coolant system activity levels increase beyond administrative levels.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors performed a detailed review of Temporary Modification EC25696. This modification provided an additional cable to supply an input to the reactor regulating system from the Cold Leg 2B temperature signal instead of the Cold Leg 2A temperature signal. Licensee personnel had determined that the Cold Leg 2A temperature signal was unreliable.

b. Findings

No findings of significance were identified.

Emergency Preparedness

1EP1 Exercise Evaluation

Emergency Plan Drill

a. Inspection Scope

The inspectors reviewed a licensee prepared emergency plan drill scenario, observed performance of the drill in the technical support center, and attended the licensee's drill critique for the identification and resolution of performance weaknesses.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY
Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (7112101)

a. Inspection Scope

The inspector interviewed radiation workers and radiation protection personnel involved in high dose rate and high exposure jobs during routine operations. The inspector also conducted plant walkdowns within the radiological controlled area and conducted independent radiation surveys of selected work areas. The following items were reviewed and compared with regulatory requirements:

- Area postings and other controls for airborne radioactivity areas, radiation areas, high radiation areas, and very high radiation areas
- High radiation area key controls
- Radiation work permits and radiological surveys involving airborne radioactivity areas and high radiation areas
- As low as is reasonably achievable (ALARA) prejob briefing prior to the movement of a high integrity container of radioactive waste
- Conduct of work with the potential for high radiation dose (the movement of a high integrity container of radioactive waste and the disassembly of reactor coolant pump seals)
- Dosimetry placement when work involved a significant dose gradient
- Controls involved of highly radioactive items stored in the spent fuel pool
- Problem identification reports involving high radiation area incidents
- Self-assessments involving high radiation area controls

b. Findings

Condition Report 2000-1989 documented the discovery of an unposted, uncontrolled high radiation area. Specifically, the dose rates in Room 59 increased beyond that of a high radiation area after the initiation of shutdown cooling on October 15, 2000. The situation was not identified until two individuals entered the area on October 17, 2000, and the dose rate alarm of one individual's electronic dosimeter sounded. The

individuals reported the alarm to radiation protection personnel who performed radiation surveys and identified the uncontrolled high radiation area. As discussed in Section 4OA7, this issue was identified as a licensee-identified violation.

However, while reviewing Condition Report 2000-1989, the inspector identified that the licensee stated in the "Cause Description" of the above condition report that dose rates of this magnitude "have not been known to occur at this location in the past." The inspector requested radiation surveys conducted after the two previous shutdowns. Surveys conducted on April 4, 1998 (2 days after the initiation of shutdown cooling), confirmed that the area around the containment spray piping in Room 59 was controlled as a high radiation area. The inspector questioned licensee representatives about the basis for stating that high dose rates at this location were unanticipated. Licensee representatives acknowledged that the statement had been based on the recollection of selected radiation protection personnel and that they had not researched the previous survey information. The inspector concluded that the licensee could have anticipated the high radiation area on October 17, 2000, based on a records review. Licensee representatives initiated Condition Report 2000-2304 to document the situation.

2OS2 ALARA Planning and Controls

a. Inspection Scope

The inspector interviewed radiation workers and radiation protection personnel throughout the radiologically controlled area, conducted independent radiation surveys of selected work areas, and reviewed the following items to determine whether the licensee had an adequate program to maintain occupational exposure as low as is reasonably achievable:

- ALARA program procedures
- Processes used to estimate and track exposures
- Plant collective exposure history for the past 3 years, current exposure trends, and 3-year rolling average dose information
- ALARA job packages for Refueling Outage 18's steam generator secondary inspection, sludge lancing, removal/replacement of the transfer tube flange and removal/replacement of the upender cylinders which resulted in some of the highest personnel collective exposures during the inspection period
- Hot spot tracking and reduction program
- Use of engineering controls to achieve dose reductions
- Individual exposures of mechanical maintenance and operations work groups
- Plant related source term data, including source term control strategy

- Radiological work planning
- Job site inspections and ALARA controls
- Declared pregnant worker dose monitoring controls
- Thirteen ALARA related condition reports
- Problem identification and resolution

b. Findings

During the review of the licensee's Refueling Outage 18 exposure estimates and exposure performance data, the inspector identified Radiation Work Permit 99-2507 (Reactor Head Work in High Radiation Areas) total person-rem exceeded budgeted person-rem by greater than 50 percent (10.9 versus 6.5 Rem). Post-Job Evaluation Package 99-16 documented the reasons for the additional exposure. From a review of Post-Job Evaluation Package 99-16, the inspector noted two performance issues that caused additional exposure: (1) workers were in the reactor cavity an additional hour because the individual reading the containment polar crane hook load cell did not know how to properly read the load cell, and (2) electrical maintenance workers had turnover communication problems which caused rework.

The increase in actual exposure over budgeted exposure has a credible impact on radiological safety. The issue was determined to be an ALARA finding because the actual job dose exceeded projected dose by greater than 50 percent, the actual job dose was greater than 5 person-rem, and the plant's 3-year rolling average exposure was greater than 135 person-rem (141 person-rem). When this issue was processed through the Occupational Significance Determination Process, it was determined to be a GREEN finding because the actual job dose was less than 25 person-rem and there was only one occurrence (50-285/0009-01). This issue is in the licensee's corrective action program as Condition Report 2000-2211.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

c. Inspection Scope

The inspectors reviewed the following performance indicators to verify their accuracy and completeness:

- Safety System Functional Failures

The inspectors reviewed maintenance rule equipment performance status, licensee event reports, and licensee condition reports to verify this performance indicator.

- Reactor Coolant System Activity

The inspectors reviewed the chemistry department's analysis for total reactor coolant system activity and dose equivalent iodine. The inspectors also reviewed chemistry calculations used to estimate the number of degraded fuel pins that have occurred during the current operating cycle to verify this performance indicator.

- Reactor Coolant System Identified Leak Rate

The inspectors reviewed operations procedures and calculations used to determine reactor coolant system leak rate, and reviewed operations logs of leak rate history to verify this performance indicator.

- Occupational Exposure Control Effectiveness

The inspector reviewed corrective action program records for Technical Specification required locked high radiation areas, very high radiation areas, and unplanned exposure occurrences for the past 12 months to confirm that these occurrences were properly recorded as performance indicators. Radiological controlled area entries with exposures greater than 100 millirems within the past 12 months were reviewed, and selected examples were examined to determine whether they were within the dose projections of the governing radiation work permits. Whole-body counts or dose estimates were reviewed if the radiation worker received a committed effective dose equivalent of more than 100 millirems.

- RETS/ODCM Radiological Effluent

The inspector reviewed radiological effluent release program corrective action records, licensee event reports, and annual effluent release reports documented during the past four quarters to determine if any events exceeded the performance indicator thresholds.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (7112101)

a. Inspection Scope

The inspector reviewed seven condition reports involving high radiation areas.

b. Findings

The licensee relied upon the recollection of historical facts by selected individuals rather than objective evidence during the problem resolution phase of Condition Report 2000-1989 (See Section 20S1).

40A6 Exit Meeting Summary

- .1 The operator requalification inspectors presented the inspection results to Mr. S. Gambhir, Division Manager, Nuclear Operations Division, and other members of the licensee's management staff at an exit meeting on October 13, 2000. The licensee acknowledged the findings presented.
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At all three exit meetings, the inspectors asked the licensee whether any materials examined during the associated part of the inspection should be considered proprietary. No proprietary information was identified.

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- .1 50-285/2009-03 10 CFR Part 50, Appendix B, Criterion III, Design Control, requires that measures be established to ensure verifying and checking of the adequacy of the design. On October 10, 2000, the licensee discovered that missing clamps on seismically supported electrical conduits above a safety-related cable tray on Diesel Generator 1 could have caused the loss of direct current control power to Diesel Generator 1, rendering it inoperable. This is described in the licensee's corrective action program as Condition Report 200001904.
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2000, two radiation workers did not follow the radiological controls listed on Radiation Work Permit 00-1024, as described in the licensee's corrective action program, reference Condition Report 2000-0975.

.3 50-285/0009-05

Technical Specification 5.11.1 requires each high radiation area (as defined in 10 CFR 20.1601) in which the intensity of radiation is 1000 mrem/hr or less shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by required issuance of a radiation work permit. A high radiation area in Room 59 was not barricaded and posted as a high radiation area for approximately 36 hours. After shutdown cooling was initiated on October 15, 2000, dose rates exceeded the threshold of a high radiation area. This item was documented in the licensee's corrective action program in Condition Report 2000-1989.

ATTACHMENT 1

KEY POINTS OF CONTACT

Licensee

M. Anderson, Technician, Radiation Protection
J. Chase, Division Manager, Nuclear Assessment
R. Clemens, Plant Manager
M. Christensen, Technician, Radiation Protection
D. Dryden, Engineer, Licensing
M. Frans, Manager, Nuclear Licensing
S. Gambhir, Division Manager, Nuclear Operations
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R. Short, Assistant Plant Manager
J. Skiles, Manager, Design Engineering
J. Spilker, Manager, Corrective Action Group
K. Steele, Supervisor, Radiation Protection Operations
D. Weaver, Supervisor, Operations and Technical Training
R. Westcott, Manager, Training
C. Williams, ALARA Technician, Radiation Protection

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed During this Inspection

| | | |
|----------------|-----|--|
| 50-285/0009-01 | FIN | Job dose exceeded projected ALARA estimates |
| 50-285/0009-02 | FIN | Problem resolution associated with Condition Report 2000-1989 did not rely upon objective evidence |
| 50-285/0009-03 | NCV | Diesel generator design control failure |
| 50-285/0009-04 | NCV | Failure to follow radiation work permit requirements |
| 50-285/0009-05 | NCV | Uncontrolled high radiation area |

PARTIAL LIST OF DOCUMENTS REVIEWED

CONDITION REPORTS

| | | |
|--------------|---|-------------------|
| CR 199901165 | INPO SEN 198 Flooding of Main Steam Due Bypassing Reactor Feed Pump High Level Trip | June 28, 1999 |
| CR 199902279 | Could Not Trip SI-3B Breaker from Control Room | October 24, 1999 |
| CR 199902335 | Inadvertent Start of Diesel Engine Driven Fire Pump | October 28, 1999 |
| CR 200000128 | INPO SOER 99-01 "Loss of Grid" | January 19, 2000 |
| CR 200000201 | Near Miss During Fire Brigade Live Fire Training | January 27, 2000 |
| CR 200000307 | NRC IN 2000-01 Operational Issues in Boiling Water Reactor Trip Transient | February 17, 2000 |
| CR 200000373 | SARC Audit Operator Logs During Simulator Training | February 24, 2000 |
| CR 200000458 | WANO SOER 99-01 | March 3, 2000 |
| CR 200000570 | Valve FW-1515 Found Open When Check Lis Indicated Open | March 15, 2000 |
| CR 200000571 | Control Room Versus Simulator Tags Differences | March 15, 2000 |
| CR 200000597 | EP Training Drill Exercise Weakness | March 20, 2000 |
| CR 200001878 | WANO Peer Review Simulator Visit Operator Log Taking During Scenario | October 6, 2000 |
| CR 200001879 | WANO Peer Review Simulator Visit Mitigation and Stabilization of Accident Scenario | October 6, 2000 |
| CR200001877 | WANO Peer Review Simulator Visit Simulator Problems | October 6, 2000 |

PROCEDURES

TAP-8, "Examination Control and Administration," Revision 24
TAP-9, "Maintenance of Training Records," Revision 17
TAP-23, "Licensed Operator NRC Physicals," Revision 11
TAP-2, "Systems Approach to Training," Revision 26
TAP-6, "Training Program Feedback," Revision 30
RPP, Radiation Protection Plan, Revision 16
RP-201, "Radiation Work Permits," Revision 17
RP-202, Radiological Surveys, Revision 16
RP-204, "Radiological Area Controls," Revision 30

RP-301, "ALARA Job Reviews," Revision 15
RP-305, "ALARA Suggestion Program," Revision 3
RP-306, "Hot Spot and Point Source Identification and Tracking," Revision 10
RP-307, "Use and Control of Temporary Lead Shielding," Revision 7
RP-AD-300, "ALARA Program," Revision 9
RPI-16, "Alternate Access Control of Radiologically Controlled Area," Revision 4
RPI-13, "Radiological Posting Standards," Revision 2

MISCELLANEOUS DOCUMENTS

Weeks 1 through 5 - 1999/2000 Written examination Part A and B

1999/2000 Requalification Cycle Sample Plan

1999/2000 Licensed Operator Requalification Training Attendance Records

Licensed Operator Requalification Training Master Plan

Operations Training Self Assessment, July 2000

Training Revision Request LORR-00079, September 11, 1999

Training Revision Request LORR-00085, September 11, 1999

Training Revision Request LORR-00077, September 1, 2000

Training Feedback TPCM 990808, January 7, 1999

Training Feedback TPCM 990665, March 1, 1999

Training Feedback TPCM 20000597, March 6, 2000

Training Feedback TPCM 20000682, March 29, 2000

Training Feedback TPCM 20001495, July 31, 2000

Training Feedback TPCM 20001496, July 31, 2000

Class Room Observation TPCM 20000778, March 29, 2000

Class Room Observation TPCM 20000960, May 2, 2000

Class Room Observation TPCM 20000633, March 27, 2000

Review of Recommendations for INPO SOER-99-01 TPCM 20001075, May 24, 2000

Simulator Deficiency Report Status, October 11, 2000

SARC Audit Report Performance -Training and Qualifications of Ft. Calhoun Staff (Operator Training Feedback of Operating Experience), March 22, 2000

2000 Radiation Protection Program Self-Assessment

CONDITION REPORTS

1999-2903, -2908, and -2934

2000-0383, -0975, -1456, -1596, -1601, -1803, -1870, -2032, -2036, and -2039

Standing Order

SO-O-47 Spent Fuel Pool Inventory Control, Revision 4

Radiation Work Permits

00-3004

00-3014

ATTACHMENT 2

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

Radiation Safety

- Occupational
- Public

Safeguards

- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the significance determination process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, or RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.