



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

October 28, 2005

Southern Nuclear Operating Company, Inc.  
ATTN: Mr. L. M. Stinson  
Vice President - Farley Project  
P. O. Box 1295  
Birmingham, AL 35201-1295

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC INTEGRATED INSPECTION  
REPORT 05000348/2005004 and 05000364/2005004

Dear Mr. Stinson:

On September 30, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Joseph M. Farley Nuclear Plant, Units 1 and 2. The enclosed integrated inspection report documents the inspection findings, which were discussed on October 6, 2005, with Mr. Randy Johnson and other members of your staff.

The 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. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

This inspection documents two NRC-identified findings of very low safety significance (Green) which were determined to involve violations of NRC requirements. However, because these violations are of very low safety significance and have been entered into your corrective action program, the NRC is treating these two violations as non-cited violations (NCVs) consistent with Section VI.A of the NRC Enforcement Policy. Additionally, a licensee-identified violation which was determined to be of very low safety significance is listed in this report. If you contest any NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the United States Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Farley Nuclear Plant.

In accordance with 10CFR2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (if any) will be available electronically for public inspection in the

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NRC Public Document Room or from the Publicly Available Records (PARS) component of the 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).

Sincerely,

***/RA by Curt Rapp Acting For/***

Malcolm T. Widmann, Chief  
Reactor Projects Branch 2  
Division of Reactor Projects

Docket Nos. 50-348 and 50-364  
License Nos. NPF-2 and NPF-8

Enclosure: Inspection Report 05000348/2005004 and  
05000364/2005004  
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

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cc w/encl:

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DATE	10/28/05	10/28/05	10/27/05	10/28/05	10/28/05	10/27/05	10/28/05
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**U. S. NUCLEAR REGULATORY COMMISSION**

REGION II

Docket Nos.: 50-348, 50-364

License Nos.: NPF-2, NPF-8

Report Nos.: 05000348/2005004 and 05000364/2005004

Licensee: Southern Nuclear Operating Company, Inc. (SNC)

Facility: Joseph M. Farley Nuclear Plant

Location: 7388 N. State Highway 95  
Columbia, AL 36319

Dates: July 1- September 30, 2005

Inspectors: C. Patterson, Senior (Sr.) Resident Inspector  
J. Baptist, Resident Inspector  
M. Maymi, Reactor Inspector (Sections 1R02 and 1R17)  
N. Staples, Reactor Inspector (Sections 1R02 and 1R17)  
K. Harper, Reactor Inspector (Sections 1R02 and 1R17)  
J. Rivera-Ortiz, Reactor Inspector (Sections 1R02 and 1R17)  
M. Scott, Sr. Reactor Inspector (Sections 1R02 and 1R17)  
L. Miller, Sr. Emergency Preparedness Inspector (Sections 1EP1 and 1EP4)  
J. Kreh, Emergency Preparedness Inspector (Sections 1EP1 and 4OA1)  
A. Nielsen, Health Physicist (Sections 2PS3 and 4OA5)  
H. Gepford, Health Physicist (Section 2OS3)  
J. Griffis, Health Physicist (Sections 2PS1 and 4OA1)

Approved by: Malcolm T. Widmann, Chief  
Reactor Projects Branch 2  
Division of Reactor Projects

Enclosure

## SUMMARY OF FINDINGS

IR 05000348/2005004, 05000364/2005004; 07/01/2005-09/30/2005; Joseph M. Farley Nuclear Plant, Units 1 & 2, Radiation Monitoring Instrumentation and Protective Equipment.

The report covered a three-month period of inspection by resident inspectors, five reactor inspectors, two emergency preparedness inspectors, and three health physicists. Two Green non-cited violations were identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after management review. 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 and Self-Revealing Findings

#### Emergency Preparedness Cornerstone

- Green. An NRC-identified non-cited violation of 10 CFR 50.47(b)(10) was identified for the failure to provide adequate respiratory protection equipment for emergency response, compromising the protective actions developed for the plume exposure pathway for emergency workers. A large respirator mask was not available in the control room for a licensed plant operator that was fit-tested with a large respirator mask.

This finding is greater than minor because it is associated with the Emergency Preparedness Reactor Safety Cornerstone attribute of Response Organization Performance and adversely affects the cornerstone objective of ensuring the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The finding was evaluated using Sheet 1 of the Emergency Preparedness Significance Determination Process. The issue described was a failure to comply that what was a planning standard problem, was not a risk-significant planning standard problem, and did not involve a planning standard function failure. Therefore, the finding is of very low safety significance. (Section 2OS3.2)

#### Occupational Radiation Safety Cornerstone

- Green. An NRC-identified, non-cited violation of 10 CFR 20.1703(g) was identified for failing to ensure that atmosphere supplying-respirators were supplied with respirable air of grade 'D' quality or better.

This finding is greater than minor because it is associated with the Occupational Radiation Safety Cornerstone attribute of Plant Equipment and Instrumentation and adversely affects the cornerstone objective in that if the breathing air quality was unacceptable, the workers would have removed their respiratory protection equipment, potentially resulting in the inhalation of contaminated material. If breathing air is not checked on a periodic basis for a system that is not routinely used, the licensee cannot ensure that the air quality standards of 10 CFR Part 20.1703(g) are met. The finding was evaluated using the Occupational Radiation Safety Significance

Determination Process (SDP). This finding was not related to ALARA planning, did not involve an overexposure or substantial potential for overexposure, and the ability to assess dose was not compromised. For these reasons, the inspectors concluded that the finding is of very low safety significance. (Section 2OS3.1)

B. Licensee-Identified Violations

None

## REPORT DETAILS

### Summary of Plant Status

Unit 1 operated at or near rated thermal power (RTP).

Unit 2 operated at or near RTP until September 9 when end of cycle coastdown began.

### **1. REACTOR SAFETY**

#### **Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity**

#### 1R01 Adverse Weather Protection

##### a. Inspection Scope

Impending Adverse Conditions Review. The inspectors evaluated implementation of the adverse weather preparation procedures and compensatory measures for the two following adverse weather conditions. The inspectors reviewed procedures FNP-0-AOP-21.0, Severe Weather, and FNP-0-EIP-8.0, Non-Emergency Notifications, to verify applicable portions of the procedure were performed.

C July 8, with the approach of Hurricane Dennis

C August 26, with the approach of Hurricane Katrina

System Readiness Review. The inspectors reviewed the Control Room Ventilation and Air Conditioning System to verify the system was capable of meeting its design function during hot weather conditions. Documents reviewed are listed in the Attachment.

##### b. Findings

No findings of significance were identified.

#### 1R02 Evaluations of Changes, Tests, or Experiments

##### a. Inspection Scope

The inspectors reviewed the six evaluations listed in the Attachment to confirm that the licensee had appropriately considered the conditions under which changes to the facility, Updated Final Safety Analysis Report (UFSAR), or procedures may be made, and tests conducted without prior NRC approval. The inspectors reviewed evaluations for six changes and additional information, such as calculations, supporting analyses, the UFSAR, and drawings to confirm that the licensee had appropriately concluded that the changes could be accomplished without obtaining a license amendment.

The inspectors also reviewed samples of changes for which the licensee had determined that evaluations were not required, to confirm that the licensee's conclusions to "screen out" these changes were correct and consistent with 10CFR50.59. The twenty "screened out" changes reviewed are listed in the Attachment.

Enclosure



The inspector also reviewed corrective action reports to confirm that problems were identified at an appropriate threshold, were entered into the corrective action process, and appropriate corrective actions had been initiated.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

Partial System Walk-downs. The inspectors performed partial walk-downs of the following three systems to verify they were properly aligned when redundant systems or trains were out of service. The walk-downs were performed using the criteria in licensee procedures FNP-0-AP-16, Conduct of Operations - Operations Group, and FNP-0-SOP-0, General Instructions to Operations Personnel. The walk-downs included reviewing the UFSAR, plant procedures and drawings, checks of control room and plant valves, switches, components, electrical power line-ups, support equipment, and instrumentation.

C Unit 2A and 2B Motor Driven Auxiliary Feedwater Pump (MDAFW) during troubleshooting of Turbine Driven Auxiliary Feedwater (TDAFW) high thrust bearing temperature

C Unit 2A Spent Fuel Pooling (SFP) Cooling while 2B SFP Cooling was out of service

C Unit 2A High Head Safety Injection Pump (HHSI) while 2B HHSI was out of service

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

Fire Area Tours. The inspectors conducted a walk-down of the 12 fire areas listed below to verify the licensee's control of transient combustibles, the operational readiness of the fire suppression system, and the material condition and status of fire dampers, doors, and barriers. The requirements were described in licensee procedures FNP-0-AP-36, Fire Surveillance and Inspection; FNP-0-AP-38, Use of Open Flame; FNP-0-AP-39, Fire Patrols and Watches; and the associated Fire Zone Data sheets.

C Unit 1 Auxiliary Building 100' Contaminated Storage Area, Fire Zone 5

C Unit 1 Auxiliary Building 100' Piping Penetration Room, Fire Zone 1

C Unit 1 Auxiliary Building 100' Boric Acid Room, Fire Zone 4

C Unit 1 Auxiliary Building 121' Piping Penetration Room, Fire Zone 1

C Unit 1 Auxiliary Building 121' Boric Acid Tank Room and Corridor, Fire Zone 4

C Unit 1 Auxiliary Building 139' Electrical Penetration Rooms, Fire Zone 34  
 C Unit 2 Auxiliary Building 100' Boric Acid Room, Fire Zone 4  
 C Unit 2 Auxiliary Building 100' Piping Penetration Room, Fire Zone 1  
 C Unit 2 Auxiliary Building 121' Boric Acid Tank Room and Corridor, Fire Zone 4  
 C Unit 2 Auxiliary Building 121' Piping Penetration Room, Fire Zone 1  
 C Unit 2 Auxiliary Building 139' Electrical Penetration Rooms, Fire Zone 34  
 C Unit 2 Auxiliary Building 155' Containment Purge Air Equipment Room, Fire Zone 4

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program

a. Inspection Scope

Quarterly Resident Review. The inspectors observed portions of the licensed operator training and testing program to verify implementation of procedures FNP-0-AP-45, Farley Nuclear Plant Training Program; FNP-0-TCP-17.6, Simulator Training Evaluation Documentation; and FNP-0-TCP-17.3, Licensed Operator Continuing Training Program Administration. The inspectors observed scenarios conducted in the licensee's simulator for reactor trip, steam generator tube leakage, anticipated trip without trip (ATWT), and safety injection. The inspectors observed high-risk operator actions, overall performance, self-critiques, training feedback, and management oversight to verify operator performance was evaluated against the performance standards of the licensee's scenario. In addition, the inspectors observed implementation of the applicable emergency operating procedures to verify that licensee expectations in procedures FNP-0-AP-16 and FNP-0-TCP-17.6 were met. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed the following two issues to verify implementation of licensee procedures FNP-0-87, Maintenance Rule (MR) Scoping Manual; NMP-ES-021, Structural Monitoring Program for the Maintenance Rule; and FNP-0-89, FNP Maintenance Rule Site Implementation Manual; and compliance with 10CFR50.65. The inspectors assessed the licensee's evaluation of appropriate work practices, common cause failures, functional failures, maintenance preventable functional failures, repetitive failures, availability and reliability monitoring, trending and condition monitoring, and system specialist involvement. The inspectors also interviewed maintenance personnel,

system specialists, the MR coordinator, and operations personnel to assess their knowledge of the program.

C CR 2005107485, 2F Inverter Swapped to Bypass Source

C CR 2005107406, 2B Component Cooling Water (CCW) Pump Exceeded Unavailability Hours

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors assessed the licensee's planning and control for the following six activities to verify the requirements in licensee procedures FNP-0-ACP-52.3, Guidelines for Scheduling of On-Line Maintenance; NMP-GM-006, Work Management; and FNP-0-AP-16, Conduct of Operations - Operations Group; and the MR risk assessment guidance in 10CFR50.65a(4) were met.

C CR 2005106855, Unit 1-2A Emergency Diesel Generator (EDG) Jacket Water Heat Exchanger Leak

C CR 2005107660, 2F Inverter Out of Service and Equipment out of Service (EOOS) Calculations not updated

C CR 2005107952, Integrity of High Energy Line Break Switches

C CR 2005108686, Main Transformer-Increase in dissolved gases

C CR 2005108511, 2D Service Water (SW) Pump-Failure to Start

C CR 2005108668, Containment Pressure Gauge Isolated

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following six operability evaluations to verify they met the requirements of licensee procedures FNP-0-AP-16, Conduct of Operations and FNP-0-ACP-9.2, Operability Determination for technical adequacy, consideration of degraded conditions, and identification of compensatory measures. The inspectors reviewed the evaluations against the design bases, as stated in the UFSAR and Functional System Descriptions (FSDs) to verify system operability was not affected.

- OD 05-02, Unit 2 TDAFW Thrust and Bearing Problem
- OD-05-03, 2B Control Room AC Condensing Unit Operable but Degraded

- CR 2005107392, Unit I TDAFW Overspeed Trip Mechanism Not in Required Position
- CR 2005107648, 2B Battery Charge found on equalize for no apparent reason
- OD-05-04, 2A SW Pump vacuum breaker discharge side weld through wall leak
- CCR 2005109077, AFW Motor-Operated Valve (MOV) Partially Closed

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds

a. Inspection Scope

Significant Work-Around Review. The inspectors reviewed the following operator work-around to determine if the functional capability of the related system or human performance in responding to an initiating event was not affected, and the prioritization of required actions met the requirements of licensee procedure FNP-0-ACP-17, Operator Work-Arounds.

- WO 1052060301, Unit 1 TDAFW main control board speed indicator disconnected.

Cumulative Review. The inspectors reviewed the cumulative effects of the operator work-arounds list on both units to verify they did not affect the operator's ability to perform actions in both abnormal and emergency operating procedures, did not increase initiating event frequency, and did not affect multiple mitigating systems.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors evaluated design change packages for the following nine modifications to evaluate the modifications for adverse effects on system availability, reliability, and functional capability. For selected modification packages, the inspectors observed the as-built configuration. Documents reviewed included procedures, engineering calculations, modification design and implementation packages, work orders, site drawings, corrective action documents, applicable sections of the UFSAR, supporting analyses, Technical Specifications, and design basis information.

- MDC M04-2-0026, Replacement of 36" Diameter Service Water Strainer Bypass Piping - Approval of Heavier Pipe (Mitigating Systems)
  - Materials/Replacement Components (material compatibility, functional properties, seismic qualification, classification)
  - Pressure Boundary

- Structural
  - Process Medium (fluid flow rates)
  - Plant Document Updating (drawings)
  - Plant Configuration (impact of increased risk during modification)
  - Post Modification Testing (ASME Code testing for leakage and structural integrity)
- MDC M03-1-9882, Unit 1 Main Steam Isolation Valves (MSIVs) Locking Plate Modification (Mitigating Systems, Barrier)
    - Pressure Boundary
    - Structural
    - Failure Modes
    - Plant Document Updating (drawings, maintenance procedures)
    - Plant Configuration (impact of increased risk during modification)
    - Post-Modification Testing
- DCP S02-1-9835-0-006, Replacement Actuator for Q1P16V562 and V563 (SW Dilution Bypass Control Valves) (Mitigating Systems)
    - Materials/Replacement Components (material compatibility, functional properties, seismic qualification)
    - Licensing Basis
    - Flowpaths
    - Process Medium (fluid flowrates)
    - Plant Document Updating (procedures)
    - Post Modification Testing
    - Failure Modes
- MDC 03-2738, Q2P16V0646A - 2A Service Water Pump Motor Cooling Water Supply Pressure Control Root Valve Replacement (Mitigating Systems)
    - Materials/Replacement Components (functional properties, seismic qualification)
    - Structural
    - Process Medium (fluid pressures, fluid flowrates)
    - Failure Modes
    - Licensing Basis
    - Plant Document Updating (drawings)
    - Post-Modification Testing
- MDC M04-2-0036, Install a half coupling over a pin-hole leak in the weld of the 20 x 30 reducer downstream of the Canal Makeup Control Valve Q2P16V560 and weld a plug to seal the leak (Mitigating Systems)
    - Materials/Replacement Components (functional properties, seismic qualification)
    - Structural
    - Plant Document Updating (drawings)
    - Post Modification Testing
    - Licensing Basis

- MDC M03-2-9890, Auxiliary Feedwater Pump Coupling Modification (Mitigating Systems)
  - Materials/Replacement Components (functional properties, seismic qualification)
  - Structural
  - Plant Document Updating (drawings)
  - Post Modification Testing
- MDC 03-2747, Diesel Generator Signal Generator Repair and Speed Generator Annunciator (Mitigating Systems)
  - Materials/Replacement (material compatibility)
  - Timing (Duration)
  - Control Signals (control)
  - Plant Document Updating (procedures)
  - Failure Modes
- DCP 03-2-9945, Reroute Appendix R RWST suction valve Q2E21LVBO115D cables (Mitigating Systems)
  - Operations
  - Energy Needs (electricity)
  - Functional Properties
  - Plant Document Updating(drawings, procedures)
  - Materials/Replacement Components
- MDC 03-2-9980, Replace DRPI Power Supply and Relocate (Mitigating Systems)
  - Operations
  - Energy Needs (electricity)
  - Functional Properties
  - Plant Document Updating(drawings, procedures)

The inspectors also reviewed selected condition reports (CRs) associated with modifications to confirm that problems were identified at an appropriate threshold, were entered into the corrective action process, and appropriate corrective actions had been initiated.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors reviewed the criteria contained in licensee procedures FNP-0-PMT-0.0, Post Maintenance Test Program, to verify post-maintenance test procedures and test activities for the following five systems/components were adequate to verify system operability and functional capability.

C FNP-2-STP-23.2, 2B CCW Pump Shaft Replacement Baseline data creation  
 C FNP-1-STP-22.23, TDAFW Trip and Throttle Valve Mechanism and Indication Operability Test  
 C FNP-0-FSP-206.0, Fire Door Functional Inspection Following Maintenance  
 CWO 2051435301, 2B EDG Local Annunciator Panel Replacement  
 C FNP-2-STP-22.8, AFW Inservice Valve Exercise Test following maintenance

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed surveillance test procedures and either witnessed the test or reviewed test records for the following eight surveillance tests to determine if the tests adequately demonstrated equipment operability and met the Technical Specification (TS) requirements. The inspectors reviewed the activities to assess for preconditioning of equipment, procedure adherence, and valve alignment following completion of the surveillance. The inspectors reviewed licensee procedures FNP-0-AP-24, Test Control; FNP-0-M-050, Master List of Surveillance Requirements; and FNP-0-AP-16, Conduct of Operations; and attended selected briefings to determine if procedure requirements were met.

Surveillance Tests

- FNP-2-STP-8.0, Reactor Coolant Pump Seal Injection Leakage Test
- FNP-2-STP-80.16, Degraded Grid Voltage and Loss of Voltage Relay Operability Test
- FNP-0-STP-63.7, Spent Fuel Storage Cask Heat Removal System Monitoring
- FNP-2-STP-1.0, Operations Daily and Shift Surveillance Requirements Modes 1,2,3,4
- CFMP-1-STP-33.2B, "B" Train Reactor Trip Breaker Operability Test

In-Service Tests

- FNP-2-STP-23.2, 2B Component Cooling Water Pump Quarterly Inspection Test

Reactor Coolant System (RCS) Leak Detection

- FNP-1-STP-9.0, RCS Leakage Test
- FNP-2-STP-9.0, RCS Leakage Test

b. Findings

No findings of significance were identified

## 1R23 Temporary Plant Modifications

### a. Inspection Scope

The inspectors reviewed the following two temporary modifications (TMs) and associated 10CFR50.59 screening criteria against the system design bases information and documentation and the licensee's temporary modifications procedure FNP-0-AP-8, Design Modification Control. The inspectors reviewed implementation, configuration control, post-installation test activities, drawing and procedure updates, and operator awareness for this TM.

C TM 1052278701, 1B MDAFW Pump stiffening clamp on minimum flow line  
 C TM 1052278701, Open links for containment purge exhaust isolation valve

### b. Findings

No findings of significance were identified.

## **Cornerstone: Emergency Preparedness**

## 1EP1 Exercise Evaluation

### a. Inspection Scope

Prior to the inspection activity, an in-office review was conducted of the exercise objectives and scenario submitted to the NRC to determine if the exercise would test major elements of the emergency plan as required by 10 CFR 50.47(b)(14). The onsite inspection consisted of the following review and assessment:

- The adequacy of the licensee's performance in the biennial exercise was reviewed and assessed regarding the implementation of the risk-significant planning standards (RSPS) in 10 CFR 50.47 (b) (4), (5), (9), and (10), which were emergency classification, offsite notification, radiological assessment, and protective action recommendations, respectively.
- The overall adequacy of the emergency response facilities with regard to NUREG-0696, Functional Criteria for Emergency Response Facilities, and Emergency Plan commitments. The facilities assessed were the simulator, Technical Support Center, Operations Support Center, and Emergency Operations Facility.
- Other performance areas besides the RSPS, such as the emergency response organization's (ERO) recognition of abnormal plant conditions, command and control, intra- and inter-facility communications, prioritization of mitigation activities, utilization of repair and field monitoring teams, interface with offsite agencies, and the overall implementation of the emergency plan and its implementing procedures.



- Past performance issues from NRC inspection reports and FEMA exercise reports to determine effectiveness of corrective actions as demonstrated during this exercise to ensure compliance with 10 CFR 50.47(b)(14).
- The post-exercise critique to evaluate the licensee's self-assessment of its ERO performance during the exercise and to ensure compliance with 10 CFR 50 Appendix E.IV.F.2.g.

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes

a. Inspection Scope

The inspectors evaluated the associated 10 CFR 50.54(q) reviews associated with non-administrative emergency plan changes, implementing procedures changes, and EAL changes. The revisions covered the period from August 2004 to June 2005. The current Emergency Plan is revision 42. The applicable planning standard, 10 CFR 50.47(b)(4), and its related 10 CFR 50, Appendix E requirements were used as reference criteria. The criteria contained in NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Revision 1 and Regulatory Guide 1.101, Emergency Planning and Preparedness for Nuclear Power Reactors, Revision 4, were also used as references. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors evaluated a plant-wide emergency plan drill on July 20 to verify the licensee was properly classifying the event, making required notifications, making protective action recommendations, and conducting self-assessments. The inspectors used procedure FNP-0-EIP-15.0, Emergency Drills, as the inspection criteria and observed the drill on July 20 in the Technical Support Center (TSC). The inspectors reviewed FNP-0-EIP-9.0, Emergency Classification and Actions, and other supporting procedures to validate the classification of the event made by the licensee. The inspectors subsequently observed and reviewed the notifications made, communications between emergency response team members, team work of licensee personnel,

licensee identification of weaknesses and deficiencies, corrective action documentation, and overall performance. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

## 2. RADIATION SAFETY

### Cornerstone: Occupational Radiation Safety

#### 2OS3 Radiation Monitoring Instrumentation and Protective Equipment

a. Inspection Scope

Radiation Monitoring Instrumentation and Post-Accident Sampling Systems. During tours of the auxiliary building, the spent fuel pool, the control room, and the Radiologically Controlled Area (RCA) exit points, the inspectors observed installed radiation detection equipment including Area Radiation Monitor, Continuous Air Monitor, Personnel Contamination Monitor (PCM), Portal Monitor (PM), and Whole Body Counter (WBC) equipment. During the tours, the adequacy of the equipment's physical location and material condition were evaluated.

From review of selected records and discussions with cognizant licensee personnel, the inspectors evaluated completion and adequacy of equipment calibrations and assessed system operability and reliability. The last two calibration records for Unit 1 R-27, Containment High Range Monitor and Unit 1 R-5, Spent Fuel Pool Monitor, and the most recent record for Unit 2 R-11, Containment Air Particle Monitor, were evaluated against required calibration frequencies and technical requirements. In addition, the inspectors directly observed the performance of and reviewed records of previous surveillances on the Unit 2 Post-Accident Sampling System (PASS).

During equipment walk-downs, the inspectors observed functional checks of various fixed and portable radiation monitoring/detection instruments. The observations included source checks of PCM, PM, and WBC equipment. The inspectors reviewed calibration records and discussed the functional testing and testing intervals for selected PCM and PM equipment located at the RCA and protected area exits. PCM equipment detection capabilities were demonstrated using a low-level mixed radionuclide source that was passed through the equipment. The operability and analysis capabilities of the WBC equipment were evaluated. WBC equipment operations were reviewed and discussed with responsible personnel.

For selected portable survey instrumentation used in field tasks, the inspectors observed health physics technician selection of survey instruments, completion of required performance and/or functional checks, and use of instruments to perform job coverage during the Unit 2 PASS surveillance. Availability of portable instruments for licensee use was evaluated through observation of instruments staged for issue and

discussion with licensee personnel. For frisker and portable survey instruments in the field, the inspectors noted calibration sticker data. Calibration data for four portable instruments staged or recently used for coverage of field tasks were reviewed. The inspectors observed calibration of telepole and RO-2 survey instruments. In addition, the inspectors observed the check source for neutron survey instruments and discussed its use for performing calibrations with cognizant licensee personnel.

Operability and reliability of selected radiation detection instruments were reviewed against 10 CFR Part 20; NUREG-0737, Clarification of TMI Action Plan Requirements; TS sections 3 and 5.4; UFSAR Chapter 12; and applicable licensee procedures. Documents reviewed are listed the Attachment.

**Self-Contained Breathing Apparatus (SCBA) and Protective Equipment.** Selected SCBA units staged for emergency use in the control room and other locations were inspected for material condition and adequate air pressure. The inspectors also reviewed the previous five years of maintenance records for components of three SCBA units. In addition, certification records associated with supplied-air quality were reviewed and discussed.

Two control room operators were interviewed to determine their knowledge of available SCBA equipment locations, including corrective lens inserts if needed, and their training on bottle change-out during periods of extended SCBA use. Respirator qualification records were reviewed for several licensed operators, Maintenance Department personnel, and Health Physics personnel designated as emergency responders. Qualifications for vendor staff responsible for testing and repairing SCBA equipment were evaluated through review of training records.

Licensee activities associated with maintenance and use of respiratory protection equipment were reviewed against 10 CFR Part 20; Regulatory Guide (RG) 8.15, Acceptable Programs for Respiratory Protection; American National Standards Institute (ANSI)- Z88.2-1992, American National Standard for Respiratory Protection; and applicable licensee procedures. Documents reviewed during the inspection are listed in the Attachment.

**Problem Identification and Resolution.** Two audits, two self-assessments, and five CRs associated with instrumentation and protective equipment were reviewed and assessed. Inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with procedure NMP-GM-002, Corrective Action Program, Ver. 3.0 and associated guideline documents. Documents reviewed are listed in the Attachment.

b. Findings

- .1 Introduction. An NRC-identified, Green non-cited violation (NCV) of 10 CFR 20.1703(g) was identified for failing to ensure that atmosphere supplying-respirators were supplied with respirable air of grade 'D' quality or better.

Description. On January 27-28, 2005, the Unit 2 service air header was used to supply breathing air to six individuals working in a radiologically contaminated area. To verify service air was analyzed to ensure that it met or exceeded grade 'D' breathing air limits as prescribed by 10 CFR 20.1703(g), the inspectors reviewed records of breathing air quality analyses for the period of December 2003 through March 2005. This analysis was to be performed semi-annually as required by procedure FNP-0-RCP-1, Schedule: Health Physics Groups Activities, Appendix A. During this period, the Unit 2 Service Air Header (N2P18V009) was analyzed for air quality in December 2003 and not again until March 2005. Although the Unit 1 and Unit 2 service air headers can be cross-tied, that was not the typical configuration and both headers should have been independently analyzed for breathing air quality. The inspectors noted that subsequent air quality testing in March 2005 indicated the Unit 2 service air supply met grade 'D' breathing air limits.

Regulatory Guide 8.15, Acceptable Programs for Respiratory Protection, states that air from compressors that furnish breathing air to an in-plant header should be tested periodically, with a time interval between tests reasonable under the circumstances and conditions of use. RG 8.15 further states that breathing air systems that are only used periodically should be tested immediately prior to use, then periodically during use. The Unit 2 service air header and associated compressor are infrequently used to provide breathing air for respiratory protection.

Based on the semi-annual testing frequency specified in FNP-0-RCP-1, and RG 8.15 guidance, the Unit 2 service air should have been analyzed for breathing air quality in June 2004 or at some point prior to use to ensure that it met at least grade 'D' criteria. The inspectors determined that the licensee's failure to analyze the breathing air quality of the Unit 2 service air for 15 months resulted in an inability to ensure that the breathing air being supplied to the workers was grade 'D' quality or better.

Analysis. This finding is greater than minor because it is associated with the Occupational Radiation Safety Cornerstone attribute of Plant Equipment and Instrumentation and adversely affects the cornerstone objective in that if the breathing air quality was unacceptable, the workers would have removed their respiratory protection equipment, potentially resulting in the inhalation of contaminated material. If breathing air is not checked on a periodic basis for a system that is not routinely used, the licensee cannot ensure that the air quality standards of 10 CFR Part 20.1703(g) are met. The finding was evaluated using the Occupational Radiation Safety SDP. This finding was not related to ALARA planning, did not involve an overexposure or substantial potential for overexposure, and the ability to assess dose was not compromised. For these reasons, the inspectors concluded that the finding is of very low safety significance.

Enforcement. 10 CFR 20.1703(g) requires the licensee to supply atmosphere-supplying respirators with respirable air of grade 'D' quality or better. Contrary to the above, on January 27 and 28, 2005, the Unit 2 service air system was used to supply breathing air to six individuals without the air quality having been verified since December 2003. The licensee therefore had no assurance that the U2 service air was providing respirable air

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of grade 'D' quality or better. Because the failure to comply with 10 CFR 20.1703(g) is of very low safety significance and has been entered into the licensee's corrective action program (CAP) (CR 2005106868), this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000364/2005004-01, Failure to Test Unit 2 Service Air Header for to Ensure Breathing Air Quality.

- .2 Introduction. A Green NRC-identified NCV of 10 CFR 50.47(b)(10) was identified for the failure to provide adequate respiratory protection equipment for emergency response, compromising the protective actions developed for the plume exposure pathway for emergency workers. A large respirator mask was not available in the control room for a licensed plant operator that was fit-tested with a large respirator mask.

Description. The inspectors evaluated the adequacy of SCBA units staged in the control room for emergency use. Through review of monthly SCBA surveillance records, it was determined that two small respirator masks and eight SCBA units with medium respirator masks were staged in the control room from January 20, 2004 through June 29, 2005. Based on the records review and discussions with licensee personnel, the inspectors noted that no large respirator masks had been staged in the control room during that period. The inspectors reviewed fit-testing records for SCBA-qualified personnel and found that one licensed operators had been fit-tested in a large respirator mask. FNP-0-EIP-4.0, Health Physics Support to the Emergency Plan, Appendix 6, states that an individual must be qualified to use a required respirator per FNP-0-RCP-101, Use and Testing of Respiratory Protection Equipment, including fit test. In the event of an emergency requiring immediate respiratory protection, the licensed operator who was fit-tested in a large respirator mask would not have been qualified to use the pre-staged SCBA equipment and may have been unable to function in the event the control room becomes inhabitable, must evacuate the control room, or must perform emergency response functions in a hazardous environment outside of the control room.

Analysis. This finding is greater than minor because it is associated with the Emergency Preparedness cornerstone attribute of Response Organization Performance and adversely affects the cornerstone objective of ensuring the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The finding was evaluated using Sheet 1, Failure to Comply, of the Emergency Preparedness SDP. The issue described was a failure to comply that was a planning standard problem, was not a risk-significant planning standard problem, and did not involve a planning standard function failure. Therefore, the finding is of very low safety significance.

Enforcement. 10 CFR 50.47(b)(10) states, in part, that a range of protective actions will be developed for the plume exposure pathway Emergency Planning Zone (EPZ) for emergency workers. Contrary to the above, between January 20, 2004 and June 29, 2005, the licensee failed to provide adequate respiratory protective equipment, i.e., a large-size SCBA respirator mask, for a licensed plant operator with emergency response functions. FNP-0-EIP-4.0, Health Physics Support to the Emergency Plan, Appendix 6, states that an individual must be qualified to use a required respirator per FNP-0-RCP-101, Use and Testing of Respiratory Protection Equipment, including fit test



specifying the approved respirator mask size. Because this violation is of very low safety significance and has been entered into the licensee's corrective action program (CR 2005106476), this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000348,364/2005004-02, Failure to Provide Adequate Respiratory Protection Equipment for Emergency Response.

### **Cornerstone: Public Radiation Safety**

#### **2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems**

##### **a. Inspection Scope**

Effluent Processing Equipment. The inspectors reviewed the operability and reliability of selected radioactive effluent process sampling and detection equipment used for routine and accident monitoring activities. Inspection activities included review of the most recent calibration records and direct observation of the following Unit 1 and Unit 2 equipment: Waste Processing System Liquid Effluent Monitor R-18; Service Water Liquid Monitor, R-20; and Containment Exhaust Flow Gas Monitor, R-24. The inspectors observed the material condition of the effluent monitoring equipment and assessed the installed configurations, where accessible. The inspectors also reviewed applicable parts of licensee procedures related to effluent monitoring equipment calibration.

Parts of the liquid radioactive waste (radwaste) system were examined from the waste monitor tanks (WMTs), through the R-18 liquid effluent monitor, and to the R-20 liquid effluent monitor at the service water discharge point. Inspectors observed chemistry staff preparing a liquid waste release permit for a release of the Unit 2 WMT No. 2, and observed operations staff testing and manipulating the liquid radwaste system components to conduct this release.

Unit 1 and Unit 2 waste gas system components were inspected from the waste gas decay tanks, through the R-14 Plant Vent gaseous effluent monitors. Containment purge to the Auxiliary Building exhaust plenum through gas monitor R-24 was also inspected. A chemistry manager was interviewed regarding the gaseous radwaste system configuration and effluent monitor operation. In addition, inspectors directly observed the collection and analysis of gaseous effluent samples from the containment purge system. Inspectors also observed Instrumentation and Calibration (I&C) staff replacing the detector in Unit 2 R-24 and performing the calibration of the newly installed detector.

Installed configuration, material condition, operability, and reliability for selected effluent sampling and monitoring equipment were reviewed against details documented in 10 CFR Part 20; UFSAR Section 11, Off-Site Dose Calculation Manual (ODCM); and RG 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants." Procedures and records reviewed are listed in the Attachment.

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Effluent Release Processing and Quality Control (QC) Activities. The inspectors directly observed and evaluated licensee proficiency in effluent release processing during preparation of a containment purge weekly release permit. The inspectors also reviewed effluent release procedural guidance.

QC activities regarding gamma spectroscopy and liquid scintillation counting instrumentation were discussed with count room technicians and Chemistry supervision. The inspectors reviewed records of daily QC checks and trending data for selected gamma spectroscopy detectors. In addition, results of the radiochemistry cross-check program were discussed for years 2003 and 2004. The inspectors also reviewed the 2003 and 2004 Annual Effluent Reports to identify any anomalous releases.

Observed task evolutions, offsite dose results, and count room activities were evaluated against RG 1.21 guidance, 10 CFR Part 20 requirements, Appendix I to 10 CFR Part 50 design criteria, UFSAR details, and ODCM requirements. Documents reviewed are listed in the Attachment.

Problem Identification and Resolution. One audit, one self-assessment, and four CRs associated with effluent release activities were reviewed and assessed. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with procedure NMP-GM-002, Corrective Action Program, and associated guideline documents. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

2PS3 Radiological Environmental Monitoring Program (REMP) and Radioactive Material Control Program

a. Inspection Scope

REMP Implementation. The inspectors observed collection of environmental samples and surveillance of sampling instruments during the licensee's weekly environmental run. The inspectors noted the material condition and operability of airborne particulate and iodine sampling stations at monitoring location Nos. 215, 501, 701, 703, 718, 1101, 1218, and 1601. Environmental thermoluminescent dosimeter (TLD) Nos. 215, 701, 703, 1108, 1218, and 1605 were checked for material condition. The inspectors also observed the operation of automated water samplers and collection of surface water samples at the control (Andrews Lock) and indicator (Paper Mill) locations. The inspectors determined the current location of selected air samplers, TLDs, and water sampling stations using NRC global positioning system instrumentation and compared the results with ODCM data. Land use census results and sample collection/processing activities were discussed with environmental technicians.

For sample location 703 (Paper Mill), the inspectors reviewed the last three calibration records for the environmental air sampler and the last two preventative maintenance records for the surface water sampler. The inspectors also reviewed the 2003 and 2004 Radiological Environmental Operating Reports, results of the 2003 and 2004 interlaboratory cross-check program, and two procedures for environmental sample collection and processing. Selected environmental measurements were evaluated for radionuclide concentration trends and compared with detection level sensitivity requirements.

Program implementation, sampling locations, and environmental monitoring results were reviewed against: 10 CFR Part 20; Appendix I to 10 CFR Part 50; TS 5.5; ODCM; RG 4.15, Quality Assurance for Radiological Monitoring Programs (Normal Operation) - Effluent Streams and the Environment; and Branch Technical Position, An Acceptable Radiological Environmental Monitoring Program - 1979. Documents reviewed are listed in the Attachment.

Meteorological Monitoring Program. During a weekly surveillance of the meteorological tower, the inspectors observed the physical condition of the tower and discussed equipment operability and maintenance history with a tower technician. The inspectors compared locally generated meteorological data with information available to control room operators. For the primary meteorological measurements of wind speed, wind direction, and temperature, the inspectors reviewed calibration records for applicable tower instrumentation and evaluated measurement data recovery for calendar year 2004.

Licensee procedures and activities related to meteorological monitoring were evaluated against: ODCM; UFSAR Section 2.3; ANSI/ANS-2.5-1984, Standard for Determining Meteorological Information at Nuclear Power Sites; and Safety Guide 23, Onsite Meteorological Programs. Documents reviewed are listed in the Attachment.

Unrestricted Release of Materials from the RCA. The inspectors observed surveys of material and personnel being released from the RCA using Small Article Monitor (SAM), PCM, and PM instruments. The inspectors also observed source checks of these instruments and discussed equipment sensitivity and release program guidance with licensee staff.

To evaluate the appropriateness and accuracy of release survey instrumentation, radionuclides identified within recent waste stream analyses were compared against the radionuclides used in current calibration sources and performance check sources. The inspectors also reviewed the last two calibration records for a SAM instrument at the RCA exit point. In addition, the inspectors reviewed radiological survey records of an onsite clean trash landfill.

Licensee programs for monitoring materials and personnel released from the RCA were evaluated against: 10 CFR Part 20 and IE Circular 81-07, Control of Radioactively Contaminated Material. Documents reviewed are listed in the Attachment.



Problem Identification and Resolution. The inspectors reviewed two audits and four CRs involving environmental monitoring, meteorological monitoring, and release of radioactive materials. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with procedure NMP-GM-002 and associated guideline documents. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

#### 4. OTHER ACTIVITIES

##### 4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors sampled licensee records to verify the accuracy of reported PI data for the periods listed below. To verify the accuracy of the reported PI elements, the reviewed data were assessed against guidance contained in NEI 99-02, Regulatory Assessment Indicator Guideline, Rev. 3 and the NEI Frequently Asked Questions (FAQ) list.

##### Public Radiation Safety Cornerstone

- Radiological Control Effluent Release Occurrences

For the period October 2004, through May 2005, the inspectors reviewed cumulative and projected doses to the public, out-of-service effluent radiation monitors and selected compensatory sampling data, monthly PI reports, and two CRs related to Radiological Environmental Technical Specifications (RETS)/ODCM issues. Documents reviewed are listed in the Attachment.

##### Emergency Preparedness Cornerstone

- Drill and Exercise Performance (DEP)
- Emergency Response Organization (ERO) Drill Participation
- Alert and Notification System (ANS) Reliability

The inspectors examined data reported to the NRC for the period July 2004, through June 2005. The inspectors reviewed a sample of drill and event records to verify the accuracy of the PI for DEP. The inspectors reviewed selected training records to verify the accuracy of the PI for ERO Drill Participation for personnel assigned to key positions in the ERO. The inspectors reviewed a sample of the licensee's records of periodic system tests to verify the accuracy of the PI for ANS reliability. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problemsa. Inspection Scope

Daily Review. As required by Inspection Procedure 71152, Identification and Resolution of Problems, and to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. This review was accomplished by reviewing daily hard copy summaries of CRs and by reviewing the licensee's electronic CR database.

b. Findings

No findings of significance were identified.

4OA5 Other Activities.1 (Closed) Temporary Instruction (TI) 2515/161, Transport of Control Rod Drive (CRD) in Type 'A' Packagesa. Inspection Scope

The inspectors reviewed shipping logs and discussed shipment of CRDs in Type 'A' packages with shipping staff. No shipments of CRDs in Type 'A' packages have been made since January 1, 2002.

b. Findings

No findings of significance were identified.

.2 (Closed) TI 2515/163, Operational Readiness of Offsite Power

Completion of this TI was documented in NRC Integrated Inspection Report 05000348, 364/2005003. However, after an NRC headquarters review of the data provided, additional information related to the TI was requested. The inspectors collected this information from licensee discussions, site procedures and licensee documentation. The information was subsequently provided to the headquarters staff for further analysis.

4OA6 Meetings, Including Exit

On October 6, 2005, the inspectors presented the inspection results to Mr. Randy Johnson and the other members of his staff who acknowledged the findings. The

inspectors confirmed that proprietary information was not provided or examined during the inspection.

#### 4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as a NCV.

- TS 5.5.1 requires the licensee to establish, implement, and maintain an ODCM. ODCM Tables 2.2 and 3.2 state that quarterly tests shall be performed on effluent monitors R-14, R-18, and R-23B in order to "demonstrate that automatic isolation of the monitor pathway and control room annunciation occur if there is loss of control power or instrument power". Contrary to the above, on December 7, 2004, a quality assurance audit discovered that the procedures implementing these quarterly tests did not include a verification that the appropriate valves fail closed on loss of control power or instrument power to the relevant monitors. This violation was documented in the licensee's CAP as CR 2004106595. This violation is of very low safety significance because the missed surveillance did not impair the licensee's ability to assess offsite doses to members of the public and did not result in an effluent release exceeding the dose values in Appendix I to 10 CFR Part 50 and/or 10 CFR Part 20.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## SUPPLEMENTAL INFORMATION

### KEY POINTS OF CONTACT

#### Licensee personnel

R. Badham, Security Manager  
W. Bargeron, Assistant General Manager - Operations  
W. Bayne, Performance Analysis Supervisor  
S. Chestnut, Engineering Support Manager  
R. Fucich, Work Control Superintendent  
P. Harlos, Health Physics Manager  
J. Horn, Training and Emergency Preparedness Manager  
J. Johnson, Plant General Manager  
T. Livingston, Chemistry Manager  
R. Martin, Operations Manager  
B. Moore, Maintenance Manager  
W. Oldfield, Quality Assurance Supervisor  
R. Vanderbye, Emergency Preparedness Coordinator  
T. Youngblood, Assistant General Manager - Plant Support  
W. Lee, Emergency Preparedness Supervisor

#### NRC personnel

M. Widmann, Chief, Reactor Projects, Branch 2  
Dr. William D. Travers, Regional Administrator, Region 2

### LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened and Closed

05000364/2005004-01	NCV	Failure to Test Unit 2 Service Air Header for to Ensure Breathing Air Quality (Section 2OS3.1)
05000348,364/2005004-02	NCV	Failure to Provide Adequate Respiratory Protective Equipment to a Control Room Operator (Section 2OS3.2)

#### Closed

2515/161	TI	Transport of Control Rod Drive (CRD) in Type 'A' Packages (Section 4OA5.1)
2515/163	TI	Operational Readiness of Offsite Power (Section 4OA5.2)

### LIST OF DOCUMENTS REVIEWED

#### Section 1R01: Adverse Weather Protection

UFSAR sections 6.4.1.1. and 9.4.1.1  
FNP-1-SOP- 58.0, Auxiliary Building HVAC System  
FSD A181006, Control Room Ventilation Functional System Description  
FNP-0-STP-26.6, "A" Train Control Room Air Conditioning System Operability Test

FNP-0-STP-26.7, "B" Train Control Room Air Conditioning System Operability Test

**Section 1R02: Evaluation of Changes, Tests, or Experiments**

Full Evaluations

MDS03-2733, Repair to NSP27LS505 Penetration  
 RER 03-067, Operation of Steam Dumps in the Steam Pressure Mode during Power Operations (PRB meeting, 3591)  
 CAF-NF-2074 and 2135, Elimination of 30% Power Flux Maps  
 LDCR 04-042FS, FSAR Changes to Correct Reduced Pressurizer Heater Total Capacity (NL-04-0864)  
 MDC 02-0-9852, Replacement of SWIS Instrument Air Compressors  
 DCP 98-2-9431, Unit 2 Auxiliary Feedwater Flow Transmitters

Screened Out Items

SC-03-0-004, Replacement of Carbon Composition resistors with Metal Film Resistors for Use on 7300 System Printed Circuit Boards  
 SC-04-0-0012, CRDM Seismic Spacer Latch  
 03-2738, 2A Service Water Pressure Control Valve Root Valve Replacement [replaced due to clogging] provide  
 03-2747, Revision 1, Repair Speed Signal Generator and Disable the Speed Signal Nuisance Alarm on DLCP for EDG 1C  
 04-2754, Temporarily Lower High Voltage Power Supply for NI 42 from 800 V to 600 V per WO 3008821  
 04-2758, Pressurizer Heater (Q2B31K001) Group 2B, Heater Bank #42 Open WO 4002617  
 04-2760, 1A Containment Spray Pump Room Cooler Fan Supply Breaker Tripping Concern  
 04-2762, Installation of Lead Shot and Restraint Device for Vibration Dampening of the 2B DG Fuel Oil Manual Transfer Pump  
 02-1-9813, Replacement of Plasma Display in Gamma- Metrics Hot Shut Down Panel  
 03-1-9882, Unit 1 Main Steam Isolation valve Locking Plate Modification  
 03-1-9890, Auxiliary Feedwater Pump Coupling Modification  
 03-2-9980, Replace DRPI Power Supply and Relocate  
 04-2-0026, Replacement of 36" Diameter Service Water Strainer  
 04-2-0036, Install a Half Coupling over a Pin-Hole Leak  
 DCP 03-1/2-9835 and 9836, Replacement Actuator for Q1P16V562 and V563, SW Dilution Bypass Valves  
 DCP 03-2-9899, Re-route Appendix R RWST Suction Valve Cables (DCR 03-055-FS)  
 DCP 03-0-9945, Tornado Missile Project for Diesel Generator Air Intakes

Procedures

1-AOP-5.0, Loss of A or B Train Electrical Power, Rev. 24  
 1-AOP-5.1, Contingency Electrical Alignments, Rev. 6  
 LDCR-03-047-TS/TB, Technical Specification Amendment for DC Sources - Operating (NL-03-1916)

Self-Assessment Documents

Audit No. 03-S/43, December 30, 2003  
 Audit No. 2003-CTRP/21, March 14, 2003  
 Surveillance No. F-2005-002, 2/22/2005  
 Audit No. FQA-2005-22, June 1, 2005  
 Fleet Configuration Management Self Assessment, June 7 - July 9, 2004

Condition Reports

CR 2005106956, Math Error Identified in Calculation Prepared for MDC 01-2-0026  
 CR 2005106980, ASME Code Repair Detail not Addressed  
 CR 2005106981, RER 03-067 not Implemented, but not Voided

**Section 1R11: Licensed Operator Requalification**

FNP-1-EEP-0, Reactor Trip or Safety Injection  
 FNP-1-EEP-3, Steam Generator Tube Rupture  
 FNP-1-ESP-3.1, Post-SGTR Cooldown Using Backfill  
 FNP-1-FRP-S.1, Response to Nuclear Power Generation/ATWT

**Section 1EP1: Exercise Evaluation**Plans and Procedures

FNP-0-EIP-9.0, Emergency Classification and Actions, Rev. 54  
 FNP-0-EIP-6.0, TSC Setup and Activation, Rev. 38  
 FNP-0-EIP-0.0, Emergency Organization, Rev. 16  
 FNP-0-EIP-10.0, Evacuation and Personnel Accountability, Rev. 36  
 NMP-EP-101, Emergency Operations Facility (EOF) Activation, Rev. 2.0  
 NMP-EP-102, EOF Manager, Ver. 2.0  
 NMP-EP-103, Licensing Support, Ver. 2.0  
 NMP-EP-104, Dose Assessment, Ver. 2.0

Records and Data from 08/24/2005 Exercise

Emergency Notification Forms (Messages Nos. 1-10) transmitted to State and local agencies

Plans and Procedures

FNP-0-EP-0.0, FNP Emergency Plan, Rev. 40  
 10 CFR 50.54(q) Evaluation for FNP Emergency Plan, Rev. 40  
 10 CFR 50.54(q) Evaluation for EIP-9.0, Emergency Classification and Actions, Rev. 53  
 10 CFR 50.54(q) Evaluation for EIP-9.0, Emergency Classification and Actions, Rev. 54  
 FNP-0-EP-0.0, FNP Emergency Plan, Rev. 41  
 10 CFR 50.54(q) Evaluation for FNP Emergency Plan, Rev. 41  
 FNP-0-EP-0.0, FNP Emergency Plan, Rev. 42  
 10 CFR 50.54(q) Evaluation for FNP Emergency Plan, Rev. 42  
 FNP-0-EIP-8.3, Communications Equipment Operating Procedures, Rev. 10

**Section 1EP06: Drill Evaluation**

FNP-1-ESP-0.1, Reactor Trip Response  
 FNP-1-EEP-0, Reactor Trip on Safety Injection  
 FNP-1-EEP-2, Steam Generator Tube Rupture  
 FNP-0-EIP-6.0, Technical Support Center (TSC) Setup and Activation

**Section 1R17: Permanent Plant Modifications**Self-Assessment Documents

Audit No. 03-S/43, December 30, 2003  
 Audit No. 2003-CTRP/21, March 14, 2003  
 Surveillance No. F-2005-002, 2/22/2005  
 Audit No. FQA-2005-22, June 1, 2005  
 Fleet Configuration Management Self Assessment, June 7 - July 9, 2004

Condition Reports

CR 2005106956, Math Error Identified in Calculation Prepared for MDC 01-2-0026

CR 2005106980, ASME Code Repair Detail not Addressed

CR 2005106981, RER 03-067 not Implemented, but not Voided

**Section 20S3: Radiation Monitoring Instrumentation and Protective Equipment****Procedures**

FNP-0-RCP-1, Schedule, Health Physics Group Activities, Rev. 36

FNP-0-RCP-73, Operation of the Shepherd Model 149 Neutron Source Calibrator, Rev. 2

FNP-0-RCP-101, Use and Testing of Respiratory Protection Equipment, Rev. 30

FNP-0-RCP-103, Maintenance and Care of Respiratory Protection Equipment, Rev. 33

FNP-0-RCP-110, Sampling of Service Air to Meet Respiratory Limits, Rev. 8

FNP-0-RCP-214, Operation and Calibration of Eberline Smart Portable Model ASP-1, Rev. 16

FNP-0-RCP-225, Operation and Calibration of Eberline RO-2/2A Ion Chamber, Rev. 14

FNP-0-RCP-287, Operation and Calibration of the MGP Instruments Telepole, Rev. 2

FNP-0-TCP-9.6, Respirator Quantitative Fit Testing Using the Porta Count Fit Tester, Rev. 5

FNP-0-AP-16, Conduct of Operation - Operations Group, Rev. 32

FNP-0-AP-17, Conduct of Operations - Health Physics Group, Rev. 17

FNP-0-EIP-4.0, Health Physics Support to the Emergency Plan, Rev. 33

FNP-0-EIP-16.0, Emergency Equipment and Supplies, Rev. 45

NMP-GM-002-GL02, Corrective Action Program Details and Expectations Guideline, Ver. 5.0

HP Form 257, Respiratory Protection Record

HP Form 670A, Respirator Use ALARA Evaluation

Calibrations, Surveillance Tests, and Licensee Records

FNP-1-STP-227.2A, Surveillance Test N1D11RE0011 (Containment Air Particle Monitor),  
1/8/05

FNP-1-STP-227.1A, Surveillance Test N1D21RE005 (Fuel Storage Pool Area Monitor), 8/16/03  
and 3/3/05

FNP-1-STP-227.19A, Surveillance Test Q1D21RE0027B (Containment High Range Monitor),  
4/11/03 and 10/25/04

FNP-1-STP-227.18A, Surveillance Test Q1D21RE0027A (Containment High Range Monitor),  
4/13/03 and 10/22/04

FNP-2-ETP-3002, Testing of the Unit 2 Post Accident Sampling System, 7/16/03 and 5/5/04

Portable Instrument Calibration and Maintenance Data Sheets: RO-2, s/n 0448, 2/5/05; ASP-1,  
s/n 716, 9/1/04; E-140, s/n 1094, 8/12/04; and Telepole WR, s/n 6601-050, 1/12/05

Plateau Query Report: Individuals qualified on respirator fit test for MSA Ultra View Full Face  
Fit, denoting respirator size, 6/29/05

Source certification, source Nos. 180.00.00 and 1015.00.00

Remball Data Sheet, 6/30/05

HP Form 270, Daily Frisker Response Sheet, 6/29/05

HP Form 283C, Portal Monitor Status Sheet (Non-Outage), 6/29/05

HP Form 273, Miscellaneous Instrument Response Checks (Non-Outage), 6/20/05-6/28/05

Instrument Study to Determine the Sensitivity of Radiation Controlled Area Exit Monitors for  
Intakes of Radioactive Material, 10/3/99

Breathing Air Class D certification for Bauer-UE1/DV, Unit 001162: 4/18/05, 12/31/04, 8/25/04,  
5/14/04, and 1/21/04.

Service Air Analysis Sheet: Unit 2 Service Air Header N2P18V009, Survey 15992, 3/31/05;  
Survey 6481, 12/30/03; and Survey 6481, 6/25/03



Service Air Analysis Sheet: Unit 1 Service Air Header N1P18V005A, Survey 14827, 1/4/05; Survey 12797, 10/10/04; Survey 10812, 7/2/04; and Survey 8827, 3/29/04

Certification as C.A.R.E. Authorized Repair Center of vendor performing vital component maintenance for respirators, 5/1/05

FNP-0-EIP-16, Checklist F, Emergency Equipment and Supplies - monthly checks of SCBA staged in Aux Bldg, Elevation 83' Unit 1 Rad Side West Stairwell, January 1, 2004 - June 21, 2005

FNP-0-EIP-16, Checklist XX, Emergency Equipment and Supplies - monthly checks of SCBA staged in control room, January 20, 2004 - June 28, 2005

Flow Test and Maintenance record, Regulator #35, 3/10/04 and 3/8/02

Flow Test and Maintenance record, Regulator #13, 1/23/04 and 7/19/01

Flow Test and Maintenance record, Regulator #30, 5/20/04, 3/8/02, and 7/19/01

Flow Test and Maintenance record, Regulator #31, 5/20/04 and 3/8/02

HP Form 260B, Respirator Recertification/Inventory Sheet, monthly inventories from 1/5/04 through 6/7/05

#### CAP Documents

2003 Health Physics Department Self-Assessment Report, 8/4/03

Health Physics Department - Adverse Trends in Radiation Protection Self-Assessment, 9/5/03

Audit Report No. 03-RAD/02, Audit of Radiological Controls and Radioactive Waste Management, 9/30/03

Audit No. F-HP-2004, Health Physics, 9/28/04i

CR 2004002265, Differences between DAD and TLD doses, 5/24/04

CR 2004106990, FNP Operations Group SCBA facial hair policy, 12/17/04

CR 2005103530, Operations individual respirator qualification overdue, 4/4/05

CR 2005104837, RE-11 pump tripped, 5/17/05

CR 2005106476, Mask availability in control room area, 6/29/05

### **Section 2PS1: Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems**

#### Procedures, Guidance Documents, and Operating Manuals

FNP-0-CCP-24, Tritium Determination, Ver. 24.0

FNP-0-CCP-647, Operation and Calibration of the Multichannel Analyzer Systems, Ver. 25.0

FNP-1-STP-227.5, Radiation Monitor Q1D11RE0024A Containment Purge and Exhaust Isolation Calibration, Ver. 30.0

FNP-2-STP-227.10, Radiation Monitor Q2D11RE0024B Containment Purge and Exhaust Isolation Calibration and Channel Operational Test, Ver. 24.0

FNP-1-IMP-227.15A, Service Water Liquid Monitor Channel Calibration N1D11RE0020A, Ver. 8.0

FNP-1-IMP-227.16A, Service Water Liquid Monitor Channel Calibration N1D11RE0020B, Ver. 8.0

FNP-0-CCP-212, Liquid Waste Release Program, Ver. 20.0

FNP-2-CCP-643, Sampling points for Potential Radiological Effluents, Ver. 29.0

FNP-0-CCP-213, Gaseous Waste Release Program, Ver. 27.0

FNP-2-STP-720, Containment Purge Surveillance, Ver. 17.0

FNP-2-STP-714, Waste Monitor Tank Surveillance, Ver. 23.0

FNP-1-ETP-4472, Containment Purge Exhaust Filtration Performance Test, Rev. 1

FNP-0-CCP-214, Administrative Management of Radioactive Liquids in Farley Nuclear Plant Systems, Ver. 20.0



NMP-GM-002, Corrective Action Program, Ver. 3.0

Records, Data, and Drawings

R-24A, Unit 1 CTMT Purge and Exhaust Isolation Calibration 1/20/04 and 2/18/05  
 R-24B, Unit 2 CTMT Purge and Exhaust Isolation Calibration 2/25/04 and 1/15/05  
 R-20A, Unit 1 Service Water Liquid Monitor Channel Calibration 5/4/2004 and 7/24/02  
 R-20B, Unit 1 Service Water Liquid Monitor Channel Calibration 8/7/2003 and 2/8/05  
 Performance Testing of Unit 1 Containment Purge Filtration Unit 2/2/05  
 Germanium Detector #3, Annual Calibration (all geometries), 12/17/04 and 2/10/05  
 Liquid Scintillation Detector #2 Annual Calibration, 9/20/04 and 3/14/05  
 Daily QC Checks Count Room Germanium Detectors 3, 4, 5, and 6, 6/1/05 - 6/30/05  
 Certificate of Calibration for HPGe Detector Calibration source (S/N 69641-08), 12/23/04  
 Results of Radiochemistry Cross Check Program, 6/25/03 and 7/16/04  
 Annual Effluent and Waste Disposal Report, 2003 and 2004  
 Liquid effluent release permit Nos. 40705.011.079.L, 12/6/04 and 40708.012.225.L, 12/8/04  
 Gaseous effluent release permit No. 50132.016.021.G, 5/24/05

CAP Documents

CR 2003000917, Rx Head Work Airborne Contamination Event during Unit 1 Refueling Outage #18  
 (airborne release investigated), 4/14/03  
 CR 2003002101, Incorrect trip setpoint used for R-18 liquid discharge monitor, 8/23/06  
 CR 2004106595, Failure to implement ODCM surveillance requirements for effluent radiation monitors, 12/07/04  
 CR 2005106622, Tritium sampling using the bubble method, 7/5/05  
 Audit No. F-CRW-2004, QA Audit of Chemistry and Radwaste, 1/2/05  
 Farley Nuclear Plant Self Assessment, Chemistry Team Self Assessment of Count Room Program, August 23-27, 2004

**Section 2PS3: Radiological Environmental Monitoring Program (REMP) and Radioactive Material Control Program**

Procedures and Guidance Documents

FNP-0-STP-791.0, Air Particulates and Iodine Sampling, Ver. 16.0  
 FNP-0-STP-793.0, River Water Samples, Ver. 18.0  
 FNP-0-RCP-29, Contamination Guidelines, Ver. 36  
 FNP-0-ENV-17, Meteorological Tower, Ver. 26  
 NMP-GM-002-GL02, Corrective Action Program Details and Expectations Guideline, Ver. 5.0

Instrument Calibration and Environmental Data Records

Survey Nos. 14758 and 17009, Landfill contamination surveys, 12/30/04 and 6/14/05  
 2003 and 2004 Radiological Environmental Operating Reports  
 Meteorological Tower Instrument Calibration Records 11/3/04 and 5/5/05  
 Environmental Air Sampler Calibration Records, location 703 (Paper Mill), 5/13/04, 5/10/05, and 5/15/05  
 Environmental Water Sampler Maintenance Records, location 703 (Paper Mill), 11/27/04 and 5/16/05  
 SAM-9, No. HP-GSD-012, Calibration Records, 11/13/03 and 11/5/04  
 10 CFR Part 61 Analysis, Dry Active Waste, 8/13/04

CAP Documents

Audit No. CQA 2004-126, Audit of Georgia Power Company Environmental Laboratory, May 2004

Audit No. F-ENV-2004, Audit of FNP Effluents and Environmental Monitoring Program, November 2004

CR 2004100950, Meteorological tower elevated wind speed not greater than ground wind speed >95% of the time, 7/7/04

CR 2004001997, Andrews Dam river water sampler had obstructed sample tubing, 5/5/04

CR 2004000564, Neals Landing environmental air sampler found not running, 2/10/04

CR 2004103405, QA audit recommendation to enhance worker awareness of RCA exit practices, 9/27/04

### **Section 40A1: Performance Indicator Verification**

#### **Emergency Preparedness**

##### Plans and Procedures

FNP-0-AP-54, Preparation and Reporting of NRC Performance Indicators Data and NRC Operating Data, Rev. 6.0

##### Records and Data

Monthly data packages for ERO Participation, Drill and Exercise Performance, and Alert and Notification System for July 2004 to June 2005

##### Procedures

FNP-0-AP-54, Preparation and Reporting of NRC Performance Indicator Data, Ver. 5.0

##### Records and Data

Monthly NRC Performance Indicator Data (FNP-0-AP-54, Attachment 2), 9/04 - 5/05

Out-of-service effluent monitor logs, 1/1/04 - 5/31/05

Gaseous effluent release permit No. 50179.026.026.G, 6/23/05

Liquid effluent release permit No. 50359.022.096.L, 6/30/05

##### CAP Documents

CR 2003001616, Abnormal Liquid Release while pumping liquid from the Lower Equipment Room to the Unit 1 Turbine Sump (release permit LWRP # 30426.31.001.L), 7/15/03

CR 2005102162, Documentation of an abnormal release which occurred in March 2004 during Unit 2 Rx Head lift (release permit GWRP # 40098.042.001.G), 2/22/05

### **Section 40A5: Other Activities**

#### **Temporary Instruction 2515/161, Transport of Control Rod Drive (CRD) in Type A Packages**

Radioactive Material/Waste Shipping Logs from 1/1/02 to 6/14/05

Shipping Record 02-37, boxes sent to Waltz Mill, 10/4/02