UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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ATLANTA, GEORGIA 30303-8931

January 20, 2004

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

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC INTEGRATED INSPECTION REPORT 05000348/2003005 AND 05000364/2003005

Dear Mr. Stinson:

On December 27, 2003, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Farley Nuclear Plant, Units 1 and 2. The enclosed integrated inspection report documents the inspection findings, which were discussed on January 6, 2004, with Mr. Don Grissette 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 report documents two NRC-identified findings of very low safety significance (Green), both of which were determined to involve violations of NRC requirements. However, because of the very low safety significance and because they were entered into your corrective action program, the NRC is treating these two violations as non-cited violations (NCVs) consistent with Section VI.A.1 of the NRC Enforcement Policy. 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 10 CFR 2.790 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 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/

Brian R. Bonser, 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 05000348/2003005 and
05000364/2003005
w/Attachment: Supplemental Information

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REGION II

Docket Nos.:	50-348, 50-364
License Nos.:	NPF-2, NPF-8
Report Nos.:	05000348/2003005 and 05000364/2003005
Licensee:	Southern Nuclear Operating Company, Inc.
Facility:	Farley Nuclear Plant
Location:	7388 N. State Highway 95 Columbia, AL 36319
Dates:	September 28 - December 27, 2003
Inspectors:	C. Patterson, Senior Resident Inspector (SRI) T. Johnson, SRI R. Fanner, Resident Inspector E. Testa, Senior Health Physicist (Sections 2OS1, 2OS3, 2PS1, 2PS3, and 4OA1) A. Nielsen, Health Physicist (Sections 2OS1, 2OS3, 2PS1, 2PS3, and 4OA1) D. Forbes, Physical Security Inspector (Sections 2OS3 and 2PS3) S. Rose, Operations Engineer (Section 1R11)
Approved by:	Brian R. Bonser, Chief Reactor Projects Branch 2 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000348/2003005, 05000364/2003005; 09/28/2003-12/27/2003; Farley Nuclear Plant, Units 1 & 2; Access Controls To Radiologically Significant Areas, Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems.

The report covered a three-month period of inspection by resident inspectors and announced inspections by regional health physics inspectors. 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

Cornerstone: Occupational Radiation Safety

- Green. A self-revealing, non-cited violation of 10 CFR Part 20.1701 was identified for failure to implement adequate engineering controls to limit airborne radioactivity stemming from under-head work during the Unit 1 Refueling Outage 18.

  This finding is more than minor because it adversely affects the Occupational Radiation Safety cornerstone attribute of having adequate programs and processes for contamination control. The finding is of very low safety significance because the licensee's three-year rolling average for collective dose is <135 person-rem. (Section 2OS1)

Cornerstone: Public Radiation Safety

- Green. An NRC-identified non-cited violation of Technical Specification 5.4.1(b) was identified in that the Unit 2 Plant Vent air sampler was not taking an isokinetic sample of the Plant Vent airstream.

  This finding is greater than minor because it adversely affects the Effluent Monitoring attribute of the Public Radiation Safety cornerstone. The finding is of very low safety significance because there was no failure to assess dose to the public. (Section 2PS1)

B. Licensee Identified Violations

None

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at or near 100 percent Rated Thermal Power (RTP) during the inspection period.

Unit 2 operated at or near 100 percent RTP until a reactor trip occurred on November 10 due to a voltage transient on a vital instrumentation bus. The unit restarted November 11 and returned to 100 percent RTP on November 12. The unit remained at 100 percent RTP for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather Protection

a. Inspection Scope

The inspectors reviewed the implementation of procedure FNP-0-S0P-0.12, Cold Weather Contingencies, to determine if required compensatory measures for equipment affected by cold weather were satisfactorily completed prior to the onset of winter. The inspectors performed a general walk-down using procedure FNP-1(2)-EMP-1383.01, Freeze Protection Inspections, to verify proper freeze protection circuit thermostat settings. The completed procedure was reviewed to verify adequate completion and that cold weather procedures were followed during two cold weather conditions.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

Partial System Walk-Down. The inspectors performed three partial system walk-downs to verify the systems listed below 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 checks of control room and in-plant alignment of valves, switches, components, electrical power support equipment, and instrumentation. Documents reviewed are listed in the Attachment.

- Unit 1 'B' train containment spray (CS) during 1A CS outage
- Unit 1 'A' train residual heat removal (RHR) during 1B RHR maintenance

- The other four Emergency Diesel Generators (EDGs) (1-2A, 2C, 1B, and 2B) during 1C EDG outage

Complete System Walk-Down. The inspectors performed a complete system walk-down to verify that the Unit 1 and Unit 2 Service Water systems and support systems were properly aligned in accordance with site procedures. The walk-down included a review of plant normal operating and abnormal/emergency operating procedures, drawings, design documents and vendor manuals, the Updated Final Safety Analysis Report (UFSAR), and control room and in-field checks of valves, switches, components, electrical power, support equipment, and instrumentation. In addition, open maintenance work orders, outstanding design issues, operator work arounds, temporary modifications, hangers and supports, general area housekeeping, and material condition were reviewed. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

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. To verify implementation, the inspectors also checked that compensatory measures, including fire watches, were in place for degraded fire 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.

- Unit 1 Cable Spreading Room Fire Area 40 A
- Unit 2 Cable Spreading Room Fire Area 40 A
- Service Water Structure Fire Area 56A
- Service Water Structure Fire Area 57A
- Service Water Structure Fire Area 58A
- Service Water Structure Fire Area 59A
- Service Water Structure Fire Area 60A
- Service Water Structure Fire Area 61A
- Service Water Structure Fire Area 72A
- Control Room Fire Area 44A
- Auxiliary Building Train B DC Switchgear Fire Area 19A
- Auxiliary Building Train A DC Switchgear Fire Area 18A

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

Resident Quarterly Observation. 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. The inspectors observed simulator scenarios for alignment of emergency core cooling systems for cold leg recirculation and safety injection termination to verify proper operator use of procedures FNP-1-ESP-1.3, Transfer to Cold Leg Recirculation, and FNP-1-ESP-1.1, Safety Injection Termination. The inspectors observed 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. The inspectors attended the licensee's critique of the scenarios to verify that any identified issues were corrected.

Annual Operating Test Results. On December 12, 2003, the licensee completed the requalification annual operating tests, required to be given to all licensed operators by 10 CFR 55.59(a)(2). The inspectors performed an in-office review of the overall pass/fail results of the written examinations, individual operating tests, and the crew simulator operating tests. These results were compared to the thresholds established in Manual Chapter 609 Appendix I, Operator Requalification Human Performance Significance Determination Process.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed the following three issues to verify implementation of licensee procedures FNP-0-M-87, Maintenance Rule Scoping Manual; FNP-0-SYP-19, Maintenance Rule Performance Criteria; and FNP-0-M-89, FNP Maintenance Rule Site Implementation Manual; and compliance with 10 CFR 50.65. 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 maintenance rule coordinator, and operations personnel to assess their knowledge of the program.

- Condition Reports (CRs) 2003002669 and 2003001617, 1A CS Pump Room Cooler
- CR 2003002747, 2B Service Water Motor Cooling Coil Failure

- CRs 2003002132, 2003002437, and 200300002, 1B Auxiliary Building Battery Cell Failures

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors assessed the licensee's planning and control for the following four planned licensee activities to verify the requirements in licensee procedures FNP-0-ACP-52.1, Guidelines for Scheduling of On-Line Maintenance; AP-FNP-0-AP-52, Equipment Status Control and Maintenance Authorization; and FNP-0-AP-16, Conduct of Operations - Operations Group; and the Maintenance Rule risk assessment guidance in 10CFR50.65 a(4) were met.

- 1A CS outage
- 1B RHR pump outage
- Unit 1 Turbine Driven Auxiliary Feedwater (TDAFW) planned outage and post maintenance testing
- Unit 1 and 2 1C EDG planned maintenance outage

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-routine Plant Evolutions

a. Inspection Scope

For the two non-routine events described below, the inspectors assessed the licensee's use of operating procedures, surveillance test procedures, annunciator procedures, abnormal and emergency operating procedures, control room actions, command and control, post event recovery, management involvement, training expectations, previous CRs, maintenance work history, and communication. The inspectors reviewed operator logs, plant computer data, control room strip charts, post event/trip report, and discussed actions with operations personnel.

- A reactor trip occurred on Unit 2 on November 10, 2003, due to an indicated 2A reactor coolant pump breaker open position.

- On November 22 and 23, Unit 1 experienced a partial loss of vacuum and a secondary chemistry transient when a main condenser external leak occurred.

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, and FNP-0-ACP-9.2, Operability Determination (OD), 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, to verify system operability was not affected.

- OD 03-09, Unit 1 Containment Dome Fan Failure Debris Risk for the Containment Sump
- OD-03-08, Unit 1 1B motor-driven auxiliary feedwater (MDAFW) pump room SW leak
- Unit 1 1B Containment Dome Recirculation Fan
- OD-03-07, Unit 2 2A Service Water Pump High Motor Winding Temperatures
- CR 2003003413, Unit 2 B Containment Cooling Fan Motor High Speed Winding Failure
- CR 2003003478 Unit 2 2B EDG Fuel Oil Day Tank Auto Transfer Pump

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds

a. Inspection Scope

The inspectors reviewed the cumulative effects of the Unit 1 and Unit 2 operator work-around lists 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. The inspectors reviewed that the cumulative effects were assessed by the licensee in accordance with licensee procedure FNP-0-ACP-17, Operator Work-Arounds.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed the following two plant modifications to verify the implementation of licensee procedure FNP-0-AP-8, Design Modification Control. This included verification that the design bases, licensing bases, and performance capability of risk significant structures, systems, and components would not be degraded through the modifications and the modifications would not place the plant in an unsafe condition. The inspectors also observed the Plant Review Board approval of these Design Change Packages (DCPs), discussed the modifications with the engineering and operations personnel, and reviewed the related procedures and drawings.

- Unit 1 Cooling Tower Replacements (S 02 01 9787)
- Service Water Intake Structure air compressors upgrade (ETP 4492, WO 3004997)

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-ACP-52.1, Guidelines for Scheduling of On-Line Maintenance, and AP-FNP-0-AP-52, Equipment Status Control and Maintenance Authorization, to verify post-maintenance test procedures and test activities for the following five systems/components were adequate to verify system operability and functional capability:

- A Train Control Room Ventilation system
- Unit 1 TDAFW pump
- Unit 2 TDAFW pump
- 1C EDG
- 2C Charging Pump

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 five surveillance tests to determine if the tests adequately demonstrated equipment operability and met the 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, and attended selected briefings to determine if procedure requirements were met.

- FNP-1-STP-1.0 Operations Daily and Shift Surveillance Requirements
- FNP-0-STP-80.7, 1C EDG 24 Hour Load Test
- FNP-1-STP-22.16, TDAFW Quarterly Inservice Test
- FNP-1-STP-80.6, 1B EDG 24 Hour Load Test
- FNP-2-STP-80.1, 2B EDG Monthly Operability Test

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the following four minor departures (MD), and associated 10 CFR 50.59 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 these temporary modifications.

- MD-02-2743, Temporary Flange Repair on the Amertap to the Unit 1 main condenser BA
- MD-02-2744, Temporary Flange Repair on the Amertap to the Unit 1 main condenser BB
- MD-02-2742, Defeat of the 2B RHR Shaft Horizontal Vibration Channel
- MD-02-2747, 1C EDG Signal Generator Repair and Speed Signal Generator Annunciator

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety (OS)

2OS1 Access Controls To Radiologically Significant Areas

a. Inspection Scope

Access Controls. During the week of December 1, 2003, the licensee's program activities for monitoring workers and controlling access to radiologically significant areas and tasks were inspected. The inspectors evaluated procedural guidance; directly observed implementation of administrative and established physical controls; assessed worker exposures to radiation and radioactive material; and appraised radiation worker and technician knowledge of, and proficiency in implementing radiation protection program activities.

During the onsite inspection, radiological controls for maintenance activities were observed and discussed. The inspectors attended the pre-job briefing for the Legacy Filter Sort and Packaging job and directly observed the work activities. In addition, the inspectors independently measured radiation dose rates and evaluated the established postings. Radiological postings, labeling and access controls were directly observed during tours of the Auxiliary Building, Old Steam Generator Storage Facility, and Solidification and Dewatering Facility. Control of Locked High Radiation Area (LHRA) keys and the physical status of LHRA doors were also observed.

Occupational workers' adherence to selected Radiation Work Permits (RWPs) and Health Physics Technician (HPT) proficiency in providing job coverage were evaluated through direct observations, review of selected exposure records and investigations, and interviews with licensee staff. Occupational exposure data associated with direct radiation, potential radioactive material intakes, and discrete radioactive particle (DRP) or dispersed skin contamination events were reviewed and assessed independently. In addition, the inspectors reviewed records from the Unit 1 refueling outage 18 (U1RF18) to evaluate the licensee's program for measuring and controlling airborne contamination.

Radiation protection program activities were evaluated against 10 CFR Part 19.12; 10 CFR Part 20, Subparts B, C, F, G, H, and J; UFSAR Section11, Radioactive Waste Management, and Section12, Radiation Protection; TS Sections 5.4.1, Procedures, and 5.7, High Radiation Area; and approved licensee procedures. Licensee guidance documents, records, and data reviewed are listed in the Attachment.

Problem Identification and Resolution. Licensee Corrective Action Program (CAP) documents associated with radiological controls, personnel monitoring, and exposure assessments were reviewed and discussed with responsible licensee representatives. The inspectors assessed the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with licensee procedure Nuclear

Management Procedure (NMP)-Guidance Manual (GM)-002, Corrective Action Program. Specific CRs reviewed are listed in the Attachment.

b. Findings

Introduction. A self-revealing, Green Non-Cited Violation (NCV) was identified for failure to implement adequate engineering controls to limit the concentration of radioactive material in air as prescribed in 10 CFR Part 20.1701.

Description. On April 14, 2003, the licensee failed to implement adequate engineering controls to limit airborne radioactivity stemming from under-head work during U1RF18. Given the circumstances, it was not impractical for the licensee to have correctly applied such controls.

Under-head cleaning and inspection involves the potential release of highly contaminated material from the reactor head and, in preparation, the licensee had set up two 1600 standard cubic feet per minute (SCFM) Negative Pressure Units (NPUs) to draw suction from under the head and exhaust to the containment purge system. Charcoal filters were added to the NPU common exhaust before it entered the containment purge line in order to mitigate any release of iodine from welding activities. Also included was a 500 SCFM NPU drawing air from the area just outside the head to help provide suction to the two other NPUs. During this period, containment purge was tagged “out-of-service” for maintenance work.

Due to a series of worker errors, airborne contamination levels began to rise inside containment (up to a maximum of 7.4 Derived Air Concentration (DAC) on the 155' elevation). Engineering controls that would have helped mitigate the airborne contamination were either not properly implemented or not used at all. Firstly, the hose for the 500 SCFM NPU was accidently kicked loose. To stop it from blowing air across the contaminated floor the unit was promptly turned off, but was not repaired and re-started. Secondly, one of the 1600 SCFM NPUs was not verified to be operational, as required by the HP Task Plan, and was subsequently found to be turned off. Thirdly, the charcoal filters that had been installed limited the exhaust flow and even after the 1600 SCFM NPU was re-started, exhaust flow was measured and found to be low. The charcoal filters that had been installed were limiting flow to the extent that, even if all NPUs were operational, flow would be inadequate. Lastly, containment purge was tagged “out-of-service”; however, all maintenance work on it had been completed and was, in actuality, available for use four hours before airborne contamination levels began to increase.

As a result of the increased airborne contamination, workers inside containment were exposed to internal doses from inhaled and ingested radionuclides, including alpha-emitting transuranics. The licensee used Whole Body Counting (WBC) techniques, results from airborne contamination surveys, and the methodology of 10 CFR Part 20 to calculate internal doses. The doses ranged from 0 to 21 millirem Committed Effective Dose Equivalent (CEDE).

Analysis. The inspectors determined that the licensee's failure to adequately implement engineering controls to limit airborne contamination is a performance deficiency because the licensee is expected to meet the requirements of 10 CFR Part 20.1701. Traditional enforcement does not apply because the issue did not have any actual safety consequences or potential for impacting the NRC's regulatory function and was not the result of any willful violation of NRC requirements or licensee procedures. This finding is greater than minor because it is associated with the Occupational Radiation Safety Cornerstone and adversely affects the cornerstone objective attribute of having adequate programs and processes for contamination control.

This finding was evaluated using the Occupational Radiation Safety Significance Determination Process (SDP) and was determined to be a finding of very low safety significance. The issue was identified as a finding in the area of Work Controls on the SDP logic flowchart. Since the three-year rolling average collective dose for this licensee is <135 person-rem, the finding is Green.

The finding was determined to be self-revealing because the self-checking processes in place at the time of the event failed to identify the specific performance deficiencies. Firstly, verification that the 1600 SCFM NPUs were operational was done incorrectly by placing a hand on the NPU hose and feeling for vibration. This resulted in one of them being falsely verified as turned on when it was actually turned off. Secondly, supplemental airborne surveys specifically implemented to locate the source of the contamination failed to do so in a timely manner. The wrong area was identified as the airborne source and the under-head work was allowed to continue. Thirdly, a continuous air monitor (CAM) near the reactor head entrance was turned off and not used. An operational CAM near the reactor head would have helped determine the source of the airborne contamination more quickly.

Enforcement. 10 CFR Part 20.1701 states, "The licensee shall use, to the extent practical, process or other engineering controls (*e.g.*, containment, decontamination, or ventilation) to control the concentration of radioactive material in air." Contrary to the above, on April 14, 2003, the licensee failed to use adequate engineering controls to limit the concentration of radioactive material in air. This was evidenced by the levels of airborne radioactive material reached inside containment and the resultant internal doses. Because the failure to implement adequate engineering controls is of very low safety significance and has been entered into the licensee's corrective action program (CR 2003000917), this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy: NCV 50-348/03-05-01, Failure to Implement Adequate Engineering Controls for Airborne Radioactive Material.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment

a. Inspection Scope

Radiation Monitors and Protective Equipment. During the week of December 1, 2003, the inspectors reviewed the operability and maintenance of selected radiation detection and respiratory protective equipment. The inspection consisted of document reviews,

discussions with plant personnel, and observation of routine testing for the following items: Area Radiation Monitors (ARMs) and Continuous Air Monitors (CAMs), personnel monitors, portable detection instruments, and Self-Contained Breathing Apparatus (SCBA).

The inspectors reviewed calibration records for ARMs and CAMs and interviewed a Health Physics (HP) instrument technician regarding the results. The inspectors observed shiftly channel checks of the Unit 1 (U1) Containment High Radiation Area Monitor R-27. The placement and use of CAMs inside containment during the previous U1 refueling outage was evaluated and discussed with HP management.

Whole body counter (WBC) calibration records and daily source check trends were reviewed and discussed with a dosimetry technician and supervisor. Five intakes of radioactive material for 2003 were also reviewed and discussed with dosimetry personnel.

Procedural guidance for the use and calibration of portable survey instruments was evaluated. The inspectors observed the daily source check of RO-20 and Telepole survey meters and compared the results to specified tolerances. The inspectors interviewed an HP supervisor regarding the licensee's program for the use of electronic dosimeters (including use in high noise areas) and observed the functional test and calibration of an alarming dosimeter. In addition, calibration records were reviewed for a Telepole, RO-2, RO-20, AMP-100, and ASP-1/NRD in use at the time of the inspection.

The licensee's respiratory protection program guidance and its implementation for SCBA use were evaluated and discussed with plant personnel. The number of available SCBA units and their general material and operating condition were observed during tours of the Control Room and Reactor Auxiliary Building. Current records associated with supplied air quality for staged SCBA equipment were evaluated. In addition, control room operators were interviewed to determine their level of knowledge of available SCBA equipment storage locations, and availability of prescription lens inserts, if required. Procedures and training for performing an SCBA bottle change out were also reviewed.

Program guidance, performance activities, and equipment material condition were reviewed against details documented in 10 CFR Parts 20 and 50; FSAR Section 12.1.4, Area Monitoring; applicable sections of NUREG-0737, Clarification of Three Mile Island (TMI) Action Plan Requirements, November 1980; Regulatory Guide (RG) 1.97, Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident, Rev. 3; RG 8.15, Acceptable Programs for Respiratory Protection, Rev. 1; and applicable licensee procedures. All documents reviewed are listed in Section 2OS3 of the report Attachment.

Problem Identification and Resolution. Selected CRs associated with area radiation monitoring equipment, portable radiation detection instrumentation, and respiratory protective program activities were reviewed and assessed. The inspectors assessed

the licensee's ability to characterize, prioritize, and resolve the identified issues in accordance with licensee procedure NMP-GM-002, Corrective Action Program, Ver. 1.0.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety (PS)

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

a. Inspection Scope

Effluent Processing Equipment. During the week of December 1, 2003, the inspectors reviewed and evaluated the operability, availability, and reliability of selected radioactive effluent process sampling and detection equipment used for routine and accident monitoring activities. Inspection activities consisted of direct observation of installed equipment configuration and operation, and review of calibration and performance data for the liquid and gaseous effluent process systems.

The inspectors directly observed U1 and U2 equipment material condition and assessed selected gaseous and liquid effluent processing and monitoring components against design configuration and operating specifications. During walk-downs, accessible sections of the liquid waste system including waste monitor tanks, system piping, and waste processing system liquid effluent monitor (R-18) equipment were assessed for material condition and conformance with current system design diagrams. Inspected components of the main gaseous effluent process and release system included the waste gas decay tanks and parts of the plant vent radiation monitoring system (R-21, R-22, and R-29) along with associated sample lines. The inspectors interviewed chemistry supervision regarding liquid and gaseous radwaste system configurations, system modifications, and effluent monitor operation. In addition, the inspectors compared U2 plant vent flow rates to flow rates in the R-29A sample lines to evaluate system operation for isokinetic sampling conditions.

The inspectors reviewed applicable sections of licensee effluent monitor calibration procedures and evaluated results of calibration and/or functional tests for the U2 R-18, R-21, and R-22 monitors and HEPA filter systems. Reviewed data included isotopic calibration records, source check results, flowmeter calibration records, and HEPA surveillance records. The inspectors also reviewed out-of-service data and contingency sampling records for selected effluent monitors from November 2002 - October 2003.

Installed configuration, material condition, operability, and reliability for selected effluent sampling and monitoring equipment were reviewed against details documented in the following: 10 CFR Part 20; RG 1.33, Quality Assurance Program Requirements (Operation), February 1978; 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 Plant, June 1974; ANSI-

N13.1-1969, Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities; ANSI-N13.10-1974, ANS Specification and Performance of On-Site Instrumentation for Continuously Monitoring Radioactivity in Effluents; TS Sections 5 and 6; the Offsite Dose Calculation Manual (ODCM), Rev. 20; and FSAR Chapter 11. Procedures and records reviewed during the inspection are listed in Section 2PS1 of the report Attachment.

Effluent Release Processing and Quality Control Activities. The inspectors evaluated licensee performance in conducting effluent release processing and Quality Control (QC) activities including implementation of program guidance and chemistry staff proficiency. The inspection consisted of direct observation of sampling and release operations, examination of count room equipment and daily QC activities, and review of effluent release procedural guidance and documentation.

The inspectors directly observed the weekly collection of airborne effluent samples from the U2 plant vent grab sample point (R-29A) as part of a continuous gaseous release. The collection of a tritium sample from the U2 containment purge exhaust was also observed. The inspectors evaluated chemistry technician proficiency in collecting, processing, and counting the samples.

QC activities regarding gamma spectroscopy and liquid scintillation counting instrumentation were discussed with a count room technician and Chemistry supervision. The inspectors reviewed calibration records and daily QC check trends and evaluated the data against procedural guidance for germanium detector numbers 5 and 6 and liquid scintillation detector numbers 2 and 3. In addition, results of the radiochemistry cross-check program were reviewed for 2nd Quarter, 2003.

Six procedures for effluent sampling, processing, and release were evaluated for consistency with licensee actions. One liquid and two gaseous release permits were reviewed against procedural guidance and ODCM specifications. For gaseous effluent release no. 30277.018.020.G, the inspectors performed independent dose calculations for comparison with the doses reported by the licensee. The ODCM was reviewed to determine whether any changes were made since January 1, 2002. The inspectors also reviewed the CY 2001 and CY 2002 annual effluent reports for effluent release data trends and for followup of any reported anomalous releases.

Observed task evolutions, count room activities, and offsite dose results were evaluated against details and guidance documented in the following: 10 CFR Part 20 and Appendix I to 10 CFR Part 50; ODCM; RG 1.21, RG 4.15, Quality Assurance for Radiological Monitoring Programs (Normal Operation) - Effluent Streams and the Environment, December 1977; and RG 1.109, Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50 Appendix I, October 1977. Procedures and records reviewed during the inspection are listed in Section 2PS1 of the report Attachment.

Problem Identification and Resolution. Two licensee CRs and two audits 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, Ver. 1.0. Documents reviewed are listed in Section 2PS1 of the report Attachment.

b. Findings

Introduction. The NRC identified a Green NCV for the failure to implement adequate QA procedures to ensure representative sampling of airborne radioactive particulates from the U2 plant vent.

Description. During walk-downs and discussions regarding U2 plant vent effluent sampling line operating characteristics, the inspectors identified concerns associated with sample representativeness for particulate radioactive material collected to continuously monitor airborne effluents in accordance with Offsite Dose Calculation Manual (ODCM) Table 3-3. Specifically, the inspectors determined that the U2 air sampling station (R-29A) was not taking isokinetic samples. Engineering calculations showed that the air velocity in the sample lines, at the R-29A sample point, was 2.6 times faster than the air velocity in the U2 plant vent stack. ANSI N13.1-1969, Guide to Sampling Airborne Radioactive Material in Nuclear Facilities, specifies that velocity differences between the air stream being sampled and the sample lines themselves would result in anisokinetic sampling of particulate materials in airborne effluent streams. The inspectors noted that the anisokinetic flow characteristics of R-29A degraded the ability to collect representative samples of large diameter particulates from the U2 plant vent.

U2 plant vent routine effluent releases are filtered through three non-safety related HEPA filters capable of removing particles > 0.3 microns in diameter from the airstream. Per ANSI N13.1-1969, particles < 5.0 microns are not readily affected by anisokinetic sampling conditions. The inspectors noted, however, that since these HEPA filters are not tested on a regular basis, there exists no QA process to verify that all particles are < 5.0 microns in diameter. RG 4.15, QA For Radiological Monitoring Programs (Normal Operations) - Effluent Streams And The Environment - 1979, states that QA programs should be implemented to provide adequate confidence in the results of an effluent monitoring program and to ensure effluent samples are representative of the sample medium. A review of Safety Evaluation Report (SER), Supplement 5, indicated that the design basis particulate size of <0.3 microns was based on post-accident conditions only. In an accident situation, the ventilation exhaust would transfer to a separate safety-related HEPA filter train before entering the U2 Plant Vent. However, a representative sample must be collected, per RG 4.15, even for routine effluents produced during normal operation.

Analysis. The inspectors determined that this finding was greater than minor. The failure to implement a surveillance and testing program for the U2 containment purge exhaust, spent fuel ventilation exhaust, and radwaste ventilation exhaust HEPA filters is a performance deficiency because the licensee is expected to meet the requirements of

TS 5.4.1(b). Traditional enforcement does not apply because the issue did not have any actual safety consequences or potential for impacting the NRC's regulatory function and was not the result of any willful violation of NRC requirements or licensee procedures. This finding is associated with the Public Radiation Safety Cornerstone and adversely affects the cornerstone objective attribute of having adequate programs and processes for accurate measurement of offsite dose and is, therefore, more than minor. This finding was evaluated using the Public Radiation Safety Significance Determination Process (SDP). It is of very low safety significance based on current operations and processing of U2 plant vent effluents which result in small diameter particulates which are not readily affected by the observed anisokinetic conditions. In terms of SDP logic, this means there exists a condition where the licensee's ability to assess offsite dose is impaired, but there was no actual failure to assess dose. A potential release of large diameter particulate radionuclides that bypassed non-safety related HEPA filters would be accompanied by a release of smaller particulates that would be sampled correctly. A review of the 2001 and 2002 Effluent Release Reports did not indicate any abnormal releases of large or small particulate radionuclides.

Enforcement. Technical Specification 5.4.1(b) requires QA procedures for effluent monitoring to be established and implemented using the guidance contained in RG 4.15. RG 4.15 requires the implementation of QA procedures necessary to verify that effluent samples are representative of the sample medium. Contrary to the above, the licensee failed to implement QA procedures to ensure representative sampling of particulate radionuclides released from the U2 plant vent to the off-site environs. Because the failure to establish and implement these QA procedures was determined to be of very low safety significance and has been entered into the licensee's corrective action program (CR Number 2003003616) this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy: NCV 50-364/03-05-02, Failure to Implement Adequate QA Procedures for Monitoring Particulate Effluents from the Unit 2 Plant Vent.

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

a. Inspection Scope

REMP Implementation. The inspectors reviewed and discussed with licensee personnel the results published in the Farley Annual Radiological Environmental Operating reports for CY 2001 and CY 2002. The inspectors observed the collection and preparation of weekly particulate and river water and forage samples by licensee personnel, and assessed material condition of ten air sampling stations (Station Nos. PI-0501, PI-0701, PI-1101, PI-1601, PB-0215, PB-1218, PB-0718, PC-0703, PC-1108, PC-1605), two river water sampling stations (WRI and WRB), five forage sampling stations (FI-0701, FI1601, FI0801, FI0201, FI1218) and ten thermoluminecent dosimeters (TLD) (Station Nos. RI-0501, RI-0701, RI-1101, RI-1601, RB-0215, RB-1218, RB-0718, RC-0703, RC-1108, RC-1605) to evaluate procedural compliance. Calibration stickers were noted on each air sampling pump. The inspectors also verified that the collection station locations were within the sectors specified in the ODCM.

REMP guidance, implementation, and results were reviewed against ODCM guidance and applicable procedures listed in the Attachment.

Meteorological Monitoring Program. The inspectors reviewed the operability of the meteorological monitoring equipment and operator access to meteorological data. Current meteorological monitoring equipment performance and calibration were reviewed with the system engineer. Licensee technicians primarily responsible for equipment maintenance and surveillance were interviewed by the inspectors concerning equipment performance, reliability, and routine inspections. Inspectors verified that control room meteorological data was the same as the meteorological data at the tower location.

Meteorological instrument operation, calibration, and maintenance were reviewed against FSAR, Chapter 2; NRC Safety Guide 23, Onsite Meteorological Programs-1972, and applicable licensee procedures. Documents reviewed are listed in section 2PS3 of the report Attachment.

Unrestricted Release of Materials from the Radiologically Controlled Area (RCA). The inspectors reviewed calibration records for two personnel contamination monitors and one material release monitor. The inspectors also observed source checking of three material survey monitors. Types of sources used for checks and minimum detectable activities were discussed with an instrument technician.

The Inspectors verified that radiation detection sensitivities were consistent with NRC guidance in IE Circular 81-07 and IE Information Notice 85-92. Documents reviewed are listed in section 2PS3 of the report Attachment.

Problem Identification and Resolution. Licensee CAP issues associated with environmental monitoring, meteorological monitoring, and release of materials were reviewed and discussed with responsible licensee representatives. The inspectors assessed the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with licensee procedure NMP-GM-002, Corrective Action Program, Ver. 1.0. Specific documents that were reviewed and evaluated in detail for these program areas are identified in Section 2PS3 of the report Attachment.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors sampled licensee submittals for the performance indicators (PIs) listed below to verify the accuracy of the data reported. The PI definitions and the guidance

contained in NEI 99-02, "Regulatory Assessment Indicator Guideline," Rev. 2 and licensee procedure FNP-0-AP-54, Preparation and Review of NRC Performance Indicator Data, were used to verify reporting requirements were met.

Cornerstone: Barrier Integrity

- Reactor Coolant System Activity
- Reactor Coolant System Leakage

The inspectors reviewed raw PI data for the period from April 2002 through September 2003 consisting of daily chemistry analysis and daily leak rate logs collected since April, 2002 for each of the indicators identified and compared graphical representations from the most recent PI report to the raw data to verify the data was included in the report. The inspectors also examined a sampling of operations logs and procedures to verify the PI data was appropriately captured for inclusion into the PI report and the individual PIs were correctly calculated.

Cornerstone: Occupational Radiation Safety

- Occupational Exposure Control Effectiveness

The inspectors reviewed CR records for high radiation areas, very high radiation areas, and unplanned exposure occurrences for the period from October, 2002 through November, 2003, to ensure that TS and 10 CFR 20 non-conformances were properly classified as Performance Indicators. During plant walk-downs, the inspectors verified that locked and very high radiation areas were maintained locked. The inspectors also reviewed RCA exit transactions with exposures greater than 100 mrem and investigated a sample of those transactions to determine whether they were within the respective RWP and to verify that those greater than 100 mrem unplanned exposure were entered in the corrective action program and listed as a Performance Indicator. Documents reviewed are listed in the Attachment.

Cornerstone: Public Radiation Safety

- RETS/ODCM Radiological Effluent Occurrences

The inspectors reviewed the Radiological Control Effluent Release Occurrences PI results for the Public Radiation Safety Cornerstone from October, 2002, through November, 2003. For the review period, the inspectors reviewed data reported to the NRC, procedural guidance for reporting PI information, and three CRs documented in Section 4OA1 of the report Attachment. In addition, the inspectors reviewed monthly PI reports from May, 2003 - October, 2003.

b. Findings

No findings of significance were identified.

4OA2 Problem Identification and Resolution

a. Inspection Scope

As required by Inspection Procedure 71152, Identification and Resolution of Problems, and in order 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 hard copies of each condition report, attending daily screening meetings, and accessing the licensee's computerized database.

b. Findings

No findings of significance were identified.

4OA3 Event Follow-up

1. (Closed) LER 50-364/2003-001-00: Reactor Trip Due to Loss of Power to Reactor Coolant Pump Breaker Position Indication

On November 10, 2003, Unit 2 tripped from 100% power due to a loss of indication of the 2A reactor coolant pump breaker position input into the Reactor Protection System. A momentary loss of voltage occurred on the 120 VAC vital instrument bus. Extensive troubleshooting of the instrument bus and associated bus did not identify the exact cause. Personnel performance during event was reviewed in Section 1R14. The licensee documented this event in their corrective action program as CR 2003003089. No findings of significance were identified.

4OA6 Meetings, Including Exit

On January 6, 2004, the inspectors presented the inspection results to Mr. Don Grissette 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

R. V. Badham, Security Manager
C. L. Buck, Chemistry/Health Physics Manager
R. M. Coleman, Outage and Modification Manager
D. E. Grissette, Plant General Manager
J. R. Johnson, Assistant General Manager - Operations
R. R. Martin, Engineering Support Manager
B. L. Moore, Maintenance Manager
C. D. Nesbitt, Training and Emergency Preparedness Manager
W. D. Oldfield, Quality Assurance Supervisor
L. M. Stinson, Nuclear Support General Manager, Farley Project
R. J. Vanderbye, Emergency Preparedness Coordinator
T. Youngblood, Operations Manager
P. Crone, Licensing Supervisor
T. Livingston, Chemistry Manager
R. Wells, Operations Superintendent

NRC personnel
B. Bonser, Chief, Reactor Projects, Branch 2
V. McCree, Division Director, Division of Reactor Projects

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed		
50-348/03-05-01	NCV	Failure to Implement Adequate Engineering Controls for Airborne Radioactive Material (Section 2OS1)
50-364/03-05-02	NCV	Failure to Implement Adequate QA Procedures for Monitoring Particulate Effluents from the Unit 2 Plant Vent (Section 2PS1)
Closed		
50-364/2003-001-00	LER	Reactor Trip Due to Loss of Power to Reactor Coolant Pump Breaker Position Indication

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Procedures
FNP-1(2)-SOP-7, RHR System
FNP-1(2)-SOP-7A, RHR System
FNP-1(2)-SOP-24, SW System

FNP-1(2)-SOP-24A, SW System
FNP-1(2)-SOP-9, Containment Spray System
FNP-1(2)-SOP-9A, Containment Spray System
FNP-0(1)(2)-SOP-38, EDG System
FNP-1(2)-AOP-10, Loss of SW

Other Documents
SW System Functional System Description (FSD) - A181001
Technical Specifications 3.7
UFSAR Section 9
PI&D D-170119 and 200013 all sheets

Section 1R14: Personnel Performance During Non-Routine Plant Evolutions
Procedures
FNP-1-ARP-0001, Main Control Board Annunciator Panel
FNP-1-AOP-8, Partial Loss of Main Condenser Vacuum
FNP-1-AOP-25, Abnormal Primary or Secondary Chemistry

Other Documents
CR 2003003258 and Root Cause Report
CR 2003003256
CR 2003003255
Control Room Operator Logs for November 22 and 23

Section 2OS1: Access Controls To Radiologically Significant Areas
Procedures, Guidance Documents, and Manuals
Farley Nuclear Plant (FNP)-0-Dosimetry (DOS)-1, Dosimetry Procedure, Version (Ver.) 40.0
FNP-0-Manual (M)-001, Joseph M. Farley Nuclear Plant Health Physics Manual, Ver. 17.0
FNP-0-Radiation Control and Protection (RCP)-19, Pre and Post Job As Low As Reasonably Achievable (ALARA) Planning for Work in Radiation Controlled Areas (RCAs) of The Plant, Ver. 17.0
FNP-0-RCP-13.1, Use of the Health Physics Computer System (HIS)-20 Radiation Work Permit (RWP) Section, Ver. 13.0
FNP-0-RCP-26, Radiological Surveys and Monitoring, Ver. 28
FNP-0-RCP-848, Operation and Use of Negative Pressure Units, Ver. 7.0
Nuclear Management Procedure (NMP)-Guidance Manual (GM)-002, Corrective Action Program, Ver. 1.0.

RWPs
003-0811, Legacy Filter Sort and Packaging
003-0410, Maintenance - Electrical, Routine inspections & Activities
003-0450, Maintenance - Mechanical, Routine Inspections & Activities
003-0801, Routine Activities Within Radiation Controlled Areas
003-1305, HP - All Work Associated With Reactor Head Inspection on the Head Stand Inside Unit 1 Containment
003-1801, Facilities - Routine Housekeeping, Firewatches, and Decon Activities in the Auxiliary Building and U1 Containment During U1 Refueling Outage 18

Records and Data
Radiological Survey No. 3431, Old Steam Generator Storage Facility
Radiological Survey No. 6066, Unit 2 Auxiliary Building 155 Foot Level
Radiological Survey No. 2207, U1 Containment Airborne Surveys for April 14, 2003
HP Task Plan for Reactor Vessel Head Control Rod Drive Mechanism (CRDM) Penetrations Inspection and Testing, U1RFO18

Condition Reports
2003000917, Airborne Event Inside Containment During U1RFO18
2003000675, Digital Alarming Dosimeter (DAD)
2003001042, Temporary Loss of Thermoluminescent Dosimeter (TLD)
2003001905, DAD Failure
2003002936, Documentation of Audit Report 03-EP/16 Recommendation
2003001709, No Survey Performed Prior to Entrance to a Radiologically Restricted Area

Section 2OS3: Portable Radiation Monitoring Instrumentation

Procedures, Manuals, Guidance Documents, and Lesson Plans
FNP-1-Surveillance Test Procedure (STP)-1.0, Operations Daily and Shift Surveillance Requirements Modes 1, 2, 3, 4, Ver. 74
FNP-0-RCP-201, Calibration and Control Of Fixed and Portable Health Physics Instrumentation, Revision (Rev). 25
FNP-0-RCP-225, Operation and Calibration of Eberline RO-2/2A Ion Chamber, Rev. 13
FNP-0-RCP-78, Operation and Calibration of the Eberline Portal Monitor PCM-1B, Ver. 23
FNP-0-RCP-290, Operation and Calibration of the MGP Instruments AMP-100, Ver. 2.0
FNP-0-RCP-237, Operation and Calibration of Radeco High Volume Air Sampler, Rev. 6
FNP-0-RCP-296, Operation and Calibration of Eberline AMS-4 Beta Particulate Monitor,
FNP-0-RCP-264, Operation and Calibration of Eberline RO-20 Ion Chamber, Rev. 1
FNP-0-RCP-214, Operation and Calibration of Eberline ASP-1, Ver. 16
FNP-0-RCP-287, Operation and Calibration of MGP Instruments Telepole, Ver. 1
FNP-0-RCP-307, Whole Body Counter Calibration, Ver. 25
NMP-GM-002, Corrective Action Program, Ver. 1.0.
Self Contained Breathing Apparatus (SCBA) Training, GEN-018, 07/03/2002

Records and Data
FNP-0-M-050, Monitor Maintenance Checks, Ver. 13
WA(Work Authorization) W00687331, Incore Seal Table Rad Monitor, 06/12/02
FNP-0-M-87, Radiation Monitoring System-Process Monitoring System, Appendix A, Ver. 12
Continuous Data Trend for Portable Instruments, 12/02/2003
Alarming Dosimeter Calibration Records, 12/03/2003
Data Sheet for Calibration/Response Check for Small Article Monitor (SAM)-9 Tool Monitor, 05/14/03
SCBA Training Records for January 2002 - September 2003
Unit 1 Containment High Range Radiation Monitor R-27A Calibration Records, 04/13/03
Unit 1 Containment High Range Radiation Monitor R-27B Calibration Records, 04/11/03
Unit 2 Containment High Range Radiation Monitor R-27A Calibration Records, 10/09/02
Unit 2 Containment High Range Radiation Monitor R-27B Calibration Records, 10/07/02
Spent Fuel Pool Monitor R-25A Calibration Records, 08/15/03
Unit 2 Seal Table Rad Monitor R-7 Calibration Records, 08/20/02

Grade “D” Service Air Certification Records, 09/26/2003
Stand-Up Whole Body Counter NSL15WBC003 Energy and Efficiency Standardization Documentation, 07/17/2003
Auxiliary Building Stand-Up Whole Body Counter NSL15WBC004 Energy and Efficiency Standardization Documentation, 07/15/2003

Condition Reports and Audits
2003001699, Unit 1 Containment Mini-Purge Dampers Failed Closed
2003002838, Oxygen Monitor Damaged
2003003104, Radiation Monitor Set-Point Discrepancies
2002-RAD/02, Audit of Radiological Protection and Radioactive Waste Management
2003-RAD/02, Audit of Radiological Protection and Radioactive Waste Management

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

Procedures, Manuals, and Guidance Documents
FNP-0-Chemistry/Radiochemistry Control Procedure (CCP)-0, General Instructions to Chemistry Personnel, Ver. 59
FNP-0-CCP-204, Standardization and Control of Chemical Analysis Instruments, Ver. 67.0
FNP-0-CCP-212, Liquid Waste Release Program, Ver. 19.0
FNP-1-CCP-212.1, Liquid Effluent Radiation Monitoring System Setpoints, Ver. 10.0
FNP-1-CCP-212.3, Detailed Guidance for Unit 1 TBS Releases, Ver. 10.0
FNP-0-CCP-213, Gaseous Waste Release Program, Ver. 25.0
FNP-2-CCP-643, Sampling Points for Potential Radiological Effluents, Ver. 26.0
FNP-0-CCP-647, Operation and Calibration of the Multichannel Analyzer Systems, Ver 23.0
FNP-0-CCP-648, Operation and Calibration of Liquid Scintillation Systems, Ver 16.0
NMP-GM-002, Corrective Action Program, Ver. 1.0.

Records and Data
U2 Radiation Monitor R-18 Calibrations, WA No. W00641270 (12/01/00) and WA No. W00676531 (06/18/02)
U2 Radiation Monitor R-18 Functional Tests, WA No. W00702498 (06/10/03) and WA No. W00706317 (09/09/03)
U2 Waste Monitor Pump Flowmeter Calibration, WA No. W00697696, 06/17/03
U2 Radiation Monitor R-21 Calibrations, WA No. W00649176 (12/13/00) and WA No. W00676959 (06/04/02)
U2 Radiation Monitor R-22 Calibrations, WA No. W00697699 (07/18/03) and WA No. W00672133 (01/25/02)
U2 Radiation Monitor R-22 Functional Tests, WA No. W00702401 (06/10/03) and WA No. W00706316 (09/09/03)
Liquid Scintillation Detector No. 2 Tritium Calibration, 08/08/03
Liquid Scintillation Detector No. 3 Tritium Calibration, 09/19/03
Liquid Scintillation Detector No. 2 Daily QC Data, 08/09/03 - 08/28/03
Liquid Scintillation Detector No. 3 Daily QC Data, 09/20/03 - 10/09/03
Germanium Detector No. 5 Calibrations, Multiple Geometries, 01/14/03, 01/17/03, 02/06/03, 03/13/03
Germanium Detector No. 6 Calibrations, Multiple Geometries, 01/14/03, 01/17/03, 02/06/03, 02/20/03

Germanium Detectors Nos. 5 and 6, Daily QC Data, 06/04/03 - 11/12/03
Gaseous Radioactive Waste Release Permit GWRP No. 30307.027.047.G, 10/30/03
Gaseous Radioactive Waste Release Permit GWRP No. 30277.018.020.G, 09/28/03
Liquid Radioactive Waste Release Permit LWRP No. 30605.012.205.L, 11/05/03
Results of Radiochemistry Cross-Check Program, 2nd Quarter, 2003
Work Order (WO) No. S03002983, U2 Penetration Room HEPA Filter Surveillance, 08/11/03
WO No. S02001752, U2 Post Accident HEPA Filter Surveillance, 08/16/02
Out Of Service Logs for All Effluent Monitors U1 and U2, November 2002 - October 2003
Contingency Sampling Records, U2 R-15, 06/09/03 and U1 R-22, 04/11/03

Condition Reports and Audits
2002000237, 2A Turbine Building Sump Autosampler Failed to Take a Representative Sample
2003002491, Gaseous Effluent Doses Incorrectly Reported as Higher Than Normal Due to Instrument Error
2001 - ONENV/1, Audit of Onsite Environmental
2002 - ONENV/01, Audit of Onsite Environmental Monitoring Program

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

Procedures, Manuals, and Guidance Documents
FNP-0-Instrument Maintenance Procedure (IMP)-255.2 Environmental Air Monitoring Station Preventive Maintenance and Calibration, Ver. 6.0
FNP-0-Environmental Monitoring Procedure (ENV)-17 Meteorological Tower, Ver. 25.0
FNP-0-STP-255.0 Calibration of Primary Meteorological Station Instrumentation, Ver. 21.0
FNP-0-STP-255.1 Calibration of the Back-Up Meteorological Station Instrumentation, Ver. 19.0
FNP-0-STP-751 Interlaboratory Comparison Program, Ver. 14.0
FNP-0-STP-790.0 Collection of Milk Samples, Ver. 16.0
FNP-0-STP-790.1 Milk Sample Analysis, Ver. 8
FNP-0-STP-791.0 Air Particulates and Iodine Sampling, Ver. 16.0
FNP-0-STP-791.1 Air Particulate and Iodine Sample Analysis, Rev. 9
FNP-0-STP-792.0 Measurement of Direct Gamma Radiation by TLDS, Ver. 15.0
FNP-0-STP-792.1 TLD Analysis, Ver. 11.0
FNP-0-STP-793.0 River Water Samples, Ver. 17.0
FNP-0-STP-793.1 River Water Analysis, Rev. 12
FNP-0-STP-794.0 Forage Samples, Ver. 9.0
FNP-0-STP-794.1 Forage Sample Analysis, Rev. 8
FNP-0-STP-795.0 Ground Water Samples, Ver. 10.0
FNP-0-STP-795.1 Ground Water Sample Analysis, Rev. 9
FNP-0-STP-796.0 Fish Collection from the Chattahoochee River, Ver. 8.0
FNP-0-STP-796.1 Fish Sample Analysis, Ver. 7.0
FNP-0-STP-797.0 River Sediment Samples, Ver. 7.0
FNP-0-STP-797.1 River Sediment Analysis, Ver. 6.0
FNP-0-STP-799 Land Use Census, Ver. 14.0
NMP-GM-002, Corrective Action Program, Ver. 1.0.

Records and Annual Reports
Georgia Power Environmental Radiochemistry-2003 Performance Evaluation Samples, 11/10/03
Joseph M. Farley Annual Radiological Environmental Operating Report 2001
Joseph M. Farley Annual Radiological Environmental Operating Report 2002
Farley Meteorological Data for 2002

Condition Reports and Audits
2003003254, Missing Source
2003001646, Environmental Air and Water Sampling Operating History Trend
2003002732, Failure of Environmental Water Sampler Batteries
2003001372, Dothan Air Sampler Failure
2003002054, Environmental Air Sampler Blown Fuses
2002-ONENV/01 Audit of Onsite Environmental Monitoring Program

Section 4OA1: Performance Indicator Verification
Procedures and Records
Attachment 3, Health Physics PI Data Preparation May, 2003 - November, 2003

Condition Reports
2003001709, No Survey Performed Prior to Entering a Radiologically Restricted Area
2002001600, Contingency Samples Not Taken Within 8 Hour Time Frame for Inoperable Monitors
2003002101, R-18 Setpoint was Set Incorrectly During Release
2003003877, 2A Turbine Building Sump Autosampler Failed to Take a Sample During 2 Releases