UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

August 12, 2016

EA-16-158

Mr. David R. Vineyard
Vice President
Southern Nuclear Operating Company, Inc.
Edwin I. Hatch Nuclear Plant
11028 Hatch Parkway North
Baxley, GA 31513

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC INTEGRATED INSPECTION REPORT 05000321/2016002 AND 05000366/2016002; AND EXERCISE OF ENFORCEMENT DISCRETION

Dear Mr. Vineyard:

On June 30, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Edwin I. Hatch Nuclear Plant Units 1 and 2. On July 27, 2016, the NRC inspectors discussed the results of this inspection with Mr. Chuck Vonier and other members of your staff. Inspectors documented the results of this inspection in the enclosed inspection report.

NRC inspectors documented one finding of very low safety significance (Green) in this report which involved a violation of NRC requirements. Further, inspectors documented a licensee-identified violation which was determined to be of very low safety significance in this report. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2.a of the Enforcement Policy. If you contest these violations or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC resident inspector at Hatch.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region II; and the NRC resident inspector at Hatch.

In addition, there are three violations for which the NRC will exercise enforcement discretion. Two violations were not associated with licensee performance deficiencies. Therefore, the NRC is exercising enforcement discretion in accordance with Section 2.2.4.d of the Enforcement Policy. The third violation identified was associated with technical specification 3.6.4.1. Because this violation met the criteria described in Enforcement Guidance Memorandum 11-

003, Revision 3, the NRC is exercising enforcement discretion in accordance with Section 3.5, “Violations Involving Special Circumstances,” of the NRC Enforcement Policy and, therefore, will not issue enforcement action for this violation, subject to a timely license amendment request being submitted.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, “Public Inspections, Exemptions, Requests for Withholding,” of the NRC's “Rules of Practice,” a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC’s Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management 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/

Joel T. Munday, Director
Division of Reactor Projects

Docket Nos.: 50-321, 50-366
License Nos.: DPR-57 and NPF-5

Enclosure: Inspection Report 05000321/2016002, 05000366/2016002
w/Attachment: Supplemental Information

Distribution via ListServ

Letter to David R. Vineyard from Joel T. Munday dated August 12, 2016

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC INTEGRATED INSPECTION REPORT 05000321/2016002 AND 05000366/2016002; AND EXERCISE OF ENFORCEMENT DISCRETION

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NAME	D. Hardage	D. Retterer	W. Pursley	J. Rivera	S. Sandal	J. Munday	D. Gamberoni
DATE	8/1/2016	8/2/2016	8/3/2016	8/1/2016	8/2/2016	8/11/2016	8/10/2016
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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.:	50-321, 50-366, 72-036
License Nos.:	DPR-57 and NPF-5
Report No.:	05000321/2016002; and 05000366/2016002
Licensee:	Southern Nuclear Operating Company, Inc.
Facility:	Edwin I. Hatch Nuclear Plant
Location:	Baxley, Georgia
Dates:	April 1 through June 30, 2016
Inspectors:	D. Hardage, Senior Resident Inspector D. Retterer, Resident Inspector W. Pursley, Health Physicist (2RS7, 4OA1) J. Rivera, Health Physicist (2RS6)
Approved by:	Joel T. Munday, Director Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000321/2016002; and 05000366/2016002, April 1, 2016 through June 30, 2016; Edwin I. Hatch, Units 1 and 2, Maintenance Effectiveness.

The report covered a 3-month period of inspection by resident inspectors and regional health physicists. There is one self-revealing violation documented in this report. The significance of inspection findings are indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," (SDP) dated April 29, 2015. The cross-cutting aspects are determined using IMC 0310, "Aspects within the Cross-Cutting Areas," dated December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy dated August 1, 2016. The NRC's program for overseeing the safe operations of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 6. Documents reviewed by the inspectors which are not identified in the Report Details are identified in the List of Documents Reviewed section of the Attachment.

Cornerstone: Mitigating Systems

- Green. A self-revealing Green non-cited violation (NCV) of Hatch Unit 1 and Unit 2 Technical Specification 5.4, "Procedures," was identified when the 'B' main control room air conditioning condenser tripped on high discharge pressure due to an improperly adjusted water regulating valve. The licensee entered the condition into their corrective action program as CR 10217777 and adjusted the water regulating valve to the appropriate set-point.

  Failure to adjust the water regulating valve in accordance with preventive maintenance procedure 52PM-Z41-002-1, "Control Room Air Conditioning Maintenance," was a performance deficiency. The performance deficiency was more than minor because it associated with the 'Equipment Performance' attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective in that the failure resulted in the inoperability of the 'B' main control room air conditioner. The finding screened as Green because the loss of component function did not significantly affect the function of the train or system. The inspectors determined that this finding had a cross-cutting aspect in the 'Resources' aspect of the Human Performance area, because the licensee did not ensure that procedures were available and adequate to support nuclear safety [H.1]. (Section 1R12)

A violation of very low safety significance that was identified by the licensee has been reviewed by the NRC. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 1 began the inspection period at or near 100 percent rated thermal power (RTP). On April 16, power was reduced to 90 percent RTP due to indications of pilot valve leakage on the 'B' safety relief valve (SRV). On April 19, the unit was shut down to replace the pilot valves on three SRVs. The unit returned to 100 percent RTP on April 23. On April 29, power was briefly reduced to 61 percent RTP due to failure of the 'B' reactor feedwater pump suction vent line. On June 15, 2016, power was reduced to 60 percent RTP due to failure of the 'B' reactor feedwater pump suction vent line. The unit returned to 100 percent RTP on June 17, 2016, and operated at or near 100 percent RTP through the remainder of the inspection period.

Unit 2 began the inspection period at or near 100 percent rated thermal power (RTP). On May 20, the unit was shut down to replace SRVs. The unit returned to 100 percent RTP on May 27. On May 31, unit power was briefly reduced to 45 percent RTP due to a trip of the 'B' reactor feedwater pump turbine and associated recirculation pump runback. On June 4, June 10, and June 15, 2016, power was reduced greater than 20 percent RTP due to degraded performance of 'B' steam jet air ejector combined with high ambient temperature and humidity. On June 19, unit power was briefly reduced to 25 percent RTP to place the 'A' steam jet air ejector in service after which the unit operated at or near 100 percent RTP through the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

Summer Readiness of Offsite and Alternate AC Power System: The inspectors reviewed the licensee's procedures for operation and continued availability of offsite and onsite alternate AC power systems. The inspectors also reviewed the communications protocols between the transmission system operator and the licensee to verify that the appropriate information is exchanged when issues arise that could affect the offsite power system. The licensee did not implement equipment or procedure changes that potentially affect operation or reliability of offsite and alternate AC power systems since the last time the inspectors assessed grid reliability. The inspectors reviewed the material condition of offsite and onsite alternate AC power systems (including switchyard and transformers) by performing a walkdown of the switchyard. The inspectors reviewed outstanding work orders and assessed corrective actions for degraded conditions that impacted plant risk or required compensatory actions.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

Partial Walkdown: The inspectors verified that critical portions of the following systems were correctly aligned by performing partial walkdowns. The inspectors determined the correct system lineup by reviewing plant procedures and drawings.

- Unit 1 emergency diesel generators 1A and 1C while 1B EDG was out of service for overhaul.
- Unit 2 'A' train of residual heat removal following realignment from shutdown cooling
- Unit 1 RCIC as a risk-significant single-train system

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05AQ)

a. Inspection Scope

Quarterly Inspection: The inspectors evaluated the adequacy of fire plans by comparing the fire plans to the defined hazards and defense-in-depth features specified in the fire protection program the following fire areas.

- Unit 1 and Unit 2, DC Switchgear rooms
- Unit 1 RCIC room
- Unit 1 and Unit 2, LPCI Inverter room
- Unit 1, CRD and Drywell Sump room

The inspectors assessed the following:

- control of transient combustibles and ignition sources
- fire detection systems
- water-based fire suppression systems
- gaseous fire suppression systems
- manual firefighting equipment and capability
- passive fire protection features
- compensatory measures and fire watches
- issues related to fire protection contained in the licensee's corrective action program
- material condition and operational status of fire protection equipment

b. Findings

No findings were identified.

1R07 Heat Sink Performance (71111.07)

a. Inspection Scope

Annual Review: The inspectors verified the readiness and availability of the 1C EDG Jacket water heat exchanger to perform its design function by observing the licensee's heat exchanger inspections, verifying critical operating parameters through direct observation and verifying correct categorization and receipt of maintenance under the Maintenance Rule. Additionally, the inspectors verified that the licensee had entered any significant heat exchanger performance problems into the corrective action program and that the licensee's corrective actions were appropriate.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11)

a. Inspection Scope

Resident Inspector Quarterly Review of Licensed Operator Requalification: The inspectors observed an evaluated simulator scenario administered to an operating crew conducted in accordance with the licensee's accredited requalification training program. The inspectors assessed the following:

- licensed operator performance
- the ability of the licensee to administer the scenario and evaluate the operators
- the quality of the post-scenario critique
- simulator performance

Resident Inspector Quarterly Review of Licensed Operator Performance: The inspectors observed licensed operator performance in the main control room during a Unit 1 reactor startup following maintenance activities. The inspectors assessed the following:

- use of plant procedures
- control board manipulations
- communications between crew members
- use and interpretation of instruments, indications, and alarms
- use of human error prevention techniques
- documentation of activities
- management and supervision

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors assessed the licensee's treatment of the two issues listed below to verify the licensee appropriately addressed equipment problems within the scope of the maintenance rule (10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants"). The inspectors reviewed procedures and records to evaluate the licensee's identification, assessment, and characterization of the problems as well as their corrective actions for returning the equipment to a satisfactory condition.

- Unit 1 and Unit 2, MCR HVAC, B condenser tripped offline
- Unit 1 Condensate and Feedwater, suction vent line steam leak

b. Findings

'B' Control Room Air Conditioner Trip

Introduction: A self-revealing Green NCV of Hatch Unit 1 and Unit 2 Technical Specification 5.4, "Procedures," was identified on May 3, 2016, when the 'B' main control room air conditioning (MCRAC) condenser tripped on high discharge pressure due to an improperly adjusted water regulating valve.

Description: On May 3, 2016, the 'B' MCRAC tripped on high condenser discharge pressure and was declared inoperable. Licensee maintenance personnel determined that the water regulating valve was not set correctly and was providing insufficient cooling water flow to regulate the discharge pressure of the condensing unit. Over time, the reduced cooling water flow caused the condensing unit discharge pressure to increase. The water regulating valve was replaced on April 16, 2016. However, the work order used to install the water regulating valve did not include guidance to adjust the valve nor to perform a required calibration check as a post maintenance test. Therefore, the licensee had not implemented the discharge pressure adjustment procedure, 52PM-Z41-002-1, "Control Room Air Conditioning Maintenance," for the water regulating valve. The licensee adjusted the water regulating valve to the appropriate set-point and returned the control room air conditioning unit to an operable status on May 3, 2016.

Analysis: Failure to adjust the water regulating valve in accordance with preventive maintenance procedures 52PM-Z41-002-1 was a performance deficiency. This performance deficiency was more than minor because it affected the 'Equipment Performance' attribute of the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences in that the failure to adjust the water regulating valve resulted in the inoperability of the 'B' main control room air conditioner. The inspectors screened this finding using IMC 0609, Appendix A, "The Significant Determination Process (SDP) For Findings At-Power," dated June 19, 2012. The finding screened as Green per Section A of Exhibit 2, "Mitigating Systems Screening Questions," because the loss of component function did not significantly affect the function of the train or system. The inspectors determined that this finding had a cross-cutting aspect in the 'Resources' aspect of the human performance area, because the licensee did not

ensure the work order contained guidance to perform the water regulating valve adjustment or required calibration check. [H.1]

Enforcement: Hatch Unit 1 and Unit 2 Technical Specification 5.4.1 required, in part, that procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Regulatory Guide 1.33, Appendix A, section 9.a required, in part, that maintenance of safety-related equipment be performed in accordance with written procedures appropriate to the circumstances. Procedure 52PM-Z41-002-1, "Control Room Air Conditioning Maintenance," Ver. 18.0, section 7.1.6, required, in part, that the licensee perform condensing unit discharge pressure adjustment by adjusting the water regulating valve. Contrary to the above, on April 16, 2016, licensee maintenance procedure 52PM-Z41-002-1 was not implemented which resulted in tripping of the 'B' main control room air conditioning unit. The violation of regulatory requirement occurred on April 16, 2016 until the licensee adjusted the water regulating valve and restored compliance on May 3, 2016. This violation was treated as an NCV, consistent with Section 2.3.2.a of the Enforcement Policy. The violation was entered into the licensee's corrective action program as CR 10217777. (NCV 05000321, 366/2016002-01; "Failure to Implement Maintenance Procedure for Control Room Air Conditioning System")

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

a. Inspection Scope

The inspectors reviewed the four maintenance activities listed below to verify that the licensee assessed and managed plant risk as required by 10 CFR 50.65(a)(4) and licensee procedures. The inspectors assessed the adequacy of the licensee's risk assessments and implementation of risk management actions. The inspectors also verified that the licensee was identifying and resolving problems with assessing and managing maintenance-related risk using the corrective action program. Additionally, for maintenance resulting from unforeseen situations, the inspectors assessed the effectiveness of the licensee's planning and control of emergent work activities.

- Unit 1 and 2, April 24-April 28, 2016 1B Emergency Diesel Generator planned outage
- Unit 1 and 2, May 8- May 14, 2016 1B plant service water pump planned replacement and emergent maintenance on battery charger 2R42-S027
- Unit 1 and Unit 2, May 20- May 26, 2016, including protected equipment status reviews for Unit 2 SRV outage and Unit 1 routine maintenance
- Unit 2, May 31- June 01, 2016, including an emergent 2B reactor feed pump outage and routine maintenance

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

a. Inspection Scope

The inspectors selected the five operability determinations or functionality evaluations listed below for review based on the risk-significance of the associated components and systems. The inspectors reviewed the technical adequacy of the determinations to ensure that technical specification operability was properly justified and the components or systems remained capable of performing their design functions. To verify whether components or systems were operable, the inspectors compared the operability and design criteria in the appropriate sections of the technical specification and updated final safety analysis report to the licensee's evaluations. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. Additionally, the inspectors reviewed a sample of corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with operability evaluations.

- CR 10218568, U1 RCIC lube oil leak from sight glass
- CR 10216543, U1 and U2 Tornado vent annunciator locked in
- CR 10215842, 1C EDG has crack in air start tubing to cylinder 11
- CR 10204049, U1 EDG under frequency relays misclassified as Non-Safety
- CAR 263533, 1E51F3018 PCV cannot be adjusted

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

For the plant modification listed below, the inspectors

- verified that the modifications did not affect the safety functions of important safety systems.
- confirmed the modifications did not degrade the design bases, licensing bases, and performance capability of risk significant structures, systems and components.
- verified modifications performed during plant configurations involving increased risk did not place the plant in an unsafe condition.
- evaluated whether system operability and availability, configuration control, post-installation test activities, and changes to documents, such as drawings, procedures, and operator training materials, complied with licensee standards and NRC requirements.
- reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with modifications.

Modification

- SNC793016, Disable 2B21N041D RTD and use output from 2B21N041B to feed CROSSFLOW and process computer

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors either observed post-maintenance testing or reviewed the test results for the five maintenance activities listed below to verify the work performed was completed correctly and the test activities were adequate to verify system operability and functional capability.

- SNC 423279, 1C EDG System Overhaul, April 14, 2016
- SNC 555919, 2A RHR pump discharge check valve internal inspection, May 3, 2016
- SNC 787199, U1 RCIC lube oil leak from sight glass, May 6, 2016
- SNC 740791, 1B Plant Service Water Pump Replacement, May 12, 2016
- SNC 783242, Replace 1B21F013A 'A' SRV

The inspectors evaluated these activities for the following:

- Acceptance criteria were clear and demonstrated operational readiness.
- Effects of testing on the plant were adequately addressed.
- Test instrumentation was appropriate.
- Tests were performed in accordance with approved procedures.
- Equipment was returned to its operational status following testing.
- Test documentation was properly evaluated.

Additionally, the inspectors reviewed a sample of corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with post-maintenance testing.

b. Findings

No findings were identified.

1R20 Refueling and Other Outage Activities (71111.20)

a. Inspection Scope

The inspectors evaluated the following outage activities during the Unit 1 maintenance outage from April 19 through April 21 and the Unit 2 maintenance outage from May 20 through May 26,

- outage planning
- fatigue management
- shutdown, cooldown, refueling, heatup, and startup
- reactor coolant system instrumentation and electrical power configuration
- reactivity and inventory control
- decay heat removal and spent fuel pool cooling system operation

- containment closure

The inspectors verified that the licensee:
- considered risk in developing the outage schedule
- controlled plant configuration in accordance with administrative risk reduction methodologies
- adhered to operating license and technical specification requirements

Inspectors verified that safety-related and risk-significant structures, systems, and components not accessible during power operations were maintained in an operable condition. The inspectors also reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with outage activities.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the five surveillance tests listed below. The surveillance test was either observed directly or test results were reviewed to verify testing activities and results provide objective evidence that the affected equipment remain capable of performing their intended safety functions and maintain their operational readiness consistent with the facility's current licensing basis. The inspectors evaluated the test activities to assess for:

- preconditioning of equipment
- appropriate acceptance criteria
- calibration and appropriateness of measuring and test equipment
- procedure adherence
- equipment alignment following completion of the surveillance

Additionally, the inspectors reviewed a sample of significant surveillance testing problems documented in the licensee's corrective action program to verify the licensee was identifying and correcting any testing problems associated with surveillance testing.

Routine Surveillance Tests
- 34SV-T22-001-0, "Secondary Containment Test"
- 34SV-P41-001-1, "Plant Service Water Pump Operability"
- 64CH-SAM-025-0, "Reactor Coolant Sampling and Analysis"

In-Service Tests (IST)
- 34SV-E51-002-1, "RCIC Pump Operability"

Reactor Coolant System Leak Detection
- 34SV-SUV-019-1, "Surveillance Checks"

b. Findings

No findings were identified.

2. RADIATION SAFETY (RS)

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (Six Inspection Samples Completed)

a. Inspection Scope:

Radioactive Effluent Processing Systems: The inspectors walked down selected components of the gaseous and liquid radioactive waste (radwaste) processing and effluent discharge systems. To the extent practical, the inspectors observed and evaluated the material condition of in-place waste processing equipment for indications of degradation or leakage that could constitute a possible release pathway to the environment. Inspected components included plant main stack radiation monitor and vent, Unit 1 Recombiner radiation monitor and vent, Unit 1 and Unit 2 off-gas radiation monitor, reactor building radiation monitor and vent, Unit 1 and Unit 2 liquid discharge radiation monitors, liquid waste sample tanks, and effluent radiation monitor displays in the Unit 1 and Unit 2 radwaste control rooms as well as the plant's main control room. The inspectors interviewed licensee staff regarding equipment configuration and effluent monitor operation. The inspectors also walked down and reviewed surveillance test records for Unit 1 and Unit 2 Standby Gas Treatment (SBGT) ventilation filters.

Effluent Monitoring and Discharge: The inspectors observed the collection and processing of particulate and iodine sampling of the plant main stack and recombiner vent. Technician proficiency in collecting, processing, and preparing the applicable release permits was evaluated. The inspectors reviewed recent liquid and gaseous release permits including pre-release sampling results, effluent monitor alarm setpoints, and public dose calculations. For the plant main stack monitor, Unit 1 reactor building vent monitor, and U1 and U2 liquid radwaste discharge monitors, the inspectors reviewed calibration and functional test records and evaluated traceability of radioactive calibration sources to National Institute of Standards and Technology (NIST) standards. The inspectors also evaluated the licensee's capability to collect high-range, post-accident effluent samples for these systems. The inspectors reviewed the plant's methodology for determining vent and stack flow rates, and compared current flows to design values in the Offsite Dose Calculation Manual (ODCM).

The inspectors reviewed the 2013, 2014, and 2015 Annual Radioactive Effluent Release Reports (ARERR) to evaluate reported doses to the public, review any anomalous events, and review ODCM changes. The inspectors also evaluated controls in place for compensatory sampling during time periods where radiation monitors were out of service. The inspectors reviewed the results of interlaboratory cross-checks for plant effluent sampling. The inspectors also reviewed effluent source term evaluations and changes to effluent release points. In addition, the inspectors evaluated recent land use census results.

Problem Identification and Resolution: The inspectors reviewed and discussed selected Corrective Action Program (CAP) documents associated with gaseous and liquid effluent

processing and release activities, including licensee self-assessments. The inspectors evaluated the licensee's ability to identify and resolve issues.

Inspection Criteria: Radwaste system operation and effluent processing activities were evaluated against requirements and guidance documented in the following: 10 CFR Part 20; 10 CFR Part 50 Appendix I; Technical Specification (TS) Section 5; ODCM; Updated Final Safety Analysis Report (UFSAR) Chapters 9 and 12; Regulatory Guide (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"; 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"; and approved licensee procedures.

b. Findings

No findings were identified.

2RS7 Radiological Environmental Monitoring Program (REMP)

a. Inspection Scope

REMP Implementation: The inspectors reviewed the 2014 and 2015 Annual Environmental Operating Reports and the 2015 ARERR. Selected environmental measurements were reviewed for consistency with licensee effluent data, evaluated for radionuclide concentration trends, and compared with detection level sensitivity requirements as described in the ODCM. The inspectors assessed the licensee's response to any missed or anomalous environmental samples. The inspectors also reviewed the results of inter-laboratory cross-checks for laboratory instruments used to analyze environmental samples. Any changes to the ODCM, Land Use Census, or environmental program processes were discussed with licensee staff.

The inspectors observed routine collection of airborne particulate and iodine as well as surface water samples at selected locations as required by the licensee's ODCM. The inspectors noted the material condition of the continuous airborne samplers and environmental dosimeters. The inspectors also reviewed calibration and maintenance records for the environmental sampling equipment.

Meteorological Monitoring Program: The inspectors observed the physical condition of the meteorological tower and its instrumentation and discussed equipment operability and maintenance history with licensee staff. The inspectors evaluated transmission of locally generated meteorological data to other licensee groups such as emergency operations personnel and main control room operators. Calibration records for the meteorological measurements of wind speed, wind direction, and temperature were reviewed. The inspectors also discussed with licensee staff measurement data recovery for 2015 and 2016.

Ground Water Protection: The inspectors reviewed the licensee's continued implementation of the industry's Ground Water Protection Initiative (Nuclear Energy Institute (NEI) 07-07) and discussed any changes to the program. The inspectors discussed program guidance for dealing with spills, leaks, and unexpected discharges with licensee staff and reviewed recent monitoring well results and any voluntary

communications. The inspectors also reviewed recent entries into the 10 CFR 50.75(g) decommissioning file. The inspectors reviewed and discussed the licensee's program for monitoring of structures, systems, and components with the potential to release radioactive material to the environment. Potential effluent release points due to onsite surface water bodies were also evaluated.

Problem Identification and Resolution: The inspectors reviewed CAP documents in the areas of radiological environmental monitoring and meteorological tower maintenance. The inspectors evaluated the licensee's ability to identify and resolve the issues. The inspectors also reviewed recent self-assessment results.

Inspection Criteria: The inspectors evaluated REMP implementation, meteorological monitoring, and groundwater protection against the requirements and guidance contained in: 10 CFR Part 20; Appendices E and I to 10 CFR Part 50; TS Section 5.0; ODCM; UFSAR Chapter 2; RG 4.15, Quality Assurance for Radiological Monitoring Programs (Normal Operation) - Effluent Streams and the Environment; Branch Technical Position, "An Acceptable Radiological Environmental Monitoring Program" – 1979; Safety Guide 23, Rev. 0, "Meteorological Monitoring Programs for Nuclear Power Plants"; NEI 07-07, "Industry Groundwater Protection Initiative – Final Guidance Document"; and approved licensee procedures.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors reviewed a sample of the performance indicator (PI) data, submitted by the licensee, for the Unit 1 and Unit 2 PIs listed below. The inspectors reviewed plant records compiled between April 2015 and March 2016 to verify the accuracy and completeness of the data reported for the station. The inspectors verified that the PI data complied with guidance contained in Nuclear Energy Institute 99-02, "Regulatory Assessment Performance Indicator Guideline," and licensee procedures.

Cornerstone: Barrier Integrity

- reactor coolant system leak rate (both units)
- reactor coolant system specific activity (both units)

The inspectors verified the accuracy of reported data that were used to calculate the value of each PI. In addition, the inspectors reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with PI data.

Occupational Radiation Safety Cornerstone

- Occupational Exposure Control Effectiveness

The inspectors reviewed the PI results for the Occupational Radiation Safety Cornerstone from January 2015 through May 2016. For the assessment period, the inspectors reviewed electronic dosimeter alarm logs and CRs related to controls for exposure significant areas.

Public Radiation Safety Cornerstone

- Radiological Control Effluent Release Occurrences

The inspectors reviewed the PI results for the Public Radiation Safety Cornerstone from January 2015 through May 2016. For the assessment period, the inspectors reviewed cumulative and projected doses to the public contained in liquid and gaseous release permits and CRs related to Radiological Effluent Technical Specifications/ODCM issues. The inspectors also reviewed licensee procedural guidance for collecting and documenting PI data.

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152)

.1 Routine Review

The inspectors screened items entered into the licensee's corrective action program in order to identify repetitive equipment failures or specific human performance issues for follow-up. The inspectors reviewed condition reports, attended screening meetings, or accessed the licensee's computerized corrective action database.

.2 Semi-Annual Trend Review

a. Inspection Scope

The inspectors reviewed issues entered in the licensee's corrective action program and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors focused their review on repetitive equipment issues, but also considered the results of inspector daily condition report screenings, licensee trending efforts, and licensee human performance results. The review nominally considered the 6-month period of January 2016 through June 2016 although some examples extended beyond those dates when the scope of the trend warranted. The inspectors compared their results with the licensee's analysis of trends. Additionally, the inspectors reviewed the adequacy of corrective actions associated with a sample of the issues identified in the licensee's trend reports. The inspectors also reviewed corrective action documents that were processed by the licensee to identify potential adverse trends in the condition of structures, systems, and/or components as evidenced by acceptance of long-standing non-conforming or degraded conditions.

b. Findings and Observations

No findings were identified.

4OA3 Follow-up of Events and Notices of Enforcement Discretion (71153)

.1 (CLOSED) LER 05000321/2016-001-00 Performance of Fuel Movement with Inoperable Rod Position Indication System in Violation of Technical Specifications

a. Inspection Scope

The inspectors reviewed this LER for potential performance deficiencies and/or violations of regulatory requirements. Additionally, discussions were held with licensee staff members to understand the details surrounding this condition. This condition was documented in the licensee's corrective action program as CR 10181628.

b. Findings

The enforcement aspects associated with this LER are discussed in Section 4OA7.

.2 (CLOSED) LER 05000321/2016-002-00 Performance of Operations with Potential to Drain the Reactor Vessel (OPDRV) Without Secondary Containment

a. Inspection Scope

The inspectors reviewed this LER for potential performance deficiencies and/or violations of regulatory requirements. The inspectors reviewed the plant's implementation of Enforcement Guidance Memorandum 11-003 during maintenance activities which had the potential to drain the reactor vessel during the Unit 1 refueling outage. The activities were:

- Local power range monitors removal and replacement February 13-15, 2016;
- Control rod drive removal and replacement February 15-16, 2016; and
- Control rod drive insert / recouple activity February 17-18, 2016.

These activities took place without secondary containment being operable. The inspectors verified that the licensee met the minimum criteria established in Enforcement Guidance Memorandum 11-003 prior to and during these activities and the licensee planned to submit an LAR to resolve this issue. Additionally, discussions were held with licensee staff members to understand the details surrounding this issue. This condition was documented in the licensee's corrective action program as CR 10182864, 10183491, and 10184759.

b. Findings

Description: In February 2016, during the Unit 1 refueling outage, operations with the potential to drain the reactor vessel (OPDRV) activities were performed while in Mode 5 (Refueling Mode) contrary to Technical Specification (TS) 3.6.4.1. These OPDRV activities were also performed during the Unit 2 Refueling Outage. Enforcement Guidance Memorandum (EGM) 11-003, Revision 3, provided required interim actions which were incorporated into procedure 31GO-OPS-025-0 "Operations with the Potential to Drain the Reactor Vessel." This procedure was used during the OPDRV activities for the Unit 1 refueling outage.

Enforcement: Unit 1 TS 3.6.4.1 required, in part, that activities that had the potential to drain the reactor vessel be conducted only with secondary containment operable.

Contrary to that requirement, the licensee conducted activities that could cause the reactor vessel to drain while secondary was inoperable. The inspectors determined this was a Severity Level IV violation. The NRC is exercising enforcement discretion (Enforcement Action (EA)-16-158) in accordance with Section 3.5, “Violations Involving Special Circumstances,” of the NRC Enforcement Policy because the violation was identified during the discretion period described in Enforcement Guidance Memorandum 11-003. Therefore, the NRC will not issue enforcement action for this violation, subject to a timely license amendment request.

.3 (CLOSED) LER 05000321/2016-004-00 Safety Relief Valves As Found Setting Resulted in Not Meeting Technical Specifications

a. Inspection Scope

The inspectors reviewed this LER for potential performance deficiencies and/or violations of regulatory requirements. Additionally, discussions were held with licensee staff members to understand the details surrounding this issue. This condition was documented in the licensee’s corrective action program as CR 10204045.

b. Findings

Description: During the February 2016 Unit 1 refueling outage, all eleven 3-stage safety relief valves (SRVs) were removed and replaced. The SRVs were Target Rock model 0867F, a 3-stage valve design which was in its first use. This design was adopted as a corrective action to address corrosion bonding experienced by 2-stage SRV model 7687F valves which were previously in use at Hatch. "As-found" test results indicated two of the eleven SRVs had experienced a setpoint drift during the previous operating cycle which resulted in their failure to meet the Technical Specification (TS) opening setpoint pressure as required by TS Surveillance Requirement (SR) 3.4.3.1. The SRV pilot valves were disassembled and inspected while investigating the reason for the drift. For the 3-stage design, the pilot disc seating stresses should increase proportionally as reactor pressure increases to where a mechanical gap within the valve stem mechanism, referred to as the “abutment gap,” is closed. Additional pressure increases will cause the valve stem mechanism to reduce the disc seat pressure until the valve eventually opens. The licensee determined that the abutment gap closed pre-maturely most likely due to manufacturing tolerances. The cause of the setpoint drift could not be attributed to any known preventive maintenance requirement or operating experience because of the limited operating history of this specific valve model. Additionally, there were no symptoms available to operators or maintenance personnel to indicate the potential for the set point drift prior to post-service testing.

Enforcement: Hatch Unit 1 TS limiting condition for operation 3.4.3, “Safety/Relief Valves,” required 10 of 11 SRVs be operable in MODES 1, 2 and 3. With two or more SRVs inoperable, the required TS action must be taken by the applicable completion time. Contrary to the above, Unit 1 operated from the initiation of the degraded condition until February 8, 2016, with two SRVs inoperable. The inspectors concluded that the violation would normally be characterized as a Severity Level IV violation because it was of very low safety significance (Green). However, the NRC is exercising enforcement discretion (EA-16-158) in accordance with Section 2.2.4.d of the Enforcement Policy because the violation was not associated with a licensee performance deficiency. This issue was documented in the licensee’s corrective action program as CR10204045.

.4 (CLOSED) LER 05000366/2016-001-00 2C EDG Fuel Oil Relief Valve Leakage Caused Train Inoperability

a. Inspection Scope

The inspectors reviewed this LER for potential performance deficiencies and/or violations of regulatory requirements. Additionally, discussions were held with licensee staff members to understand the details surrounding this issue. This condition was documented in the licensee's corrective action program as CR 10198364.

b. Findings

Description: On March 17, 2016, a fuel oil leak was observed at the inlet to the fuel oil relief valve during the performance of the 2C Emergency Diesel Generator semi-annual surveillance. The fuel oil leak started as a drip but increased into a one pint per minute spray over the duration of the surveillance. The 2C EDG was declared inoperable and the relief valve was replaced. Investigation revealed that the leak was due to a through wall indication in the threaded area of the relief valve. The licensee determined the failure mode was consistent with fatigue failure. The fatigue failure degraded the fuel oil relief valve wall thickness such that the diesel generator would not have been able to perform its safety related function during a postulated seismic event. The licensee determined the EDG was inoperable for greater than the TS 3.8.1 72 hour allowed outage time.

Enforcement: Hatch Unit 2 TS limiting condition for operation 3.8.1, "AC Sources - Operating," required two operable Unit 2 EDGs and the swing EDG in plant operating modes one through three. With one EDG inoperable, the required TS action must be taken by the applicable completion time. Contrary to the above, Unit 2 operated from the initiation of the degraded condition until March 17, 2016, with the 2C EDG fuel oil relief valve inoperable. This violation was determined to be of very low safety significance (Green) due to the low likelihood of a seismic event at the plant, and also the high availability of other train to provide backup AC. The cause of the failure could not be attributed to any known preventive maintenance requirement or operating experience for the affected fuel oil relief valve. Additionally, there were no symptoms available to operators or maintenance personnel to indicate the potential for failure prior to discovery of the condition. The NRC exercised enforcement discretion (EA-16-158) in accordance with Section 2.2.4.d of the Enforcement Policy because the violation was not associated with a licensee performance deficiency. This issue was documented in the licensee's corrective action program as CR 10198364.

4OA5 Other Activities

.1 Operation of an Independent Spent Fuel Storage Installation (ISFSI) (60855.1)

a. Inspection Scope

The inspectors performed a walkdown of the onsite ISFSI and monitored the activities associated with the dry fuel storage campaign completed on June 13, 2016. The inspectors reviewed changes made to the ISFSI programs and procedures, including associated 10 CFR 72.48, "Changes, Tests, and Experiments," screens and evaluations to verify that changes made were consistent with the license or certificate of compliance.

The inspectors reviewed records to verify that the licensee recorded and maintained the location of each fuel assembly placed in the ISFSI. The inspectors also reviewed surveillance records to verify that daily surveillance requirements were performed as required by technical specifications.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On July 27, 2016, the resident inspectors presented the inspection results to Mr. Chuck Vonier and other members of the licensee's staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection period.

4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and was a violation of NRC requirements which met the criteria of the NRC Enforcement Policy, for being dispositioned as a Non-Cited Violation.

- TS 3.9.4 requires control rod full-in position indication for each control rod be operable in Mode 5. With one or more control rod position indications inoperable, in vessel fuel movement must be suspended. Contrary to the above, on February 11, 2016, at 1156 the licensee initiated fuel move in the vessel with 20 control rod full-in position indications inoperable. On February 11, 2016, at 1320 the shift manager suspended moving fuel to restore compliance. Inspector screened the finding in accordance with IMC 609 Appendix G Shutdown Operations Significance Determination Process. The finding screened as very low safety significance (Green) because all the questions in Appendix G Attachment 1 were answered "no". This issue was documented in the licensee's corrective action program as CR 10181628. (Section 4OA3.1)

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel
B. Anderson, Health Physics Manager
G. Brinson, Maintenance Director
C. Collins, Principal Licensing Engineer
B. Dean, Training Director
B. Duval, Chemistry Manager
B. Hulett, Engineering Director
G. Johnson, Regulatory Affairs Manager
R. Lauer, Operations Manager
K. Long, Work Management Director
J. Major, Licensing Engineer
R. Spring, Plant Manager
M. Torrance, Design Engineering Manager
D. Vineyard, Vice President
C. Vonier, Operations Director
A. Wheeler, Site Projects Manager

LIST OF REPORT ITEMS

Closed
LER 05000321/2016-001-00: Performance of Fuel Movement with Inoperable Rod Position Indication System in Violation of Technical Specifications (Section 4OA3.1)

LER 05000321/2016-002-00: Performance of Operations with Potential to Drain the Reactor Vessel (OPDRV) Without Secondary Containment (Section 4OA3.2)

LER 05000321/2016-004-00: Safety Relief Valves As Found Setting Resulted in Not Meeting Tech Spec (Section 4OA3.3)

LER 05000366/2016-001-00: 2C EDG Fuel Oil Relief Valve Leakage Caused Train Inoperability (Section 4OA3.4)

Opened and Closed
NCV 05000321, 366/2016002-01, Failure to Implement Maintenance Procedure for Control Room Air Conditioning System (Section 1R12)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather

Procedures
34AB-S11-001-0, “Operation with Degraded System Voltage,” Ver. 4.0
NMP-OS-020, “Station Response to Southern Company System Alert Conditions,” Ver. 1.2
34SO-N40-001-1, “Main Generator Operation,” Ver. 18.1

Section 1R04: Equipment Alignment

Procedures

34SO-R43-001-1, "Diesel Generator Standby AC System," Ver. 27.3
34SO-E11-010-2, "Residual Heat Removal System," Ver. 42.6
34SO-E51-001-1, "RCIC System," Ver. 29.1

Section 1R05: Fire Protection

Procedures

E.I. Hatch Fire Protection Fire Hazards Analysis
52SV-FPX-001-0, "Fire Extinguisher Inspection," Ver. 3.4
42SV-FPX-024-0, "Fire Hose Stations – Appendix B Areas," Ver. 4.1

Drawings

A-43965 Sheet 30A/B, 32A/B, 39A/B, 41A/B, DC Switchgear rooms 130' 0"
B-19632, Unit 2 East SWGR Room Penetration Drawing, Sheet 1/206/207
A-43965 Sheet 52A/B, RCIC Pump and Turbine room, below 130' 0"
A-43965 Sheet 47A/B, LPCI Inverter room 147' 0"
B-19628 Sheet 6/7, Reactor Building 87' 0"
A-43965 Sheet 54A, CRD and Drywell sump room below 130' 0"

Section 1R07: Heat Sink Performance

Procedures

52SV-R43-001-0, "Diesel, Alternator and Accessories Inspection," Ver. 27.0

Drawings

S-71348, Jacket Water Cooler HX Drawing

Section 1R11: Licensed Operator Requalification

Drill Scenario: LT-SG-51066

Procedures

34AB-N61-002-2, "Main Condenser Low Vacuum," Ver. 1.2
34GO-OPS-013-1, "Normal Plant Shutdown," Ver. 30.1
34SO-B31-001-1, "Reactor Recirculation System," Ver. 46.4
34GO-OPS-065-0, "Control Rod Movement," Ver. 12.10

Section 1R12: Maintenance Effectiveness

Z41 Maintenance Rule (MR) Scoping Manual Documents
Z41 MR Performance Criteria
System Health Report – Z41 System
N21 Maintenance Rule (MR) Scoping Manual Documents
N21 MR Performance Criteria
System Health Report – N21 System
NMP-ES-002, "System Monitoring and Health Reporting," Ver. 19.0
CRs 10217777, 10216194

Section 1R13: Maintenance Risk Assessments and Emergent Work Evaluation

Equipment Out of Service calculations 4/16/16-4/29/16
Equipment Out of Service calculations 4/30/16-5/14/16
Equipment Out of Service calculations 5/15/16-5/28/16

Equipment Out of Service calculations 5/29/16-6/10/16

Procedures
NMP-OS-010-002, “Hatch Protected Equipment Logs,” Ver. 10.13
31GO-OPS-024-0, “Outage Safety Assessment,” Ver. 4.1

CR 10222660

Section 1R15: Operability Evaluations
Procedures
52CM-MNT-002-0, “Tornado Roof Vent Corrective Maintenance,” Ver. 1.2
NMP-AD-012, “Operability Determinations and Functional Assessments,” Ver. 12.7

Section 1R18: Plant Modifications
NMP-ES-084-005, “Temporary Configuration Change Process,” Ver. 2.4
NMP-AD-010, “10 CFR 50.59 Screening/Evaluation,” Ver. 13.1
NMP-AD-008, “Applicability Determination,” Ver. 20.0
SNC793016

Section 1R19: Post Maintenance Testing
Maintenance Work Order SNC 781226

Procedures
NMP-MA-014-001, “Post Maintenance Testing Guidance,” Ver. 4.1
52SV-R43-001-0, “Diesel, Alternator, and Accessories Inspection,” Ver. 27.0
34SV-E11-001-2, “Residual Heat Removal Pump Operability,” Ver.19.2
95IT-OTM-001-0, “Maintenance Work Order Functional Test Guideline,” Ver. 5.5
34SV-E51-002-1, “RCIC Pump Operability,” Ver. 27.1
34SV-P41-001-1, “Plant Service Water Pump Operability,” Ver. 13.2
42IT-TET-004-0, “Operating Pressure Test of Piping and Components,” Ver. 9.3

Section 1R20: Refueling and Outage Activities
Operating Logs
34GO-OPS-001-1, “Plant Startup,” Ver. 43.0
34GO-OPS-001-2, “Plant Startup,” Ver. 48.0
34GO-OPS-013-1, “Normal Plant Shutdown,” Ver. 30.0
34GO-OPS-013-2, “Normal Plant Shutdown,” Ver. 31.4
34GO-OPS-015-1, “Maintaining Cold Shutdown of Refuel Conditions,” Ver. 14.1

Section 1R22: Surveillance Testing
Procedures
34SV-T22-001-0, “Secondary Containment Test,” Ver. 16.3
34SV-E51-002-1, “RCIC Pump Operability,” Ver. 27.1
34SV-P41-001-1, “Plant Service Water Pump Operability,” Ver. 13.2
64CH-SAM-025-0, “Reactor Coolant Sampling and Analysis,” Ver. 40.0
34SV-SUV-019-1, “Surveillance Checks,” Ver. 37.17

Section 2RS6: Liquid and Gaseous Effluents
Procedures and Guidance Documents
57SV-CAL-002-0, Liquid Radwaste Effluent Line Flowrate FT&C, Version 7.7

57SV-CAL-013-0, Off Gas Sampling Systems Flowrate Device FT&C, Version 5.0
64CH-RPT-006-0, Liquid Effluent Reports, Version 22.1
64CH-RPT-007-0, Gaseous Effluent Reports, Version 8.0
64CI-OCB-001-0, Main Stack Radiation Monitoring, Version 13.0
64CI-OCB-043-0, Accident Range Ventilation Effluent Monitoring System, Version 4.1
NMP-GM-002-001, Corrective Action Program Instructions, Version 34.1
ODCM for Edwin I. Hatch Nuclear Plant, Version 23.0

Records and Data
2016 Scaling Factor Analysis for U1/U2 CPS Resin, DAW, and U1/U2 Spent Resin, 1/19/16
64CI-OCB-001-0, Main Stack Monitor Calibration Records, Channels A and B, January 2016
64CI-OCB-002-1, U1 Reactor Building Vent Monitor Calibration Records, Channels A and B, 8/14/14
64CI-OCB-009-0, Liquid Radwaste Monitor Calibration Records, Units 1 and 2, July 2015
Edwin I. Hatch Nuclear Plant - Units 1 & 2 Annual Radioactive Effluent Release Report (ARERR) for 2013, 2014, and 2015
Gas Release Permit G-20160503-066-C, Main Stack, 5/3/16
Gas Release Permit G-20160531-082-C, Main Stack, 6/6/16
Liquid Release Permit L-20160405-036-B, WSTA-1, 4/5/16
Liquid Release Permit L-20160516-061-B, WSTB-2, 5/16/16
NMP-AD-009-F01, Licensing Document Change Request (LDCR) No. 2015-055, 5/9/16
NMP-AD-010-F01, 10 CFR 50.59 Screening / Evaluation for LDCR No. 2015-055, 1/12/16
SBGT Filter Train DOP Tests: U1-A, 1/25/16; U1-B, 8/17/15; U2-A, 5/21/15; and U2-B, 9/15/14
Results of Interlaboratory Cross Checks: 2nd Quarter 2014 and 2nd Quarter 2015

Corrective Action Program (CAP) Documents
Fleet-EA/CHEM-2014, Nuclear Oversight Audit of Environmental Affairs/Chemistry (EA/CHEM), 10/17/14
Fleet-RP-2015, Nuclear Oversight Audit of Radiation Protection, 7/23/15
NMP-GM-003-F18, Check-In Self-Assessment (CISA) Plan and Report, Hot Chemistry Program (Counting Room), July 6, 2015 – July 7, 2015
NMP-GM-003-F18, Pre-NRC Inspection Assessment – Occupational RP Baseline, July 27, 2015 – August 27, 2015
CAR 254820
TE 929746
CRs 831697, 853193, 10006039, 10021196, 10051402, 10102391, 10131879, 10156401

Section 2RS7: Radiological Environmental Monitoring Program (REMP)
Procedures and Guidance Documents
ENV2937, HNP Radiological Monitoring – River Water Survey, Rev. 2
ENV2941, Edwin I. Hatch Nuclear Plant Radiological Monitoring - Airborne Particulates and Gaseous Iodine Air Sampling Flow Calibration, Rev 2
64CH-ENV-001-0, Meteorological Stations, Ver. 17.1
57IT-Y33-001-0, Climatronics Instruments, Rev 7.2
NMP-EN-002-GL02 – HNP Groundwater Monitoring Plan for Radionuclides, Version 1.0
64CH-SAM-028-0, Releases via Planned and Unplanned Routes: Sampling and Analysis, Version 10.0
NMP-GM-002, Corrective Action Program, Ver. 13.2

Records and Data
ODCM for Edwin I. Hatch Nuclear Plant, Version 23.0
R-2744291H-005, Plant Hatch Annual Meteorological Report 2015, Rev 0
Work Order # SNC731388, Perform a Survey of the Trees Around the Met Towers, 05/31/16
Plant Hatch Underground Piping Asset Management Plan, November 2014, Version 0.0
Georgia Power Environmental Radiochemistry - 2014 Performance Evaluation Samples
Georgia Power Environmental Radiochemistry - 2015 Performance Evaluation Samples
2014 and 2015 Annual Radiological Environmental Operating Report
HNP Air Sampler Calibration Field Sheets for Sample Station #s 103, 107, 112, 116 & 304, dated 10/12/2015 and 04/11/2016
Primary Meteorological Tower Instrument Calibration Packages; 10m Wind Speed, 10m Wind Direction, 10m Ambient Temperature, 60m Wind Direction, 60m Wind Speed, 60m Delta-T, 100m Wind Direction, 100m Wind Speed, 100m Delta-T; 12/14/2015 and 06/26/2015

CAP Documents
Nuclear Oversight Audit of Environmental Affairs/Chemistry, 01/17/2014
Focused Area Self-Assessment of Hatch Radiological and Environmental Effluent Program, 08/26/13
CRs 10006649, 10021584, 760719, 878204, 896447, 10098725, 10181436

Section 4OA1: Performance Indicator Verification
NMP-AD-029, "Preparation and Reporting of NRC PI Data," Ver. 1.0
NMP-AD-029, Preparation and Reporting of Regulatory Assessment Performance Indicator Data and the Monthly Operating Report, Ver. 1
NMP-HP-302, Restricted Area Classification, Postings, and Access Control, Ver 8.1
Monthly PI Data Sheets for Exposure Control Effectiveness and RETS/ODCM Occurrences, January 2015 through March 2015.
Electronic Dose and Dose Rate Alarm Logs 2015 and January – May 2016
CRS 10022284, 10189493, 10050282, 10205310
CARS 263515, 254901

Section 4OA2: Identification and Resolution of Problems
Procedures
NMP-GM-002, "Corrective Action Program," Ver. 13.2
NMP-GM-013-002, "Performance Assessment and Trending," Ver. 5.0

Section 4OA3: Event Follow-up
Condition Reports
10182864, 10183491, 10184759, 10181628, 10204045, 10198364

Procedures
42FH-ERP-001-0, "Control Rod Blade Unlatching, Installation, Removal, and Exchange," Ver. 8.3
34GO-OPS-066-0, "Control Rod Withdrawal in Shutdown or Refuel," Ver. 10.15
31GO-OPS-025-0, "Operations with the Potential to Drain the Reactor Vessel," Ver. 2.9

Other
E.I. Hatch Nuclear Plant Technical Specifications and Bases
E.I. Hatch Unit 1 and Unit 2 Final Safety Analysis Report
Enforcement Guidance Memorandum 11-003, Dated January 15, 2016

Control Room Logs

Section 4OA5: Other Activities

Docket 72-36 10 CFR 72.212 Report – Revision 18, 2016 Loading Campaign
Fuel Assembly Certification Datasheets 2016 Loading Campaign
42FH-ERP-014-0, "Fuel Movement," Ver. 22.0
Fuel Movement Sheets 2016 Dry Storage – MPC Loading
Fuel Loading for Cask Load 2016