



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

August 6, 2015

EA-15-155

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  
05000321/2015002 AND 05000366/2015002; AND EXERCISE OF  
ENFORCEMENT DISCRETION**

Dear Mr. Vineyard:

On June 30, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Edwin I. Hatch Nuclear Plant Units 1 and 2. On July 10, 2015, and August 4, 2015, the NRC inspectors discussed the results of this inspection with Mr. Richard Spring 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. This finding involved a violation of NRC requirements. Further, inspectors documented a licensee-identified violation which was determined to be of very low safety significance. 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 the 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 the Hatch Plant.

In addition, a violation of Technical Specifications 3.6.4.1 was identified. Because the violation was identified during the discretion period described in Enforcement Guidance Memorandum 11-003, 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.

D. Vineyard

2

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, its enclosure, 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 NRC's Agencywide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

Shane Sandal, Chief  
Reactor Projects Branch 2  
Division of Reactor Projects

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

Enclosure:  
IR 05000321/2015002, 05000366/2015002  
w/Attachment: Supplementary Information

cc: Distribution via Listserv

D. Vineyard

2

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IR 05000321/2015002, 05000366/2015002  
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Letter to David R. Vineyard from Shane Sandal dated August 6, 2015.

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC INTEGRATED INSPECTION  
REPORT 05000321/2015002 AND 05000366/2015002; AND EXERCISE OF  
ENFORCEMENT DISCRETION

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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 Nos.: 05000321/2015002 and 05000366/2015002

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Edwin I. Hatch Nuclear Plant

Location: Baxley, Georgia 31513

Dates: April 1 – June 30, 2015

Inspectors: D. Hardage, Senior Resident Inspector  
D. Retterer, Resident Inspector  
T. Stephen, Resident Inspector (4OA2.3)  
G. Ottenberg, Senior Reactor Inspector (4OA2.3)

Approved by: Shane Sandal, Chief  
Reactor Projects Branch 2  
Division of Reactor Projects

Enclosure

## SUMMARY OF FINDINGS

IR 05000321/2015002 and 05000366/2015002; April 1, 2015, through June 30, 2015; Edwin I. Hatch, Units 1 and 2; Operability Determinations and Functionality Assessments.

The report covered a 3-month period of inspection by resident inspectors and a regional inspector. One Green violation is documented in this report. The significance of inspection findings are indicated by their color (i.e., Green, White, Yellow, and Red) and are 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 February 4, 2015. The NRC's program for overseeing the safe operations of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 5.

### Cornerstone: Mitigating Systems

- Green. An NRC identified non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, "Design Control," was identified for failure to maintain reactor building residual heat removal (RHR) diagonal room penetrations in the designed configuration. The violation was entered into the licensee's corrective action program as CR 10055943. The licensee issued work orders to seal the affected penetrations in accordance with design documents.

The licensee's failure to maintain the penetration seals in accordance with design drawings was a performance deficiency. The performance deficiency was more than minor because it was associated with the Design Control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective in that the failure to maintain the design basis configuration compromised the capability of the RHR diagonal room wall to restrict a high pressure coolant injection (HPCI) high energy line break to the torus area. The finding was of very low safety significance (Green) because the loss of component function did not significantly affect the function of the train or system. The inspectors determined that the finding had a cross-cutting aspect of "work management" in the human performance area (H.5), because the licensee's work process did not control work activities such that nuclear safety was the overriding priority. (Section 1R15)

A violation of very low safety significance was identified by the licensee and 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 its corrective action program tracking number is identified in Section 4OA7 of this report.

## REPORT DETAILS

### Summary of Plant Status

Unit 1 began the inspection period at 15 percent rated thermal power (RTP) to repair a second stage moisture separator/reheater (MSR) line. On April 3, 2015, the unit was returned to 100 percent RTP and operated at or near 100 percent RTP for the remainder of the inspection period.

Unit 2 operated at or near 100 percent RTP for the duration 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 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 assessing corrective actions for any degraded conditions that impacted plant risk or required compensatory actions. Documents reviewed are listed in the Attachment.

##### 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 three systems or trains were correctly aligned. The inspectors selected systems for assessment because they were a redundant or backup system or train, were important for mitigating risk for the current plant conditions, had been recently realigned, or were a single-train system. The inspectors determined the correct system lineup by reviewing plant procedures and drawings. Documents reviewed are listed in the Attachment.

- Unit 2 'B' train of the standby gas treatment system while 'A' train was out of service for maintenance, May 4, 2015
- Unit 1 'B' train of the plant service water system while 'A' pump was out of service for maintenance, May 28, 2015
- Unit 2 'A' train of core spray system while 'B' train was out of service for maintenance, June 11, 2015

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05AQ)

a. Inspection Scope

Quarterly Inspection: The inspectors evaluated the adequacy of selected fire plans by comparing the fire plans to the defined hazards and defense-in-depth features specified in the fire protection program. In evaluating the fire plans, the inspectors assessed the following items:

- 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

The inspectors toured the following five fire areas to assess material condition and operational status of fire protection equipment. Documents reviewed are listed in the Attachment.

- Unit 1, SE RHR & core spray room, fire zone 1203B
- Unit 1 and 2, control room roof, fire zone 0031
- Unit 1, working floor 158', fire zone 1205I/1203K
- Unit 1 and 2, transformer rooms, fire zone 1019/2019
- Unit 1, RCIC pump and turbine room, fire zone 1203C

b. Findings

No findings were identified.

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

a. Inspection Scope

Resident Inspector Quarterly Review of Licensed Operator Regualification: The inspectors observed a simulator scenario conducted for training of an operating crew for requalification. The inspectors assessed the following attributes. Documents reviewed are listed in the Attachment.



- 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 (Licensed Operator Performance): The inspectors observed licensed operator performance in the main control room during main turbine and reactor feed pump surveillance testing. The inspectors assessed the following attributes. Documents reviewed are listed in the Attachment.

- 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. The inspectors also interviewed system engineers and the maintenance rule coordinator to assess the accuracy of performance deficiencies and extent of condition. Documents reviewed are listed in the Attachment.

- Unit 2, "2A" EDG lube oil filter DP indicator, oil leak in sensing line results in EDG inoperability.
- Unit 1, "1A" plant service water pump, high vibration due to pump column misalignment.

b. Findings

No findings were identified.

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. Documents reviewed are listed in the Attachment.

- Unit 2, week of April 4 - April 10, including scheduled maintenance for the EDG fuel oil transfer pump test and swapping RPS MG set for maintenance.
- Unit 1 and Unit 2, week of May 2 – May 8, including scheduled maintenance for the “2A” standby gas treatment filter train, unit 1 reactor core isolation cooling system, and the “A” main control room air conditioner.
- Unit 1 and Unit 2, week of May 16 – May 22, including scheduled maintenance for the “1B” core spray pump, “B” main control room air conditioner, and the unit 1 traveling water screen.
- Unit 1 and Unit 2, week of May 23 – May 29, including scheduled maintenance for the “1A” plant service water pump, and emergent maintenance on the unit 2 EX2100 generator exciter, and the “2A” station service air compressor.

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. Documents reviewed are listed in the Attachment.

- Unit 1, "A" station service battery acceptance criteria, CR 10048996
- Unit 2, torus temperature instrument channel check, CR 10053287
- Unit 2, 2E51-F010 stroke time does not meet calculated allowable, CR 10077605
- Unit 1 and Unit 2, RHR diagonal to torus room HELB penetrations, CR 10055943
- Unit 1 and Unit 2, drywell personnel airlock, CR 10087578/10087572

b. Findings

Introduction: A Green, NRC identified non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, "Design Control," was identified for failure to maintain reactor building residual heat removal (RHR) diagonal room penetrations in the designed configuration.

Description: Unit 1 and Unit 2 each have two RHR diagonal rooms that were physically separated as a means of independence and redundancy. Additionally, the penetrations in each RHR diagonal room that communicates with the common torus area were sealed to prevent a high energy line break (HELB) from unnecessarily challenging all remaining trains of the emergency core cooling system (ECCS). The limiting adverse environment would occur during a postulated high pressure coolant injection (HPCI) HELB in the torus area. The inspectors found seven penetrations, located in both RHR diagonal rooms for Unit 1 and Unit 2, which had not been sealed in accordance with licensee design documents since 2011. Therefore, equipment in the RHR diagonal rooms were not isolated from a potential adverse environment in the event of a HELB scenario.

Analysis: The failure to maintain the penetration seals in accordance with design drawings was a performance deficiency. This performance deficiency was more than minor because it was associated with the Design Control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective in that the unsealed penetrations affected the capability of the RHR diagonal room wall to restrict a HPCI HELB to the torus area. 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 the performance deficiency had a cross-cutting aspect of "work management" in the human performance area, because the licensee's work process did not control work activities such that nuclear safety was the overriding priority (H.5). Although the finding likely occurred more than three years ago; the finding was representative of current licensee performance because the licensee's work control process had not corrected or eliminated the performance characteristic which led to the degraded penetration seals.

Enforcement: 10 CFR 50, Appendix B, Criterion III, "Design Control," requires in part that measures shall be established to assure that applicable regulatory requirements

and the design basis are correctly translated into specifications, drawings, procedures, and instructions. Contrary to the above, the licensee did not translate the design basis of the penetration seals located in the RHR diagonal rooms into procedures that ensured their HELB isolation safety function. Since 2011, the licensee did not maintain seven penetration seals used to prevent a HPCI HELB in the common torus area from adversely affecting the RHR diagonals. The licensee issued work orders to have seals installed in these seven penetrations as corrective action. This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy. The violation was entered into the licensee's corrective action program as CR 10055943. (NCV 05000321, 366/2015002-01, "Failure to Maintain HELB Penetrations")

1R18 Plant Modifications (71111.18)

a. Inspection Scope

The inspectors verified that the plant modification listed below did not affect the safety functions of important safety systems. The inspectors confirmed the modifications did not degrade the design bases, licensing bases, and performance capability of risk significant structures, systems and components. The inspectors also verified modifications performed during plant configurations involving increased risk did not place the plant in an unsafe condition. Additionally, the inspectors 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. In addition, the inspectors reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with modifications. Documents reviewed are listed in the Attachment.

- DCP584350, Unit 2 "A" EDG LOCA/LOSP timer replacement

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.

- SNC623835, replace 2E11C001A 2A RHR service water pump, April 30
- SNC415750, 1P41F415B – install new valve, May 7
- SNC434261, 1B core spray pump, change motor oil and meggar motor, May 18
- SNC673185, 2E21F003B disassemble inspect and repair check valve, June 12

- SNC632358, 1A PSW pump, correct misaligned restraints

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. Documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the six surveillance tests listed below and either observed the test or reviewed test results to verify testing adequately demonstrated equipment operability and met technical specification and licensee procedural requirements. The inspectors evaluated the test activities to assess for preconditioning of equipment, procedure adherence, and equipment alignment following completion of the surveillance. Additionally, the inspectors reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with surveillance testing. Documents reviewed are listed in the attachment.

Routine Surveillance Tests

- 34SV-SUV-013-0, "Weekly Breaker Alignment Checks"
- 34SV-E21-001-2, "Core Spray Pump Operability"
- 42IT-TET-020-0, "Control Room Inleakage Tracer Gas Test"
- 64CH-SAM-025-0, "Reactor Coolant Sampling and Analysis"

In-Service Test (IST)

- 34SV-C41-002-2, "Standby Liquid Control Pump Operability Test"

Reactor Coolant System Leak Detection

- 34SV-SUV-019-2, "Surveillance Checks"

b. Findings

No findings were identified.

## Cornerstone: Emergency Preparedness

### 1EP6 Drill Evaluation (71114.06)

#### a. Inspection Scope

The inspectors observed the emergency preparedness drill conducted on April 15, 2015. The inspectors observed licensee activities in the simulator and/or technical support center to evaluate implementation of the emergency plan, including event classification, notification, and protective action recommendations. The inspectors evaluated the licensee's performance against criteria established in the licensee's procedures. Additionally, the inspectors attended the post-exercise critique to assess the licensee's effectiveness in identifying emergency preparedness weaknesses and verified the identified weaknesses were entered in the corrective action program. Documents reviewed are listed in the attachment.

#### 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 2014 and March 2015 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. 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. Documents reviewed are listed in the attachment.

#### Cornerstone: Barrier Integrity

- reactor coolant system leak rate
- reactor coolant system specific activity

#### 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 followup. 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 2015 through June 2015, 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. Documents reviewed are listed in the attachment.

#### b. Findings and Observations

No findings were identified.

### .3 Annual Followup of Selected Issues

#### a. Inspection Scope

The inspectors conducted a detailed review of the as found testing of the Hatch main steam safety relief valves following identification of a problem with another utility's valves of the same style. One of the other utility's valves failed to open during a forced cool-down following a loss of offsite power. The inspectors evaluated the following attributes:

- complete and accurate identification of the testing to identify any potential problems in a timely manner
- evaluation and disposition of operability issues
- consideration of extent of condition, generic implications, common cause, and previous occurrences

- support to the vendor for 10 CFR Part 21 submission to the industry (ADAMS ML 15077A422)

The Hatch Nuclear Plant three stage Target Rock valve in question did not exhibit any of the failure or damage mechanisms that existed with the other valves. Inspectors witnessed the valve testing and the disassembly following testing. Documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

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

.1 (CLOSED) Licensee Event Report (LER) 05000366/2015-002-00 Performance of Operations with Potential to Drain the Reactor Vessel (OPDRV) in Mode 5 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 (ADAMS ML13177A128) during Unit 2 maintenance activities which had the potential to drain the reactor vessel during the Unit 2 refueling outage. The activities were:

- Local power range monitor removal and replacement February 16, 2015,
- Control rod drive removal and replacement February 18-19, 2015, and
- Hydraulic control unit venting February 23-24, 2015.

These activities took place without secondary containment being operable. Inspectors verified compliance with the guidelines of Enforcement Guidance Memorandum 11-003 prior to and during these activities. Additionally, discussions were held with Operations, Engineering and Licensing staff members to understand the details surrounding this issue. This condition was documented in the licensee's corrective action program as CR 10027315.

b. Findings

A violation of Unit 2 Technical Specification (TS) 3.6.4.1 was identified. Because the violation was identified during the discretion period described in Enforcement Guidance Memorandum 11-003, 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.



.2 (CLOSED) LER 05000366/2015-001-00 Main Steam Isolation Valves Fail to Meet Surveillance Requirements

a. Inspection Scope

The inspectors reviewed this LER for potential performance deficiencies and/or violations of regulatory requirements. Additionally, discussions were held with Operations, Engineering and Licensing staff members to understand the details surrounding this issue. This condition was entered into the licensee's corrective action program as CR 10036361.

b. Findings

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

4OA5 Other Activities

Operation of an Independent Spent Fuel Storage Installation (ISFSI) (IP 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 26, 2015. 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. Documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On July 10, 2015, and August 4, 2015, the resident inspectors presented the inspection results to Mr. Richard Spring 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 meets the criteria of the NRC Enforcement Policy for disposition as a non-cited violation.

- On February 9, 2015, a violation of Unit 2 Technical Specification (TS) 3.6.1.3 was identified by the licensee. TS 3.6.1.3 requires primary containment isolation valves to be operable during Modes 1, 2, and 3. Contrary to this requirement, the “A” and “C” inboard main steam isolation valves (MSIVs) failed to close within the required isolation time during a technical specification surveillance test. Therefore, the “A” and “C” inboard MSIVs were inoperable when Unit 2 was in Modes 1, 2, and 3. The cause of the failure of the MSIVs to close within the required isolation time was excessive lubrication of the pistons and springs in the 2-way and 4-way valves within the pneumatic manifold assembly of the MSIV actuator. The excessive lubrication became tacky, causing a delay in the opening of the air supply and exhaust paths. Because the “A” and “C” outboard MSIVs closed within the required technical specification isolation time, the primary containment isolation safety function of the main steam lines was maintained. Therefore, this finding was determined to be of very low safety significance (Green). This condition was entered into the licensee’s corrective action program as CR 10036361.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee personnel

B. Anderson, Health Physics Manager  
G. Brinson, Maintenance Director  
B. Duvall, Chemistry Manager  
A. Giancatarino, Engineering Director  
D. Komm, Operations Director  
K. Long, Work Management Director  
R. Spring, Plant Manager  
S. Tipps, Principal Licensing Engineer  
J. Collins, Principal Licensing Engineer  
M. Torrance, Nuclear Oversight Manager  
D. Vineyard, Vice President  
A. Wheeler, Site Projects Manager

### **LIST OF REPORT ITEMS**

#### Closed

LER 05000366/2015-002-00	Performance of Operations with Potential to Drain the Reactor Vessel (OPDRV) in Mode 5 without Secondary Containment (Section 4OA3.1)
LER 05000366/2015-001-00	Main Steam Isolation Valves (MSIVs) Fail to Meet Surveillance Requirements (Section 4OA3.2)

#### Opened & Closed

NCV 05000321, 366/2015002-01	Failure to Maintain HELB Penetrations (Section 1R15)
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### **LIST OF DOCUMENTS REVIEWED**

#### **Section 1R01: Adverse Weather**

##### Procedures

34AB-S11-001-0, "Operation with Degraded System Voltage," Ver. 4.0  
DI-OPS-87-0408, "Actions for GENCOMM Alerts," Ver. 1.1  
34SO-N40-001-1, "Main Generator Operation," Ver. 18.0

##### Condition Reports

10081999, 10078117

#### **Section 1R04: Equipment Alignment**

##### Procedures

34SO-T46-001-2, "Standby Gas Treatment System," Ver.15.0  
34SO-P41-001-1, "Plant Service Water System," Ver.36.5  
34SO-E21-001-2, "Core Spray System," Ver. 25.0

Drawings

H-26018, Unit 2 Core Spray System P&ID

**Section 1R05: Fire Protection**Procedures

E.I. Hatch Fire Protection Fire Hazards Analysis

31GO-OPS-026-0, "Use, Control and Storage of Flammable/Combustible Materials," Ver. 1.0

34AB-X43-001-1, "Fire Procedure," Ver. 13.1

42SV-FPX-024-0, "Fire Hose Stations Appendix B Areas," Ver. 3.9

51GM-FPX-003-0, "Installation and Repair of Sliding Fire Doors," Ver. 1.3

Drawings

A-43965 sheet 51A/B, Unit 1 Pre-Fire Plan 1203B

A-43965 sheet 50A/B, Unit 1 and 2 Control Room Roof Control Bldg. Elevation 180'-0" Pre-Fire Plan area 0031

A-43965 sheet 40A/B and 31A/B, Unit 1 and 2 Pre-Fire Plan 1019/2019

A-43965 sheet 61A/B, Unit 1 Pre-Fire Plan 1205I/1203K

A-43965 sheet 52A/B, Unit 1 Pre-Fire Plan 1203C

A-43965 sheet 27A/B, Unit 1 Pre-Fire Plan 1015

Other

S-80393, Mesker Pyromatic Sliding Fire Door Manual

**Section 1R11: Licensed Operator Regualification**Drill Scenario:

LT-SG-50464-10.2

Procedures

34AB-P41-001-2, "Loss of Plant Service Water," Ver. 13.0

34IT-N30-001-1, "Main Turbine and Auxiliaries Weekly Test," Ver. 6.10

**Section 1R12: Maintenance Effectiveness**

System Health Report – R43 System – 2nd quarter 2015

R43 Maintenance Rule (MR) Scoping Manual Documents

R43 MR Performance Criteria

System Health Report –P41 System – 2nd quarter 2015

P41 Maintenance Rule (MR) Scoping Manual Documents

P41 MR Performance Criteria

NMP-ES-002, "System Monitoring and Health Reporting," Ver. 17.0

52PM-P41-036-1, "Plant Service Water Pump & Motor Major Inspection/Overhaul," Ver. 8.1

Other

CAR255878

CR1029790

CAR249616

**Section 1R13: Maintenance Risk Assessments and Emergent Work Evaluation**Procedures

NMP-GM-031-001, "Online Maintenance Rule (a)(4) Risk Calculations," Ver. 2.1  
 NMP-OS-010-002, "Hatch Protected Equipment Logs," Ver. 10.11

Other

Equipment out of Service calculations 04/05/2015-04/17/2015  
 Equipment out of Service calculations 05/02/2015-05/08/2015  
 Equipment out of Service calculations 05/16/2015-05/22/2015  
 Equipment out of Service calculations 05/23/2015-05/29/2015

**Section 1R15: Operability Evaluations**Procedures

NMP-AD-012, "Operability Determinations and Functional Assessments," Ver. 6.0  
 34SV-SUV-019-2, "Surveillance Checks," Ver. 41.2  
 34SV-E51-001-2, "RCIC Valve Operability," Ver. 17.3  
 NMP-ES-013, "Inservice Testing Program," Ver. 5.0

Other

DOEJ-HRSNC655408-M001  
 H-16290, Unit 1 Diagonal Penetrations  
 H-26302, Unit 2 Diagonal Penetrations

CRs10048996, 0053287, 0077605, 10078212, 10055943, 10087196, 10087201, 10087578  
 CARs 257855, 257946

**Section 1R18: Plant Modifications**Procedures

NMP-ES-044, "Preparation of Design Change Packages," Ver. 13.1  
 NMP-AD-010, "10 CFR 50.59 Screening/Evaluation," Ver. 13.0  
 NMP-AD-008, "Applicability Determination," Ver. 19.0

**Section 1R19: Post Maintenance Testing**Work Orders (WOs)

SNC623835, SNC415750, SNC434261, SNC673185, SNC632358

Procedures

34SV-E11-004-2, "RHR Service Water Pump Operability," Ver. 15.13  
 42IT-TET-004-0, "Operating Pressure Testing of Piping and Components," Ver. 9.2  
 34SO-P41-001-1, "Plant Service Water System," Ver. 36.5  
 34SV-E21-001-1, "Core Spray Pump Operability," Ver. 21.1  
 52IT-MEL-003-0, "High Potential and Meggar Testing of Electrical Equipment," Ver. 16.2  
 34SV-E21-001-2, "Core Spray Pump Operability," Ver. 22.0  
 NMP-MA-014-001, "Post Maintenance Testing Guidance," Ver. 4.0  
 34SV-P41-001-1, "Plant Service Water Pump Operability," Ver. 12.9

Other

H11609

**Section 1R22: Surveillance Testing**Procedures

34SV-SUV-013-0, Weekly breaker alignment checks, Ver. 3.0  
 34SV-E21-001-2, Core spray pump operability, Ver. 22.0  
 42IT-TET-020-0, Control Room Inleakage Tracer Gas Test," Ver. 2.3  
 34SV-SUV-019-2, "Surveillance Checks," Ver. 41.3  
 34SO-G11-013-2, "Drywell and Reactor Building Sumps Systems," Ver. 1.0  
 64CH-SAM-025-0, "Reactor Coolant Sampling and Analysis," Ver. 38.0  
 34SV-C41-002-2, "Standby Liquid Control Pump Operability Test," Ver. 23.5

**Section 1EP6: Drill Evaluation**

EP Exercise Narrative and Timeline for drill conducted April 15, 2015  
 Drill event notification forms from drill conducted April 15, 2015

**Section 4OA1: Performance Indicator Verification**Procedures

00AC-REG-005-0, "Preparation and Reporting of NRC PI Data," Ver. 7.0

**Section 4OA2: Identification and Resolution of Problems**Corrective Action Reports

249611, 249612, 254690, 254731, 254739, 254878, 255262, 255409, 255822, 256028, 256073, 257847, 257981

Other

Target Rock three stage main steam relief valve design documents  
 WITP 1091, Set Pressure, Leakage and Operability, Rev. 0, dated 3/30/15  
 J/N PR035664, Receiving Inspection- Target Rock 3-Stage SRV, dated 3/31/15  
 NTS Huntsville (formerly Wyle Labs) Test Procedure No. 1129, Test Procedure for Target Rock Three Stage Pilot-Operated Relief Valves, Model No. 0867F-001/09G-001 for Southern Nuclear Company, Hatch Nuclear Plant, dated 2/23/11, conducted between March 30, 2015 and April 3, 2015  
 Target Rock 10 CFR Part 21 submission dated March 17, 2015 (ML 15077A422)  
 NRC IN 2003-01

**Section 4OA3: Event Follow-up**Condition Reports

10036361, 10027315

Other

E.I. Hatch Nuclear Plant Technical Specifications and Bases  
 E.I. Hatch Unit 1 and Unit 2 Final Safety Analysis Report

**Section 4OA5: Other Activities**

Docket 72-36 10 CFR 72.212 Report – Revision 17, 2015 Loading Campaign  
 Fuel Assembly Certification Datasheets 2015 Loading Campaign  
 42FH-ERP-014-O, Fuel Movement, Ver. 21.0  
 Fuel Movement Sheets 2015 Dry Storage – MPC-202 Loading  
 Fuel Loading for Cask Load 2015-02