



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

October 28, 2011

Mr. Dennis R. Madison
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 05000321/2011004 AND 05000366/2011004

Dear Mr. Madison:

On 30 September, 2011, U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your Edwin I. Hatch Nuclear Plant, Units 1 and 2. The enclosed integrated inspection report documents the inspection results, which were discussed on October 21, 2011, with Mr. Sonny Barger and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities and interviewed personnel. Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

James Hickey, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Docket Nos.: 50-321, 50-366, 72-036
License Nos.: DPR-57 and NPF-5

Enclosures: Inspection Report 05000321/2011004, 05000366/2011004
w/Attachment: Supplemental Information

cc w/encl: (See page 2)

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X PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE X NON-SENSITIVE
ADAMS: Yes ACCESSION NUMBER: ML113010464 X SUNSI REVIEW COMPLETE FORM 665 ATTACHED

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SIGNATURE	Via email	Via telcon	Via email	Via email	JAH /RA for/	JAH /RA/	
NAME	EMorris	DHardage	JDymek	ANielsen	TLighty	JHickey	
DATE	10/21/2011	10/28/2011	10/19/2011	10/19/2011	10/28/2011	10/28/2011	
E-MAIL COPY?	YES NO	YES NO	YES NO				

cc w/encl:

S. Kuczynski
Chairman, President and CEO
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

J. L. Pemberton
SVP & General Counsel-Ops & SNC
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Jeffrey T. Gasser
Chief Nuclear Officer
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Paula Marino
Vice President
Engineering
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

L. Mike Stinson
Vice President
Joseph M. Farley Nuclear Plant
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Dennis R. Madison
Vice President
Edwin I. Hatch Nuclear Plant
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

T. E. Tynan
Site Vice President
Vogtle Electric Generating Plant
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

M. J. Ajluni
Nuclear Licensing Director
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

B. D. McKinney, Jr.
Regulatory Response Manager
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

T. D. Honeycutt
Regulatory Response Supervisor
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

N. J. Stringfellow
Licensing Manager
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

L. P. Hill
Licensing Supervisor
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

R. L. Gladney
Licensing Engineer
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

L. L. Crumpton
Administrative Assistant, Sr.
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Steven B. Tipps
Hatch Principal Engineer - Licensing
Edwin I. Hatch Nuclear Plant
Electronic Mail Distribution

W. E. Duvall
Site Support Manager
Edwin I. Hatch Nuclear Plant
Electronic Mail Distribution

Mr. Ken Rosanski
Resident Manager
Edwin I. Hatch Nuclear Plant
Oglethorpe Power Corporation
Electronic Mail Distribution

Mark Williams
Commissioner
Georgia Department of Natural Resources
Electronic Mail Distribution

(cc continued next page)

(cc continued)

Lee Foley
Manager of Contracts Generation
Oglethorpe Power Corporation
Electronic Mail Distribution

Arthur H. Domby, Esq.
Troutman Sanders
Electronic Mail Distribution

James C. Hardeman
Environmental Radiation Program Manager
Environmental Protection Division
Georgia Department of Natural Resources
Electronic Mail Distribution

Al Frazier
Emergency Response and Radiation
Program Manager
Environmental Protection Division
Georgia Department of Natural Resources
Electronic Mail Distribution

F. Allen Barnes
Director
Environmental Protection Division
Georgia Department of Natural Resources
Electronic Mail Distribution

Cynthia A. Sanders
Radioactive Materials Program Manager
Environmental Protection Division
Georgia Department of Natural Resources
Electronic Mail Distribution

James A. Capp
Program Coordination Branch Chief
Environmental Protection Division
Georgia Department of Natural Resources
Electronic Mail Distribution

Mr. Steven M. Jackson
Senior Engineer - Power Supply
Municipal Electric Authority of Georgia
Electronic Mail Distribution

Reece McAlister
Executive Secretary
Georgia Public Service Commission
Electronic Mail Distribution

Chairman
Appling County Commissioners
County Courthouse
69 Tippins Street, Suite 201
Baxley, GA 31513

Amy Whaley
Engineer
Nuclear Generation Development and
Construction
Electronic Mail Distribution

SNC

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Letter to Dennis R. Madison from James Hickey dated October 28, 2011

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC INTEGRATED INSPECTION
REPORT 05000321/2011004 AND 05000366/2011004

Distribution w/encl:

C. Evans, RII

L. Douglas, RII

OE Mail

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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.: 05000321/2011004 and 05000366/2011004

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Edwin I. Hatch Nuclear Plant

Location: Baxley, Georgia 31513

Dates: July 1 – September 30, 2011

Inspectors: E. Morris, Senior Resident Inspector
D. Hardage, Resident Inspector
J. Dymek, Reactor Inspector (Section 1R05, 4OA3.1)
A. Nielsen, Health Physicist (Section 4OA3.2)

Approved by: James Hickey, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000321/2011-004, 05000366/2011-004; 07/01/2011-9/30/2011; Edwin I. Hatch Nuclear Plant, Units 1 and 2, integrated report.

The report covered a three-month period of inspection by the resident inspectors, a health physicist, and a reactor inspector. No violations or findings were identified.

A. NRC-Identified and Self-Revealing Findings

None.

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REPORT DETAILS

Summary of Plant Status

Unit 1 began the inspection period at or near 100% Rated Thermal Power (RTP). On July 31, a loss of feedwater heating transient occurred requiring a down power to 65% RTP. On August 1, unit power was reduced to approximately 50% RTP to make repairs to feedwater level control transmitters and repair a condenser water box tube leak. The unit returned to 100% RTP on August 9. The unit operated at or near 100% RTP for the remainder of the inspection period.

Unit 2 began the inspection period at or near 100% RTP. On July 12, unit power was reduced to 65% RTP due to a feedwater leak on the 'B' reactor feed pump casing drain line. After repairs were made to the reactor feed pump casing drain line, the unit returned to 100% RTP on July 18. In response to observed safety relief valve pilot leakage, unit power was maintained at 96% RTP from August 12 through August 27 and reduced power to 91% RTP from August 28 through the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment

a. Inspection Scope

Partial Walkdowns. The inspectors performed partial walkdowns of the following three systems when the opposite train was removed from service, a remaining operable system/train with high risk significance for the plant configuration exists, or a system/train that was recently realigned following an extended system outage or a risk significant single train system exists. The inspectors checked system valve positions, electrical breaker positions, and operating switch positions to evaluate the operability of the opposite trains or components by comparing the position listed in the system operating procedure to the actual position. Documents reviewed are listed in the Attachment.

- Unit 1 'B' train of core spray system while 'A' train was out of service for scheduled maintenance, July 11
- Unit 1 'A' train of residual heat removal system while 'B' train was out of service for scheduled maintenance, July 25
- Unit 2 train of reactor core isolation cooling system while Unit 2 high pressure coolant injection train was out of service for scheduled maintenance, August 15

Complete System Walkdown. The inspectors performed a complete walkdown of the following system. The inspectors performed a detailed check of valve positions, electrical breaker positions, and operating switch positions to evaluate the operability of the system or components by comparing the required position in the system operating

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procedure to the actual position. The inspectors also interviewed personnel and reviewed control room logs to verify that alignment and equipment discrepancies were being identified and appropriately resolved. Documents reviewed are listed in the Attachment.

- Unit 1 core spray system

b. Findings

No findings were identified.

1R05 Fire Protection

a. Inspection Scope

Fire Area Tours. The inspectors toured the following five risk significant plant areas to assess the material condition of the fire protection and detection equipment, verify fire protection equipment was not obstructed and that transient combustibles were properly controlled. The inspectors reviewed the Fire Hazards Analysis drawings to verify that the necessary fire fighting equipment, such as fire extinguishers, hose stations, ladders, and communications equipment, was in place. Documents reviewed are listed in the Attachment.

- Unit 1, working floor and air supply room reactor building elevation 203', fire area 1205Y
- Unit 1, reactor building elevation 164', fire area 1205N and 1205Q
- Unit 2, reactor building elevation 158' working floor, fire area 2205I and 2203K
- Unit 2, control building elevation 130', transformer room 2CD, fire area 2019
- Unit 2, reactor building [reactor core isolation cooling] & turbine room, fire area 2203C

Fire Drill Observation. The inspectors observed a fire drill conducted on August 19. The inspectors reviewed licensee procedure 34AB-X43-001-1, Fire Procedure, and the drill scenario to verify proper response of the on-shift fire brigade to a simulated fire. The inspectors checked proper use of protective clothing, self contained breathing apparatus, firefighting equipment, fire pre-plans, fire fighting strategy including smoke removal and fire propagation checks, communications, and command and control. In addition, the inspectors attended the post-drill critique to assess if the licensee identified performance issues were comparable to those identified by the inspectors.

b. Findings

No findings were identified.

1R07 Heat Sink Performance

a. Inspection Scope

Annual Resident Review. The inspectors reviewed the results of the licensee inspection of the 2C emergency diesel generator heat exchangers. The inspectors interviewed licensee engineers, observed heat exchanger maintenance in progress, and reviewed procedure 42IT-TET-012-2, [Plant Service Water] and [Residual Heat Removal Service Water] Piping Inspection Procedure. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

1R11 Licensed Operator Regualification

a. Inspection Scope

Resident Quarterly Observation

On August 3, the inspectors observed the performance of licensee simulator scenario LT-SG-51068-05, which included a loss of reactor protection system, high temperature on a circulating water pump, loss of power to reactor water level instruments, a rupture in reactor water level reference leg, anticipated transient without scram, and emergency depressurization of the reactor vessel. The inspectors reviewed the proper classification in accordance with the Emergency Plan and licensee procedures NMP-AP-003, Procedure and Work Instruction Use and Adherence, and DI-OPS-59-0896, Operations Management Expectations, to verify formality of communication, procedure usage, alarm response, control board manipulations, group dynamics, and supervisory oversight. The inspectors attended the post-exercise critique of operator performance to assess if the licensee identified performance issues were comparable to those identified by the inspectors. In addition, the inspectors reviewed the critique results from previous training sessions to assess performance improvement.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed the following three samples associated with structures, systems, and components to assess the licensee's implementation of the Maintenance Rule (10 CFR 50.65) with respect to the characterization of failures and the appropriateness of the associated (a)(1) or (a)(2) classification. The inspectors reviewed operator logs, associated condition reports (CRs), maintenance work orders (WO), and the licensee's procedures for implementing the Maintenance Rule to determine if

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equipment failures were being identified properly assessed, and corrective actions established to return the equipment to a satisfactory condition. Documents reviewed are listed in the Attachment.

- Unit 1 and 2 fire protection system, X43
- Unit 1 and 2 nuclear boiler system, B21
- Unit 1 'B' reactor feed pump turbine trip, N21

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the following five work activities listed below to verify that risk assessments were performed prior to components being removed from service. The inspectors reviewed the risk assessment and risk management controls implemented for these activities to verify they were completed in accordance with licensee procedure 90AC-OAM-002-0, Scheduling Maintenance, and 10 CFR 50.65(a)(4). For emergent work, the inspectors assessed whether any increase in risk was promptly assessed and that appropriate risk management actions were implemented.

- Week of July 4 – July 8, including electric fire pump scheduled maintenance, Unit 1 analog transmitter trip systems panel 1H11-P925 function test and calibrations, Unit 2 'E' emergency bus relay calibrations.
- Week of July 11 – July 15, including scheduled maintenance outage for Unit 1 'A' train of core spray, and 1A diesel fire pump.
- Week of July 25 – July 29, including Unit 1 'A' train residual heat removal maintenance outage
- Week of August 15 – August 19, including Unit 2 high pressure coolant injection pump maintenance, replacing level switches on a Unit 1 control rod hydraulic accumulator, and maintenance on the Unit 1 'C' emergency diesel battery charger.
- Week of August 22 – August 25, including maintenance on Unit 1 'B' residual heat removal service water pump, and Unit 2 'C' emergency diesel generator maintenance.

b. Findings

No findings were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following six operability evaluations and compared the evaluations to the system requirements identified in the TS and the FSAR to ensure operability was adequately assessed and the system or component remained available to perform its intended function. Also, the inspectors assessed the adequacy of compensatory measures implemented as a result of the condition. Documents reviewed are listed in the Attachment.

- Main control room 'A' air handling unit trip failure, CR 334182
- Main steam isolation valve, 2B21-F028A, local leak rate test failure trend, CR 2011104263
- Unit 1 125 volt battery charger, 1R42-S031, failure light illuminated, CR 341182
- Unit 2 high pressure coolant injection barometric condenser condensate pump failed to shut off, CR 345014
- 1 'A' emergency diesel generator starting air receiver check valve leakage, CR 347389
- Replace 230 kilovolt switchyard breaker 179520, WO 316235

b. Findings

No findings were identified.

1R18 Plant Modifications

a. Inspection Scope

The inspectors reviewed the following temporary modification to ensure that safety functions of important safety systems have not been affected. Also, the inspectors verified that the design bases, licensing bases and performance capability of risk significant structures, systems and components have not been degraded through modifications. The inspectors verified that any modifications performed during increased risk-significant configurations did not place the plant in an unsafe condition. Documents reviewed are listed in the Attachment.

Temporary Modification:

- 2-11-007, Install jumper in turbine building leak detection system logic input to group 1 primary containment isolation signal trip temperature switch, 2U61-N111B

b. Findings

No findings were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

For the following six post maintenance tests, the inspectors reviewed the test scope to verify the test demonstrated the work performed was completed correctly and the affected equipment was functional and operable in accordance with TS requirements. The inspectors also reviewed equipment status and alignment to verify the system or component was available to perform the required safety function. Documents reviewed are listed in the Attachment.

- WO 100862, 105796, 100060, Unit 1 'A' core spray pump partial discharge, tan delta testing, motor oil change and meggar testing, July 14
- WO 108070, internal casing inspection Unit 1 'B' residual heat removal pump, July 31
- WO 105814, Unit 1 'A' residual heat removal service water pump tan delta testing, August 9
- WO 118952, remove and replace Unit 2 high pressure coolant injection steam drain valve 2E41-F028, August 17
- WO 113196, Unit 2 'C' emergency diesel generator heat exchanger clean and inspect, August 25
- WO101639, 24-month grease and fastener inspection of Unit 1 'A' loop residual heat removal shutdown cooling valve, 1E11-F006A, September 8

b. Findings

No findings were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed five licensee surveillance test procedures and either witnessed the test or reviewed test records to determine if the scope of the test adequately demonstrated the affected equipment was operable. The inspectors reviewed these activities to assess for preconditioning of equipment, procedure adherence, and equipment alignment following completion of the surveillance. The inspectors reviewed licensee procedure NMP-GM-005-GL03, Human Performance Tools, and attended selected briefings to determine if procedure requirements were met. Documents reviewed are listed in the Attachment.

Surveillance Tests

- 34SV-C71-001-2, Turbine Stop Valve Instrument Functional Test
- 34SV-E51-002-1, [Reactor Core Isolation Cooling] Pump Operability
- 34SV-R43-005-1, Diesel Generator 1B Semi-Annual Test

In-Service Test

- 34SV-P41-001-1, Plant Service Water Pump Operability (Unit 1 'A' train)

Leak-rate Test

- 34SV-SUV-019-1, Surveillance Checks

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verificationa. Inspection Scope

The inspectors reviewed a sample of the licensee submittals for the performance indicators listed below to verify the accuracy of the data reported. The PI definitions and the guidance contained in NEI 99-02, Regulatory Assessment Indicator Guideline, Rev. 6 and licensee procedure 00AC-REG-005-0, Preparation and Reporting of NRC PI Data, were used to verify procedure and reporting requirements were met.

Cornerstone: Mitigating Systems

- Emergency AC Power System
- Residual Heat Removal System

The inspectors reviewed raw PI data collected January 2011 through June 2011 for the Mitigating Systems indicators identified. The inspectors compared graphical representations from the most recent PI report to the raw data to verify the data was included in the report. The inspectors also examined a sampling of operations logs and procedures to verify the PI data was appropriately captured for inclusion into the PI report, and the individual PIs were calculated correctly. Applicable licensee event reports issued during the referenced time frame were also reviewed. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems

.1 Daily Screening of Corrective Action Items

As required by Inspection Procedure 71152, Identification and Resolution of Problems, and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. This review was accomplished by either attending daily screening meetings that briefly discussed major CRs, or accessing the licensee's computerized corrective action database and reviewing each CR that was initiated.

.2 Annual Samples:

a. Inspection Scope

The inspectors performed a detailed review of the following CR to verify the full extent of the issues were identified, an appropriate evaluation was performed, and appropriate corrective actions were specified and prioritized. The inspectors evaluated the CR against the licensee's corrective action program as delineated in licensee procedure NMP-GM-002, Corrective Action Program, and 10 CFR 50, Appendix B. Documents reviewed are listed in the Attachment.

- CR 330916 - Contingency rod move not performed.

Review of Operator Workarounds: The inspectors performed a detailed review of the Operator Work Arounuds List to verify the full extent of the issues were identified, an appropriate evaluation was performed, and appropriate corrective actions were specified and prioritized.

b. Findings and Observations

No findings were identified; however the inspectors noted the following issue of concern. CR 330916 documented an unexpected control rod withdraw block signal occurring during a rod pattern adjustment when two of four average power range monitors (APRMs) generated flow referenced APRM flux upscale alarms after a control rod was withdrawn. During the inspector's review of the enhanced apparent cause determination report for CR 330916, the inspectors noted that because the apparent cause investigation was focused solely on identifying weaknesses in the engineering department, the licensee missed an opportunity to uncover potential weaknesses in the operations departments' reactivity management. The inspectors consider this narrow focus as an example where the licensee did not fully utilize their corrective action program to consider the extent of cause and investigate, identify, and resolve potential latent organization weaknesses across multiple disciplines.

4OA3 Event Follow-up

.1 (Closed) URI 05000321, 366/2010009-02 Protection of Systems Structures and Components from Damage as a Result of Fire Protection Activitiesa. Inspection Scope

In 1980, the licensee installed a pre-action type sprinkler system to protect the cable spreading room (CSR) from the effects of fire. The installation consisted of two separate sprinkler systems connected to an 8-inch line tied back to the turbine and control building fire loop. Each sprinkler system consisted of 165°F fusible link closed head sprinklers piped from a welded steel piping grid. Gate-type isolation and alarm check valves are 6-inch or 8-inch diameter. They are made of cast iron and are listed by Underwriters Laboratory (UL) for fire system usage. They have a working pressure rating of 175 psi.

The rupture of fire suppression systems and valves was the subject of Information Notice IN 98-31, "Fire Protection System Design Deficiencies and Common Mode Flooding of Emergency Core Systems Rooms at Washington Nuclear Project (WNP) Unit 2." At the time of the inspection, the licensee could not provide documentation that they had addressed IN 98-31 in their operating experience program. The licensee entered this issue into their corrective action program as CR 2010115119.

During the recent 2010, triennial fire protection inspection, the NRC identified concerns related to the effects of water runoff from sprinkler heads opening in the event of fire in the cable spreading room as well as the effects of failure of the cast iron isolation and check valves due to a water hammer event as described in IN 98-31.

b. Findings

The team reviewed additional documentation provided by the licensee after the conclusion of the TFPI. Documentation of Engineering Judgment, DOEJ-HR2102089601-M001, entitled "Evaluation of the Impact of Fire Sprinkler Actuation in the Hatch Cable Spreading Room," was provided for review on December 16, 2010. The DOEJ was an evaluation of the flooding impact from expected fire sprinkler flow against the drainage capacity of floor drains installed in the cable spreading room. The evaluation assumes a maximum of 4 sprinkler heads would flow during a postulated fire as well as allowance for hose streams for fire fighting. Drainage capacity was calculated to be 600 gpm which was sufficient to preclude damage from this sort of event. The inspectors reviewed this evaluation and concluded that it was reasonable and conservative.

On May 13, 2011, the licensee provided calculation SMNH 99-014 entitled, "Water Hammer Evaluation for Fire Protection Piping," for the team to review. This calculation provided further analysis of the WNP Unit 2 event as it would apply to the Edwin I Hatch Nuclear Plant. Within the calculation was a report entitled "Plant Hatch Fire Protection Water Hammer Analysis" by Dr. Sam Martin. This report assessed the potential magnitude of water hammer pressures in the fire protection system as the result of

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sprinkler system actuations and response from installed fire pumps, and contained recommendations for mitigation of pressure transients for several fire protection systems. The report noted that pressures for some systems could reach up to 1200 psi which would greatly exceed the system working pressure of 175 psi. In addition, it stated that due to repeated water hammer, pipe hangers and supports could become loose and misaligned, thus causing localized stresses in cast iron isolation and check valves.

After the report was issued, the licensee abandoned and isolated those systems responsible for the worst pressure transients, so that expected transients for the CSR preaction sprinkler system would likely be in the 270-290 psi range. Because UL-listed valves are "burst pressure" tested to 5X their working pressure, transients of the 270-290 psi pressure range would not likely cause these valves to fail catastrophically.

During the week of August 30, 2011, inspectors walked-down the CSR sprinkler system at Hatch to verify field conditions, assess fire protection system integrity and identify water runoff flow paths. It was noted that each of the alarm check valves and associated isolation valves are rigidly supported by seismic bracing. No evidence of pipe or valve misalignment due to water hammer was identified. Discussion with licensee personnel indicated that these systems are part of normal fire suppression system inspection and maintenance surveillances and that any misalignment that could cause component leakage would be identified and repaired promptly. In addition, component supports and pipe whip restraints are now covered in the Structural Monitoring Program for the Maintenance Rule in support of license renewal.

Based upon the new information provided, the inspectors concluded that licensee has adequately addressed the team's concerns regarding flooding events for the CSR fire sprinkler system such as those described in IN 98-31; therefore no performance deficiency was identified.

This URI is closed.

.2 Follow-up on Voluntary Notification of Groundwater High Tritium Levels

a. Inspection Scope

On September 29, 2011, the licensee submitted a non-emergency report (number 47305) to the NRC in accordance with 10 CFR Part 50.72(b)(2)(xi) due to the voluntary notification of other government agencies regarding an onsite spill of radioactive material. The voluntary notification was made to the Georgia Department of Natural Resources in accordance with the industry's Groundwater Protection Initiative (NEI 07-07). The report described the discovery of elevated tritium concentrations in onsite groundwater samples (up to 6.84 million pCi/L) obtained from monitoring wells near the U1 Condensate Storage Tank (CST). The licensee excavated the area near the monitoring wells and performed leak testing on selected underground pipes that could contain tritiated water. A leak was found in a pipe used to transfer contaminated water from the CST to the liquid radioactive waste processing system. The licensee's corrective actions include capping and abandoning the leaking pipe and plans for

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construction of a new above-ground CST-to-radwaste transfer line. The licensee has also entered the event into the decommissioning file as required by 10 CFR Part 50.75(g). The inspectors reviewed the details surrounding the event and discussed the issue with licensee staff. The inspectors noted that the leak occurred within the owner controlled area and that the contaminated groundwater is not accessible by the general public. The inspectors also noted that leakage from systems associated with the U1 and U2 CSTs has historically been a source of groundwater contamination at Plant Hatch. As a result of these historical leaks, the licensee has a network of monitoring wells capable of tracking any movement of a contaminated groundwater plume. The NRC has designated groundwater contamination as an "issue of agency-wide concern" and has implemented requirements to document the review of voluntary reports concerning spills and leaks.

b. Findings

No findings were identified.

40A5 Other Activities

.1 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors conducted observations of security force personnel and activities to ensure that the activities were consistent with licensee security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status review and inspection activities.

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors performed a walkdown of the ISFSI on site (reference docket 72-036) and monitored the activities associated with the dry fuel storage campaign which was in progress through September. The inspectors also reviewed changes made to the ISFSI programs and procedures and their associated 10 CFR 72.48 screens and evaluations to verify that changes made were consistent with the license or Certificate of Compliance; reviewed records to verify that the licensee has recorded and maintained the location of each fuel assembly placed in the ISFSI; and 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 October 21, 2011, the resident inspectors presented the inspection results to Mr. Sonny Barger and other members of your staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

B. Anderson, Health Physics Manager
S. Barger, Plant Manager
G. Brinson, Maintenance Manager
V. Coleman, Chemistry Manager
M. Crosby, Engineering Systems Manager
G. Johnson, Outage and Scheduling Manager
C. Lane, Engineering Director
P. Long, Corporate Fire Protection Supervisor
D. Madison, Hatch Vice President
T. Moorer, Environmental affairs, Chemistry, and Radiological Services Manager
S. Tipps, Principle Licensing Engineer
J.C. Vance III, Corporate Fire Protection Engineer
R. Varnadore, Operations Manager

Misc Personnel

M. McCormick, Fire Protection Engineer, Underwriters Laboratory

LIST OF ITEMS OPENED AND CLOSED

Opened

None

Closed

05000321, 366/2010009-02	URI	Protection of Systems Structures and Components from Damage as a Result of Fire Protection Activities (Section 4OA5.1)
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Opened & Closed

None

Discussed

None

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Procedures

34SO-E21-001-1, Core Spray System, Ver. 21.12
34SO-E11-001-1, Residual Heat Removal System, Ver. 1.0
34SO-E51-001-2, Reactor Core Isolation Cooling System Ver. 22.3

Drawings

H-16331, H-26023, H-26024, H-26050, H-26070, H-27673, H-27674, H-27970,

Other

E.I. Hatch Final Safety Analysis Report
E.I. Hatch Technical Specifications
E.I. Hatch Technical Specifications Bases

Section 1R05: Fire Protection

Procedures

E.I. Hatch Fire Protection Fire Hazards Analysis
42FP-FPX-018-0, Use, Control and Storage of Flammable/Combustible Materials, Version 1.2
34AB-X43-001-1, Fire Procedure, Version 10.25
42SV-FPX-024-0, Fire Hose Stations – Appendix B Areas, Version 3.2

Drawings

A-43965 sheet 65 A/B, Unit 1 Pre-Fire Plan [Heating Ventilation Air Conditioning] Room
A-43965 sheet 66 A/B, Unit 1 Pre-Fire Plan Standby Gas Filter & Fan Room
H-43744, Penetration Drawing Seals Index Plan Reactor Building El. 158'-0"
A-43965 sheet 110A/B, Unit 2 Pre-Fire Plan Working Floor and Pump Room Reactor Bldg
Elevation 158'-0"
A-43965 sheet 109A/B, Unit 2 Pre-Fire Plan Working Floor North Reactor Bldg Elevation 158
A-43965 sheet 79A/B, Unit 1 Pre-Fire Plan RBCCW Room Turbine Bldg Elevation 112'-0"
A-43965 sheet 40A/B, Unit 2 Pre-Fire Plan Transformer Room 2CD Control Building Elevation
130'-0"
A-43965 sheet 100A/B, Unit 2 Pre-Fire Plan [Reactor Core Isolation Cooling] Pump & Turbine
Room Reactor Building El. Below 130'-0"

Section 1R07: Heat Sink Performance

Procedures

42IT-TET-012-2, PSW and RHR SW Piping Inspection Procedure, Ver. 3.5
52SV-R43-001-0, Diesel, Alternator, and Accessories Inspection, Ver. 21.10

Work Orders

112466

Section 1R11: Licensed Operator Requalification

Drill Scenario: LT-SG-51068-05

Section 1R12: Maintenance Effectiveness

System Health Report –Fire System – 1st quarter 2011
 X43 Maintenance Rule Scoping Manual Documents
 X43 Maintenance Rule Performance Criteria
 System Health Report –Nuclear Boiler System – 2nd quarter 2011
 B21 Maintenance Rule Scoping Manual Documents
 B21 Maintenance Rule Performance Criteria
 NMP-ES-002, System Monitoring and Health Reporting, Ver 12.0
 System Health Report –Condensate and Feedwater – 2nd quarter 2011
 N21 Maintenance Rule Scoping Manual Documents
 N21 Maintenance Rule Performance Criteria

Condition Reports

2010115453, 2011101876

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

90AC-OAM-002-0, Scheduling Maintenance, Version 4.3
 NMP-DP-001, Operational Risk Awareness, Ver. 13.0
 40AC-ENG-020-0, Maintenance Rule (10 CFR 50.65) Implementation and Compliance, Ver. 7.0

Condition Reports

334250

Other

Equipment Out of Service calculations 7/2/11-7/8/11
 Equipment Out of Service calculations 7/9/11-7/15/11
 Equipment Out of Service calculations 7/23/11-7/29/11
 Equipment Out of Service calculations 8/13/11-8/19/11
 Equipment Out of Service calculations 8/20/11-8/26/11

Section 1R15: Operability Evaluations**Procedures**

NMP-AD-012, Operability Determinations and Functional Assessments, Ver. 10.0
 31GO-INS-001-0, Pump and Valve Inservice Testing, Ver. 11.7
 34SV-R43-014-0, [Diesel Generator] Air Start Check Valve 24 Month Surveillance, Ver. 3.5
 34SV-SUV-013, Weekly Breaker Alignment Checks, Ver. 6.21

Drawings

H-11631, H-23350, H-23352, H-23362, H-23357, H-23358, H-13950, H-23900, H-23901

Work Orders

321733, 316235

Other

Control room logs
 Unit 2 FSAR section 6.4, Habitability Systems
 FSAR section 9.4, Air-Conditioning, Heating, Cooling, and Ventilations Systems

FSAR section 5.2, Integrity of Reactor Coolant Pressure Boundary
 Unit 2 FSAR section 7.3, Engineered Safety Feature Systems
 Unit 2 FSAR section 8.2, Offsite Power System
 Unit 2 FSAR section 8.3, Onsite Power System
 Unit 1 and Unit 2 Technical Specifications
 Unit 1 and Unit 2 Technical Specifications Bases

Section 1R18: Plant Modifications

Procedures

40AC-ENG-018-0, Temporary Modification Control, Ver. 6.6

Drawings

H27093, ABN-H02369

Section 1R19: Post Maintenance Testing

Maintenance Work Orders

100862, 105796, 100060, 108070, 105814, 113196, 101639, 102266

Procedures

34SV-E21-001-1, Core Spray Pump Operability, Ver. 19.0
 34SV-E11-001-1, Residual Heat Removal Pump Operability, Ver. 24.1
 34SV-E11-004-1, [Residual Heat Removal] Service Water Pump Operability, Ver. 18.10
 34SV-E41-001-2, [High Pressure Coolant Injection] Valve Operability, Ver. 11.2
 52SV-R43-001-0, Diesel, Alternator, and Accessories Inspection, Ver. 21.10
 NMP-MA-014, Post Maintenance Testing, Ver. 1.0
 95IT-OTM-001-0, Maintenance Work Order Functional Test Guideline, Ver. 5.4

Condition Reports

344871

Section 1R22: Surveillance Testing

Procedures

34SV-P41-001-1, Plant Service Water Pump Operability, Ver. 11.5
 34SV-C71-001-2, Turbine Stop Valve Instrument Functional Test, Ver. 9.6
 34SV-E51-002-1, [Reactor Core Isolation Cooling] Pump Operability, Ver. 20.16
 34SV-R43-005-1, Diesel Generator 1B Semi-Annual Test, Ver. 15.0
 34SV-SUV-019-1, Surveillance Checks, Ver. 35.1

Condition Reports

345324

Section 4OA2: Identification and Resolution of Problems

Procedures

31GO-OPS-014-0, Annunciator and Plant Component Control, Ver. 2.0
 NMP-OS-006, Operations Performance Indicators, Ver. 10.0
 DI-OPS-61-1196, Control and Tracking of Operator Work-Arounds, Ver. 4.0

Condition Reports
330916, 343895

Section 4OA3: Event Follow-up

Procedures

NMP-ES-021 Structural Monitoring Program for the Maintenance Rule R.6

Condition Reports
355704

Drawings

H11323 Cable Spreading Room R.12
H11033 Pump House Layout R.48 Sh.1
H11033 House & Yard Mains R.24 Sh.2
H11035 Turbine & Control Building R.23
H50051 Control Building El. 130' R.6

Other

E.I. Hatch Nuclear Plant Technical Specifications and Bases
E.I. Hatch Unit 1 and Unit 2 Final Safety Analysis Report
DCR 78-055 Install Closed Head Pre-Action Sprinkler System
VM-FP-87-006 Hydraulic Calculation Unit I Cable Spreading Room
SMNH 99-014 Determine the Effects of Water Hammer on Fire Protection Piping
DOEJ-HR2102089601-M001 Evaluation of the Impact of Fire Sprinkler Actuation in the Hatch Cable Spreading Room.

Section 4OA5: Other Activities

Fuel Assembly Certification Datasheets 2011 Loading Campaign
42FH-ERP-014-O, Fuel Movement, Ver 17.14
Fuel Movement Sheets - Dry Storage 2011-01 loading
Fuel Loading Verification for MPC-68 Serial Number 281, dated Aug 18, 2011
34AB-F18-001-0, Dry Cask Storage and Handling Equipment Abnormal Conditions, Ver. 2.0