



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

April 30, 2008

EA-08-135
EA-06-013

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
05000321/2008002 AND 05000366/2008002, EXERCISE OF ENFORCEMENT
DISCRETION, AND MEETING SUMMARY**

Dear Mr. Madison:

On March 31, 2008, 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 April 18, 2008, with yourself and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

This report documents one self-revealing finding of very low safety significance (Green) which was determined to be a violation of NRC requirements. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy because of the very low safety significance and because it was entered into your corrective action program. If you contest this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC resident inspector at the Edwin I. Hatch Nuclear Plant.

Also, a potential violation of 10 CFR 50.71(e) was identified. Consistent with Enforcement Guidance Memorandum 07-006, we are exercising enforcement discretion in accordance with Section VII.B.6 of the NRC Enforcement Policy, and are therefore not issuing any enforcement action for this potential violation.

SNC

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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/

Scott M. Shaeffer, Chief
Reactor Projects Branch 2
Division of Reactor Projects

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

Enclosures: Inspection Report 05000321/2008002, 05000366/2008002
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

SNC

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NAME	CRapp	SShaeffer	JHickey	PNiebaum	EMichel	RWilliams	
DATE	04/30/2008	04/30/2008	04/30/2008	04/30/2008	04/30/2008		5/ /2009
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Letter to Dennis R. Madison from Scott M. Shaeffer dated April 30, 2008

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC INTEGRATED INSPECTION
REPORT 05000321/2008002 AND 05000366/2008002, EXERCISE OF
ENFORCEMENT DISCRETION, AND MEETING SUMMARY

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-321, 50-366

License Nos.: DPR-57 and NPF-5

Report Nos.: 05000321/2008002, 05000366/2008002

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Edwin I. Hatch Nuclear Plant

Location: Baxley, Georgia 31513

Dates: January 1 - March 31, 2008

Inspectors: J. Hickey, Senior Resident Inspector
P. Niebaum, Resident Inspector
E. Michel, Reactor Inspector (Section 1R08)
R. Williams, Reactor Inspector (Section 1R08)

Approved by: Scott M. Shaeffer, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000321/2008-002, 05000366/2008-002; 01/01/2008-03/31/2008; Edwin I. Hatch Nuclear Plant, Units 1 and 2, Maintenance Risk Assessments and Emergent Work Evaluation

The report covered a three-month period of inspection by resident inspectors and two reactor inspectors. One Green non-cited violation (NCV) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, Significance Determination Process (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, Reactor Oversight Process.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Barrier Integrity

Green. A self revealing non-cited violation of 10 CFR 50 Appendix B, Criterion V was identified for the failure to recognize the impact of a clearance activity on the Main Control Room Environmental Control (MCREC) system. The licensee entered this violation into their Corrective Action Program (CAP) as Condition Report (CR) 2008102274.

Failure to recognize the impact of a clearance activity on the MCREC system is a performance deficiency. This finding is more than minor because it is associated with the structure, system, component and barrier performance attribute as it relates to the radiological barrier functionality of the control room of the Barrier Integrity cornerstone. The inspectors determined the finding was of very low safety significance because the loss of the air handling units represents a degradation of the radiological barrier function (control room pressurization) only. This finding is related to the work practices aspect of the human performance cross-cutting area in that the full impact of the clearance was not properly identified and assessed in accordance with the equipment clearance procedure. (H.4(a)) (Section 1R13).

B. Licensee-Identified Violations

None.

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REPORT DETAILS

Summary of Plant Status

Unit 1 began the inspection period at full Rated Thermal Power (RTP) and entered a refueling outage on February 4. The unit was restarted on March 20. The unit operated at approximately 41% RTP until March 22, due to condenser water box tube leakage. On March 24, power was maintained at or near 60% RTP for elevated temperatures on the main transformer isophase bus duct structural steel assembly. The inspection period ended with the unit at approximately 92% RTP.

Unit 2 began the inspection period at or near 100% RTP. A reactor scram occurred on March 7 due to a problem in the condensate demineralizer control system. Unit 2 was returned to full RTP on March 14 and remained at or near 100% RTP for the remainder of the inspection period.

1. REACTOR SAFETY
Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather

a. Inspection Scope

Seasonal Readiness Review. The inspectors performed a seasonal review of licensee cold weather preparations. The inspectors reviewed licensee procedure DI-OPS-36-0989, Cold Weather Checks, and walked down the completed portions of the procedure. In addition, the inspectors reviewed the Technical Specifications (TS), Final Safety Analysis Report (FSAR) and drawings D-11001 and H-21033 to verify the following two systems would remain operable during cold weather.

- Intake Traveling Water Screens
- Plant Service Water Pumps

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

Partial Walkdowns. The inspectors performed partial walkdowns of the following three systems when the opposite trains were removed from service. 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.

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- Unit 2 Safety Relief Valves (SRVs) while the High Pressure Coolant Injection (HPCI) was out of service for a reliability outage
- Unit 1 Decay Heat Removal (DHR) System while both Residual Heat Removal (RHR) trains were out of service for maintenance
- Unit 2 'A' train of the RHR system while the 'B' train was out of service

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 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 A and B trains of the Residual Heat Removal Service Water (RHRSW) system

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

Fire Area Tours. The inspectors toured the following eight 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 H-11846 and H-11847 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.

- Control Building Gen. Area 112'
- Water Analysis Rooms CB 112'
- Control Building Gen. Area 130'
- AC Inverter Rooms CB 112'
- 600 Volt Switchgear Rooms CB 130'
- RPS Battery Rooms CB 112'
- Annunciator Rooms CB 130'
- Unit-1 Torus Area and Main Steam Chase

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performancea. Inspection Scope

Annual Resident Review. The inspectors reviewed the results of the licensee inspection of the 1A Residual Heat Removal (RHR) heat exchanger. The inspectors verified implementation of licensee procedure 52PM-E11-009-0 RHR Heat Exchanger Preventive Maintenance. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R08 In-service Inspection Activitiesa. Inspection Scope

The inspectors observed and reviewed the implementation of the licensee's ISI program for monitoring degradation of the reactor coolant system boundary and the risk significant piping system boundaries for Hatch Unit 1 during the spring 2008 outage (1R23). The inspectors selected a sample of American Society of Mechanical Engineers (ASME), Boiler and Pressure Vessel Code, Section XI required examinations in order of risk priority as identified in Section 71111.08-03 of inspection procedure 71111.08, "In-service Inspection Activities," based upon the ISI activities available for review during the onsite inspection period. The inspectors also reviewed a sample of inspection activities associated with components that are outside the scope of ASME Section XI requirements, which are performed in accordance with commitments to follow industry guidance documents, such as the Boiling Water Reactor Vessel and Internals Project (BWRVIP).

The inspectors conducted an on-site review of nondestructive examination (NDE) activities to evaluate the licensee's compliance with Technical Specifications (TS), ASME Section XI, and Section V, 2001 Edition through the 2003 Addenda for Class 1, 2, and 3 systems, and BWRVIP documents for the inspection of Reactor Vessel Internals. For Hatch Unit 1, this was the second outage of the first period of the fourth interval. The inspectors verified that indications and defects were appropriately evaluated and dispositioned in accordance with the applicable requirements of the ASME Section XI Code, and the BWRVIP documents. The inspectors observed the following examinations:

Manual Ultrasonic Testing (UT)

- 1E11-1RHR-20B-D-6, Residual Heat Removal, 20", ASME Class 1, Valve to Elbow weld

The inspectors reviewed the following examination records:

Remote UT

- 1B11\C-1-C, Reactor Core Shroud, ASME Class 1, Vertical Weld

Liquid Penetrate Testing (PT)

- 4" piping joint downstream of 1E21-F015A at intersection of 1E21 and 1E11, ASME Class 2

The inspectors reviewed the following examination record that contained indications that were analytically evaluated and accepted for continued service:

- Reactor Core Shroud V5 and V6

Qualification and certification records for examiners, inspection equipment, and consumables along with the applicable NDE procedures for the above ISI examination activities were reviewed and compared to requirements stated in ASME Section V, ASME Section XI, BWRVIP documents, and other industry standards.

The inspectors reviewed welding activities associated with WO 1060698001 / MPL No. 1E11-G001. The associated ASME Class 2 piping weld was found with a pinhole leak. The leak area was ground out and repaired. The inspectors reviewed the welding procedures, applicable procedure qualification records, welder performance qualification test records, and the in-process welding process control sheets for compliance to ASME Section IX requirements. Additionally, the inspectors reviewed the surface examination results.

The inspectors reviewed actions being taken to repair the core shroud repair tie rod upper supports. The upper supports at two of the four tie rod locations were found cracked due to intergranular stress corrosion cracking (IGSCC) during the H1R22 outage (spring of 2006). One location was replaced with a more robust design during H1R22; the remaining three locations were scheduled to be replaced during the current (H1R23) outage. Complications with tie rod removal prevented replacement of two original tie rod upper supports. The inspectors reviewed the licensee's actions to verify shroud operability for the upcoming cycle and compliance with the BWRVIP.

The inspectors completed a review of ISI related problems that were identified by the licensee and entered into the corrective action program. The inspectors reviewed these corrective action documents to confirm that the licensee had appropriately described the scope of the problems, and had implemented appropriate corrective actions. The inspectors' review included confirmation that the licensee had an adequate threshold for identifying issues. Through interviews with licensee staff and review of condition report documents, the inspectors evaluated the licensee's threshold for identifying lessons learned from industry issues related to ASME Section XI. The inspectors performed these reviews to ensure compliance with 10CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requirements.

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b. Findings

Introduction: An unresolved item (URI) was identified regarding the adequacy of design control and procedures for the operation of Residual Heat Removal Service Water (RHRSW) loop "A" and "B" flow control valves (1E11F068A/B).

Description: During a walkdown of the Unit 1 torus room, the licensee found two broken RHRSW supports (1E11-RHR-H98 and 1E11-RHR-H291). These discoveries were documented in CR2008101477 and CR2008101507, respectively. Additionally, Unit 1 Torus Room Penetration No. 25, RHRSW, was identified with linear indications in the weld area where each lug (four total) was welded to the wall sleeve facing, and documented in CR2008101702. CR2008101568 was created to provide an overall evaluation and apparent cause determination for all three previously mentioned condition reports.

Both RHRSW flow control valves (one for each loop of RHRSW) were designed to control flow through the RHRSW system while minimizing downstream cavitation via a series of orifices. Design Change 93-019 modified the RHRSW flow control valves and was intended to insert a number of larger diameter orifices in the upper 1.0" of the orifices corresponding to 87% of valve stroke. The intent of the modification was to minimize the possibility of control valve clogging in the event that significant debris accumulated in the system (e.g. failed strainer). The actual modification drilled holes in the upper 1.5" of the orifices which corresponded to 81% of valve stroke. One consequence of the modification appears to have been a significant increase in cavitation downstream of the flow control valves when operated past the first 81% of their stroke with two RHRSW pumps operating. No changes in the RHRSW operating procedures were incorporated to minimize time spent in that portion of the operating envelope (two pump operation with valve stroke beyond 81%) that produced increased cavitation. This increased cavitation appears to have been a direct contributor to the failure of the RHRSW piping hangers (H98 and H291).

Following discovery of the Unit 1 hanger failures, the licensee performed a VT-3 examination of all "A" and "B" loop RHRSW piping supports downstream of the RHR heat exchanger (which included the flow control valve). These exams revealed there were no additional failed supports. The licensee performed an operability determination and determined there were no past operability concerns. The licensee has instrumented the piping of concern and was operating within the bounds of ANSI/ASME OM3-1982, "Requirements for Preoperational and Initial Start-up Vibration Testing of Nuclear Power Plant Piping Systems."

Due to similar concerns for the Unit 2 RHRSW piping supports, the licensee issued CR2008102081 to perform a root cause evaluation. This issue is unresolved pending completion of the NRC review of the licensee's Root Cause Evaluation, and the Hanger H98 and H291 Failure Analysis Report and is identified as URI 05000321/2008002-01, RHRSW Hanger Failures.

1R11 Licensed Operator Requalification

a. Inspection Scope

Resident Quarterly Observation. The inspectors observed the performance of licensee simulator scenario LT-SG-50618-02, which included an MSR drain line break, loss of condenser vacuum, high turbine building radiation, reactor scram, MSIV closure, HPCI logic failure and RCIC flow oscillations in automatic control. The inspectors reviewed licensee procedures 10AC-MGR-019-0, Procedure 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 of significance were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed the following two activities 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 CRs, Maintenance Work Orders (MWO), and the licensee's procedures for implementing the Maintenance Rule to determine if 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 C RHR pump discharge check valve repairs
- Unit 2 Safety Relief Valves (SRVs)

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the following six Plan of the Day (POD) documents 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

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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.

- February 16 - 22, MCREC system maintenance
- March 31, Unit 1 RHRSW Valve Cage Replacement
- January 5 - 11, 1W32F016B Travelling Water Screen Wash Valve repair, 1T41B005A HPCI Room Cooler cleaning, Unit-2 HPCI System reliability outage
- January 19 - 25, Diesel Fire Pump preventive maintenance, Unit-1 small bore piping LSFT, Unit-2 RCIC 2T41B004A room cooler preventive maintenance
- January 26 - February 1, 1Z41B008A PSW piping modification, Unit-2 Turbine Building chiller rotation, Unit-2 Hi Drywell Pressure Transmitter calibration
- March 1 - 7, Unit-1 Main Transformer replacement, Unit-2 Reactor Manual Scram functional testing

b. Findings

Introduction: A Green self revealing NCV of 10 CFR 50 Appendix B, Criterion V, Instructions, Procedures and Drawings was identified. The licensee failed to implement requirements specified in the equipment clearance procedure. Specifically, this procedure requires that all effects on the plant are identified and assessed prior to hanging the clearance. Because the impact of a clearance for the MCREC system was not properly identified, all three main control room AHUs were rendered inoperable.

Description: On February 21, while transferring the power supply for the 1B instrument bus in preparation for hanging tagout 1-DT-07-1R23-00511, the running 1C AHU for the MCREC system tripped and the 1B AHU failed to automatically start. The 1A AHU was previously tagged out to support work on the plant service water system. This resulted in the loss of all 3 AHUs in the shared main control room. The inspectors reviewed the documents listed in the Attachment and interviewed Operations staff on shift in the main control room and those assigned to create/review clearances. The inspectors concluded that the licensee did not recognize the running 1C AHU fan would trip during the power transfer to the 1B instrument bus.

Analysis: Failure to recognize the impact of a clearance activity on the MCREC system is a performance deficiency. This finding is more than minor because it is associated with the structure, system, component and barrier performance attribute as it relates to the radiological barrier functionality of the control room of the Barrier Integrity cornerstone. The inspectors determined the finding was of very low safety significance because the loss of the AHUs represents a degradation of the radiological barrier function (control room pressurization) only. This finding is related to the work practices aspect of the human performance cross-cutting area in that the full impact of the clearance was not properly identified and assessed in accordance with the equipment clearance procedure (H.4(a)).

Enforcement: 10 CFR 50 Appendix V, Instructions, Procedures and Drawings, states in part, "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings." Contrary to the above, because the licensee did not follow the equipment clearance procedure and identify and assess the impact of the tagout on the MCREC system, a loss of all three main control room AHUs occurred. This condition lasted for approximately 10 minutes until recognized and corrected by control room personnel. The main control room is shared by both Unit 1 and Unit 2. TS 3.7.4 requires two MCREC subsystems be operable in Modes 1, 2 and 3. Each MCREC subsystem requires one AHU to assist in the pressurization function of the system. This violation applies only to Unit 2 since Unit 1 was not in any of the applicable modes. Because of the very low safety significance and because this finding has been entered into the licensee's CAP as CR 2008102274, this violation is being treated as a non-cited violation (NCV) consistent with Section VI.A of the NRC Enforcement Policy and is identified as NCV 05000366/2008002-02, Failure to Follow Equipment Clearance Procedures Results in Control Room Ventilation Inoperability.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following five 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.

- Unit 1 Control Rod 26-27 position indication
- Unit 2 HPCI System
- Unit 2 Station Service Battery 1A cell #119 jumpered
- Unit 2 C Start-up Transformer Auto Swap Relay calibration methodology
- Unit 1 Excess Flow Check Valve 1B31F010D failure to close

b. Findings

No findings of significance 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.

- 2P41F036A, RHR/Core Spray Room Cooler cooling water supply valve repair
- 1B21N126C-TE-001, Main Steam Line Leak Detector housing gasket replacement
- 1C11D001-126, Accumulator Discharge control valve seat replacement
- 1C11D001-126 Blue Scram Light repair
- 1E11F017A, RHR Outboard Injection Valve MOV inspection
- 1E11F017A, RHR Outboard Injection Valve MOV performance testing

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities

.1 Unit 1 Refueling Outage

a. Inspection Scope

The inspectors reviewed the licensee's shutdown risk monitoring program and the outage schedule to verify the licensee's use of risk management techniques, incorporation of operating experience, and past lessons learned for the refueling outage beginning February 4. Additionally, the inspectors reviewed the shutdown safety assessment to verify the licensee had contingency plans and these plans included sufficient equipment to maintain a defense-in-depth approach to safety. The inspectors routinely verified the licensee was correctly maintaining required equipment in service in accordance with the overall outage safety assessment. During the refueling outage, the inspectors monitored licensee control over the outage activities listed below. Documents reviewed are listed in the Attachment.

- Reactor Coolant System cooldown following shutdown to verify the cooldown rate did not exceed TS limits
- Reviewed clearances to verify implementation of the clearance process and the associated equipment was properly configured to support the function of the clearance
- Fuel movement
- TS and licensee procedures to verify mode change requirements were met
- Walkdown of the drywell, main steam chase, torus proper and other areas to verify material conditions supported plant operations
- Plant startup, heatup, and power ascension
- Shutdown Margin determination
- Licensee identification and resolution of problems related to outage activities

b. Findings

No findings of significance were identified.

2. NRC Operating Experience Smart Sample FY2007-03

a. Inspection Scope

In response to operational experience concerns regarding reactor vessel head lifts (NRC Operating Experience Smart Sample FY2007-03 Rev 1), the inspectors reviewed licensee programs and procedures to determine whether past and current practices were within the licensing basis. The inspectors observed the Unit 1 reactor vessel head removal during the Spring 2008 1R23 refueling outage. The inspectors reviewed the documents listed in Attachment 1 to this report related to heavy load lifts of the reactor vessel head, and conducted discussions with licensee personnel involved in the development of lifting plans and conducting the actual lifts.

b. Findings

The inspectors identified the following issues prior to the planned reactor vessel head lift supporting the Unit 1 1R23 refueling outage:

- The licensee could not demonstrate that the Updated Final Safety Analysis Report (UFSAR) had been adequately updated to reflect information and analyses provided to the NRC in response to generic communications regarding heavy loads.
- The licensee could not demonstrate that their reactor vessel head lifts, which had lifted the head previously using the Unit 2 non-single failure proof crane over the irradiated fuel in the reactor vessel, were bounded by any design calculations. These calculations should have evaluated the drop of the head through air and/or water onto the reactor vessel, vessel internals, and irradiated fuel.
- The licensee could not demonstrate that their procedures for the reactor vessel head removal and installation limited their head lifts to the use of the Unit-1 single failure proof crane.

Failure to update the Final Safety Analysis Report pursuant to 10 CFR 50.71(e) to reflect aspects of handling the reactor vessel head with the Unit 1 and Unit 2 cranes was considered a potential violation.

The NRC has found industry uncertainty regarding the licensing bases for handling of reactor vessel head lifts, and as a result issued Enforcement Guidance Memorandum 07-006, Enforcement Discretion for Heavy Load Handling Activities, on September 28, 2007. The Nuclear Energy Institute has informed NRC of industry approval of a formal initiative that specifies actions each plant will take to ensure that heavy load lifts continue to be conducted safely and that plant licensing bases accurately reflect plant practices. The NRC staff believes implementation of the initiative will resolve uncertainty in the licensing bases for heavy load handling, and enforcement discretion related to the uncertain aspects of the licensing basis is appropriate during the implementation of the initiative.

Enclosure

The inspectors determined that the licensee implemented the following actions prior to the specified lifts in accordance with the industry initiative to warrant enforcement discretion:

- (1) For all heavy load lifts within the reactor building, the licensee has defined and implemented safe load paths, load handling procedures, and standards for training of crane operators, use of special lifting devices, use of slings, and design, inspection, testing, and maintenance of the reactor building cranes.
- (2) To support the Spring 2008 Unit 1 refueling outage, the process for lifting the reactor vessel head was changed to ensure the lift was conducted with the Unit-1 single failure proof crane. This change has been made to the procedures used on both Hatch units.
- (3) The movement of heavy loads will have administrative controls and risk assessments established as required to implement the requirements of 10 CFR50.65(a)(4).

Therefore, consistent with the intent of Enforcement Guidance Memorandum 07-006, enforcement discretion (EA-08-135) is being exercised for the violation described above in accordance with Section VII.B.6 of the NRC Enforcement Policy without any enforcement action.

.3 Unit 2 Forced Outage due to Loss of Condensate Pumps

a. Inspection Scope

The inspectors reviewed the licensee's forced outage plan, monitored shutdown activities, licensee control of outage activities, and monitored restart activities. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed licensee surveillance test procedures and either witnessed the test or reviewed test records for the following seven surveillances 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 AG-MGR-21-0386, Evolution and Pre-and Post-Job Brief Guidance, and attended selected briefings to determine if procedure requirements were met. Documents reviewed are listed in the Attachment.

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Surveillance Tests

- 34SV-B21-002-1, Main Steam Isolation Valve Trip Test
- 34SV-C11-005-1 CRD system Charging Water Check Valve 1C11-HCU-115 Closure Test
- 34SV-E21-001-2, 2A Core Spray Pump Operability
- 34SV-E21-001-2, 2A Core Spray Valve Operability

Primary Containment Valve Isolation Test

- 42SV-TET-001-1, Primary Containment Type B & C Leak Rate Testing for 1P41-F049 and F050

Reactor Coolant Leakage Test

- 34SV-SUV-019-2, Drywell Floor-drain Leakage Surveillance Checks

In-Service Test

- 34SV-E21-002-1, 1B Core Spray Valve Operability

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluationa. Inspection Scope

The inspectors observed the following emergency plan evolution. The inspectors observed licensee activities in the simulator, Technical Support Center and Operations Support Center to verify implementation of licensee procedure 10AC-MGR-006-0, Hatch Emergency Plan. The inspectors reviewed the classification of the simulated events and the development of protective action recommendations to verify these activities were conducted in accordance with licensee procedure 73EP-EIP-001-0, Emergency Classification and Initial Actions. The inspectors also reviewed licensee procedure 73EP-EIP-073-0, Onsite Emergency Notification, to verify the proper offsite notifications were made. The inspectors attended the post-exercise critique to assess the licensee's effectiveness in identifying areas of improvement. Documents reviewed are listed in the Attachment.

- Emergency Plan Drill conducted on March 25, 2008

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

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 Sample: Response to Design Control NCV 05000321, 366/2006007-03

a. Inspection Scope

CR 2006106806 was generated to address NCV 05000321, 366/2006007-03, a Green NCV of 10 CFR Part 50 Appendix B, Criterion III, Design Control, for failing to properly analyze the use of a collapsible fire hose in the transfer of borated water from the Standby Liquid Control (SLC) pump moat to the HPCI pump suction during alternate SLC injection in accordance with the emergency operating procedures. A review of the licensee's response revealed the statement "Conservatively, the hose was assumed to collapse if the pressure at any point in the hose was below atmospheric pressure." The inspectors questioned how this assumption was conservative, given the hose lays flat when it is rolled out with zero pressure applied. The licensee demonstrated the hose would provide adequate flow using a water source and length of hose configured to mimic the alternate boron injection flow path. Therefore, the use of a collapsible fire hose for alternate boron injection is adequate.

b. Findings and Observations

No findings of significance were identified.

.3 Annual Sample: Response to a Residual Heat Removal Service Water (RHRSW) Vent Valve Weld Failure

a. Inspection Scope

CR2008102081 was generated to address a leak at the weld on the branch piping to 2E11FV001 Vent Valve on the "B" loop of RHRSW. The inspectors reviewed the prompt operability determination and final conclusion that the weld failure rendered the RHRSW piping inoperable. The licensee entered the appropriate action statement for RHRSW inoperability, replaced the vent valve, and performed adequate post maintenance testing to restore operability within the allowed action statement time. The final root cause is pending approval by licensee management.

b. Findings and Observations

No findings of significance were identified. URI 05000366/2008-002-02, Residual Heat Removal Service Water Vent Valve Weld Failure was opened to verify the completed root cause and corrective actions are adequate.

.4 Annual Sample: Response to Special Nuclear Material Violation 05000321,366 2006014-001

On May 10, 2005, the licensee found fragments of spent fuel rods in the Unit 1 cask pit. Following search of the Units 1 and 2 spent fuel pools and review of records, on October 28, 2005, the licensee concluded that it could not account for the equivalent of approximately 68" (inches) of fuel rods containing special nuclear material (SNM). From November 2005 to July 2006, the licensee continued to review records and search for the unaccounted for irradiated fuel rods, looking in areas which were previously deemed inaccessible. Based on SNM pieces collected during these additional inspections and further review of historical records, it was determined that approximately 18" of irradiated fuel rods (fragments) remained unaccounted for. On December 29, 2006, NRC issued a Severity Level II Notice of Violation and Proposed Civil Penalty to the licensee for failure to account for all the SNM in its possession and failure to conduct adequate physical inventories (EA 06-013).

The purpose of this inspection was to review the corrective actions taken by the licensee to address the identified root causes of the failure to account for the spent fuel rod pieces. The inspectors reviewed the corrective actions completed since December 2006, and assessed the effectiveness of the corrective actions in addressing the identified causes of the event. Specifically, the inspectors reviewed CRs associated with the unaccounted for spent fuel rod pieces and with SNM controls initiated since May 2005. The inspectors reviewed procedures for control of SNM that had been revised to address the causes of the event and reviewed records of SNM inventories completed since May 2005. The inspector also toured the refuel floor and held discussions with reactor engineering personnel.

b. Findings and Observations

No findings of significance were identified. The inspectors found that the licensee had taken significant actions to improve SNM controls since the event in 2005. Procedures were revised and processes were changed to establish detailed controls for transfer and tracking of SNM with an appropriate level of management oversight. A rigorous fuel pool clean-up and organization campaign was completed in late 2007. No additional SNM was discovered in this campaign.

Based on the results of this inspection, VIO 05000321,366 2006014-001, "Failure to keep adequate records of all SNM possessed; failure to establish, maintain, and follow adequate material control and accounting procedures; failure to include all SNM possessed in annual physical inventories" (EA 06-013) is closed.

4OA3 Event Followup.1 (Closed) LER 05000366/2007-006, Corrosion Induced Bonding Results in Safety Relief Valve Setpoint Drift

On April 17, 2007, it was identified during bench testing that two safety relief valves failed to lift at the required technical specification (TS) setpoint. A total of five of the eleven SRVs did not lift at the required TS setpoint at the conclusion of bench testing. The cause was found to be corrosion induced bonding between the pilot valve and seating surface. All eleven pilot valves have been replaced with refurbished pilot valves. This condition was documented in CR 2007104398. No findings of significance were identified.

.2 (Closed) LER 05000321/2007-002: ATTS Card Failure Results in High Pressure Coolant Injection System Isolation

On March 7, 2007 the HPCI inboard isolation valve unexpectedly closed during Analog Transmitter Trip System (ATTS) testing. The cause of the failure was due to chipped insulation and fractured solder connections on the circuit board. The licensee replaced the defective ATTS circuit board. Additionally, a sample inspection of similar circuit cards was performed and no deficiencies were identified. This condition was documented in CR 2007102912. No findings of significance were identified.

.3 (Closed) LER 05000366/2007-001: Main Steam Isolation Valves Fail Local Leak Rate Testing Due to Out of Specification Internal Tolerances

On February 12, 2007, as-found local leakrate testing (LLRT) revealed the inboard and outboard main steam isolation valves in the "B" and "C" main steam lines failed due to excessive leakage. The cause of the failures was internal tolerances of valve components were out of specification. The valve internal tolerances were restored to specification and subsequent LLRTs were performed satisfactorily. This condition was documented in CR 2007101771. No findings of significance were identified.

.4 (Closed) LER 05000366/2007-003: Leak in Reactor Pressure Boundary Due to Failure of a Socket Weld

On March 9, 2007, a leak was identified in a one-inch socket weld below the condensing chamber on the "D" main steam line. The cause of the weld failure was high cycle fatigue. The weld was replaced and similar welds were inspected with satisfactory results. This condition was documented in CR 2007102970. No findings of significance were identified.

.5 Unit 2 #2 Turbine Bypass Valve Loss of Fast Open Capabilitya. Inspection Scope

The inspectors responded to the site and verified the licensee actions in response to the #2 Turbine Bypass Valve (TBV) failure were in accordance with Technical Specifications. The inspectors verified the End-of-Cycle recirculation pump trips were

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enabled and revised Minimum Critical Power Ratio limits were installed by Reactor Engineering.

b. Findings

No findings of significance were identified.

.6 Unit 2 Reactor Scram on Loss of Condensate Pumps

a. Inspection Scope

The inspectors responded to the site and verified the licensee actions in response to the reactor scram were in accordance with Emergency, Abnormal and Normal Operating Procedures. The inspectors verified the cause of the scram was understood, reviewed chart recorders, operating logs and attended event response meetings.

b. Findings

No findings of significance were identified.

40A5 Other Activities

.1 (Opened) URI 05000366/2008002-03, Residual Heat Removal Service Water Vent Valve Weld Failure

The root cause for the 2E11FV001 Vent Valve weld failure was pending licensee approval. This URI is being opened to review the completed root cause.

.2 (Closed) VIO 05000321,366 2006014-001, Failure to keep adequate records of all SNM possessed; failure to establish, maintain, and follow adequate material control and accounting procedures; failure to include all SNM possessed in annual physical inventories (EA-06-013)

The closure of this violation is addressed in Section 40A2.4.

40A6 Meetings, Including Exit

.1 Exit Meeting

On April 18, 2008, the inspectors presented the inspection results to Mr. Dennis Madison and the other members of his staff who acknowledged the observations. The inspectors confirmed proprietary information was not provided or examined during the inspection.

.2 Annual Assessment Meeting Summary

On April 9, the Chief, Reactor Projects Branch 2, and the Senior Resident Inspector assigned to the Edwin I. Hatch Nuclear Plant met with Southern Nuclear Operating Company representatives to discuss the NRC's Reactor Oversight Process and the

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NRC's annual safety performance assessment for the period of January 1, 2007 – December 31, 2007. The major topics addressed were the NRC's assessment program and the results of the licensee's assessment. A listing of attendees and the information presented are available from the NRC's document system (ADAMS) as accession numbers ML081070452 and ML081070446 respectively. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

ATTACHMENT: SUPPLEMENTAL INFORMATION

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SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

M. Ajluni, Site Engineering Manager
S. Bargeron, Plant Manager
J. Dixon, Health Physics Manager
B. Goodwin, Design Manager
G. Johnson, Operations Manager
J. Lewis, Site Support Manager
D. Madison, Hatch Vice President
S. Soper, Engineering Support Manager
J. Thompson, Nuclear Security Manager
R. Varnadore, Maintenance Manager
D. Willyard, Engineering Programs Supervisor
K. Underwood, Performance Improvement Supervisor
G. Fechter, Engineering Support

LIST OF ITEMS OPENED AND CLOSED

Opened and Closed

05000366/2008002-02	NCV	Failure to Follow Equipment Clearance Procedures Results in Control Room Ventilation Inoperability (Section 1R13)
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Closed

05000366/2007-006	LER	Corrosion Induced Bonding Results in Safety Relief Valve Setpoint Drift (Section 4OA3.1)
05000321/2007-002	LER	ATTS Card Failure Results in High Pressure Coolant Injection System Isolation (Section 4OA3.2)
05000366/2007-001	LER	Main Steam Isolation Valves Fail Local Leak Rate Testing Due to Out of Specification Internal Tolerances (Section 4OA3.3)
05000366/2007-003	LER	Leak in Reactor Pressure Boundary Due to Failure of a Socket Weld (Section 4OA3.4)
05000321,366/2006014-001	VIO	Failure to keep adequate records of all SNM possessed; failure to establish, maintain, and follow adequate material control and accounting procedures; failure to include all SNM possessed in annual physical inventories" (EA 06-013) (Section 4OA5.2)

Opened

05000321/2008002-01	URI	Residual Heat Removal Service Water Hanger Failures (Section 1R08)
05000366/2008002-03	URI	Residual Heat Removal Service Water Vent Valve Weld Failure (Section 4OA5.1)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather

CRs 2007110485 and 2008100148

Control Room Operator Logs 1/3/2008 through 1/4/2008.

Section 1R04: Equipment Alignment

Procedures: 34SO-B21-001-2, Automatic Depressurization (ADS) and Low-Low Set (LLS) Systems

34SO-P70-001-2, Drywell Pneumatic System

34SO-G71-001-0, Decay Heat Removal System

34SO-E11-010-2, Residual heat Removal System

Drawings: H-26000, H-26066, H-28023, H-44132, H-44075, H-44131, H-44076, H-44122, H44141, H-26015, HB-26015, H-16329, H-16330, H-16842, H-16843, H-16844.

FSAR Unit 1 Sections 6.3.2, 7.3.1, 9.3.6 and 10.6, U2 Sections 9.1, 5.5.7

CRs 2008102803, 2008103405, 2008101507

Section 1R05: Fire Protection

Drawings: A-43965 sheets 005, 007, 010, 013, 020, 014, 015, 021, 022, 008, 019, 023, 024, 025, 035, 027, 036, 028, 029, 037, 038.

H-11814 and H-11915

Procedures: 42SV-FPX-037-0, Fire Detection Instrumentation Surveillance

42FP-FPX-018-0, Use, Control, and Storage of Flammable/Combustible Materials

Section 1R07: Heat Sink Performance

Procedure: 42IT-TET-012-1, Plant Service Water and RHR Service Water Piping Inspection

MWO: 1050267401

RER 1071232801, Minimum Wall Thickness for ECT Tube Plugging criteria

PR No.: 03-73 1A RHR Heat Exchanger ECT results report

Section 1R08: In-service Inspection Activities

Procedures

NMP-ES-010-GL02, BWRVIP NMP, Core Shroud and Shroud Stabilizer Guideline, Version 4.0, June 2007

GE-UT-717, Procedure for the Examination of Reactor Pressure Vessel Welds from the Inside Surface with Microtomo in Accordance with Appendix VIII, Version 1

Welding PQR-510, 2/3/1984

Welding PQR-507, 1/26/1984

Welding PQR-547, 5/7/1984

WPS T110A-1, Rev 2

NMP-ES-024-502, PDI Generic Procedure for the Ultrasonic Examination of Ferritic Pipe Welds (Appendix VIII), Version 2.0

CRs

2008100930, 2007100472, 2007100568, 2007102175, 2007104138

Other Documents

NL-06-1358, Edwin I. Hatch Nuclear Plant – Unit 1 In-service Inspection Program Owner's Activity Report for Outage 1R22, 6/29/2006
 NL-07-2242, Edwin I. Hatch Nuclear Plant – Unit 1 Response to NRC Request for Additional Information Regarding Modification of the Core Shroud Stabilizer Assemblies, 12/18/2007
 NL-07-1155, Edwin I. Hatch Nuclear Plant Proposed Modification of the Unit 1 Core Shroud Stabilizer Assemblies, 8/14/2007
 Sketch 1-BN-6-5, E I Hatch Unit 1 Core Shroud Identification Roll Out (Inside View), 2/10/1999
 GE-NE-0000-0061-6346-R2-P, Hatch-1 Nuclear Plant Shroud Repair Replacement Upper Support Analysis Report, May 2007
 NL-08-0161, Edwin I. Hatch Nuclear Plant – Unit 1 NRC Authorization to Perform Core Shroud Support Modifications
 Memo, Documentation of Additional Visual Examination Training and Experience for BWR Vessel Internals – Revision 33, 12/12/2007
 Zetec Calibration Certificate No. 150180, Calibration Date 12/11/2007
 SIR-04-120, Elastic-Plastic Fracture Mechanics Evaluation of Plant Hatch Unit 1 Core Shroud V5 and V6 Welds, October 2004
 NRC Letter to Mr. H. L. Sumner, Jr., Vice President-Nuclear Hatch Project, Subject: Edwin I. Hatch Nuclear Plant, Unit 1 – Relief Request for Authorization of Alternative Reactor Pressure Vessel Examinations for Circumferential Welds (TAC No. MA3843), 3/11/1999
 NL-04-2265, Edwin I. Hatch Nuclear Plant Unit 1 Updated Analysis of Core Shroud Vertical Welds and Supplemental Information, and Attachments, 12/3/2004
 WO 1060698001, Repair of leaking weld joint between 1E11 and 1E21 piping downstream of 1E21-F015A, 3/5/2006
 Repair/Replacement Plan for WO 1060698001, MPL No. 1E11-G001, 3/12/2006
 42IT-TET-004-0S, Operating Pressure Testing of Piping and Components for VT-2 of R/R work done under WO 1060698001, 3/13/2006
 NIS-2A for R/R done under WO 1060698001, 4/26/2006
 Weld Process Sheet for welding done under WO 1060698001, 6/7/2006
 Weld Material Request, Control Log Number HT-06-838, 3/15/2006
 Weld Material Request, Control Log Number HT-06-842, 3/15/2006
 Weldstar Certificate of Compliance, Heat #065595, 7/2/1992
 Weldstar Certificate of Compliance, Heat #065727, Control #8333

Section 1R12: Maintenance Effectiveness

Procedure: 40AC-ENG-020-0, Maintenance Rule (10 CFR 50.65) Implementation and Compliance
 CRs: 2007107101, 2007106026, 2007108112, 2007108688
 MWO 1071881401
 Maintenance Rule Monthly Reports for June, July, November, December 2007
 1E11 RHR System Health Report – 4th Qtr 2007
 RHR System/Function Maintenance Rule Performance Criteria
 Drawings: HB-16330, S26478
 Plant Hatch MR Scoping Manual Rev. 6
 Operating Order OO-01-0308S A,D,E,L SRV Elevated Tailpipe Temperature Monitoring
 1B21-2B21 Nuclear Boiler System Health Report – 4th Qtr 2007
 CR 2007104398
 SRV System/Function MR Performance Criteria

Operational Decision-Making Issue (ODMI) 2008-02-06 for 2 A,E,L SRV leakage

Section 1R13: Maintenance Risk Assessments and Emergent Work Evaluation

CR# 2008102274

Tagout 1-DT-07-1R23-00511

Procedures: NMP-AD-003, Equipment Clearance and Tagging

34SO-R25-001-1, 120/208 VAC Essential Power System

NMP-DP-001, Operational Risk Awareness

AG-OAM-02-0701, Work Scheduling Principles

Drawings: H-17068, H-17073, H-17121

Section 1R15: Operability Evaluations

Procedures: 34GO-OPS-065-0, Control Rod Movement

34IT-E41-003-2 HPCI Turbine Speed Control Test

34SV-E41-002-2 HPCI Pump Operability

52SV-R42-004-0, Battery Inspection

Main Control Room logs

FSAR Unit 1 Section 7.7

HPCI Lube oil sediment analysis for dates 1/11, 1/12, 1/14 and 1/15/08

CRs: 2008100154, 2008100632, 2008100320, 2008100273, 2008100272, 2008100280,

2008100277, 2008100276, 2008100274, 2008100900

Operating Order OO-01-0108-S

Drawings: H-51165, H-26020, H-16066

Eng. Evaluation #1532

Section 1R19: Post Maintenance Testing

MWOs: 2050001801, 1070218801, 1080048901, 1071624601, 1072624502, 1070306401, 1050898701

Procedures

57CP-CAL-250-0 AOV, Stroke/Positioner Test and Setup

57CM-MME-024-0, Fisher Type 657 Actuators Sizes 30-70 and 87

95IT-OTM-001-0, Maintenance Work Order Functional Test Guideline

51GM-MNT-002-0S, Maintenance Housekeeping

57GM-MIC-006-0, Removal and Installation of GE/WEED RTDs

52PM-C11-003-1, CRD Scram Valve Maintenance

51GM-MNT-017-0, Control of Lubricants

52PM-MNT-005-0, Limitorque Valve Operator Inspection

53IT-TET-009-0, M.O.V. Testing-Viper

53It-TET-002-0, V.O.T.E.S.

Section 1R20: Refueling and Outage Activities

Procedures: 34GO-OPS-013-1/2, Normal Plant Shutdown

34-GO-OPS-001-1/2, Plant Startup

34AB-C71-001-2 Reactor Scram Procedure

34SO-B31-001-2, Reactor Recirculation System

34AB-G41-001-1, Loss of Fuel Pool Cooling

Clearances: 1-DT-08-1E11-00318, 1-OP-07-1E21-10302, 1-DT-07-1R23-00511, 1-DT-08-1R23-00680

CRs: 2008101335, 2008103537

Section 1R22: Surveillance Testing

CRs: 2008101056, 2008101053, 2008101592

FSAR Unit 1 Sections 4.6, 5.2.4.3 and Table 5.2-7

Procedures: 42SV-TET-001-0 LLRT Testing Methodology

31GO-INS-001-0, Pump and Valve Inservice Testing (IST)

34SO-G11-009-2, Drywell and Reactor Building Sumps Systems

ENG-0133 Local Leak Rate Test Data Sheet for 1P41F049 and F050

Drawings: H-116011, H-16331

Section 1EP6: Drill Evaluation

Drill scenario for HNP Emergency Preparedness 2008 Exercise 01

Southern Nuclear Emergency Notification Forms

Section 4OA2: Identification and Resolution of Problems

Calculation H-83-32 Boron Injection from SBLC tank to HPCI suction via 1 ½" Fire Hose

AQ-128 CDBI request to verify alternate boron injection in accordance with the EOPs

CRs: 2006106806, 2006106811, 2006106882, 2008102081, 2008103821, 2008102141,

2008102143, 2008102328, 2008103342, 2008103898, 2008103591, 2008102606

Action Item: 2006203644

RHR Service Water Flow Testing results

Drawings: S-52534, HB-21039, HB-26014, HB-26015

Procedure: 42IT-TET-004-0S, Operating Pressure Testing Of Piping and Components