

UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION II

SAM NUNN ATLANTA FEDERAL CENTER 61 FORSYTH STREET SW SUITE 23T85 ATLANTA. GEORGIA 30303-8931

July 31, 2000

Southern Nuclear Operating Company, Inc. ATTN: Mr. H. L. Sumner, Jr. Vice President - Hatch Plant P. O. Box 1295 Birmingham, AL 35201-1295

SUBJECT: EDWIN I. HATCH NUCLEAR POWER PLANT - NRC INTEGRATED

INSPECTION REPORT NOS. 50-321/00-03, 50-366/00-03

Dear Mr. Sumner:

On July 1, 2000, the NRC completed an inspection at your Hatch Units 1 and 2 reactor facilities. The enclosed integrated report presents the results of that inspection. The results of this inspection were discussed on July 5, 2000, with Mr. P. Wells and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel.

The NRC identified two issues that were evaluated under the significance determination process (SDP) and were determined to be of very low safety significance (Green). These issues have been entered into your corrective action program and are discussed in the enclosed inspection report. One of these issues was determined to involve violations of NRC requirements, but because of the very low safety significance and because it was entered into your corrective action system, the violation is not cited. If you contest this non-cited violation, you should provide a response within 30 days of the date of this letter, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Hatch facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document Room

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or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Stephen J. Cahill , Chief Reactor Projects Branch 2 Division of Reactor Projects

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

Enclosure: NRC Inspection Report Nos. 50-321/00-03, 50-366/00-03

cc w/encl:
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*See attached concurrence sheet and **E-Mail concurrence sheets

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-321, 50-366

License Nos: DPR-57, NPF-5

Report No: 50-321/00-03, 50-366/00-03

Licensee: Southern Nuclear Operating Company, Inc. (SNC)

Facility: E. I. Hatch Nuclear Power Plant, Units 1 & 2

Location: P. O. Box 2010

Baxley, Georgia 31515

Dates: April 2 - July 1, 2000

Inspectors: J. Munday, Senior Resident Inspector

T. Fredette, Resident Inspector

D. Forbes, Regional Radiation Protection Specialist

M. Scott, Regional Engineering Inspector B. Crowley, Regional Maintenance Inspector R. Gibbs, Regional Maintenance Inspector

Approved by: Stephen J. Cahill, Chief

Reactor Projects Branch 2 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000321-00-03, IR 05000366-00-03; 04/02-07/01/2000; Southern Nuclear Operating Company, E.I. Hatch Nuclear Power Plant, Units 1 & 2. Personnel Performance During Nonroutine Evolutions; Maintenance Risk Assessments and Emergent Work Evaluation.

The inspection was conducted of baseline activities and was performed by resident inspectors, a regional office radiation specialist, a regional office engineering specialist, and two regional office maintenance specialists. Temporary Instruction (TI) 2515/144, Performance Indicator Data Collecting and Reporting Process Review, was also conducted during this inspection. This inspection identified two green issues in the two inspectable areas noted at the end of the above paragraph, one of which was a non-cited violation of regulatory requirements. The significance of issues is indicated by their color (green, white, yellow, or red) and was determined by the Significance Determination Process.

Cornerstone: Initiating Events, Barrier Integrity

- ! Green. The inspectors identified a non-cited violation of a clearance procedure required by Technical Specification 5.4.1. Operators incorrectly modified and verified a clearance restoration order, causing approximately 50 gallons of reactor coolant to be vented to atmosphere in the reactor building. An individual and an elevation of the reactor building were contaminated. However, operators expeditiously recognized and isolated the leak, minimizing the radiological and plant consequences. The vent line was also small bore piping, limiting the size of the leak. Consequently, the issue was determined to be of very low safety significance. (Section 1R14).
- ! Green. The inspectors concluded that the licensee had not adequately considered the effects of removing the Unit 2 condensate pump area cooler from service. However, the operator's quick response to the annunciator and recovery of the system resulted in no challenge to the condensate system or plant operations (Section 1R13).

Report Details

Summary of Plant Status

Unit 1 operated at essentially 100% rated thermal power (RTP) for the duration of the report period, except for planned, short-duration power reductions to conduct routine equipment testing.

Unit 2 began the report period in cold shutdown following a refueling outage. The unit was restarted on April 8 and attained 100% RTP on May 1, where it operated for the duration of the report period, except for short-duration power reductions to conduct equipment testing and maintenance.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R02 Evaluations of Changes, Tests, or Experiments

a. <u>Inspection Scope</u>

The inspectors evaluated the licensee's effectiveness in implementing changes to the plant and significant plant documents as described in the Final Safety Analysis Report (FSAR). The inspectors verified that these changes were made in accordance with 10 CFR 50.59, Changes, Tests, and Experiments, and the licensee's implementing procedures. During the inspection, the inspectors reviewed 20 plant modifications and commercial upgrades with completed 10 CFR 50.59 evaluations in three cornerstone areas. The inspectors also reviewed 24 modifications to the plant, procedures changes, and commercial upgrades that did not require a complete 10 CFR 50.59 evaluation (screened out) in three cornerstone areas. The inspection criteria used was stated in 10 CFR 50.59 and the site's implementing administrative requirements. Related corrective action and audit outputs were also examined by the inspectors for content and effectiveness. Reviewed documents are listed in Attachment 2 of this report.

b. <u>Issues and Findings</u>

No findings were identified.

1R04 Equipment Alignment

a. <u>Inspection Scope</u>

The inspectors reviewed plant documents and conducted field observations to verify the following systems were properly aligned. Additionally, the inspectors reviewed outstanding maintenance work requests on the systems and performed walkdowns to identify any discrepancies with the systems. The inspectors also reviewed related Condition Reports (CRs) to verify that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact mitigating system availability.

! Unit 1 Reactor Core Isolation Cooling

- ! Unit 2 Plant Service Water (Division I)
- ! Emergency Diesel Generators (EDGs) 1A, 1C, 2A and 2C
- ! Residual Heat Removal (RHR) 1A
- ! Residual Heat Removal Service Water (RHRSW) 2A and 2B

b. <u>Issues and Findings</u>

No findings were identified.

1R05 Fire Protection

a. <u>Inspection Scope</u>

The inspectors reviewed the following fire detection and suppression system surveillance and installation procedures and performance activities to determine if they were adequate to support the operability of the fire protection system:

- ! 42SV-FPX-007-0S, "Cable Tray Surveillance KAOWOOL Material"
- ! 42SV-FPX-018-2S, "Fire Barrier 18 Month Surveillance"
- ! 42SV-FPX-019-2S, "Penetration Seal Surveillance"
- ! 42FP-FPX-011-0S, "Cable Tray/Conduit Fire Protection Material Installation and Repair"

The inspectors also walked down selected high risk fire zones to assess the material condition of fire detection and suppression equipment and to ensure that equipment configuration was in accordance with the Pre-Fire Plans. This included selected electrical cable trays located in high risk fire zones in the Unit 1 and 2 reactor buildings. The inspectors also ensured transient combustibles were compensated for appropriately.

The inspectors observed performance of the plant fire brigade during their response to an announced fire drill. The inspectors assessed fire brigade response time and actions to mitigate the simulated fire.

b. Issues and Findings

No findings were identified.

1R06 Flood Protection

a. <u>Inspection Scope</u>

The inspectors conducted a walkdown of the service water intake structure and both reactor buildings. Particular attention was given to the lower elevations containing emergency core cooling system (ECCS) equipment. The inspectors reviewed the FSAR design requirements and verified that the required equipment was in place and functional. Sumps were inspected and verified to be free of debris and sump pumps were verified to have no obvious maintenance problems. Work history was reviewed to determine if

there were any long-term outstanding work issues associated with the equipment. In addition, surveillance procedures were reviewed to verify their adequacy. Penetrations in the walls of the ECCS rooms were inspected and verified adequately sealed.

b. <u>Issues and Findings</u>

No findings were identified.

1R11 <u>Licensed Operator Requalification</u>

a. <u>Inspection Scope</u>

The inspectors observed the performance of two simulator scenarios by Operations personnel. The inspectors observed the scenarios to determine if normal, annunciator, and emergency operating procedures, and the emergency plan were properly implemented and that training objectives were satisfied. Inspectors reviewed the scenarios with the instructors prior to the exercise to discuss previous performance problems that were to be emphasized and the specific objectives for each participant. Following the exercise, the inspectors attended the evaluator's critique.

b. <u>Issues and Findings</u>

No findings were identified.

1R12 <u>Maintenance Rule Implementation</u>

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the Maintenance Rule (10 CFR 50.65) for the Unit 1 and 2 Cooling Tower Fans and the Unit 1 Turbine Building Chillers. This review included characterization of failures, the appropriateness of the associated a(1) or a(2) classification, and the appropriateness of either the associated a(2) performance criteria or the associated a(1) goals and corrective actions.

b. Issues and Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

.1 Routine Observations

a. <u>Inspection Scope</u>

The inspectors reviewed the licensee's assessments of the risk impacts of removing the following components from service. The inspectors reviewed Maintenance Work Orders

(MWOs), CRs, and the maintenance work control procedure. In addition, selected activities were observed to ensure the work was being conducted in accordance with the controlling document.

- ! CR CO0004562, RHRSW Pump 2A Low Flow Condition
- ! CR CO0005139, 1C EDG Fuel Oil Transfer Pumps
- ! MWO 20001513, Unit 2 Electro-hydraulic Control (EHC) System
- ! MWO 20001748. RHRSW Strainer
- ! MWO 29903760, Unit 2 Turbine Building Supply Fans (Condensate Pump Area)
- ! MWO 10001897, 1A Reactor Recirculation Pump Controller

b. <u>Issues and Findings</u>

No findings were identified.

.2 <u>Condensate Pump Area Cooler Removal From Service</u>

a. <u>Inspection Scope</u>

The inspectors reviewed the work planning and scheduling to determine if the licensee had adequately considered the impact of removing this cooler from service. The inspectors also reviewed the maintenance rule scoping manual and procedures to verify the cooler was properly scoped within the Maintenance Rule. The inspectors also assessed operator response and licensee corrective actions.

b. Issues and Findings

On May 4, Operations personnel removed the Unit 2 condensate pump area cooler from service for preventive maintenance. Shortly after the cooler was secured and placed under clearance, a control room annunciator alarmed due to increased condensate pump bearing temperatures. Because work had not yet begun, operators quickly removed the clearance and restored the cooler to service. The pump bearing temperatures decreased and the annunciator cleared. This issue was noteworthy because of the potential consequences of losing all or portions of the condensate system while operating at full power. Although, there are no automatic condensate pump trips due to high bearing temperature, the potential for bearing failure was increased. Plant procedures also required that pumps with high bearing temperatures be removed from service, which would require a significant power reduction. The single cooler also supplies cooling air for all of the condensate pumps.

The inspectors reviewed the planning and scheduling procedures and the conduct of this activity to determine if the licensee had adequately considered the impact of removing this cooler from service. The activity was not originally scheduled to be performed during this time frame but was performed since it was considered convenient to both maintenance and operations personnel. The inspectors concluded that the licensee had not adequately considered the effect of removing this single support system from service. The inspectors reviewed the maintenance rule scoping manual and determined that the condensate system was considered risk significant, however, the cooler was not. The operator's quick response to place the cooler back in service removed the challenge to the condensate system and plant operations. Therefore, this issue was evaluated to be of very low significance by the Significance Determination Process and

was determined to be GREEN. Inspectors also confirmed that no regulatory requirements were violated. The licensee completed CR C00004131 to document this issue and develop corrective actions.

1R14 Personnel Performance During Non-routine Plant Evolutions

a. <u>Inspection Scope</u>

A human error was made in the development of a clearance restoration sequence which resulted in approximately 50 gallons of reactor coolant leaking to the reactor building floor. The inspectors reviewed CR CO0004204 which described the event and 30AC-OPS-001-0S, Control of Equipment Clearances and Tags, to determine if a violation of the clearance procedure had occurred. In addition, CR CO0004206 and area radiation survey records were reviewed to determine the level of contamination present following the event. The inspectors toured the area and determined that the licensee had labeled it with the appropriate placards following the event. The inspectors also confirmed that all reactor coolant makeup systems were operable during the event.

b. <u>Issues and Findings</u>

An error occurred on May 10 while removing an equipment clearance to facilitate maintenance activities. The issue involved clearance 1-00-277 which had isolated a section of small bore reactor coolant piping so that a portion of the pipe could be replaced. Prior to removing the clearance, operators revised the system restoration sequence so that the number of entries into contaminated areas would be reduced. An error was made when the clearance restoration sequence was modified which resulted in unisolating the system prior to closing a system vent valve. Neither the change initiator nor the change verifier detected the error. When the operators restored the system to service it pressurized to full reactor pressure and sprayed water through the open vent valve. Approximately 50 gallons of reactor coolant sprayed to the surrounding area before the system isolation valve was closed when the operator suspected an incorrect system response. One individual and a large portion of the floor on that elevation were contaminated. With the exception of the contaminated individual's shoes, the individual and the surrounding area were successfully decontaminated.

The risk significance of this issue is minimized because the leak was from ½" instrument tubing, limiting its size, and therefore did not jeopardize the water level in the reactor. In addition, all reactor coolant makeup systems were operable at the time the leak occurred. Although surrounding area and personnel contaminations occurred, the dose accrued due to this leak was small. Also, operators expeditiously isolated the leak. Therefore, this issue was evaluated to be of very low significance by the Significance Determination Process and was determined to be GREEN. The inspectors identified the operators' incorrect modification and verification of the clearance restoration order as a violation of the requirements of step 8.13.5.2 of clearance procedure 30AC-OPS-001-OS as required by Technical Specification 5.4.1.a and Regulatory Guide 1.33, Revision 2. This violation is being treated as non-cited violation (NCV) 50-321/00-03-01, Clearance Restoration Order Modified Inappropriately Causing Reactor Coolant Leak. The licensee documented this issue in CR CO0004204 in their corrective action system.

1R15 Operability Evaluations

a. <u>Inspection Scope</u>

The inspectors evaluated the technical adequacy of the following equipment evaluations to ensure that operability was properly justified, the subject component or system remained available, and no unrecognized increase in risk occurred.

- ! Standby Plant Service Water Pump Discharge Check Valve 2P41-F321
- ! 1B EDG
- ! Primary Meteorological Tower
- ! 1C EDG Fuel Oil Transfer Pumps

b. <u>Issues and Findings</u>

No findings were identified.

1R16 Operator Workarounds

a. <u>Inspection Scope</u>

The inspectors reviewed existing operator workarounds to determine if the functional capability of the related systems or human reliability in responding to an initiating event was affected. The inspectors considered if the workaround affected the operators' ability to implement abnormal or emergency operating procedures. In addition, the inspectors reviewed the cumulative effects of the workarounds to determine if the initiating event frequency could potentially be increased or if multiple mitigating systems were affected.

b. <u>Issues and Findings</u>

No findings were identified.

1R17 Permanent Plant Modifications

a. <u>Inspection Scope</u>

The inspectors evaluated 27 modifications in three cornerstone areas. The inspectors verified that the designs of the modified systems had not been degraded and that the plant remained in a safe condition. The inspectors reviewed related corrective action and audit results for content and effectiveness. Reviewed documents are listed in Attachment 2 of this report.

b. <u>Issues and Findings</u>

No findings were identified.

1R19 Post Maintenance Testing

a. <u>Inspection Scope</u>

The inspectors reviewed the following MWOs and either witnessed the testing or reviewed test records to determine if the scope of testing adequately verified that the work performed was correctly completed and demonstrated that the affected equipment was functional and operable.

- ! MWO 29602507, Control Building Ventilation System Duct Replacement
- ! MWO 20001903, U2 Standby Gas Treatment System Flow Switch Repair
- ! MWO 20001449, U2 RHRSW Flow Control Valve Testing
- ! MWO 20001670, 2B RHR Flow Transmitter and Minimum Flow Valve Adjustment
- ! MWO 10001897, 1A Reactor Recirculation Pump Controller Troubleshooting
- ! MWO 19902996, 1A Core Spray Suction Valve Packing Adjustment

b. <u>Issues and Findings</u>

No findings were identified.

1R22 Surveillance Testing

a. <u>Inspection Scope</u>

The inspectors examined the following surveillance test procedures and either witnessed the testing or reviewed test records to determine if the scope of testing adequately demonstrated that the affected equipment was functional and operable.

- ! 34SV-E11-001-1S. Residual Heat Removal Operability
- ! 34SV-E41-002-1S, U1 High Pressure Coolant Injection (HPCI) Pump Operability
- ! 42SP-051100-PR-1-1S, Testing Unit 1 HPCI Solenoid Valve Trip Logic
- ! 57SV-SUV-001-2S, U2 Analog Transmitter Trip System Functional Test
- ! 57SV-C11-001-1S. U1 Scram Discharge Level Functional Test
- ! 34SV-C41-001-1S, U1 Standby Liquid Control Monthly Test

b. <u>Issues and Findings</u>

No findings were identified.

1R23 <u>Temporary Plant Modifications</u>

a. Inspection Scope

The inspectors reviewed Temporary Modification 2-00-013, Control Rod 30 -15 Scram Test Toggle Switch Bypass, and Temporary Design Change 96-003T, Turbine and Control Building Exhaust Plenum Removal, including the temporary modification package and 10 CFR 50.59 evaluation. The inspectors also verified that the FSAR and plant drawings had been revised to indicate the modification.

b. <u>Issues and Findings</u>

No findings were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation

a. <u>Inspection Scope</u>

On May 31, the inspectors observed the licensee conduct an emergency exercise which included full participation by the licensee emergency response organization and partial participation by local area emergency organizations. The inspectors witnessed the licensee evaluate and classify the simulated event as it progressed. In addition, the inspectors attended the licensee's drill critique.

b. <u>Issues and Findings</u>

No findings were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control

a. Inspection Scope

The inspectors reviewed radiation work permits, attended an outage daily planning meeting, and conducted plant walkdowns in selected Unit 1 and Unit 2 areas. During the walkdowns, work in progress and radiation protection technicians performing airborne, contamination, and radiation surveys were observed. The inspectors also reviewed selected radiological postings, high radiation area barricades, and surveys for selected areas of the plant. The inspectors verified survey results for two high radiation areas and reviewed key controls for very high radiation areas. A recent radiation protection self-assessment and selected corrective actions for problem identification for the area of radiological controls were reviewed. Inspected items were evaluated against the criteria of 10 CFR 20 and licensee procedural requirements.

b. <u>Issues and Findings</u>

No findings were identified.

2OS2 ALARA Planning and Controls

a. <u>Inspection Scope</u>

The inspectors reviewed the plant collective exposure history, current exposure dose trends, outage reports and exposure goals, and the year 2000 annual site dose goal. The inspectors also evaluated outage job evaluations and performance results for dose significant work. Items were evaluated against the ALARA criteria of 10 CFR 20.1101.

b. Issues and Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

(Closed) Temporary Instruction (TI) 2515/144, Performance Indicator Data Collecting and Reporting Process Review

a. <u>Inspection Scope</u>

The inspectors conducted an inspection of selected performance indicators in accordance with Temporary Instruction 2515/144, "Performance Indicator Data Collecting And Reporting Process Review." The inspectors reviewed the licensee's Administrative Control Procedure, 00AC-REG-005-0S, "Preparation And Reporting Of NRC PI Data," Revision 0, to determine if it was consistent with the guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 0. Specifically, the inspectors reviewed various performance indicator definitions, data reporting elements, calculational methods, definitions of terms and clarifying notes. In addition, the inspectors interviewed several individuals responsible for program administration and data collection to verify their knowledge and understanding of the program was consistent with the procedure and NEI guidance and procedure 00AC-REG-005-0S.

b. Issues and Findings

No findings were identified.

4OA3 Event Follow-up

.1 (Closed) Licensee Event Report (LER) 50-366/00-02-00, Unclear Drawing Results in Unplanned Actuation of Engineered Safety Features

On March 14, while performing a Local Leak Rate Test (LLRT), a high drywell pressure signal was inadvertently generated which resulted in actuation of the Standby Gas Treatment system, secondary containment isolation, and a partial primary containment Group 2 isolation. The actuation occurred because valve 2E11-F041D drifted open when power to the valve solenoid was removed. System drawings incorrectly indicated that the valve was a "fail-as-is" valve on loss of power or air. The licensee concluded that the drawings were in error and initiated corrective actions to revise the drawings. The

inspectors reviewed electrical panel and logic drawings with the licensee and verified the systems responded as designed. The inspectors determined that the inadequate drawings were a violation of 10 CFR 50 Appendix B Criterion V. However, since all systems responded as expected and since there was no impact on safety due to the actuation, this failure constitutes a violation of minor significance and is not subject to formal enforcement action.

.2 (Closed) LER 50-366/00-03-00, Inadequate Procedure Results in RPS Actuation on Scram Discharge Volume High Water Level.

This event was discussed in NRC Inspection Report 50-321, 366/00-02. No new information was presented in the LER so it was closed.

.3 (Closed) LER 50-366/00-04-00, Excessive Leakage Identified on Secondary Containment Bypass Valves

The inspectors reviewed the licensee's corrective action for this event. The LER documented that the drywell floor drain sump discharge inboard and outboard primary containment isolation valves did not pass a LLRT. A nylon tie-wrap and a piece of paper were found in one valve seat and the licensee concluded that it had failed because of this debris. The cause for the other failure could not be conclusively determined, however, upon increasing the closing force on the actuator the valve tested satisfactorily. The licensee cleaned the sump and the remainder of the drywell and initiated an action item to have screens installed over the sumps during outages to prevent intrusion of foreign material. The valves were subsequently retested satisfactorily. No significant performance issues or violations of regulatory requirements were identified, so this item was closed.

.4 (Closed) LER 50-366/00-05-00, Blown Fuse Results in Unplanned Actuation of Engineered Safety Feature System

This LER was closed. It was a minor issue with no impact on safety involving an unplanned actuation while Unit 2 was shutdown.

.5 (Closed) LER 50-366/00-06-00, Improper Coordination of Outage Activities Results in Unplanned Actuation of ESF System

This LER was closed. It was a minor issue with no impact on safety involving an unplanned actuation while Unit 2 was shutdown.

.6 (Closed) LER 50-366/00-07-00, Blown Fuse Results in Unplanned Actuation of Engineered Safety Feature System

This event occurred when a fuse blew in response to a grounded circuit, which caused several Group 1 and Group 2 primary containment isolation valves to automatically close. The circuit grounded as electricians were replacing a divisional separation tray cover. A screw used to hold the cover in place pierced the insulation on one of the wires in the tray and caused the fuse to blow. The blown fuse and the damaged wire were replaced. The licensee is reviewing the method for attaching separator covers to prevent recurrence. This LER was determined to be a minor issue with no impact on safety and was closed.

4OA6 Management Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. P. Wells, Hatch General Manager, and other members of licensee management at the conclusion of the inspection on July 5, 2000. The licensee acknowledged the findings presented. On July 31, 2000 an additional issue, identified in section 1R14, was discussed with the licensee. The licensee presented dissenting comments with respect to the non-cited violation discussed in that section. The licensee stated the issue was still being reviewed.

The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

Betsill, J., Assistant General Manager - Operations

Davis, D., Plant Administration Manager

Googe, M., Performance Team Manager

Hammonds, J., Engineering Support Manager

Johnson, G., Safety Audit and Engineering Review Supervisor

Kirkley, W., Health Physics and Chemistry Manager

Lewis, J., Training and Emergency Preparedness Manager

Madison, D., Operations Manager

Moore, C., Assistant General Manager - Plant Support

Reddick, R., Site Emergency Preparedness Coordinator

Roberts, P., Outage and Modifications Manager

Thompson, J., Nuclear Security Manager

Tipps, S., Nuclear Safety and Compliance Manager

Wells, P., General Manager - Nuclear Plant

NRC

Cahill, S., Chief, Reactor Projects Branch 2 Olshan, L., Hatch Project Manager, NRR

ITEMS OPENED, CLOSED, AND DISCUSSED

Items Opened and Closed					
50-321/00-03-01					

NCV Clearance Restoration Order Modified Inappropriately

Causing Reactor Coolant Leak (Section 1R14).

Items Closed

2515/144 TI Performance Indicator Data Collecting and Reporting

Process Review (Section 4OA1)

50-366/2000-002-00

LER Unclear drawing results in unplanned actuation of

engineered safety features (Section 4OA3.1)

50-366/2000-003-00	LER	Inadequate procedure results in RPS actuation on scram discharge volume high water level (Section 4OA3.2)
50-366/2000-004-00	LER	Excessive leakage identified on secondary containment bypass valves (Section 4OA3.3)
50-366/2000-005-00	LER	Blown fuse results in unplanned actuation of engineered safety feature system (Section 4OA3.4)
50-366/2000-006-00	LER	Improper coordination of outage activities results in unplanned actuation of ESF system (Section 4OA3.5)
50-366/2000-007-00	LER	Blown fuse results in unplanned actuation of engineered safety feature system (Section 4OA3.6)

Attachments: 1. NRC's Revised Reactor Oversight Process 2. List of Engineering Documents Reviewed

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
! Initiating Events	! Occupational	! Physical Protection
! Mitigating Systems	! Public	
! Barrier Integrity		
! Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

DOCUMENTS AND ENGINEERING PACKAGES REVIEWED

1. Plant Modifications and Commercial Upgrades with Complete 50.59 Review

DCR 2-98-033, EDG Jacket Coolant - AMOT

DCR 1-97-005, Generic Letter 96-06 Thermal Pressure Protection

DCR 1-95-053, Reactor Water Level and Recirculation Controls

DCR 2-98-018, Torus Oxygen Analyzer (2P33)

DCR 1-96-033, LPCI Inverter Deletion

MDC 2-99-5011, Modification of RHR Pump Discharge Check Valves 2E11-F031A, B, C, and D, to Remove Stuffing Box, Woodruff Keys, and Packing Counter-Weight and Counter-Weight Arm

DCR 2-97-026, Add Under-Voltage Trip Protection to Main Turbine Generator (MTG)

DCR 2-99-023, Replace Obsolete and Unnecessary Controllers With Throttle Switches and Position Indication for RHR Valves 2E11-F053A and B

MDC 1-96-5043, Remove RHR and CS Pump Suction Relief Valves 1E11-F030A, B, C, D, 1E21-F032A, and B

DCR 1-92-126, Replace Disc on RHR Valves 1E11-F027A and B (Generic Letter 89-10)

DCR 1-97-028, Replace Controllers With Throttle Switches and Position Indication for RHR Valves 1E11-F068A and B

DCR 1-99-016, Replace Existing RWCU Outlet Tilting Disc Check Valve 1G31-F039 With an Emertech Nozzle Check Valve

DCR 1-96-045, Power Up-rate Hardware and Setpoint Changes That do Not Require NRC Approval

DCR 1-95-032, Breaker/Fuse Coordination

DCR 1-86-318, Secondary Containment Penetration, Reactor Stack Building Sample Cable

DCR 2-98-11, 4160 Volt Breaker Status Indication

DCR 2-98-003, Circulating Water Flume Indicators

DCR 1-97-039, Generic Letter 89-10 MOV - Replace Two Valves and Change Three Gear Ratios

DCR 2-98-065, "A" Core Spray Pump Impeller Replacement

CGDP 97-0049, Tape, Electrical, Siltemp, Rev. 0 [CGDP, Commercial Grade Dedication Plan]

2. Plant Modifications and Procedures Screened Out of 10CFR 50.59

Modifications

MDC 1-95-5022, Jockey Pump Check Valves Replacement

DCR 1-91-195, Torus Water Temperature

DCR 2-98-022, Install TBV Check Valves

DCR 1-96-033, LPCI Inverter Deletion

DCR 2-98-043, TCV Fast Closure Replacement

DCR 1-96-048, Extended Power Uprate other than Controls

MDC 2-98-5008, Replace 600 Volt Breakers

Procedure Changes Reviewed

57CP-R43-002-1S, "General Electric IAV71B Overvoltage Relays," Rev. 2

57CP-N32-006-2N, "Thrust Bearing Wear Detection Secondary Indication Calibration," Rev. 0

57CP-CAL-020-2S, "Bi-metal and Mercury Temperature Indicator Calibration," Rev. 13

53PM-MON-001-OS, "Vibration Monitoring of Rotating Machinery," Rev. 2

5GM-MLH-004-OS, "NUREG-0612 Heavy Loads Movement Procedure," Rev. 13

57SV-C51-006-OS, "RBM Calibration," Rev. 2

34SV-SUV-019-2S, "Surveillance Checks," Rev. 31

34SV-N30-003-2S, "Main Turbine Monthly Surveillance Test," Rev. 5

34SO-C41-002-1S, "Standby Liquid Control Pump Operability Test," Rev. 13

34SO-OPS-003-OS, "Security and Dry Storage Power Systems Test," Rev. 7

34SO-OPS-001-OS, "Operating the Security and Dry Storage Power Systems," Rev. 6

34SO-OPS-001-OS, "Operating the Security and Dry Storage Power Systems," Rev. 5

34AB-X43-001-1S, "Fire Protection," Rev. 8

34SO-G11-024-2S, "Radwaste Spent Resin Tank Operating Procedure," Rev. 7

34SO-N43-003-1N, "Stator Cooling System," Rev. 9

Commercial Upgrade Packages Reviewed

CGDP 96-0085, Differential Pressure Transmitter, Rev. 2

CGDP 98-0057, Duct Assembly, Rev. 1

3. Corrective Action Program, Self Assessments, and Audits Reviewed

Modification Self Assessment Preliminary Findings Summary (Plant Modification Group, dated July 16, 1999)

Design Change and Plant Modification Control Program Audit (99-DCR-1, Log LR-SAER-004-0699, June 16, 1999)

Design Change Process Assessment, Hatch Project Support (AIT RC9900376/470, Log HE-3047) dated November 9, 1999

Administrative Controls and Reporting Requirements Audit (99-ADM-1, Log LR-SAER-004-0799, July 19, 1999)

Design Change Request Audit (98-DCR-1, Log LR-SAER-006-0598, May 18 1998)

4. Reference Documents Reviewed

40AC-ENG-003-0S, Design Control, Rev. 9

10AC-MGR-010-0S, Preparation and Approval of 10CFR Evaluations, Rev. 4

10AC-MGR-003-0S, Procedure processing, Rev. 18