UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8931

October 25, 2002

Southern Nuclear Operating Company, Inc.
ATTN: Mr. J. Gasser, Jr., Vice President
Vogtle Electric Generating Plant
P. O. Box 1295
Birmingham, AL 35201-1295

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT - NRC INTEGRATED INSPECTION REPORT 50-424/02-03 AND 50-425/02-03

Dear Mr. Gasser:

On September 28, 2002, the Nuclear Regulatory Commission (NRC) completed an inspection at your Vogtle Electric Generating Plant facility. The enclosed report documents the inspection findings which were discussed on October 4, 2002, with Mr. G. Frederick and other members of your staff.

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

Based upon the results of this inspection, the inspectors identified two findings of very low safety significance (Green) that were determined to involve violations of NRC requirements. However, because of the very low safety significance and because the violations were entered into your corrective action program, the NRC is treating these violations as Non-Cited Violations in accordance with Section VI.A.1 of the NRC's Enforcement Policy. Additionally, one licensee-identified violation of very low safety significance is listed in Section 4OA7 of the enclosed report. If you deny any non-cited violations contained in the enclosed inspection report, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, 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 Vogtle facility.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be publicly available in the NRC Public Document Room 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/reading-rm/adams.html* (the Public Electronic Reading Room).

Sincerely,

//RA//

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

Docket Nos.: 50-424 and 50-425
License Nos.: NPF-68 and NPF-81

Enclosure: Integrated Inspection Report 50-424/02-03 and 50-425/02-03
w/Attachment

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-424 and 50-425

License Nos.: NPF-68 and NPF-81

Report Nos.: 50-424/02-03 and 50-425/02-03

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

Facility: Vogtle Electric Generating Plant (VEGP), Units 1 and 2

Location: 7821 River Road
Waynesboro, GA 30830

Dates: June 30, 2002 through September 28, 2002

Inspectors: J. Zeiler, Senior Resident Inspector
T. Morrissey, Resident Inspector
C. Rapp, Senior Project Engineer (Section 1R06)

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

Enclosure

SUMMARY OF FINDINGS

IR 05000424-02-03, IR 05000425-02-03, on 06/30-09/28/2002; Southern Nuclear Operating Company, Inc., Vogtle Electric Generating Plant, Units 1 and 2, surveillance testing.

The inspection was conducted by the resident inspectors and a regional senior project engineer. The inspectors identified two findings (Green) which were non-cited violations. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspector Identified Findings

Cornerstone: Mitigating Systems

- Green. A Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified for failing to implement adequate corrective actions for unacceptable preconditioning of the Emergency Diesel Generators (EDGs) prior to Technical Specification surveillance testing. This preconditioning was identified by the NRC in May 2001 and again in July 2002. Licensee corrective actions were ineffective at preventing recurrence of this condition.

  This finding was of very low significance because no actual loss of EDG safety function or undetected EDG performance condition actually occurred. The direct cause of this finding involved the cross-cutting area of Problem Identification and Resolution (Section 1R22.1).

- Green. A Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified for failing to take prompt and effective corrective actions following degraded pump inboard oil bearing analysis results associated with Unit 1, Component Cooling Water (CCW) Pump #2.

  This finding was of concern because it rendered the CCW pump inoperable, but of very low safety significance because no actual loss of CCW safety function occurred. The direct cause of this finding involved the cross-cutting area of Problem Identification and Resolution (Section 1R22.2).

B. Licensee Identified Violations

A violation of very low significance which was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee appear reasonable. This violation is listed in section 4OA7 of this report.

Report Details

Summary of Plant Status

Both Unit 1 and Unit 2 operated at essentially 100% RTP throughout the inspection period.

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

1R04 Equipment Alignment (Quarterly)

a. Inspection Scope

The inspectors conducted partial walkdowns and reviewed associated plant documents of the following three systems to verify correct system alignment while redundant or backup equipment was inoperable. Documents reviewed are listed in the Attachment.

- 2B Piping Penetration Filtration and Exhaust System, when the 2A Piping Penetration and Exhaust System was taken out of service for preventative maintenance
- 1A Emergency Diesel Generator (EDG) and associated electrical distribution system when 1B EDG was taken out of service for surveillance testing
- Unit 2 Containment Cooling System when Containment Cooling Fans #5 and #6 were taken out of service for preventative maintenance

b. Findings

No findings of significance were identified.

1R05 Fire Protection

.1 Fire Area Walkdown

a. Inspection Scope

The inspectors toured eight plant areas to verify the licensee was controlling combustible materials and ignition sources as required by licensee Procedure 92015-C, Use, Control, and Storage of Flammable/Combustible Materials, and Procedure 92020-C, Control of Ignition Sources. The inspectors also assessed the condition of fire detection, suppression, and protection systems and reviewed the licensee's fire protection Limiting Condition for Operation (LCO) log and Condition Reporting (CR) database to verify that the corrective actions for degraded equipment were identified and appropriately prioritized. The inspectors reviewed the licensee's fire protection program to verify the requirements of Updated Final Safety Analysis Report (UFSAR) Section 9.5.1, Fire Protection Program, and Appendix 9A, Fire Hazards Analysis were met. Documents reviewed to support these inspection activities are listed in the Attachment. Plant areas toured included the following:

- 2A Nuclear Service Cooling Water (NSCW) system building and tunnels
- 2B Piping Penetration Filtration and Exhaust system
- 2A and 2B Safety Injection pump rooms and associated valve galleries

- 2B NSCW system building and tunnels
- 2A and 2B Motor Driven Auxiliary Feedwater (AFW) pump rooms
- 1B NSCW system building and tunnels
- Unit 1 and Unit 2 Auxiliary Buildings, Level 2
- 2A Residual Heat Removal (RHR) system

b. Findings

No findings of significance were identified.

.2 Plant Fire Drill

a. Inspection Scope

The inspectors observed an announced fire drill conducted in the Unit 2 Auxiliary Component Cooling Water (ACCW) pump #1 room involving a pump lubricant fire scenario. The inspectors assessed the adequacy of the fire drill and fire brigade response using licensee Procedures 92000-C, Fire Protection Program; 92005-C, Fire Response Procedure; 92030-C, Fire Drill Program; 92730-2, Zone 30 - Auxiliary Building - Level B, ACCW Pump, Train A Fire Fighting Preplan; 17103A-C, Annunciator Response Procedures For Fire Alarm Computer; and 13305-2, Auxiliary Building HVAC System. The inspectors observed fire brigade members to verify that they responded to the fire in a timely manner, donned proper protective clothing, used self-contained breathing apparatus, and had equipment necessary to control and extinguish the fire. The inspectors assessed the adequacy of the fire brigade's fire fighting strategy including entry into the fire area, communications, search and rescue, and, fire equipment usage.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measurements (Semi-Annual and Annual)

a. Inspection Scope

The inspectors reviewed the licensee's internal and external flooding mitigation procedures and equipment to verify they were consistent with the licensee's design requirements and risk analysis assumptions. For internal flooding, the inspectors reviewed the UFSAR and Individual Plant Examination and walked down the areas listed below which contained risk-significant structures, systems and components (SSCs) below flood level to verify flood barriers were in place. Water-tight doors were observed to verify they were closed as required by licensee procedures, the locking mechanism functioned properly, and the sealing gasket material was intact and undamaged. The inspectors reviewed selected alarm response procedures to verify alarm setpoints and setpoints for sump pump operation were consistent with the UFSAR, the setpoint index, and Technical Specifications (TS).

The inspectors discussed external flooding preparation with engineering personnel to verify preparation and compensatory measures met the licensee's design requirements and risk analysis assumptions. The inspectors checked selected cable tunnels to verify the sump pumps functioned and adverse water conditions did not exist.

The inspectors reviewed a sampling of CRs to verify the licensee was identifying and correcting problems associated with flood detection and protection of SSCs. Licensee documents and drawings reviewed during the inspection are listed in the Attachment. Areas walked down included the following:

- Unit 1 NSCW Towers and cable tunnels
- Unit 1 Motor Driven and Turbine Driven AFW Pump rooms
- Unit 1 and Unit 2 RHR Pump rooms
- Unit 1 and Unit 2 4160 volt AC vital switchgear rooms
- Unit 1 and Unit 2 Essential Chilled Water rooms

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (Quarterly)

a. Inspection Scope

On August 27, the inspectors observed operator performance during a licensed operator requalification Segment #5 annual simulator graded examination. The scenario involved a faulted steam generator complicated with the loss of a 120 volt AC vital instrument panel, primary plant instrument failures, Safety Injection actuation channel failure, and, an inadvertent turbine runback. The inspectors specifically assessed the following areas:

- Correct use of abnormal and emergency operating procedures including, Procedure 18001-C, Primary Systems Instrumentation Malfunction; Procedure 18012-C, Turbine Runback; Procedure18032-1, Loss of 120V AC Instrument Power; Procedure 19000-C, E-0 Reactor Trip or Safety Injection; Procedure 19020-C, E-2 Faulted Steam Generator Isolation; and Procedure19011-C, ES-1.1 SI Termination
- Ability to identify and implement appropriate Technical Specification actions.
- Ability to identify and implement appropriate reporting and emergency plan actions in accordance with licensee Procedure 91001-C, Emergency Classification and Implementing Instructions
- Clarity and formality of communications in accordance with licensee Procedure 10000-C, Conduct of Operations
- Proper control board manipulations including critical operator actions
- Quality of supervisory command and control
- Effectiveness of the post evaluation critique

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed the following two equipment problems and associated CRs to verify the licensee's maintenance efforts met the requirements of 10 CFR 50.65 (the Maintenance Rule) and licensee Procedure 50028-C, Engineering Maintenance Rule Implementation. This included review of failure characterization, establishment of performance criteria or 50.65 (a) (1) performance goals, and corrective actions. The inspectors reviewed control room logs; the system health report, CR, and maintenance rule databases; MWOs; and interviewed the system engineer and maintenance rule coordinator, to determine system condition and whether maintenance problems existed. The inspectors also reviewed the CR database to verify that equipment problems were being identified at the appropriate level, entered into the corrective action program, and appropriately resolved. Other documents reviewed are listed in the Attachment.

- Unit 1 fuel reliability Indicator exceeded performance criteria (CR 2002000808)
- Unit 1 ATWS Mitigation System Actuation Circuitry (AMSAC) circuit board failure resulted in the system exceeding the Maintenance Rule performance criteria (CR 2002001583)

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the following six risk significant and emergent work activities to verify plant risk was properly reassessed. The inspectors reviewed risk assessments and risk management controls implemented for these emergent work activities to verify they were completed in accordance with licensee Procedure 00354-C, Maintenance Scheduling, and 10 CFR 50.65(a)(4). The inspectors also reviewed the CR database to verify that equipment problems were being identified at the appropriate level, entered into the corrective action program, and appropriately resolved.

- Recalibrate/Replace, Unit 2, NSCW pump #4 Agastat relay (MWO 20201639)
- Unit 1, Component Cooling Water (CCW) pump #2 inboard bearing replacement (MWO 10201777)
- Unit 1 reactor power reduction to troubleshoot/repair condenser tube leak (MWO 10202083)
- Replace handswitch 1HV8110 for Unit 1, High Head Safety Injection (HHSI) pumps common miniflow valve (MWO 10000768)

- 2B RHR system outage (MWOs 20102150, 20101670, 20101762, 20201114, and 20201704)
- 1B HHSI pump, Implement MDC 02-V1M048 (MWO 10202359)

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-Routine Evolutions

a. Inspection Scope

The inspectors witnessed and/or reviewed operator performance during a Unit 1, unplanned down power to investigate and repair a main condenser tube leak between August 7-8. The inspectors reviewed licensee Procedure 12004-C, Power Operation (Mode 1), Procedure 13724, Circulating Water System, the maintenance activity and contingency plans, operating logs, as well as observed portions of the operations evolution pre-briefing to ensure that the operators avoided unnecessary plant risk and challenges to reactor safety.

b. Findings

No findings of significance were identified

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following five evaluations to verify that they met the requirements of licensee Procedure 00150-C, Condition Reporting and Tracking System. This included the technical adequacy of the evaluations, the adequacy of compensatory measures, and the impact on continued plant operation.

- Unit 2, ECCS MOV wiring/drawing discrepancies found during work order review (CR 2002002214)
- Unit 1, MOV HV-8807B torque arm not fully engaged (CR 2002002198)
- Unit 1, NSCW pump #1 high vibration (CR 2002002466)
- Unit 2, Electrical Penetration 1818-H3-P14 nitrogen monitoring pressure low (CR 2002002467)
- 1A Engineered Safety Features Chiller trip on low evaporator temperature (CR 2002002474)

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds

a. Inspection Scope

The inspectors used NRC Inspection Procedure 71111.16, Operator Workarounds, and reviewed abnormal plant configurations and conditions existing on both units during the report period that might require compensation by operators. For any abnormal configurations identified, the inspectors evaluated whether they would be considered operator workarounds and could increase the likelihood of an initiating event or could affect multiple mitigating systems. The inspectors also reviewed the cumulative effects of potential workarounds on the operators' ability to effect a correct and timely response to plant transients.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed Minor Design Change (MDC) No. 02-VAM019, Change Backup Protection Devices for Containment Penetration Circuits in Auxiliary Relay Panels, and Design Change Package (DCP) No. 99-VA0040, Replace 2B RHR Pump Outlet Flow Transmitter 2FIS0611, and observed portions of the modification implementations to verify they met the requirements of licensee Procedure 50016-C, Minor Design Change. The inspectors evaluated if the modified systems' design had been degraded and if the modifications left the plant in an unsafe condition.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope

The inspectors either observed the testing or reviewed the test results for the following six maintenance activities to verify that the testing met the requirements of licensee Procedure 29401-C, Work Order Functional Tests. The inspectors also reviewed the test procedures to verify the acceptance criteria was sufficient to meet the operability requirements in Technical Specifications. Other documents reviewed are listed in the Attachment.

- Recalibrate/Replace Unit 2, NSCW pump #4 Agastat relay (MWO 20201639)
- Correct Packing Leakage on Unit 2, NSCW pump #2 (MWO 20201638)
- Replace Low and High Speed Breakers Associated with Unit 2 Containment Cooling Fans #5 and #6 (MWO 20201555)
- Unit 2, CCW pump #3 system outage maintenance (MWOs 20103011 and 20103129)

- 2B RHR system and room cooler outage (MWOs 20201103, 20201730, 20201704, 20101623 and 20102150)
- Implement MDC 02-M1M048, 2B HHSI pump field balance (MWO 10202352)

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the following six surveillance test procedures and either observed the testing or reviewed test results to verify that testing was conducted in accordance with the procedures and that the acceptance criteria adequately demonstrated that the equipment was operable. Additionally, the inspectors reviewed the CR database to verify that the licensee had adequately identified and implemented appropriate corrective actions for surveillance test problems.

- 14410-2, Control Rod Operability Test
- 14980A-2, Diesel Generator Operability Test, (Fast Start of 2A EDG)
- 14546-2, Turbine Driven Auxiliary Feedwater Pump Operability Test
- 24905-C, Personnel Airlock Leak Rate Test (Unit 2)
- 14802-1, NSCW Pump and Check Valve IST and Response Time Test (pump #1)
- 14804-2, Safety Injection Pump Inservice and Response Time Tests (pump 2A)

b. Findings

The inspectors identified two Green findings that are being treated as Non-Cited Violations of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action.” These findings are discussed as follows:

.1 Unacceptable Preconditioning Prior to EDG TS Surveillance Testing

Introduction: (Green) The inspectors identified that ineffective corrective actions were implemented to address the performance of certain preventive maintenance (PM) activities that was determined to be unacceptable preconditioning prior to EDG TS surveillance testing.

Description: In May 2001, the inspectors identified that a PM activity performed directly prior to EDG TS surveillance monthly (slow start), semi-annual (fast start), and 18-month testing of the Unit 1 and Unit 2 EDGs was unacceptable preconditioning. This PM activity involved the lubrication and exercising of the fuel pump control rack shaft and could have potentially masked the as-found performance of the EDG during the TS surveillance testing. NRC Information Notice 97-16, “Preconditioning of Plant Structures, Systems, and Components Before ASME Code Inservice Testing or Technical Specification Testing,” and NRC Manual Chapter 9900, “Maintenance - Preconditioning of Structures, Systems, and Components Before Determining Operability,” described similar examples where prior lubrication and exercising of

components can influence the as-found test results and were considered unacceptable preconditioning. The licensee acknowledged there was no reason the PM had to be performed before the TS surveillance testing other than for scheduling conveniences and took actions to discontinue performing the PM activity directly before the TS surveillance testing. The inspectors monitored the next several monthly EDG TS surveillance tests and verified the PM activity was not being performed prior to testing. Since this was an isolated preconditioning incident that the licensee appeared to have corrected and the practice had not led to any known declining performance associated the EDGs, the inspectors determined that this was a minor violation.

Subsequently, on July 22, 2002, the inspectors observed the same PM activity being performed prior to EDG 2A TS fast start surveillance testing. The inspectors determined that the licensee had failed to implement any formal scheduling change or maintenance procedure checklist (SCL000422) revision to ensure that it was not performed prior to EDG testing. After notifying the licensee that this activity was still not adequately addressed, the licensee implemented formal actions to revise SCL000422 to clearly prohibit lubricating and exercising the fuel pump control rack prior to EDG testing.

Analysis: The inspectors determined that this finding had a credible impact on safety because the licensee's failure to correct unacceptable preconditioning could affect the availability and reliability of Mitigating System cornerstone equipment as a result of inadequate assessment of its standby readiness condition. This finding was evaluated using the significance determination process (SDP) and determined to be of very low safety significance (Green) by the Phase 1 Screening Worksheet for the Mitigating Systems cornerstone because no actual loss of EDG safety function had occurred. The direct cause of this finding involved the cross-cutting area of Problem Identification and Resolution.

Enforcement: 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," requires, in part, that measures be established to assure that conditions adverse to quality are promptly identified and corrected. The failure to implement adequate corrective actions to prevent the unacceptable preconditioning activities constituted a violation of 10 CFR Part 50, Appendix B, Criterion XVI. Because the violation is of very low safety significance and has been entered into the licensee's corrective action program, this finding is considered a Non-Cited Violation (NCV) in accordance with Section VI.A.1 of the NRC Enforcement Policy. The finding is identified as NCV 50-424,425/02-03-01, Failure to Adequately Correct EDG TS Surveillance Preconditioning Problem. This violation is in the licensee's corrective action program as CR 2002002681.

.2 Untimely Corrective Actions to Address CCW Pump Bearing Oil Degradation Problem

Introduction: (Green) The inspectors identified that the licensee failed to take prompt and effective corrective actions following a degraded pump inboard oil bearing analysis result associated with Unit 1, CCW Pump #2.

Description: On June 13, 2002, the inspectors witnessed an Inservice pump test associated with Unit 1, CCW Pump #2. During this testing, maintenance personnel took pump bearing oil samples for routine predictive maintenance analysis. The inspectors noted that the oil sample from the inboard bearing was noticeably dark and contained

dark fine particulate. On June 27, the inspectors reviewed results of the licensee analysis of the oil sample. The sample had been analyzed on June 13 and showed signs of degraded lubrication quality, high water content, and the presence of bearing wear material. The inspectors determined that, while a lubrication request had been initiated to take an additional oil sample, a condition report had not been initiated and no other corrective actions had been taken to investigate the cause of the degraded oil condition. On June 28, the licensee took another oil sample and the results showed further degradation in oil quality and increased presence of wear material. The licensee declared the pump inoperable and the subsequent investigation identified that the bearing Trico oil feeder had been improperly adjusted, resulting in bearing degradation caused by a lower oil level being maintained in the bearing housing. The degraded bearing was replaced. The inspectors determined that timely and appropriate corrective action was not taken when the original oil sample result indicated signs of bearing degradation.

Analysis: The inspectors determined that this finding was more than minor and had a credible impact on safety because the licensee's failure to promptly identify and correct the degraded bearing lubrication condition affected the availability and reliability of Mitigating System cornerstone equipment. This finding was evaluated using the significance determination process (SDP) and determined to be of very low safety significance (Green) by the Phase 1 Screening Worksheet for the Mitigating Systems cornerstone because no actual loss of CCW safety function at the system or train level occurred. In addition, the third standby CCW pump remained operable during the time that the degraded bearing condition existed. The direct cause of this finding involved the cross-cutting area of Problem Identification and Resolution.

Enforcement: 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," requires, in part, that measures be established to assure that conditions adverse to quality are promptly identified and corrected. The failure to implement prompt corrective actions to identify and correct the bearing degradation problem constituted a violation of 10 CFR Part 50, Appendix B, Criterion XVI. Because the violation is of very low safety significance and has been entered into the licensee's corrective action program, this finding is considered a NCV in accordance with Section VI.A.1 of the NRC Enforcement Policy. The finding is identified as NCV 50-424/02-03-02, Failure to Promptly Identify and Correct Unit 1, Component Cooling Water Pump #2 Bearing Degradation Problem. This violation is in the licensee's corrective action program as CR 2002002741.

3. SAFEGUARDS
Cornerstone: Physical Protection

3PP1 Response to Contingency Events

The Office of Homeland Security (OHS) developed a Homeland Security Advisory System (HSAS) to disseminate information regarding the risk of terrorist attacks. The HSAS implements five color-coded threat conditions with a description of corresponding actions at each level. NRC Regulatory Information Summary (RIS) 2002-12a, dated August 19, 2002, "NRC Threat Advisory and Protective Measures System," discusses the HSAS and provides additional information on protective measures to licensees.

a. Inspection Scope

On September 10, 2002, the NRC issued a Safeguards Advisory to reactor licensees to implement the protective measures described in RIS 2002-12a in response to the Federal government declaration of threat level "orange." Subsequently, on September 24, 2002, the OHS downgraded the national security threat condition to "yellow" and a corresponding reduction in the risk of a terrorist threat.

The inspectors interviewed licensee personnel and security staff, observed the conduct of security operations, and assessed licensee implementation of the threat level "orange" protective measures. Inspection results were communicated to the region and headquarters security staff for further evaluation.

b. Findings

No findings of significance were identified.

4. Other Activities [OA]

4OA1 Performance Indicator (PI) Verification

.1 Initiating Events Cornerstone

a. Inspection Scope

The inspectors reviewed the Unit 1 and Unit 2 PI data for the Emergency AC Power System submitted to the NRC for the third quarter 2001 through the second quarter of 2002 to determine its accuracy and completeness. Documentation reviewed included operator logs, licensee maintenance rule database, licensee event reports, and licensee monthly PI Summary reports. The inspectors compared licensee performance to procedure 00163-C, NRC Performance Indicator Preparation and Submittal, and NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision (Rev.) 2, to verify PI procedure and reporting requirements were met.

b. Findings

No findings of significance were identified.

.2 Barrier Integrity Cornerstone

a. Inspection Scope

The inspectors reviewed the Unit 1 and Unit 2 PI data for Reactor Coolant System (RCS) Specific Activity and RCS Leakage submitted to the NRC for the third quarter of 2001 through the second quarter of 2002 to determine its accuracy and completeness. Documentation reviewed included completed radiochemistry datasheets from licensee Procedure 35110-C, Chemistry Control of the Reactor Coolant System, operator logs, leakage calculation results obtained from Procedure 14905-1,2, RCS Leakage Calculation, and the licensee's monthly PI Summary reports. The inspectors compared

licensee performance data to Procedure 00163-C, NRC Performance Indicator Preparation and Submittal, and NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Rev. 2, to verify PI procedure and reporting requirements were met.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

.1 Inspector Identified Violations

One NCV was identified for the failure to adequately address an unacceptable EDG surveillance preconditioning issue and one NCV was identified for the failure to promptly investigate and correct a Component Cooling Water Pump bearing oil degradation issue. Additional information is contained in section 1R22 of this report.

.2 Selected Issue Follow-up Inspections (Quarterly)

a. Inspection Scope

The inspectors reviewed the following two issues to evaluate the effectiveness of the licensee's corrective actions for important safety issues. Specifically, the inspectors assessed whether the issues were identified in a timely manner; documented accurately and completely; properly classified and prioritized; adequately considered extent of condition, generic implications, common cause, and previous occurrences; adequately identified root causes; and, identified appropriate corrective actions to prevent recurrence. Also, the inspectors assessed whether the issues were processed in accordance with licensee Procedure 00150-C, Condition Reporting and Tracking System, and Procedure 00058-C, Root Cause Determination.

b. Findings and Observations

(1) Motor Operated Valve Wiring Discrepancies

CRs 2002000723 and 2002001319 involved an inoperable ECCS recirculation MOV interlock and an improperly connected containment isolation valve thermal overload bypass jumper. The inspectors identified the following two minor issues involving the adequacy of the licensee's corrective actions associated with these CRs:

- The corrective actions associated with CR 2002000723 (1HV-8813 wiring error that affected ECCS recirculation capability) did not include a review of work order documentation associated with previous work activities performed on Unit 2 ECCS MOVs. Several of the Unit 1 ECCS MOV wiring discrepancies, although found through inspections and interlock testing during the spring 2002 refueling outage, could also have been found through document review of past work activities. As a result of the inspectors' questioning, the licensee performed a review of work documentation associated with previous work activities on selected Unit 2 ECCS MOVs and identified several wiring discrepancies. These discrepancies were

documented in CR 2002002214 and included minor wiring errors, drawing errors, and mislabeled wiring descriptions. The inspectors verified the licensee determination that the new wiring discrepancies did not impact any valve operability. The licensee planned to conduct Unit 2 ECCS MOV interlock circuitry testing in the upcoming fall 2002 refueling outage as part of corrective action for CR 2002000723.

- The training implemented as corrective action for CR 2002001319 (disconnected thermal overload bypass jumper) was general in nature, and did not include the details on how the mis-wiring occurred. The licensee believed that the lug slipped off the screw as the jumper was installed and was captured and hidden under another wire that was also being installed. The licensee indicated that they would add these details to additional training that will be conducted just prior to the Unit 2 refueling outage. In addition, the inspectors noted that the CR did not address why Procedure 28905-C, Motor Operated Valve Thermal Overload By-pass 18 Month Verification, which is a visual wiring verification check, and was completed several days after the maintenance that caused the mis-wiring, failed to uncover the wiring discrepancy. The licensee indicated that they would review this aspect to determine if further corrective actions were warranted.

(2) Containment Equipment Hatch Emergency Closure Control Problems

The inspectors reviewed CRs 2001000878, 2002001165, and 2002001322 involving two separate incidents where dedicated containment equipment hatch emergency closure personnel were not properly trained as committed to in TS Amendments 115/93, issued in September 2000. The first training discrepancy occurred during the 2001, Unit 2 refueling outage and the second, almost identical discrepancy, occurred during the 2002, Unit 1 refueling outage. Details associated with the second incident, which was identified by the NRC inspectors, were documented in section 1R20.2 of NRC Integrated Inspection Report 50-424,425/02-02 as a NCV for failure to follow procedures.

The inspectors observed a minor problem involving the adequacy of the Broadness Reviews associated with the Root Cause and Corrective Action (RCCA) for CRs 1165 and 1322. Specifically, neither CR adequately addressed why the corrective actions implemented for the 2001 incident were not effective in preventing recurrence of the problem. For example, CR 1165 stated that the only corrective action associated with CR 878 involved training of personnel. However, there were several other corrective actions associated with CR 878 including a review to compare the commitments described in TS Amendments 115/93 with the procedure that implemented these commitments to ensure it was complete. This review did not identify any inconsistencies that existed between the documents which were ultimately identified and addressed during the second review that was conducted as part of the corrective actions for CRs 1165 and 1322. The licensee initiated CR 2002002086 to address the inspectors' observation. This was considered a minor issue, in that, the inspectors determined that the corrective actions described in CRs 1165 and 1322 were comprehensive in nature.

4OA3 Event Follow-up

(Closed) LER 50-424/02-002-00: Containment Isolation Valve Rendered Inoperable

On April 5, 2002, during the performance of Procedure 28905-C, Motor Operated Valve Thermal Overload By-pass 18 Month Verification, the licensee found the thermal overload jumper for breaker 1BBE-07 disconnected. The licensee determined that the wiring error was a result of human performance errors during maintenance activities in October 2000. Licensee corrective actions included: reconnecting the overload bypass jumper, counseling the individuals involved with the jumper installation and verification, and inclusion of this event in operating experience training to be conducted prior to the fall 2002 Unit 2 refueling outage. This issue was entered in the licensee's corrective action program as CR 2002001319. A review of the corrective actions and the regulatory significance of this issue can be found in Sections 4AO2 and 4AO7. No findings of significance were identified by the inspectors.

4OA6 Management Meetings

Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on October 4, 2002. No proprietary information was identified.

4OA7 Licensee Identified Violations

The following violation of very low significance (Green) was identified by the licensee and is a violation of NRC requirements which met the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as a NCV.

Unit 1 TS 5.4.1.a requires that written procedures be implemented covering the activities listed in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978, which includes maintenance activities and jumper control. The failure to properly restore the overload bypass jumper for breaker 1BBE-07 (containment isolation valve 1HV-3548) as documented in the licensee's corrective action program as CR 2002001458 was a failure to follow Procedure 20429-C, Short Term Documentation of Temporary Jumpers and Lifted Wires. This violation of TS 5.4.1.a is being treated as a non-cited violation. This violation is not more than of very low safety significance since an overcurrent condition would have been necessary to make 1HV-3548 inoperable. In addition, the other containment isolation valve for the penetration remained operable. Additional information on this issue can be found in Sections 4AO2 and 4AO3 of this report.

Supplementary Information

LIST OF PERSONS CONTACTED

Licensee

W. Bargeron, Plant Support Assistant General Manager
W. Burmeister, Manager Engineering Support
G. Frederick, Nuclear Plant General Manager
K. Holmes, Manager Training and Emergency Preparedness
P. Rushton, Plant Operations Assistant General Manager
T. Tynan, Manager Operations

NRC

S. Cahill, Chief, Region II Reactor Projects Branch 2

ITEMS OPENED, CLOSED, AND DISCUSSED

Open and Closed

50-424,425/02-03-01	NCV	Failure to Adequately Correct EDG TS Surveillance Preconditioning Problem (Section 1R22.1)
50-424/02-03-02	NCV	Failure to Promptly Identify and Correct Unit 1, Component Cooling Water Pump #2 Bearing Degradation Problem (Section 1R22.2)

Closed

50-424/02-002-00	LER	Containment Isolation Valve Rendered Inoperable (Section 4OA3)

INSPECTION DOCUMENTS REVIEWED

Section 1R04

Procedure 13305-2, Auxiliary Building HVAC System
Procedure 11305-2, Auxiliary Building HVAC System Alignment
Procedure 13145-1, Diesel Generators
Procedure 13120-1, Containment Building Cooling System

Section 1R05

Procedure 92845-2, Zone 145 - NSCW Cooling tower 2A, Mechanical and Electrical Tunnels 2T2A, 2T3A and 2T5A Fire Fighting Preplan
Procedure 92860A-2, Zone 160A - NSCW Pumphouse Train A Fire Fighting Preplan
Procedure 92847-2, Zone 147 - Auxiliary Building - Level 2 Fire Fighting Preplan

Procedure 92731-2, Zone 31 - Auxiliary Building - Level B, SI Pump, Train A Fire Fighting Preplan
Procedure 92732-2, Zone 32 - Auxiliary Building - Level B Fire Fighting Preplan
Procedure 92860B-1, Zone 160B - NSCW Pumphouse Train B Fire Fighting Preplan
Procedure 92846-1, Zone 146 - Tunnels IT2B and IT5B Fire Fighting Preplan
Procedure 92855-2, Zone 155 - Auxiliary Feedwater Pumphouse Train B Fire Fighting Preplan
Procedure 92856-2, Zone 156 - Auxiliary Feedwater Pumphouse Train A Fire Fighting Preplan
Procedure 92710-2, Zone 10 - Auxiliary Building Level D RHR Pump A Fire Fighting Preplan

Section 1R06

17061-1, Annunciator Response Procedure for ALB 61 (Unit 1)
17061-2, Annunciator Response Procedure for ALB 61 (Unit 2)
17062-1, Annunciator Response Procedure for ALB 62 (Unit 1)
17062-2, Annunciator Response Procedure for ALB 62 (Unit 2)

Section 1R12

Procedure GEN-92, Maintenance Rule Scoping Manual
MWO 10201175, Troubleshoot and repair AMSAC

Section 1R19

Procedure 14802-2, NSCW Pumps and Check Valve IST and Response Test
Drawing 2X4DB122, Residual Heat Removal System No. 1205
Procedure 14805-2, Residual Heat Removal Pump and Check Valve IST and Response Time Tests
Procedure 14808-1, Centrifugal Charging Pump and Check Valve IST and Response Time Test (1B CCP)