UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report Nos.: 50-321/92-05 and 50-366/92-05

Licensee: Georgia Power Company
P.O. Box 1295
Birmingham, AL 35201

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

Facility Name: Hatch Nuclear Plant

Inspection Conducted: February 16 - March 14, 1992

Inspectors: for Leonard D. Wert, Jr., Sr. Resident Inspector — 4/1/92 Date Signed

for Randall A. Musser, Resident Inspector — 4/1/92 Date Signed

Accompanying NRC personnel: N.L. Salgado, Region II Intern

Approved by: Pierce H. Skinner, Chief, Project Section 3B, Division of Reactor Projects — 4/1/92 Date Signed

SUMMARY

Scope: This routine, announced inspection involved inspection on-site in the areas of operations, surveillance testing including a review of incorrect level setpoints in the setpoint index document, maintenance, temporary changes to procedures, resolution of degradations involving safety systems, and review of open items.

An information meeting was conducted with local public officials.

Results: One unresolved item and two inspector followup items were identified:

The unresolved item involved several examples identified by the inspectors of incorrect level switch setpoints in the setpoint index document. The item is unresolved pending additional review to determine the scope and significance of the problem. (paragraph 3b)

The first inspector followup item concerned the use of the temporary change process. During a review of recent temporary changes, the inspectors noted that this method of changing procedures is being utilized in many instances in which a revision would seem more appropriate. All changes reviewed by the inspector were adequately reviewed and processed in accordance with procedures. (paragraph 5)

The second inspector followup item concerned adequate corrective actions to resolv identified degradations involving safety systems. The inspectors have previously identified weaknesses in this area. During this report period an example was noted involving the Unit 1 HPCI flow controller. (paragraph 7)

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*J. Betsill, Unit 2 Operations Superintendent
*K. Breitenbach, Acting Engineering Support Manager
C. Coggin, Training and Emergency Preparedness Manager
*D. Davis, Plant Administration Manager
*D. Edge, Nuclear Security Manager
*P. Fornel, Maintenance Manager
*O. Fraser, Safety Audit and Engineering Review Supervisor
*G. Goode, Acting Assistant General Manager - Plant Support
J. Hammonds, Regulatory Compliance Supervisor
*W. Kirkley, Health Physics and Chemistry Manager
*J. Lewis, Operations Manager
*D. Read, Assistant General Manager - Plant Operations
P. Roberts, Acting Outages and Planning Manager
*K. Robuck, Manager, Modifications and Maintenance Support
H. Sumner, General Manager - Nuclear Plant
*S. Tipps, Nuclear Safety and Compliance Manager
*P. Wells, Unit 1 Operations Superintendent

Other licensee employees contacted included technicians, operators, mechanics, security force members and staff personnel.

NRC Resident Inspectors

*L. Wert
*R. Musser

NRC management/officials on site during inspection period:

*P. Skinner

Accompanying NRC personnel:

*N. Salgado, Region II Intern

*Attended exit interview

Acronyms and initials used throughout this report are listed in the last paragraph.

2. Plant Operations (71707)

a. Operational Status

Both units operated at full rated power for the entire report period except for power reductions of several hours duration to complete planned control rod sequence exchanges.

The inspectors reviewed plant operations throughout the reporting period to verify conformance with regulatory requirements, Technical Specifications (TS), and administrative controls. Control room logs, shift turnover records, temporary modification logs, LCO logs and equipment clearance records were routinely reviewed. Discussions were conducted with plant operations, maintenance, chemistry, health physics, instrumentation and control (I&C), and nuclear safety and compliance (NSAC) personnel.

Activities within the control rooms were monitored on an almost daily basis. Inspections were conducted on day and on night shifts, during weekdays and on weekends. Observations included control room manning, access control, operator professionalism and attentiveness, and adherence to procedures. Instrument readings, recorder traces, annunciator alarms, operability of nuclear instrumentation and reactor protection system channels, availability of power sources, and operability of the Safety Parameter Display system were monitored. Control Room observations also included ECCS system lineups, containment integrity, reactor mode switch position, scram discharge volume valve positions, and rod movement controls. Numerous informal discussions were conducted with the operators and their supervisors. Some inspections were made during shift change in order to evaluate shift turnover performance. Actions observed were conducted as required by the licensee's administrative procedures. The complement of licensed personnel on each shift met or exceeded the requirements of TS.

Several safety-related equipment clearances that were active were reviewed to confirm that they were properly prepared and executed. Applicable circuit breakers, switches, and valves were walked down to verify that clearance tags were in place and legible and that equipment was properly positioned. Equipment clearance program requirements are specified in licensee procedure 30AC-OPS-001-0S, "Control of Equipment Clearances and Tags." Clearance 2-92-209 was reviewed in detail. No significant discrepancies were identified.

Selected portions of the containment isolation lineup were reviewed to confirm that the lineup was correct. The review involved verification of proper valve positioning, verification that motor and air-operated valves were not mechanically blocked and that power was available (unless blocking or power removal was required), and

inspection of piping upstream of the valves for leakage or leakage paths. Additionally, a verification was performed on the valve lineup and operating configuration of the main stack normal range radiation monitoring system. No major discrepancies were noted.

Plant tours were taken throughout the reporting period on a routine basis. The areas toured included the following:

Reactor Buildings
Station Yard Zone within the Protected Area
Turbine Building
Intake Building
Diesel Generator Building
Fire Pump Building
Main Stack (lower levels)
Central and Secondary Alarm Stations

During the plant tours, ongoing activities, housekeeping, security, equipment status, and radiation control practices were observed. During tours of the lower elevation of the turbine building, a significant accumulation of dirt/residue from ground water leaking through the north wall was noted. The inspectors also observed a large amount of water leaking out of a large cable junction box located in the west cableway, apparently from leakage into conduits from outside the building. During inspection activities in the lower elevations of the main stack, several examples of poor housekeeping were noted. The appropriate department management and/or the shift supervisor was informed of the identified conditions.

During the inspection period, the inspectors noted that an operating order to vent the HPCI pump discharge line (due to leakage by the pump discharge valve, 2E41-F006) had been initiated by operations management. The 2E41-F006 valve isolates the HPCI pump discharge line from the main feedwater injection line. The order and discussions with operating personnel indicated that steam may have been forming in the HPCI discharge line. During the venting process, it was noted that a considerable amount of time (approximately 18 minutes in one case) was required to vent the discharge line as steam was being released during the venting process. The inspectors noted that Unit 2 TS 4.5.1.a.1 requires the pump discharge line to be full of water for the pump to be considered operable. This matter was brought to the attention of engineering and licensing personnel. The A/E (SCS) performed an operability evaluation of the HPCI system addressing this issue. Temperature (217-221 degrees F) and pressure (19-20 psi) measurements of the pump discharge line indicated that the line contained subcooled liquid at a slightly elevated temperature (due to the 2E41-F006 leakage from the feedwater system.) Apparently, when the system was vented, flashing of some of the water in the discharge line was occurring due to the resulting pressure

drop. The inspector observed one of the venting evolutions and reviewed the operability evaluation. The licensee subsequently developed a special purpose procedure (34SP-030492-BV-1-2S: Monitoring of Unit 2 HPCI Discharge Piping) for monitoring the pressure/temperature conditions in the discharge piping. Additionally, the procedure provides guidance regarding when venting of the piping is required. The inspectors will continue to monitor this matter for further degradation and licensee action.

No violations or deviations were noted.

3. Surveillance Testing (61726)

a. Surveillance tests were reviewed by the inspectors to verify procedural and performance adequacy. The completed tests reviewed were examined for necessary test prerequisites, instructions, acceptance criteria, technical content, authorization to begin work, data collection, independent verification where required, handling of deficiencies noted, and review of completed work. The tests witnessed, in whole or in part, were inspected to determine that approved procedures were available, test equipment was calibrated, prerequisites were met, tests were conducted according to procedure, test results were acceptable and systems restoration was completed.

The following surveillances were reviewed and witnessed in whole or in part:

1. 34SV-E41-002-1S: HPCI Pump Operability

2. 57CP-CAL-094-2S: Calibration of EDG Day Tank Level Switches

3. 34SV-SUV-023-2S: Jet Pump Integrity

Efforts to calibrate the '2A' EDG day tank level switches (Procedure 57CP-CAL-094-2S and MWO 2-92-592) after implementation of a design change were observed. The inspector noted that the "scribemarks" referred to in the procedure as the setpoints and utilized to calibrate the instruments are black "felt tip" markings. The inspectors observed that all of the instrument setpoints in the 2A and 2C EDG day tank rooms were marked in this fashion. The instruments involved include the fuel oil transfer pump controls and the day tank level alarms. After referring to the instrument level setting diagram and a drawing of the day tank, the inspector was able to verify the marks were at the correct levels by measuring from the tank bottom. The marks are not labeled. Discussions with I&C personnel indicate that they verify the marks (if any doubt exists) by referring to the instrument level setting diagram. (Paragraph 3b

contains more discussion on these level setpoints.) The inspector checked several other level instruments and similar markings were noted. The scribemarks on one of the Unit 1 CS discharge line level instruments consisted of two lines of white paint in poor condition. The scribemarks on a Unit 2 CS line could not be located by the inspector. A Quality Check on the issue by I&C personnel was in progress at the end of the report period. The Quality Check will assess the overall quality of markings on level switches. Management indicated that instances of poor markings will be addressed by DCs and in at least some of the cases, a more appropriate mark and/or label will be installed.

b. Incorrect Level Instrument Setpoints in Setpoint Index Document

During the observation of work on the EDG day tank level switches, the inspector identified a concern involving control of level instrument/switch setpoints. A temporary change had been performed to procedure 57CP-CAL-094-2S to correct an incorrect setpoint in the procedure. Specifically the setpoints for instrument 2R43-N005A were changed from incorrect values (given in feet of elevation above sea level) to correct values (inches above bottom of tank.) The elevation setpoints in the procedure were 9 inches in error. The inspector referred to the level setting diagram and a diagram of the day tank, made measurements and determined that several other day tank instruments setpoints provided in the procedure were also incorrect. For example, the correct (elevation) setpoints for 2R43-N003A and N003C would be about 135 feet, 4.75 inches. The procedure lists 134 feet, 7.75 inches. One possible explanation was that it was assumed the tank rested on ground elevation of 130 feet when in fact it is about 9 inches above this. The Setpoint Index Document, which is the controlling document, also listed the incorrect setpoints. This is not an immediate operability issue with I&C calibration procedures since a "scribemark" is used to calibrate the switches (not the elevation setpoint specified in the document.) As discussed in the above paragraph, a few instruments do not have visible scribemarks. A check of several of the existing marks by the inspector indicated that they were at the proper height. However, the Setpoint Index is the controlling document and as such the values listed within it should be correct. It is possible that the incorrect setpoints could have been utilized in calculations by engineering. Additionally, further examination to determine the scope and cause of the errors should be conducted. Combined with the above issue of poorly marked setpoints, incorrect setpoint values could result in an improperly calibrated switch. These concerns were immediately communicated to management, including SNC personnel. This item is identified as URI 50-321,366/92-05-01: Incorrect Level Setpoints in Setpoint Index Document, pending further review by the licensee and the inspectors.

One URI was identified involving incorrect level switch setpoints in the setpoint index document.

4. Maintenance Activities (62703)

Maintenance activities were observed and/or reviewed during the reporting period to verify that work was performed by qualified personnel and that approved procedures in use adequately described work that was not within the skill of the trade. Activities, procedures, and work requests were examined to verify; proper authorization to begin work, provisions for fire protection, cleanliness, and exposure control, proper return of equipment to service, and that limiting conditions for operation were met.

The following maintenance activities were reviewed and witnessed in whole or in part:

1. MWO 2-92-752 - Replace Resistor Box located in RCIC panel 2H21-P051

2. MWO 2-91-4689 - Repair of Valve 1E41-F001

3. MWO 2-92-1704 - Repair/Replacement of Transmitter 2B21-N095B (Barton Model 764 D/P Transmitter)

4. 64CH-CAM-005-0S - Change Out of the Unit 2 FPM Particulate Filter Paper

5. MWO 2-92-824 - Repair of Control Switch for FPM Primary Containment Isolation Valve 2D11-F052

No violations or deviations were identified.

5. Review of Temporary Changes to Procedures (71707) (92701)

The inspectors conducted a review of temporary (SRO) changes to procedures. URI 366/92-02-01: Improper Temporary Change to Testing Procedures, addressed several questions identified in this area during review of a special test procedure involving reactivity changes at power. (Inspection Report 50-321,366/92-02 contains further details.) The specific change was Temporary Change 92-41 to 42SP-111491-0V-1-2S: Use of Flux Tilt to Find Failed Fuel. The inspectors initially questioned whether the issue met the Unit 2 TS 6.8.3 requirement that temporary changes may be made only if the intent of the original procedure is not altered. Additionally, it appeared that the temporary change may have been utilized as a vehicle of convenience and sufficient time was available for a procedure revision. A detailed review of this specific temporary change was conducted and discussions were held with some of the personnel involved.

Guidance on when the intent of a procedure is not considered altered is provided in Section 8.7 of 10AC-MGR-003-0S: Preparation and Control of Procedures. This change did not specifically match any of the examples listed of "when the intent of a procedure is not considered altered." However, this change did not fit into any of the examples listed for when

the change is considered intent. (Based on the accepted interpretations of the guidance.) The inspectors noted that interpretations of this guidance would permit virtually any safe or proper procedure change to be processed as a "non-intent" change. (Except for alterations of involving surveillance requirements, the Fire Protection Program, Security Plan, or the Emergency Plan.) The "objective" or "intent" of the procedure is considered on a very general basis. TS 6.8.3. does not define "intent". Discussions with other inspectors and regional management indicate that more specific regulatory guidance on this matter has not been promulgated. The inspectors concluded that the accepted interpretation of the guidance in 10AC-MGR-03-0S would permit this change to be processed as a non-intent change. The licensee has initiated SOR 2-92-021 to more closely review this specific change.

While the data which justified the two specific changes was provided to the site before the end of January, the need for the two changes was not identified until just prior to the test date. During a review of the test, engineers identified that the change would provide significant enhancements to the procedure. One of the changes made most likely reduced the number of rod manipulations necessary to locate the fuel leak. The inspectors concluded that the temporary change process was not used (in this case) as a vehicle of convenience in lieu of the normal revision process.

The inspectors reviewed the documentation and processing of Temporary Change 92-41. The approval and review requirements of TS 6.8.3 were met. The guidance for processing of safety related temporary changes provided by section 8.7.1 of 10AC-MGR-003-0S was followed. The PRB review and applicable manager approval actions were completed within 14 days as required. The safety evaluation required by step 8.7.1.7 of 10AC-MGR-003-0S was reviewed along with some of the supporting documentation. The requirements of 10AC-MGR-010-0S: Preparation and Approval of Safety Evaluations, were also met. The inspector concluded that the supporting explanations provided adequate justification for the conclusions stated in the evaluation.

The inspectors noted that in this instance the requestor for the temporary change was the writer of the original special purpose procedure. Thus the requestor had very good knowledge of the assumptions and limits of the procedure. This is a significant positive factor in deciding if a safe and fully justified temporary change was made. Based on the above review, the inspectors concluded that Temporary Change 92-41 was performed in accordance with the TS requirements and was within the guidance of the accepted interpretation of the licensee's procedures. The change was within analyzed limits and did not adversely affect the safe operation of the facility. URI 366/92-02-01 is closed.

As a result of the questions regarding "non-intent" procedure changes and some evidence that the editorial correction process was utilized inappropriately in the recent past, a review of a sampling of temporary changes was conducted. Portions of approximately 20 changes were reviewed. The review indicated the following:

- Temporary Changes are being used to change procedures expeditiously. The inspectors noted instances where equipment replacement or alternations were completed through lengthy processes and the appropriate procedure changes were activated through a temporary change (instead of a delayed implementation revision). Numerous instances were noted in which the change fit into the allowable scope of a temporary change but no motivation for a temporary change (instead of a revision) was evident.

- Departmental managers vary greatly in their interpretation of "intent". Discussions with SRO's on shift indicate that their interpretation of "intent" also varies. What some individuals would permit under a SRO or temporary change was significantly different than others. The PRB is required to review all temporary changes within 14 days of implementation, but apparently relies primarily on the manager's judgement as far as whether the change fits into the "non-intent" scope. Additionally, there is a wide variation of interpretation on the other restrictions regarding Temporary Change. (Examples include altering the manner in which a surveillance requirement is met and altering the administrative controls necessary to assure safe plant operation.)

- One factor in why so many temporary changes are processed (60 so far in 1992) is that the procedure revision process is lengthy. Typical estimates of time required to process a revision were 30 to 40 days. Apparently, with special attention and dedicated effort, a revision can be processed within a week, but that is not common.

- About 15 safety evaluations for temporary changes were reviewed in detail. Only minor discrepancies were noted. The supporting discussions attached to the evaluations adequately supported the conclusions.

The inspectors concluded that Temporary Changes are being utilized in numerous cases when a procedure revision would be more appropriate. The restrictions on the use of Temporary Changes are being very broadly interpreted in some cases. The predominant consideration on whether a change is intent or non-intent seems to be if the change is justified and safe. SOR 2-92-021, which will address the temporary change to the special purpose procedure discussed above, will probably result in review of the "intent" interpretation issue by plant management. The inspectors noted that the review and approval processes of Temporary Changes are being adhered to. The inspectors did not identify any unsafe or inadequately reviewed Temporary Changes. In fact, several instances were noted where the temporary change review process resulted in errors being

corrected. While no safety significant violations of regulatory requirements were identified and the Temporary Changes are being processed in a controlled manner, the Temporary Change process is being utilized in many instances when a revision would be more appropriate. This issue is identified as IFI 321,366/92-05-02: Use of the Temporary Change Process. The inspectors will continue to examine temporary change processing.

One IFI was identified involving use of the temporary change process.

6. Information Meeting with Local Officials (94600)

On March 3, 1992, the Chief of Region II Reactor Projects Section 3B and the resident inspectors held an information meeting with the Toombs County Board of Commissioners. Attendees included; the chairman, three commissioners, the county clerk and attorney, the Toombs County EMA director, and one representative from a local newspaper. The senior resident inspector provided the Board with an overview of the organization of the NRC, a summary of plant status, and a discussion of the inspection program. The resident inspector and section chief were introduced to the Board. The telephone numbers of NRC contacts and information available in the local public document room were provided. The NRC representatives responded to questions posed by the Board during and after the meeting. A meeting with the Appling County Commission is scheduled for March 17, 1992.

7. Inadequate Corrective Actions to Resolve Identifiable Degradations of Safety Systems. (71707) (40500) (92701) (92702)

On February 26, 1992, during performance of surveillance procedure 34SV-E41-002-1S: HPCI Pump Operability, the HPCI pump discharge flowrate began oscillating approximately 2000 gpm. The oscillations steadied out when the flow controller was placed in manual. HPCI was immediately declared inoperable and the appropriate LCO was entered. Subsequently, a full calibration of the flow control circuitry from sensor to the flow control valve was completed satisfactorily and HPCI was declared operable. The licensee will be submitting a LER on the issue.

Since several other problems involving the HPCI flow controller have occurred over the last year, the inspectors reviewed some of the available records in this area. On two occasions in early 1991, manual control had to be used on HPCI to control flow oscillation during actual demand scenarios. On two other occasions, the operators utilized manual control, but available information does not indicate that automatic control had failed in those cases. As a result of one of the events in early 1991, ERT report 91-001 contained several major recommendations involving improvements to the HPCI control systems. The recommendations included hydraulic control system modifications as discussed in GE SIL 480. During the next refueling outage on each unit, some modifications were completed.

In December, 1991 (LER 321/91-33) another incident involving significant flow oscillations occurred. After severe oscillations were identified during 34SV-E41-002-1S, adjustments were made to the stability potentiometer on the EG-M (a component in the flow control circuitry.) A functional test was satisfactorily completed later the same day and the LCO was exited. On the following day, HPCI was operated again to perform a system response time test. The severe flow oscillations occurred again. Three transfer relays in the control circuitry were replaced and HPCI was subsequently returned to service.

The licensee has recently assigned a task force dedicated to addressing problem areas in the HPCI and RCIC systems. Actions have been implemented to improve HPCI reliability. During the last week of the inspection period, the EG-M was replaced in the HPCI system of both units with recently manufactured EG-Ms. Additionally, extensive changes were made to the control circuit calibration procedures. The revised procedures include insertion of significant step changes in flow demand and observing system response. The inspectors have observed portions of several recent HPCI tests and smooth flow control was evident. Additional actions are planned by the licensee to further increase overall reliability of HPCI.

The inspectors concluded that the problems with the HPCI flow oscillations had not been aggressively pursued to a satisfactory resolution. The oscillations were not initially fully corrected and additional inoperability periods of the HPCI system resulted. Several other similar examples of this type of problem involving safety related systems have been identified by the inspectors. Inspection Report 50-321,366/91-21, contained a weakness involving repetitive clogging of the MCREC PSW strainers which not been sufficiently addressed. Violation 321,366/91-27-02: Inadequate Corrective Action Regarding Service Water Motor Cooling Coil Coupling Failure, addressed a similar problem. In both of these instances, the inspectors primary concern was that the degradations had not been sufficiently addressed despite recurring indications of a problem.

The responses to these items focused primarily on the specific equipment problems and not the corrective actions issue. Other examples involving systems of less significance have also been noted. Aggressive pursuance and resolution of degradation or failures involving important systems is necessary to ensure system reliability and future operability. This is identified as IFI 321,366/92-05-03: Resolution of Degradations Involving Safety Systems.

One IFI was identified addressing inadequate resolution of degradations involving safety systems.

6. Inspection of Open Items (92700) (90712) (92701)

The following items were reviewed using licer ...n,
record review, and discussions with licens ...te:

a. (Closed) LER 50-321/90-09: Pr...
Violation of TS Requirement... ...in
representative main sta...
normal range monitor
normal range moni...
samples to comp...
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DCR - Design Change Request
ECCS - Emergency Core Cooling System
EDG - Emergency Diesel Generator
EG-M - Electro-governor M-series
EHC - Electro Hydraulic Control System
EQ - Environmental Qualification
ERT - Event Review Team
ESF - Engineered Safety Feature
EST - Eastern Standard Time
FPM - Fission Product Monitor
FT&C - Functional Test and Calibration
GE - General Electric Company
GPM - Gallons per Minute
HELB - High Energy Line Break
HPCI - High Pressure Coolant Injection System
I&C - Instrumentation and Controls
IFI - Inspector Followup Item
IRM - Intermediate Range Monitor
LCO - Limiting Condition for Operation
LER - Licensee Event Report
LOCA - Loss of Coolant Accident
MCREOS - Main Control Room Environmental Control System
MFP - Main Feed Pump
MGU - Motor Gear Unit
MSC - Motor Speed Changer
MSIV - Main Steam Isolation Valve
MSLRM - Main Steam Line Radiation Monitor
MWO - Maintenance Work Order
NCV - Non-cited Violation
NPRDS - Nuclear Plant Reliability Data System
NRC - Nuclear Regulatory Commission
NRR - Office of Nuclear Reactor Regulation
NSAC - Nuclear Safety and Compliance
PCB - Power Circuit Breaker
PCIS - Primary Containment Isolation System
PM - Preventive Maintenance
PORC - Plant Review Board
PSIG - Pounds Per Square Inch Gauge
RHRSW - Residual Heat Removal Service Water
RIC - Reactor Isolation Cooling System
RPS - Reactor Protection System
RPT - Recirculation Pump Trip
SER - Safety Evaluation Report
SLC - Standby Liquid Control System
SRV - Safety Relief Valve
SSW - Standby Service Water
TIP - Traversing Incore Probe
TS - Technical Specification
UFSAR - Updated Final Safety Analysis Report
URI - Unresolved Item
VIO - Violation

6. Inspection of Open Items (92700) (90712) (92701

The following items were reviewed using licensee re.orts, inspection, record review, and discussions with licensee personnel, as appropriate:

a. (Closed) LER 50-321/90-09: Procedural Deficiency Resu.t in Violation of TS Requirements. This LER addressed a failure to obtain representative main stack samples during a period of main stack normal range monitor inoperability. A blown f[illegible] had caused the normal range monitor to be inoperable. The pr[illegible]dure to obtain samples to comply with the TS action statement was inadequate. The sample was obtained from downstream of some isolation valves and thus was not representative of the stack. Procedure 64CH-SAM-00[illegible]-0S: Gaseous Effluents: Sampling, was revised (Revision 3) to provide specific guidance on obtaining stack samples if the normal range monitor is isolated. Training on the system was provided to chemistry personnel. The inspector verified the operating configuration of the monitors and walked through the procedure for a sampling evolution at the stack. It was noted that the evolution required extensive skipping around from one section of the procedure to another. Several minor discrepancies were noted. Discussion with chemistry supervisors indicate that the procedure is currently being revised. Instead of all the sampling locations being grouped into one procedure, separate procedures will be developed for the locations. (For example; Main Stack, Reactor Building Vents etc.) The inspectors noted that in general, the quality of chemistry procedures has improved over previous years and these changes will further enhance them. Based on the review, this LER is closed.

b. (Closed) LER 50-321/90-10: Personnel Error Results in Two Unplanned Actuations of ESF. This LER addressed two Group I isolation actuations which occurred during Main Steam Line Radiation Monitor testing during a Unit 1 outage. Revision one to the original LER was written to include the second actuation which was discovered during an investigation. The MSIVs were shut before the isolation actuations occurred. The first actuation occurred because a second MSLRM was removed from service before the half-group isolation signal from another MSLRM was reset. CR personnel did not fully understand the Group I logic and erroneously believed that the four small valves (steam drains and sample valves) should have shut. The second isolation actuation was caused by the operators as they were checking system response. The logic was functioning correctly. The MSLRM signals which shut the MSIVS do not actuate the small bore valve circuitry in the same manner. The involved operators and I&C technicians were counseled concerning the deficiencies which resulted in the events. The inspector discussed aspects of the Group I isolation circuitry with the training department. This event and the involved logic have been incorporated into the lesson plans. Based on this review, the LER is closed.

c. (Closed) LER 50-366/90-14: Personnel Error Causes Procedure Inadequacy and Missed TS Surveillance. This LER addressed an error made during a revision to procedure 34SV-SUV-019-2S: Surveillance Checks. A personnel error was made during development of Revision 4 of the procedure which resulted in an incorrect change to the channel check requirements of several reactor water level instruments. Although other problems have been identified recently involving this procedure (LER 321/92-002 and NCV 366/91-34-02), this instance did not involve the editorial correction process. The inspectors noted that LER 321/90-18 addressed an improper revision to 34SV-SUV-019-1S (which also resulted in missed TS surveillances) made just 3 months prior to this error. Corrective actions focused on the Unit 1 procedure. The procedure was corrected and involved personnel (including NSAC reviewers who missed the error) were counseled. Procedure 34SV-SUV-019-2S was reviewed in detail to verify that other TS requirements were being met. This LER is closed.

9. Exit Interview

The inspection scope and findings were summarized on March 18, 1992, with those persons indicated in paragraph 1 above. The inspectors described the areas inspected and discussed in detail the inspection findings. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspectors during this inspection.

Item Number	Status	Description and Reference
321,366/92-05-01	Open	URI-Incorrect Level Setpoints in the Setpoint Index Document (paragraph 3b)
321,366/92-05-02	Open	IFI-Use of Temporary Change Process (paragraph 5)
321,366/92-05-03	Open	IFI-Resolution of Degradations Involving Safety Systems (paragraph 7)

10. Acronyms and Abbreviations

AC - Alternating Current
A/E - Architect Engineer
APRM - Average Power Range Monitor
BWROG- Boiling Water Reactors Owners Group
CFR - Code of Federal Regulations
CR - Control Room
CRD - Control Rod Drive
CS - Core Spray
CST - Condensate Storage Tank
DC - Deficiency Card

DCR - Design Change Request
ECCS - Emergency Core Cooling System
EDG - Emergency Diesel Generator
EG-M - Electro-governor M-series
EHC - Electro Hydraulic Control System
EQ - Environmental Qualification
ERT - Event Review Team
ESF - Engineered Safety Feature
EST - Eastern Standard Time
FPM - Fission Product Monitor
FT&C - Functional Test and Calibration
GE - General Electric Company
GPM - Gallons per Minute
HELB - High Energy Line Break
HPCI - High Pressure Coolant Injection System
I&C - Instrumentation ard Controls
IFI - Inspector Followup Item
IRM - Intermediate Range Monitor
LCO - Limiting Condition for Operation
LER - Licensee Event Report
LOCA - Loss of Coolant Accident
MCRECS- Main Control Room Environmental Control System
MFP - Main Feed Pump
MGU - Motor Gear Unit
MSC - Motor Speed Changer
MSIV - Main Steam Isolation Valve
MSLRM- Main Steam Line Radiation Monitor
MWO - Maintenance Work Order
NCV - Non-cited Violation
NPRDS- Nuclear Plant Reliability Data System
NRC - Nuclear Regulatory Commission
NRR - Office of Nuclear Reactor Regulation
NSAC - Nuclear Safety and Compliance
PCB - Power Circuit Breaker
PCIS - Primary Containment Isolation System
PM - Preventive Maintenance
PRB - Plant Review Board
PSIG - Pounds Per Square Inch Gauge
PSW - Plant Service Water
RCIC - Reactor Core Isolation Cooling System
RFP - Reactor Feed Pump
RPS - Reactor Protection System
RPT - Recirculation Pump Trip
RTP - Rated Thermal Power
RWCU - Reactor Water Cleanup System
Rx - Reactor
SAER - Safety Audit and Engineering Review
SCS - Southern Company Services

SIL - Service Information Letter
SOR - Significant Occurrence Report
SOS - Superintendent of Shift (Operations)
SP - Suppression Pool
SPDS - Safety Parameter Display System
SRM - Source Range Monitor
SRO - Senior Reactor Operator
SRV - Safety Relief Valve
STA - Shift Technical Advisor
TBV - Turbine Bypass Valve
TS - Technical Specifications
TSC - Technical Support Center
URI - Unresolved Item