



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

Report Nos.: 50-321/91-34 and 50-366/91-34

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 Station

Inspection Conducted: December 15, 1991 - January 18, 1992

Inspectors:	<u>S. E. Sparks</u>	<u>2/5/92</u>
	Leonard D. Wert, Jr., Sr. Resident Inspector	Date Signed
	<u>S. E. Sparks</u>	<u>2/5/92</u>
	Randall A. Musser, Resident Inspector	Date Signed

Accompanying Personnel: Nancy Salgado, Region II Intern

Approved by:	<u>Pierce H. Skinner</u>	<u>2/5/92</u>
	Pierce H. Skinner, Chief, Project Section 3B Division of Reactor Projects	Date Signed

SUMMARY

Scope: This routine, announced inspection involved inspection on-site in the areas of operations including a review of a concern involving the use of filter material on ECCS room coolers, surveillance testing including review of a failure to leakrate test a torus penetration, maintenance activities, engineering and technical support at the Hatch Project Corporate Office, temporary modifications, ESF system walkdown and review of open items.

Results: Two non-cited violations and one weakness were identified.

The first non-cited violation concerned the failure to perform TS required leakrate testing of a Unit 2 torus penetration. The issue was identified by the licensee during corrective actions for an earlier similar problem. (paragraph 3b)

The second non-cited violation involved a procedural change improperly performed as an editorial correction. This issue was identified by the inspectors and is primarily an administrative concern. (paragraph 2a)

A weakness was noted concerning the use of filter material on ECCS room coolers. While subsequent review concluded that the operability of the coolers had not been affected, the inspectors noted several problems during review of the issue. (paragraph 2b)

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *K. Breitenbach, Acting Engineering Support Manager
- C. Coggin, Training and Emergency Preparedness Manager
- *D. Davis, Plant Administration Manager
- *W. Drinkard, Manager SAER
- 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
- K. McElroy, Acting Manager, Hatch Project - Engineering
- *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

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

NRC Resident Inspectors

- *L. Wert
- *R. Musser

Accompanying NRC personnel:

- *N. Salgado, Region II Intern

NRC management/officials on site during inspection period:

- J. Johnson, Deputy Division Director, Reactor Projects, Region II
- A. Herdt, Chief, Reactor Projects Branch 3, Region II

*Attended exit interview

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

2. Plant Operations (71707) (40500)

a. Operational Status

Unit One operated at power for the entire reporting period. On December 27, 1991, at 11:25 p.m., the 1B reactor feed pump tripped on low lube oil pressure during its daily test. The reactor recirculation pumps ran back and the plant stabilized at 500 MWe. At 11:30 p.m., the shift restarted the 1B RFP and began ramping the unit to 700 MWe. The unit was returned to RTP at 4:53 a.m. on December 28, 1991. This event was reviewed by the inspectors and by the licensee via an event review team due to previous similar RFP trips. The inspectors will continue to monitor the licensee's corrective actions related to this matter.

On December 30, 1991, a sample taken from the final discharge mixing chamber indicated that chlorinated water was being discharged to the Altamaha River (the ultimate heat sink for Plant Hatch). The cause of this event was an internal failure of the valve which isolates the chlorine addition system from the Unit 1 service water system. Because the chlorine addition system serves both the Unit 1 and 2 service water systems, the failure of the valve allowed chlorine to be discharge to the Unit 1 service water system during a planned chlorine addition to the Unit 2 service water system. At the time of the event, Unit 1 service water was being discharged directly to the Altamaha River. Upon discovery of this matter, plant personnel secured the addition of chlorine to the service water systems. Subsequently, the licensee notified the Georgia Department of Natural Resources and the NRC Operations Center of this event.

Unit 2 operated at power for the entire reporting period. On January 4, 1992, Unit 2 began experiencing an increase in drywell floor drain leakage. The leakage rate to the floor drains increased steadily from approximately .7 gpm to 2.5 gpm at the end of the reporting period. Unit 2 TS 3.4.3.2.b., limits drywell floor drain leakage (unidentified leakage) to 5 gpm. Due to the continuous increase in floor drain leakage, the licensee is planning to shut down the unit to effect repairs in the drywell. At the end of the reporting period, Unit 2 had operated for 230 consecutive days at power.

On December 28, 1991, plant operations, maintenance, health physics, chemistry and buildings and grounds departments began working an 8 hour rotating shift schedule. Previously, all of the above mentioned personnel were assigned to a 12 hour rotating shift. The I&C shop and QC inspectors remained on the 12 hour shift. The transition to the 8 hour shift schedule appears to have been fairly smooth.

On January 1, 1992, Georgia Power Company instituted a policy banning smoking inside all Georgia Power buildings. This directive was implemented at Plant Hatch and includes the main control room. No specific problems have been noted as a result of this new policy.

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 reviewed routinely. Paragraph 6 of this report contains discussion of a detailed review of active temporary modifications. 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 active safety-related equipment clearances were reviewed to confirm that they were properly prepared and executed. Clearance 1-91-1870, utilized for repairs to valves 1E11-F083 and F084 was reviewed in detail. 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-001-05, "Control of Equipment Clearances and Tags." No major 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.

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
- Cable Spreading Room
- Central and Secondary Alarm Stations
- 230/500 kV Switchyard and Relay House

During the plant tours, ongoing activities, housekeeping, security, equipment status, and radiation control practices were observed. Paragraph 7 of this report contains observations made during inspection of the unit 2 SBLC system.

The inspectors conducted an overall review of LERs, performance indicators, and inspection reports included within the current SALP period (March 3, 1991 - May 30, 1992). All violations (cited or non-cited), weaknesses, and strengths that were identified were reviewed. A brief review of all LERs was conducted with emphasis on trending of causal factors. In areas where significant discrepancies had been identified, the licensee's corrective actions were also reviewed. Information and some of the conclusions obtained as a result of the review were utilized as resident inspector input during the QPPR meeting (mid-SALP) held on December 10, 1991. Additionally, some of the trends and repetitive problems noted will be discussed with onsite management. The inspectors will continue to focus available inspection effort in those areas where discrepancies have been identified to ensure corrective actions are effective.

The inspectors reviewed a recent change to procedure 34SV-SUV-019-2S: Surveillance Checks. A temporary change had been made to revise the acceptance criteria for a TS required instrumentation channel check. Unit 2 TS 3.3.6.4 requires a periodic channel check of two reactor water level instruments (2B21-R623A and R623B). TS define a channel check as a qualitative assessment of channel behavior during operation by observation. 34SV-SUV-019-2S listed maximum acceptance criteria of 4 inches between the two channels. On November 30, 1991, CR personnel entered a 30 day LCO on recorder 2B21-R623A since it indicated about 4 inches lower than the R623B instrument. After a review, Hatch Project Support-Licensing supplied documentation to site personnel which provided justification for considering the recorder and its input instruments operable. The probable cause of the level mismatch was attributed to a void in an instrument sensing line. The justification included discussion that the R623A channel was indicating lower than the B channel and the other sources of

water level indication (2B21-N091A,C and N081A,B). The protective action inputs from the "A" channel instruments would occur at an actual higher water level and would be conservative. Additionally, the mismatch remained constant with variations in reactor water level and no level transmitter problems had been noted. 34SV-SUV-019-2S was subsequently revised (temporarily) to allow up to 6 inch difference between the channels. Due to the potential safety significance of a void in the sensing line of this instrumentation, the inspectors requested the safety evaluation for the revision. The change had been performed as an "editorial correction" and thus an evaluation was not available. Section 8.8.3 of procedure 10AC-MGR-003-05: Preparation and Control of Procedures, contains a list of procedural changes which may be classified as editorial corrections. Procedure changes performed as editorial corrections do not undergo the normal revision process. The inspectors concluded that this revision clearly was not one of the type listed by 10AC-MGR-003-05 as editorial corrections. A change involving ECCS instrumentation was made to a safety related procedure without the required evaluations and reviews being performed. Since there was sufficient time available, this change probably should have undergone the normal revision (or temporary change) process including a 10CFR 50.59 evaluation and PRB review. The requirements of procedure 10AC-MGR-003-05 were not met. The inspectors concluded that the reviews would rely primarily on information provided in the assessment of the instruments operability and conclude that the change was not an unreviewed safety question.

This violation is not being cited because the criteria specified in Section V. A. of the Enforcement Policy were satisfied. Although the issue was identified by the inspectors, it is primarily an administrative problem. The inspectors have not identified other such cases of improper usage of the editorial correction process. The licensee initiated corrective actions prior to the end of the report period. DC 1-92-0445 was initiated to address the issue. A safety evaluation will be written and reviewed by the PRB. This is identified as NCV 366/91-34-02: Improper Procedure Change.

b. Use of Filter Material on ECCS Room Coolers (71707) (37702)

URI 50-321,366/91-33-03: Use of Filter Material on ECCS Room Coolers, was opened last inspection report to address a potential room cooler operability problem. The inspectors reviewed this issue in detail. Several years ago fiberglass material was installed over the air intake of the ECCS room coolers to reduce dust buildup on the heat transfer surfaces of the coolers. On September 14, 1990, (some time after the installation of the material) TM 2-90-31 was implemented to allow the use of the material on the coolers. The inspectors noted that the safety evaluation for the TM was

inadequate. Reliance on the standby coolers (which also received the filter material) was utilized as the primary justification. During a SRB meeting on September 12, 1991, the status of this TM was questioned by the SRB members since a yearly repetitive task to change the filters was mentioned in the TM documentation. During a visit to the SNC offices, the inspector reviewed the minutes of SRB meeting H91-03. The minutes stated that on September 12, 1991, the SRB requested verification that the filters associated with TM 2-90-31 had been removed and that potential problems in making the filters a permanent installation be reviewed. SRB item H91-03-02 was opened to follow the issue. The inspector noted that the overall inadequacy of the TM safety evaluation was not specifically addressed by the SRB despite the apparent review of the issue. Apparently, several SRB members thought at that time the material was not in place on the coolers. On December 3, 1991, since the A/E and the plant staff were unable to ensure the coolers would perform properly, the material was removed. Presently the material is not installed on the coolers.

Although the future use of the material is still under review by the licensee, Bechtel has completed a safety assessment of the plant's practice of installing the filter material on the coolers. The inspectors reviewed the results of this assessment and discussed the issue with several of the involved engineers. The report concluded that the practice does not cause any safety concerns. The assessment conclusively stated that the filter material does not degrade the operability of any safety related equipment. There was sufficient information provided in the assessment that the inspectors concluded that the safety significance of the issue is small. Based on this review, URI 50-321,366/91-33-03 is closed. The licensee's performance in this overall issue is considered a weakness. A change was made to plant equipment without proper reviews which potentially could have affected many ECCS systems. The TM which was written after the installation contained an inadequate safety evaluation. Actions to resolve the problems did not appear to be expeditious. Apparently, some miscommunication also occurred regarding the status of the filters which may have delayed the resolution process.

One NCV was identified concerning a procedure change improperly performed as an editorial change. This discrepancy was identified by the inspectors and is primarily administrative in nature. A weakness was noted addressing inadequate review process regarding installation of filter material on ECCS room filters. Subsequent review indicated that the operability of the coolers was not affected.

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-E41-002-2S: HPCI Operability Test
2. 34SV-E41-002-1S: HPCI Operability Test (in conjunction with MWO 1-91-7910)
3. 34SV-E51-002-1S: RCIC Operability Test

During the observation of procedure 34SV-E51-002-1S, several parameters were noted to be out of acceptable bounds as stated in the procedure. These included the turbine gland leakoff pressure and the barometric condenser pressure. The inspector verified deficiency cards were written to address these discrepancies.

During observation of procedure 34SV-E41-002-1S: HPCI performance test, (after corrective maintenance was performed on the HPCI flow controller) several items were noted in the bottom of the flow controller cabinet. These items were empty chart paper boxes and other items improperly discarded there. The technician performing the surveillance test removed the items.

b. Failure To Perform LLRT of a Containment Penetration (Unit 2)

On January 9, 1992, while performing a record review as a part of the corrective actions for a previously identified untested Unit 2 torus penetration (X-228B), site engineering personnel discovered an additional torus penetration (X-222A) that had never been leak rate tested as required by the TS. IR 50-321,366/91-18 and LER 50-366/91-18 contain details regarding the previously identified non-tested penetration. The penetration (X-222A) is located on the top of the torus, is designated as a spare and is terminated by a 9 inch diameter bolted blind flange. The flange, which has a raised inner face, is sealed by a single gasket. Appendix J of 10 CFR 50 and TS require this type of penetration to have a Type B LLRT performed every refueling outage. Table 3.8-5 of the Unit 2 FSAR incorrectly classified X-222A as a penetration requiring a Type A test in lieu of a Type B test which contributed to the failure to perform the required Type B test. Due to the configuration of the flanged joints, the penetration is not readily testable. The

resident inspector was informed of this matter at approximately 3:00 p.m. on January 9, 1992. Several discussions on this issue were held between the NRC and the licensee. Region II management and NRR personnel were involved. The licensee stated that failure to perform the LLRT of the penetration constituted a missed TS surveillance, and because the configuration of the penetration did not allow for a "typical" Type B test, a testing apparatus would have to be designed and constructed in order to perform the LLRT. The licensee stated that the penetration was considered operable and the unit was not in a specific TS action statement. The inspectors agreed that the penetration appeared to be in satisfactory condition based on visual inspection. The licensee committed to expeditiously construct a testing apparatus and perform a LLRT of the penetration. This test had to be performed from the outside of the penetration which is in the opposite direction that pressure would be applied under accident conditions. The residents and regional management tentatively concurred with the licensee's course of action pending a conference call to be held between Region II, NRR, and licensee the following morning, January 10, at 10:00 a.m.

The design and construction of the testing apparatus began on the evening of January 9, with construction being completed on the morning of January 10. A conference call took place on the morning of January 10, between Region II, NRR and the licensee. NRC concurred with the licensee's plan of action to test penetration X-222A using the aforementioned testing method. The licensee proceeded with the installation of the testing apparatus and performed a successful Type B LLRT on the penetration (zero leakage was identified).

TS 4.6.1.2.d requires a Type B leakage test be performed for primary containment penetration X-222A every refueling outage. Prior to January 10, 1992, a Type B leakage test had never been performed on penetration X222A. TS 4.6.1.1.a.1. requires primary containment integrity be demonstrated at least once per 31 days by verifying that all penetrations not capable of being closed by operable containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in position. Penetration X-222A is secured by a blind flange and was not being verified as closed. This issue will be addressed as NCV 366/91-34-01: Failure to Perform LLRT and Visual Verification of a Containment Penetration. This violation is not being cited because the criteria specified in section V.G. of the Enforcement Policy were satisfied. This matter was identified by the licensee as a part of their corrective action from a previous similar issue, (failure to test penetration X-228B) and was corrected (LLRT completed) within approximately 30 hours of identification. While the identification of the most recent issue did not occur until over six months after the earlier penetration LLRT issue, the licensee met the corrective actions schedule committed to in LER 366/91-18. The inaccessible penetrations on Unit 2 will be inspected during the next

refueling outage. All other penetrations have been inspected and reviewed. In addition, the licensee plans to submit a LER on this matter within 30 days as required by 10 CFR 50.73. This matter will be followed by the inspectors via the LER and previously submitted LER 366/91-18.

One NCV was identified concerning failure to perform leakrate testing of a torus penetration.

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, 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 1-91-7910 - Troubleshooting and Adjustment of HPCI Flow Controller.
2. MWO 1-91-6772 - Monthly Fire Pump Inspection IAW 52PM-X43-002-1S
3. MWO 1-90-5397 - 60 Month PM on 1C RHRSW Pump/Motor

Particular emphasis was placed on use of procedures and foreign material exclusion practices during the maintenance activities. No significant discrepancies were noted.

No violations or deviations were identified.

5. Inspection Activities at Hatch Project Corporate Offices (37702) (30702) (40500)

One of the inspectors visited the Southern Nuclear Company offices in Birmingham, Alabama during the inspection period. In addition to discussions with engineering and licensing management, the inspector attended the routine Hatch morning status phone conversation and a DCR status meeting held with the A/E groups (Southern Company Services and Bechtel). The inspector met with personnel involved in the resolution of several ongoing issues including the ECCS room cooler filter situation (see paragraph 2b of this report) and MCREC system problems. The inspector also reviewed the minutes of recent SRB meetings and the SRB open items file. Discussions were held with the SAE manager, primarily regarding SRB activities.

The inspector met with key personnel involved in preparation of the Hatch IPE submittal. Discussions were held regarding the results attained to date, the expected form of the IPE submittal, limitations of the analysis, and future IPE/PRA activities. Current results (preliminary) indicate a relatively low mean core damage frequency and a large number of low frequency sequences.

During the visit, the inspector observed several ongoing issues which required interfacing between the site, Southern Nuclear, and SCS/Bechtel. The inspector noted that overall responsiveness to site initiated concerns continues to be high. Over the past several months, the inspectors had noted several issues which resolution activities by organizations outside of Hatch/SNC have not been as timely or effective as expected. Examples include the final resolution of the MCREC System problems and the issue of use of filter material on ECCS room coolers. The inspector was informed that Southern Nuclear was providing 'categorization numbers' to all DCRs/REAs assigned to SCS and Bechtel. These will communicate the basic motivation for the DCR/REA to the A/E groups. This information should further enhance effectiveness regarding the management of the DCRs/REAs by ensuring that the priorities are well communicated between all of the groups involved. The inspector noted throughout the visit that a close working relationship continues to exist between SNC and the A/E groups.

No violations or deviations were identified. Paragraph 2b of this report addresses some discrepancies noted concerning the ECCS room cooler issue. The visit provided the inspector with valuable information regarding the resolution of several open issues of interest and the status of ongoing projects. Additionally, the inspector observed interactions in progress to resolve several ongoing issues.

6. Review of Temporary Modifications (37702)

A detailed review of all currently active Temporary Modifications was conducted. Unit 1 had a total of nine active TMs, two of these were classified as safety related in accordance with 30AC-OPS-005-OS: Temporary Modification Control. Unit 2 had a total of ten TMs active, three being considered safety related. The safety evaluations for the safety related modifications were sufficiently detailed and adequate to support the conclusions. PRB approval of these TMs was documented. Paragraph 2b of this report discusses a problem with a TM safety evaluation involving ECCS room coolers. Two of the temporary modifications (1-90-174 and 1-91-06) had been in effect for greater than a one year period. The inspectors noted that a well documented management decision had been made to extend the TMs in accordance with the requirements of 30AC-OPS-005-OS. In both of these cases it appears that a design change would not be appropriate. Some minor discrepancies were noted during the review of the TMs:

- 30AC-OPS-005-OS requires that engineering perform an "operational significance" evaluation of those TMs that remain active greater than three months. This is implemented by Operations performing a monthly

review and notifying engineering of TMs which require the review. The inspector noted that these evaluations are, on the average, performed approximately five months after the TM was activated. In several cases the evaluation had not been completed within a 6 or 7 month period. For example, TM 2-91-95 did not have a "3 month" engineering evaluation despite being active for over 7.5 months. While the reviews were not always timely, in all cases, the completed 3 month engineering evaluations for operational significance were performed in a satisfactory manner by the engineering department. Apparently, in several cases, engineering considered that the review conducted during the TM implementation process met this requirement but had not documented this reasoning.

- Step 8.5.4 of 30AC-OPS-005-OS states that engineering will issue temporary ABNs to show how the temporary modification was implemented on TMs active for greater than three months. The temporary ABNs will be issued within 30 days of modification by operations that the TM has been active greater than 3 months. The inspector noted several cases in which this requirement was marked "not applicable" in which it appeared that a temporary ABN would be required. (In some cases the nature of the TM is such that an ABN is not appropriate). In all of these cases, the TM was not safety related.

The observations were discussed with management. The inspector was informed that a revision of 30AC-OPS-005-OS is being developed which will provide specific forms to be utilized to document the review/evaluation process. Additionally, the revision will add more guidance concerning action on TM removals. The inspector concluded that overall control of TMs is adequate. Effort is being made to minimize both the number and duration of active TMs. While some discrepancies were noted regarding timeliness of reviews required by the procedure, completed reviews were adequate.

No violations or deviations were identified.

7. ESF System Walkdown (71710) (Unit 2)

The inspectors conducted a walkdown of the Unit 2 Standby Liquid Control System. The following documentation was utilized during the inspection: FSAR, TS, System Design Specification, SED, and 10CFR Part 50.62. The walkdown involved confirmation that the system lineup requirements in procedure 3450-C41-003-2S, "Standby Liquid Control System," were equivalent to the as built configuration delineated in P&ID H-26009. The detailed walkdown also included verification that valves, breakers, and switches were properly positioned. The overall material condition of the system was satisfactory, however, several items of debris were found on top of the SBLC tank. The inspectors informed chemistry personnel of this and prompt corrective actions were taken.

The inspectors verified that TS requirements regarding the SBLC system were being addressed appropriately. Four separate SBLC sample results were examined and adherence to TS figures 3.1.5-1 and 3.1.5-2 were verified. The inspectors also observed sampling of the sodium pentaborate solution from the SBLC tank. The technician performed a chemical analysis of the sample and determined that the concentration of boron in solution was within the limits of figure 3.1.5-1. The sparger used for mixing the solution was utilized as required by procedure 64CH-SAM-004-0S: General Chemistry Sampling. It was noted that the sampling procedure lacks guidance to prevent foreign objects from being dropped into the SBLC tank while obtaining samples. Objects in the tank would have the potential of blocking the SBLC pump suction path. The inspectors also reviewed documentation on surveillance 34SV-C41-001-2S, "Standby Liquid Control Recirculation Test," and verified that the test results were satisfactory.

The inspectors reviewed how the licensee interprets and meets TS surveillance requirement 4.1.5.a.3. This TS requires the heat tracing circuit (of the SBLC pump suction piping) to be verified operable by determining that the temperature of the pump suction piping is within the limits of figure 3.1.5-2 at least once per 24 hours. The intent of the TS is to maintain the temperature of the pump suction piping high enough to prevent the precipitation of sodium pentaborate, but the TS as written includes the requirement that the heat tracing circuit be verified operable. The inspectors discussed this matter with the NRR Project Manager and he confirmed that the TS did not adequately communicate the intent of the requirement. It was concluded that the licensee's method of meeting the requirement is satisfactory. Because unit 2 does not have a gauge providing indication of the SBLC pump suction temperature, the licensee meets the TS requirement by confirming (once per shift) that annunciator P603-1-151, "SBLC PUMP SUCTION TEMP LOW," is clear. The annunciator illuminates when a temperature of fifty five degrees F or less is sensed at the pump piping suction. The temperature sensing instrumentation providing the signal for the annunciator is calibrated once every two years.

No violations or deviations were identified.

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

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

- a. (Closed) URI 50-321/91-21-01: Inadequate Corrective Actions for IE Bulletin 80-06. This URI addressed the recent discovery that several SBT systems dampers do not fully meet the requirements of IEB 80-06. Further details are discussed in Inspection Report 50-321,366/91-21. At that time the issue was still under investigation by the licensee. Revision 1 to LER 50-321/91-014, was issued on December 17, 1991 and contained additional details. A major concern of the inspectors was

the fact that the discrepancy was not identified earlier. This was despite a 1987 A/E review of all systems to ensure IEB 80-06 compliance after a problem was identified with some MCREC dampers. The delay occurred because the earlier reviews had apparently utilized design documents without verification of the dampers' wiring. Credit was taken for LSFTs but these were not adequate to ensure compliance with the bulletin's requirements. Apparently, the original seal-in logic of the dampers did comply with IEB 80-06 (required re-energization to reset) but the logic was modified during construction to automatically reset on ESF signal reset. That modification had not been incorporated into design drawings.

The primary cause of the SGBT dampers not meeting the requirements of IEB 80-06 was a design control deficiency which occurred during original construction. Current modification control measures are much more formal and no cases of significant design drawing control problems have been noted. Although, the deficiencies in design modification control resulted in a deviation from the licensee's commitments of IEB 80-06, the deviation will not be cited. The problem was identified by NSAC personnel during review of a failed RPS overvoltage relay. It was promptly reported to the resident inspectors and documented in LER 321/91-014, Revision 1. Present modification control measures are adequate to prevent such a problem from occurring in the future. Expedient corrective actions were noted. The Unit 1 portions of the logic were corrected during the last refueling outage and Unit 2 is scheduled to be corrected during its Fall 1992 outage. URI 321/91-21-01 is closed.

- b. (Closed) URI 50-321,366/91-33-03: Use of Filter Material on ECCS Room Coolers. Based on the detailed review discussed in paragraph 2b of this report, this item is closed.
- c. (Closed) LER 321/90-18: Personnel Error Results in Inadequate Procedure and Missed TS Surveillance. This LER addressed an error made during a procedure change which resulted in several TS required recorder instrument checks not being performed. The instruments which provide an input into the recorders were checked but the recorders had not been. Subsequent checks of the recorders were completed satisfactorily. This deficiency was identified by the licensee during validation of the Commitment Matrix Tracking System, a rigid examination of TS requirements. Corrective actions included a review of procedure 34SV-SUV-019-1S to ensure all other TS requirements are addressed and counseling of the procedure reviewer. There have not been other instances of missed TS surveillance due to errors during revision of procedures since this LER until very recently. Late this inspection report period, the licensee identified several shiftly TS checks had been missed due to a procedure revision necessitated by the 12 hour to 8 hour shift change. A LER will be submitted addressing the problem and the inspectors will review that issue during the next inspection period. Based on this review, LER 321/90-18 is closed.

- d. (Closed) LER 366/90-08: Component Failure Causes Unplanned ESF Actuation. This LER addressed the actuation of several ESF system as a result of failure of insulation on a relay coil which caused a fuse to blow. The relay and fuse were replaced. Another event (LER 321/91-16) had occurred involving this same type of relay (GE CR120A), a review of NPRDS data was performed. The failure rate of the relays was low at Hatch as well as other facilities. No additional failure of these type of relays at Hatch have been reported since this event. LER 366/90-08 is closed.
- e. (Open) LER 321/91-29: Malfunctioning Motor Operated Valve Results In Unplanned Actuation of ESF. The LER stated that the root cause of the event was that the torque switch setting for valve 1B21-F020 did not permit sufficient closing force and the motor operator tripped before the valve moved. During review of the work performed section of MWO 1-91-7288, the inspectors noted the torque switch had been found on a setting of 1.0 and was adjusted to the recommended setting of 2.75. The inspectors discussed with NSAC personnel the concern that the problem may have been caused by personnel error (torque switch set incorrectly). Further investigation by NSAC personnel indicated that during the last replacement of the 1B21-F020 torque switch (May, 1990) the "as found" and "as left" torque settings had been reversed and the torque switch was incorrectly set to 1.0. Apparently the existing procedural guidance was poor and contributed to the error. Revision 8 of 52GM-MEL-022-05: Limitorque Valve Operator Electrical Maintenance corrected that problem. The inspectors noted that 1B21-F020 is not an MOV which is addressed by GL 89-10. It does not receive the extensive VOTES testing which is provided on all valves which must shut to accomplish a safety related function. After review, the licensee informed the inspector that a revised LER will be submitted.

9. Exit Interview

The inspection scope and findings were summarized on January 22, 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
366/91-34-01	Opened and Closed	NCV-Failure to Perform LLRT and Visual Verification of a Containment Penetration (paragraph 3b)
366/91-34-02	Opened and Closed	NCV-Improper Procedure Change (paragraph 2a)

10. Acronyms and Abbreviations

ABN	-	As-built Notice
A/E	-	Architect Engineer
APRM	-	Average Power Range Monitor
CFR	-	Code of Federal Regulations
CR	-	Control Room
CRD	-	Control Rod Drive
CST	-	Condensate Storage Tank
DC	-	Deficiency Card
DCR	-	Design Change Request
ECCS	-	Emergency Core Cooling System
EDG	-	Emergency Diesel Generator
EQ	-	Environmental Qualification
ESF	-	Engineered Safety Feature
EST	-	Eastern Standard Time
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
IEB	-	Inspection and Enforcement Bulletin
IFI	-	Inspector Followup Item
IPE	-	Individual Plant Examination
IRM	-	Intermediate Range Monitor
LCO	-	Limiting Condition for Operation
LER	-	Licensee Event Report
LLRT	-	Local Leak Rate Test
LOCA	-	Loss of Coolant Accident
LSFT	-	Logic System Functional Test
MCRECS	-	Main Control Room Environmental Control System
MFP	-	Main Feed Pump
MWe	-	Megawatt Electric
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
PCIS	-	Primary Containment Isolation System
PM	-	Preventive Maintenance
PRA	-	Probabilistic Risk Assessment
PRB	-	Plant Review Board
PSIG	-	Pounds Per Square Inch Gauge
QC	-	Quality Control
QPPR	-	Quarterly Plant Performance Review

RCIC - Reactor Core Isolation Cooling System
REA - Request for Engineering Assistance
RFP - Reactor Feed Pump
RHRSW - Residual Heat Removal Service Water System
RPS - Reactor Protection System
RTP - Rated Thermal Power
RWCU - Reactor Water Cleanup System
Rx - Reactor
SAER - Safety Audit and Engineering Review
SALP - Systematic Assessment of Licensee Performance
SBGT - Standby Gas Treatment System
SBLC - Standby Liquid Control System
SCS - Southern Company Services
SED - System Evaluation Document
SNC - Southern Nuclear Operating Company
SOR - Significant Occurrence Report
SOS - Superintendent of Shift (Operations)
SP - Suppression Pool
SPDS - Safety Parameter Display System
SRB - Safety Review Board
SRM - Source Range Monitor
SRV - Safety Relief Valve
STA - Shift Technical Advisor
TM - Temporary Modification
TS - Technical Specifications
TSC - Technical Support Center
URI - Unresolved Item
VOTES - Valve Operation Test and Evaluation System