U.S. NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

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Licensee: Georgia Power Company
Post Office Box 4545
Atlanta, Georgia 30302

Facility: Edwin I. Hatch Nuclear Power Plant, Units 1 and 2

Inspection At: E.I. Hatch, Baxley, Georgia, November 30-December 11, 1987

Inspectors:

for Wayne E. Scott 3/4/88
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NRR (Team Leader)

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Reviewed By: F C Hawkins 3/4/88
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Summary:

a. Areas Inspected

This special, announced team inspection was the fifth in a series of NRC Headquarters-directed Quality Verification Function Inspections (QVFIs). The inspection was performed to assess the licensee's quality verification organizations' ability to identify, solve, and prevent safety-significant deficiencies in the functional areas of plant operations and modifications of plant systems and components.

b. Results

The NRC inspectors observed six conditions in the functional area of plant operations that were considered to be less-than-optimum and three Potential Enforcement Findings in the functional area of modifications of plant systems and components. The three Potential Enforcement Findings are associated with a modification to the reactor water clean-up (RWCU) system accomplished in 1985; they do not appear to be representative of current quality verification activities. The NRC inspectors determined that the licensee's current quality verification activities in the areas of operations and modifications are generally adequate.

1.0 INTRODUCTION

This special, announced team inspection at E.I. Hatch Nuclear Power Plant was performed to assess the licensee's quality verification (QV) organizations' ability to identify, resolve, and prevent safety-significant deficiencies in various functional areas. If the QV organizations are technically credible, they can and should help define identified deficiencies, provide insight into the root cause of deficiencies, and approve and confirm the resolution of deficiencies in a technically meaningful way. The inspection also assessed line management's ability to ensure that identified deficiencies are dealt with promptly and completely.

The inspection was the fifth in a series of NRC Headquarters-directed inspections performed under the guidance of NRC Inspection Manual Temporary Instruction (TI) 2515/78, "Inspection of Quality Verification Functions." These multi-discipline team inspections use interviews of licensee personnel, direct observations of in-process activities, and review of work documents to evaluate the effectiveness of quality verification organizations and management.

Quality Verification Function Inspections (QVFIs) are not intended to verify licensee compliance to administrative controls; they are intended to verify the technical adequacy of safety-related activities. If deficiencies are found in these activities, the underlying procedures and administrative controls are reviewed. The results of these inspections will be improvements in operational safety through inspection processes that are focused on activities that affect plant reliability and safety.

This QVFI at Hatch emphasized plant operations and modifications of plant systems and components. Selective samples were reviewed in these and closely associated areas to identify safety-significant problems to be used as the vehicles for assessing the effectiveness of quality verification. The details and findings of these reviews follow. The more significant findings of the inspection team have been categorized as observations and Potential Enforcement Findings.

Observations are items that do not violate any regulatory requirements and may not violate plant procedures, but that appear to be less than optimum. Potential Enforcement Findings (PEFs) are apparent violations of regulatory requirements that will be further evaluated by NRC Region II management for possible enforcement action.

2.0 PLANT OPERATIONS

The NRC inspectors evaluated the licensee's quality verification activities in the area of plant operations. The evaluation was performed through direct observation of activities, interviews with licensee personnel, and reviews of documentation. Activities observed included control room routines, back shift performance of quality assurance (QA) audits and surveillances, Technical Specification (TS) surveillance tests, and various planning and status meetings. Documentation that was reviewed included selected Deficiency Cards, QA audit and surveillance reports, Licensee Event Reports (LERs), and Plant Review Board (PRB) meeting minutes. Interviews were conducted with

personnel from the Departments of Nuclear Safety and Compliance (NSAC), Quality Assurance, and Operations.

2.1 Control Room Operations

The NRC inspectors observed activities, interviewed personnel, and reviewed documents in the combined control rooms. Activities observed included normal shift decorum, shift turnover, a monthly test of switchyard breakers, and an actual loss of automatic feedwater control. Personnel interviewed included On-Site Operations Supervisors (OSOSs), Shift Supervisors (SSs), and various other shift personnel. Documents were reviewed on the subjects of standing orders, clearances, limiting conditions for operations (LCOs), surveillances, operator aids, and emergency operating procedures (EOPs).

Plant personnel appeared knowledgeable and professional and conducted themselves with appropriate decorum. This was especially evident during a feedwater transient.

The EOPs, however, did not give the operators satisfactory assistance. The NRC inspectors found that the flowchart-format EOPs in the control room were not adequately legible (Item No. 87-31-01, Observation). The licensee's site QA Audit 87-PO-2A of October 15, 1987, also identified legibility problems with those EOPs. The "master" EOPs, which are large and unwieldy, are legible, although the flowchart arrows are sometimes difficult to follow. However, the smaller versions of the master EOPs that are placed at various locations in the control room have been reduced in size to the point that clarity of wording and logic flow paths is lost. As a consequence, they are not satisfactory for use in effecting a safe recovery from a plant casualty.

The inspectors also noted that, although there is a notebook of Annunciator Response Procedures in a three-ring binder at each control panel, there is no convenient way to free the operator's hands so he can follow a procedure and still operate the panel. That is, the operator cannot lay the book on the panel while he operates switches, and there is nowhere else to put the book where it can be read.

2.2 Licensee Event Reports

The NRC inspectors reviewed the site's 1987 Licensee Event Reports (LERs). Two recurring problems were noted. The first was overheating of vital power inverters, which caused three reactor trips (two at power) on low reactor vessel water level. The licensee attributed the overheating, in part, to the fact that the ambient river water (service water) temperature reached 95°F and, in part, to equipment aging. The licensee initiated corrective action that included repair of the inverters and addition of portable air conditioners. The NRC inspectors interviewed plant engineers and found that they were aware of industry problems with aging and overheating of plant equipment. The licensee's proposed long-term corrective action, which is still under evaluation, consists of deletion, modification, or replacement/modification of the inverters. Pending implementation of long-term corrective action, the potential for further, similar challenges to the units' safety systems remains.

The second recurring problem noted by the NRC inspectors dealt with plant procedures. In all cases, the licensee's corrective action included reference to the Procedure Upgrade Program (PUP). Fundamentally, the PUP consists of three phases. The first phase was writing Administrative Procedure 10 AC-MGR-003-03, which established the controls and methods for procedure development, revision, review, and approval. The second phase is the rewriting of plant procedures. That is being done by a contractor, with strong interaction by plant personnel. The third phase will be to replace the contractor with plant personnel.

Based on their reviews of these two problem areas, the NRC inspectors concluded that the licensee has a strong interest in improving plant safety by correcting and improving procedures.

2.3 Surveillances and Audits

The licensee's surveillance schedule is generated quarterly and is based on QA management's perception of plant problems. A summary of surveillances performed, which is addressed to the Plant Manager and the Plant Support Manager, is issued monthly. The NRC inspectors reviewed the surveillance summaries from January through October 1987. The summaries showed that, in the monthly system walkdowns, the QA Department identified unsatisfactory material conditions, discrepancies between installed equipment (as-built condition) and the piping and instrument drawings, procedure weaknesses, equipment requiring repairs, and components that were not properly identified.

Surveillance findings are forwarded to plant personnel by memorandum and are included in the QA trending system. The memorandum requires that the addressees respond by outlining corrective actions. The auditor of record has the opportunity to evaluate the corrective action when the findings are being closed.

A selected sample of QA audit reports and trend reports was reviewed by the NRC inspectors. The audits appeared adequate, although they are more procedure-oriented than the surveillances. The trend reports provide an overview for management but little in the way of details. However, the details to back up the trend results are available to management upon inquiry.

The NRC inspectors also reviewed a selected system surveillance check list and found the check list to be adequately detailed, requiring the surveillance team to look at installation of shielding, cabling, electrical equipment, pumps, valves, motors, instrumentation, piping, hangers, snubbers, and supports. The surveillance check list appears to reflect lessons learned from past plant problems and industry problems. Interviews with licensee auditors indicated that the check list is a living document and can be changed as necessary.

The NRC inspectors accompanied an auditor during an extensive backshift (off-hours) material condition surveillance, documented in Surveillance Report 87-ORM-113. The auditor was thorough, professional, and knowledgeable of the check list and the plant procedures. In addition, the auditor promptly identified to the appropriate cognizant individuals the items that needed near-term attention. For example, three containers of coated weld

rods were found improperly stored in a tool box. Before leaving the site, the auditor accompanied the on-shift maintenance manager to the scene, where they reviewed the safety aspects of the condition and discussed possible courses of action for resolution of the condition and prevention of its recurrence.

2.4 Plant Review Board Meetings

The NRC inspectors reviewed the minutes of Plant Review Board (PRB) meetings. In particular, the September 18, 1987, writeup for deficiency card 1-87-834 was evaluated. The deficiency card reported that data from an in-service inspection (ISI) test showed that a service water pump was inoperable; however, the crew performing the test did not recognize the inoperability. The inoperability was identified approximately 16 hours later by the ISI engineer. The PRB minutes (page 5) imply that the action statement begins after the determination of inoperability is made. Although this is generally true, in cases where sufficient information exists to determine inoperability at the time a test is performed and shift personnel err in not determining inoperability, the inoperability must be treated as if it had been properly determined when that sufficient information was first available. The NRC inspectors discussed this issue with the licensee and verified that the licensee understands NRC's position with respect to such issues. The NRC inspectors verified that the proper Limiting Condition of Operation (LCO) was adhered to in this case.

2.5 QA Personnel

The NRC inspectors interviewed a number of personnel from the licensee's QA organization. They appeared knowledgeable and professional. However, the inspectors noted that the single QA auditor with plant operations experience was due to leave the site shortly after the inspection. This lack of organizational operations experience is considered a potential weakness (Item No. 87-31-02, Observation). The inspectors noted that the licensee has advertised to fill the expected vacancy with a person who has an operational background. The inspectors encouraged the licensee to staff the QA organization with more personnel experienced in operations to enable the QA organization to perform more meaningful activities in monitoring plant operations.

The NRC inspectors reviewed the Quality Assurance Department Training Guide, which establishes the QA training process and curriculum. Requirements for the various positions and levels are detailed, and trainees are required to obtain appropriate approvals for the various steps of the qualification processes.

The inspectors discussed the Quality Checker Program with licensee personnel. Under this program, employees are assigned to perform quality surveillances within their own departments for 1 month. They receive one day of familiarization training on the requirements of Appendix B to 10 CFR 50 and the plant implementing documents. They then perform as quality checkers and gain awareness of quality requirements as well as of quality problems, processes, and tracking systems at the site. This program appeared to be an excellent tool for sensitizing line personnel to the concepts of quality attainment and verification and ensuring that they contribute meaningfully to plant reliability and safety.

2.6 Health Physics

The licensee requires personnel to use the hand-and-foot radiation monitor located at the entry point to the control room. During one entrance to the control room, the NRC inspectors alarmed the monitor. The licensee's General Employee Handbook requires an individual to notify health physics (HP) personnel immediately if the instrument indicates contamination. However, at this location, there is neither a phone nor any other mechanism by which to notify HP. The need for a phone or other communication mechanism at the monitoring station was taken under advisement by the licensee's management (Item No. 87-31-03, Observation).

In this instance, the licensee employee accompanying the NRC inspectors went to HP and was instructed to take plastic shoe coverings to the inspectors and escort the inspectors to HP for an additional contamination check. During later discussions with the HP/Chemistry Superintendent, the inspectors were informed that HP personnel should always go to the potentially contaminated individual to guard against further spread of contamination. The HP/Chemistry Superintendant stated that steps would be taken to ensure that on-shift HP personnel are aware of the policy (Item No. 87-31-04, Observation).

The hand-and-foot monitors alarm frequently, apparently reacting to radioactive noble gasses from fission product leaks that cling to clothing. In the process of dealing with these frequent alarms, the inspectors recognized a traffic pattern that has the potential for spreading contamination. People entering the reactor building must pass through the same relatively narrow hallway and HP access point that people exiting the building must also use. People exiting go beyond the HP check point, use the hand-and-foot monitors, and then return to the HP check point if the monitor indicates contamination. Passing near the monitors are otherwise uncontaminated people moving into and out of the access point. If a person were contaminated, the potential exists for the traffic to spread the contamination both into the plant and out among the various offices. This could continue until the person alarmed a monitor at the plant gate (Item No. 87-31-05, Observation).

2.7 Storage and Control of Equipment and Compounds

The inspectors found three safety-related service water pumps, both plant service water and residual heat removal (RHR) service water, stored in the open area adjacent to the intake structure. One was rusty and its components were separated. A second, also not intact, was nearby. The third, which appeared to have been rebuilt, was on blocks with the top of its shaft wrapped and plastic covering the opening in the suction bell; however, the plastic was ripped and the intake bell was open to the elements. Lying about on the asphalt, in a bucket, and in a covered bin were large numbers of nuts and bolts, impellers, and other items apparently associated with these and other pumps. Additionally, a canvas bag of nuts and bolts was found lying on the grating over the intake structure. The bag was still attached to a rope apparently used to remove the material from the structure or to lower the safety-related fasteners into the structure.

There was no way the inspector could ascertain whether all the equipment and material had been stored and handled in a way that was appropriate to the

requirements of its safety-related status. Licensee personnel stated that they were preparing a memorandum to the maintenance personnel to clarify that discarded material should not be left at the job site. They also stated that they would be considering establishing ready-for-use covered bins at that location for both new and reusable items (Item No. 87-31-06, Observation).

2.9 Summary

QA audits and surveillances were of adequate technical depth and generally performance oriented, identifying real problems as well as procedural discrepancies. QA personnel were knowledgeable and professional, although the addition of personnel with operations experience would enhance the organization. Control room personnel were knowledgeable and professional, and the operations observed were adequate, with the possible exception of the use of illegible EOP flow charts. Several HP practices were observed that appeared to be less than optimum, but HP performance was adequate overall. A potential problem with the identification of safety-related and non-safety-related fasteners for the service water system was observed and reported to licensee management.

In the functional area of plant operations, the NRC inspectors found the licensee's quality verification organizations to be generally effective in identifying, solving, and preventing safety-significant deficiencies, and they found the licensee's management to be generally effective in dealing promptly and completely with identified deficiencies.

3.0 MODIFICATIONS OF PLANT SYSTEMS AND COMPONENTS

The NRC inspectors reviewed open and closed Design Change Requests (DCRs), permanent and temporary plant modifications, jumpers, post-modification tests, and the licensee's commitments to assess the effectiveness of the licensee's quality verification organizations in identifying, resolving, and preventing recurrence of safety-significant technical deficiencies in the modification of plant systems and components. Various modification packages were reviewed to ensure that design inputs, analyses, reviews, approvals, and post-maintenance/modification testing were adequate. The NRC inspectors also assessed the effectiveness of line management in ensuring that identified deficiencies were dealt with promptly, completely, and correctly. Plant procedures were reviewed to the extent required to understand how the licensee performs work in the areas being inspected.

3.1 Open DCRs

The NRC inspectors reviewed various DCRs that were categorized for implementation or voiding. Open DCRs to be implemented were reviewed to determine why they were open and to determine if any safety-significant DCRs were not being implemented as necessary. The DCRs that were categorized for voiding were reviewed to determine if the modifications being voided were important and, if so, why they were being voided after they had been approved by the PRB for implementation.

The NRC inspectors found that DCRs can be voided for various reasons: the DCR is no longer applicable to plant configuration; the DCR is "old" and, if necessary, will be replaced by a DCR under the new program; the work entailed

in the DCR has been performed under a different DCR; or the DCR may never have been needed. Upon review of the DCRs, the NRC inspectors were concerned that the "old" DCRs (e.g. DCRs 78-105, 78-127, and 82-283) were, in fact, necessary modifications and would increase the already large backlog of open DCRs. Additionally, many of the DCRs scheduled to be voided (e.g. DCRs 79-487, 82-136, 82-137, 83-276, 84-230, and 85-189) appeared to warrant further evaluation or implementation. The apparent misclassification of these DCRs by the licensee is of concern, because these DCRs might not be re-evaluated until their scheduled voiding date and would not be rescheduled for the necessary implementation until that time.

3.2 Closed DCRs

Approximately 20 closed DCRs were reviewed. No discrepancies were identified during this review. The documentation for 10 CFR 50.59, unreviewed safety questions, appeared to have improved since the last Region II inspection. It also appeared that licensee management had taken the initiative to reduce the backlog of open DCRs.

3.3 Open Temporary DCRs

Approximately five open temporary DCRs were reviewed. With the exception of DCR 85-007, which is discussed in Section 3.4, all were found to be adequate.

3.4 DCR 85-007, "Reactor Water Clean-Up (RWCU) System High Differential Flow"

In December 1984, on three separate occasions, RWCU system primary containment isolation valve 1G31-F001 inside containment failed to close as required upon receipt of a high differential flow signal with RWCU pump 1G31-C001B running; however, the second (series) RWCU system isolation valve, 1G31-F004, did close. The failure of valve 1G31-F001 to close on high differential flow signal (isolate) was identified in LER 84-029 because the RWCU valves are primary containment isolation valves; thus, the closure of 1G31-F004 constituted an engineered safety feature (ESF) actuation. This condition was also reported under 10 CFR 50.72, because it was a failure of valve 1G31-F001 to close as required by the Hatch Unit 1 TS 3.7.D.1 and Table 3.7-1.

The corrective action of LER 84-029 consisted of backflushing the flow transmitter sensing line to remove air that was determined to be the cause of the pressure spikes that were the initiation signal (high differential flow). However, the RWCU system was not tested before being placed back in operation to verify that both isolation valves would close as required on a high differential flow signal (Item No. 87-31-07.a, Potential Enforcement Finding).

This post-maintenance testing oversight came to light on January 5, 1985, and on January 10, 1985, when the running RWCU pump 1G31-C001B isolation valve 1G31-F001 again failed to close upon receipt of a high differential flow signal. This condition was identified in LER 85-001. A review of the instrumentation logic revealed that pump start permissive signals from relays 1G31-R616A and B were required for the valves to isolate properly; therefore, if either one or both pumps were not running, the associated valve with the idle pump would not isolate on high differential flow. The licensee then evaluated this condition as a design flaw in the instrumentation logic. As a

result, DCR 85-007 was generated to allow both RWCU system isolation valves 1G31-F001 and F004 to close on a high differential flow signal, with either of the two RWCU pumps running, as required per the Technical Specifications 3.7.D.1 and Table 3.7-1. DCR 85-007 also changed a 15-second time delay relay to a 45-second time delay relay to mitigate the effect of pressure spikes in the flow transmitter sensing lines.

DCR 85-007 was reviewed by the NRC inspectors, and several apparent discrepancies were identified. One of these was in the area of safety evaluations. 10 CFR 50.59 requires the licensee to develop and retain a written safety evaluation that demonstrates the bases for the determination that the change, test, or experiment does not involve an unreviewed safety question. Contrary to the 10 CFR 50.59 requirement, the safety evaluation for DCR 85-007, Revision 1 did not adequately detail the bases for the determination that the addition of a 45-second delay relay to the RWCU flow logic was not an unreviewed safety question. The determination did not consider the original design basis for the actuation or various failure modes, nor did it document any design-basis accidents that were reviewed for impact, or other systems and components that could have been affected by the change (Item No.87-31-08, Potential Enforcement Finding).

Post-modification functional testing was reviewed to verify operability following the modification by DCR 85-007. ANSI 18.7, Section 5.2.7 states that a suitable level of confidence in structures, systems, or components on which maintenance or modifications have been performed should be obtained by appropriate inspection and performance testing. Maintenance work order (MWO) 1-85-426 and surveillance procedure HNP-1-5261 indicate that the time delay relays were bench tested before they were installed. The installation post-modification testing performed under MWO 1-85-401 did not test the actual installation of the 45-second delay timer. Based on their interpretation of ANSI 18.7, the NRC inspectors do not consider the bench test to be adequate performance testing for this installation (Item No. 87-31-07.b, Potential Enforcement Finding).

Unit 1 and Unit 2 Technical Specifications were reviewed to verify the impact of the 45-second delay timer in the containment isolation actuation circuitry. The Unit 2 Technical Specifications assumed the isolation response time to be 43 seconds. The addition of the 45-second delay timer appeared to be in conflict with Technical Specifications. In a letter dated December 22, 1987, the licensee requested temporary relief from TS 3/4.3.3 for the RWCU values until the TS could be changed. Region II granted this relief on December 24, 1987, with concurrence of NRR (Item No. 87-31-09, Potential Enforcement Finding).

3.5 Field Verification of Maintenance Work Orders

The NRC inspectors conducted field verification of closed MWO 1-87-01780. This MWO and its associated work process sheet (WPS) provided guidance for the reinforcement and installation of pipe supports in the high pressure coolant injection (HPCI) room, as required by NRC Bulletin 79-14. During the walkdown, the NRC inspectors discussed the MWO package with the licensee's cognizant mechanical QC inspector. Based on those discussions, the NRC inspectors concluded that QC verification activities associated with MWO 1-87-01780 were detailed and thorough.

On three occasions, the NRC inspectors observed part of the licensee's activities associated with MWO 1-87-5632. The MWO covered the replacement of six pneumatic seals in the fuel transfer canal and a minor modification of the seal leak detection system under DCR 87-099 and FCR 87-099-01. The MWO appeared to be the result of thorough pre-planning. The personnel performing the seal removal and replacement were knowledgeable about the work and their responsibilities, and there was considerable management review of the actual work. Extensive precautions were taken to avoid radiation exposure and contamination.

3.6 Quality Assurance Audits of the DCR Program

The NRC inspectors reviewed reports of two audits of the DCR system performed by the licensee. The 1986 audit, "Quality Assurance Audit of Design Change and Modification Control (86-DCR-1)," and the 1987 audit, "Design Change Request Program (87-DCR-1C)," were reviewed to determine the scope and depth to which the licensee evaluates the design change process. Additionally, these audits were reviewed to determine whether the audit findings were technical or administrative.

The 1986 audit addressed the general QA planning matrix areas of administration, implementation, testing/inspection, and system restoration. The audit report identified numerous problems with the design change process and modification control. The audit findings and areas evaluated during the audit encompassed many aspects of the design programs, and the findings identified technical deficiencies with design changes and specific technical inadequacies.

The 1987 audit examined the DCR program for compliance with ANSI N18.7 and site procedures. This audit reviewed the processing of electrical and mechanical DCRs and was coordinated with both Plant Vogtle QA and Southern Company Services QA. The primary weakness identified during the audit dealt with an inattention to detail during the engineering review process, which allowed minor errors in DCR packages to go undetected. This audit appeared to be compliance based and was not nearly as technically in depth as the 1986 audit.

3.7 Summary

The DCRs and associated MWOs reviewed were generally adequate, although some open DCRs appear to require further evaluation. Although discrepancies were identified in the activities associated with DCR 85-007, and these discrepancies had not been previously identified by the licensee's quality verification organizations, the NRC inspectors do not believe that this oversight is representative of the present organizations. The direct observations and field verification of MWO activities indicated that licensee personnel were knowledgeable and professional, and quality verification activities were performed effectively.

The NRC inspectors found, based on the sample of hardware and documents reviewed during this inspection, that the present activities of the licensee's quality verification organizations in the area of modification of plant systems and components are generally adequate. Quality verification activities in the design change control area were evaluated as effective.

Good attitudes toward quality, high knowledge levels, and an improving trend are evident.

4.0 EXIT INTERVIEW

The inspectors met with the licensee's representatives (included in the list in Appendix A) on December 11, 1987. The purpose, scope, and results of the inspection were discussed.

APPENDIX A

Persons Contacted

Georgia Power Company (GPC)

*J. T. Beckham, Jr., Vice President, Plant Hatch
*S. J. Bethay, Nuclear Safety and Compliance (NASC) Supervisor
*J. K. Branum, Sr. Nuclear Engineer
E. Burkett - Supervisor, General Engineering
*C. L. Coggin, Manager, Training and Emergency Preparedness
R. L. Colson, QC Electrical Inspector
*G. M. Creighton, Regulatory Specialist (NASC)
C. Dixon, QA Engineering Support Supervisor
*P. E. Fornel, Manager Maintenance
*O. M. Fraser, Site QA Manager
*M. H. Googe, Manager, Outages and Planning
G. A. Goode, General Engineering Superintendent
*G. R. Goodman, Independent Safety Evaluation Group (ISEG)
J. Hammonds, ISEG Supervisor
W. Hayden, Health Physics and Chemistry
R. L. Hayes, Deputy Operations Manager
*J. D. Heidt, Nuclear Licensing Manager - Hatch
F. A. Herrington - Senior Regulatory Specialist
R. L. Keck - Superintendent, Reactor Systems Engineering
*C. L. McDaniel, Acting Manager, General Support
C. Melchoir - System Engineer
*C. T. Moore, General Manager, QA
*J. E. Newton, Maintenance Planning Supervisor
*H. C. Nix, Plant Manager - Hatch
*T. R. Powers, Manager, Engineering Support
J. Robertson - Supervisor, Reactor Systems Engineering
J. Shuman - Supervisor, Reactor Systems Engineering
D. Smith, Health Physics and Chemistry (HP/C) Supervisor
*H. L. Sumner, Manager of Operations
W. B. Thigpen, QA
*S. B. Tipps, Manager, Nuclear Safety & Compliance
R. Tracy - System Engineer
C. A. Tyre, Shift Supervisor
E. Z. Wahab - Superintendent, Balance of Plant Engineering
A. Wheeler - Supervisor, Balance of Plant Engineering
D. Williams - System Engineer
*R. W. Zavadoski, Manager, Health Physics and Chemistry

* Denotes those attending the exit meeting on December 11, 1987.

NRC

*G. A. Belisle, NRC, Section Chief, QA, RII
*L. P. Crocker, Hatch Project Manager, NRR
*F. C. Hawkins, Quality Operations Section Chief, NRR
*G. W. Lapinsky, NRR
*J. E. Menning, Resident Inspector
*M. V. Sinkule, Section Chief, RII

OTHERS

*D. Dismukes, Bechtel, Mechanical Supervisor
J. N. Keller, Bechtel, Engineering Supervisor
*G. D. McGaha, Southern Company Services (SCS), Design Project Manager
*R. W. Montross, Oglethorpe, Site Representative
O. Prescott, SCS, Technical Aide

Other licensee employees contacted included operators, engineers, auditors, technicians, mechanics, and office personnel.

* Denotes those attending the exit meeting on December 11, 1987.