

### UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION II 101 MARIETTA ST., N.W. ATLANTA, GEORGIA 30323

Report Numbers: 50-321/88-24 and 50-366/88-24

Licensee: Georgia Power Company

P.O. Box 4545 Atlanta, GA 30302

Docket Numbers: 50-321 and 50-366

License Numbers: DPR-57 and NPF-5

Facility Name: Hatch 1 and 2

Inspection Dates: July 23 - August 19 and August 22-24, 1988

Inspection at Hatch site near Baxley, Georgia

Inspectors: John E. Menning, Senior Resident Inspector

9-22-88 Date Signed

Source of 9-22-88

Randall A. Musser, Resident Inspector

Accompanying Personnel: Michael E. Ernstes

Approved by:

Sinkule, Chief, Project Section 3B

Division of Reactor Projects

### SUMMARY

A routine inspection was conducted at the site in the areas of Operational Safety Verification, Maintenance Observations, Plant Modifications, Surveillance Testing Observations, ESF System Walkdowns, Radiological Protection, Physical Security, Reportable Occurrences, Operating Reactor Events, Three Mile Island Items, and Review of Licensee Operational Upgrade Efforts. A reactive inspertion was also conducted at the site to investigate a facility identified problem associated with Certification of Medical Records.

Results: Two violations were identified. One violation involved an inadequate EHC system drawing, and the other violation involved for an inadequate turbine bearing oil system procedure.

#### REPORT DETAILS

### 1. Persons Contacted

Licensee Employees

C. Coggin, Training and Emergency Preparedness Manager

D. Davis, Manager General Support

#K. Dyar, Senior Quality Assurance Field Representative

J. Fitzsimmons, Nuclear Security Manager

\*P. Fornel, Maintenance Manager

\*#O. Fraser, Site Quality Assurance Manager
\*M. Googe, Outages and Planning Manager

#R. Granthum, Operating Training Superintendent/Acting Manager

\*J. Lewis, Acting Operations Manager

#D. Moore, Nuclear Training Coordinator - Corporate

\*#H. Nix, General Manager

#J. Payne, Senior Plant Engineer
T. Powers, Engineering Manager
D. Read, Plant Support Manager

\*#H. Sumner, Plant Manager

#S. Tipps, Nuclear Safety and Compliance Manager R. Zavadoski, Health Physics and Chemistry Manager

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

NRC Resident Inspectors

\*#J. Menning R. Musser

Other NRC Inspectors

#M. Ernstes

\*Attended exit interview on August 22, 1988 #Attended exit interview on August 24, 1988 \*#Attended both exit interviews

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

2. Operational Safety Verification (71707) Units 1 and 2

The inspectors kept themselves informed on a daily basis of the overall plant status and any significant safety matters related to plant operations. Daily discussions were held with plant management and various members of the plant operating staff. The inspectors made frequent visits to the control room. Observations included instrument readings, setpoints

and recordings, status of operating systems, tags and clearances on equipment, controls and switches, annunciator alarms, adherence to limiting conditions for operation, temporary alterations in effect, daily journals and data sheet entries, control room manning, and access controls. This inspection activity included numerous informal discussions with operators and their supervisors. Weekly, when on site, selected ESF systems were confirmed operable. The confirmation was made by verifying the following: accessible valve flow path alignment, power supply breaker and fuse status, instrumentation, major component leakage, lubrication, cooling, and general condition.

General plant tours were conducted on at least a weekly basis. Portions of the control building, turbine building, reactor building, and outside areas were visited. Observations included general plant/equipment conditions, safety related tagout verifications, shift turnover, sampling program, housekeeping and general plant conditions, fire protection equipment, control of activities in progress, radiation protection nontrols, physical security, problem identification systems, missile hazards, instrumentation and alarms in the control room, and containment isolation.

In the area of housekeeping the following discrepancie: were observed by the inspector and brought to the attention of licensee personnel:

- On August 1, 1988, empty boxes and other trash were observed in the vicinity of Unit 2 RWCU precoat pump 2G31-C003. This pump is located on elevation 185 in the Unit 2 reactor building.
- On August 2, 1988 various items of equipment were observed under and around control room ventilation condensing unit 1Z41-B008B. These items had apparently not been removed after maintenance on this unit.

On July 25, 1988, the licensee informed the inspector that medical records were found to be incomplete for 24 licensed individuals. More specifically, it was determined that blood testing and urinalysis had not been performed on these individuals as required by ANSI Standard 3.4. On August 12, 1988, the inspector was informed that additional checking revealed that the medical records for 62 licensed individuals were incomplete. Pulmonary function testing had not been performed on 24 individuals. Blood testing, urinalysis, and pulmonary function testing had not been performed on the remaining 38 individuals. The licensee informed the inspector on August 12, 1988, that they planned to have most of the required testing performed within a two-week period. This licensee-identified matter was followed by the regional inspection staff (paragraph 13).

At 1647 on August 5, 1988, Unit 2 automatically scrammed from approximately 100 percent of rated power. This scram was caused by trips of the condensate booster and reactor feed pumps. The loss of condensate and feedwater flow resulted in a low reactor vessel water level condition. The events of this scram are discussed in paragraph 10. Following the

completion of necessary corrective actions, the Unit 2 reactor was again critical at 2239 on August 6. Unit 2 entered the RUN mode at 0420, and the main generator was synchronized with the grid at 1125 on August 7, 1988. Rated power was achieved at 2300 on August 8, 1988.

At 2004 on August 9, 1988, the Unit 2 low pressure turbine intercept valves were inadvertently closed while operations personnel were placing an equipment clearance on the EHC system. Unit 2 was operating at approximately 100 percent of rated power at the time of this event.

Clearance No. 2-88-1336 was being placed to support replacement of the "B" EHC pump. The clearance required the closing of valve 2N32-FV20. When the FV20 valve was closed, low pressure turbine intercept valves Nos. 3 and 4 went fully closed, and intercept valves Nos. 1 and 2 went approximately 60 percent closed. Control room personnel observed the closing of the intercept valves and immediately reduced power to approximately 50 percent of rated. The FV20 valve was reopened, and all four intercept valves responded by opening fully. The licensee subsequently conducted an inspection of the condenser bay area of the turbine building and ensured that plant conditions had stabilized prior to increasing power. Rated power was again achieved at 0037 on August 10, 1988.

Investigation showed that the event on August 9, 1988, was caused by a deficient drawing. Drawing H-21243 was used by operations personnel when the equipment clearance was prepared. This drawing indicated that valve FV20 could be closed without isolating EHC fluid from the low pressure turbine intercept valves. A review of the as-built configuration showed that the print did not accurately reflect the EHC pump discharge piping.

Regulatory requirements in 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," specify that activities affecting quality are to be prescribed and accomplished with documented instructions, procedures, or drawings. The inadequate drawing is considered to be a violation of this regulatory requirement. This matter will be tracked as violation 366/88-24-01, Inadequate EHC Drawing.

One violation was identified.

3. Maintenance "hservations (62703) Units 1 and 2

During the port period, the inspectors observed selected maintenance activities the observations included a review of the work documents for adequacy, adherence to procedures, proper tagouts, adherence to technical specifications, radiological controls, observation of all or part of the actual work and/or retesting in progress, specified retest requirements and adherence to the appropriate quality controls. The primary maintenance observations during this month are summarized below:

Maintenance Activity		Date
a,	Replacement of Fire Pump Controller Piping on Diesel Fire Pump No. 3 per MWO 1-88-2607 and DCR 87-81. (Unit 1)	07/27/88
b.	Replacement of the RHRSW Air Release Valve (1E11-F904A) per MWO 1-88-1016. (Unit 1)	08/02/88
с.	Repair of Post LOCA Radiation Monitor 1D11-K622C per MWO 1-88-4672. (Unit 1)	08/12/88
d.	Troubleshooting of LPCI Inverter 1R44-S002 per MWO 1-88-4855 (Unit 1)	08/19/88

As discussed in NRC Inspection Report Nos. 50-321/88-22 and 50-366/88-22, problems were experienced with Unit 1 LPCI inverter 1R44-S002 during the previous reporting period. Additional LPCI inverter problems were experienced in Unit 1 during this reporting period. On August 1, 1988, LPCI inverter 1R44-S002 tripped. On August 2, 1988, operations personnel received a trouble alarm for Unit 1 LPCI inverter 1R44-S003. Investigation revealed that fuses had been blown. On August 11, 1988, operations personnel again received a trouble alarm for 1R44-S003. Investigation revealed that fuses had blown again. Inverter 1R44-S003 experienced an apparently identical problem on August 12, 1988. It appeared to the inspector that the licensee's maintenance efforts had been ineffective in identifying and correcting the basic causc(s) of the LPCI inverter problems. In discussing these concerns with licensee personnel, the inspector learned that the licensee had formed an event review team to investigate these events.

Additionally, a vendor representative was sent to the site to inspect the inverters. As noted above, the inspector observed some of the vendor representative's activities on August 19, 1988. The inspector will review this team's report and any corrective actions that result from the investigation.

No violations or deviations were identified.

# 4. Plant Modifications (37700) Units 1 and 2

The inspector reviewed documentation packages for selected DCRs that had been implemented and closed by the licensee. The review included verification that the design changes had been reviewed and approved in accordance with the technical specifications and 10 CFR 50.59, controlled by approved procedures, and verified by appropriate post installation testing and/or inspections. The review also included verification that plant procedures, operator training programs, as built drawings, preventive mai. Jenance programs, and the ISI/IST programs were revised, as appropriate, prior to the modification being declared operable.

The DCRs involved in this review were identified by the licensee as Nos. 86-218 and 86-219.

No violations or deviations were identified.

5. Surveillance Testing Observations (61726) Units 1 and 2

The inspectors observed the performance of selected surveillances. The observation included a review of the procedure for technical adequacy, conformance to technical specifications, verification of test instrument calibration, observation of all or part of the actual surveillances, removal from service and return to service of the system or components affected, and review of the data for acceptability based upon the acceptance criteria. The primary surveillance testing observations during this month are summarized below:

Sur	Date	
ā.	Channel Functional Test and Calibration for ATTS Panel 1H11-P926 per procedure 57SV-SUV-012-1S (Unit 1)	07/26/88
Ь.	RCIC Pump operability test per procedure 34SV-E51-002-15 (Unit 1)	08/02/88
С.	Core Spray Pump IST per procedure 34SV-E21-001-2S (Unit 2)	08/05/88

On August 2, 1988, while observing the Unit 1 RCIC pump operability test, the inspector noted that the "RCIC Barometric Condenser High Pressure" annunciator came in. The operator performing the test responded by entering the appropriate ARP. All items identified by the ARP as probable causes for the alarm were checked and all were found to be satisfactory. The pressure in the condenser was holding steady at 3 inches of Hg Vacuum, the alarm setpoint. Since the above condition did not affect the operability of the system, the test was successfully completed. Discussions with the system engineer confirmed that the purpose of the RCIC barometric condenser is to ensure proper gland sealing capability of the RCIC turbine. Additionally, the engineer stated that the high pressure condition was caused by an improperly set cooling water flow control valve. This condition will be corrected during the next surveillance of the Unit 1 RCIC system.

On August 5, 1988, while observing the Core Spray Pump 2B IST, the inspector noted some problems with the procedure in use, 34SV-E21-001-2S. These items were brought to the attention of the Unit 2 Shift Supervisor. The following is a summation of the problems noted. (1) Step 7.2.10 states, "THROTTLE OPEN Core Spray Test Valve, 2E21-F015B, to obtain a flow on Flow rejicator 2E21-R601B, exactly equal to the reference flow recorded...." It is not possible to obtain a flow rate exactly equal to the reference flow as the Flow Indicator reads in divisions of 100 gpm

(between 4000-5000 gpm). (2) Step 7.2.11 states, "WHEN Core Spray flow is greater than 950 GPM, confirm that Core Spray Minimum Flow Valve, 2E21-F031B, CLOSES." This step is difficult to perform due to the coarse scale on flow indicator 2E21-R601B. (3) Step 7.2.22 states, "WHEN Core Spray Flow decreases to less than 700 GPM, confirm that Core Spray Minimum Flow Valve, 2E21-F031B, OPENS." This step is also difficult to perform due to the coarse scale on flow indicator 2E21-R601B. The reading of this flow indicator at low flow ranges is a problem with all four loops of core spray, loop A and B for each unit.

No violations or deviations were identified.

6. ESF System Walkdowns (71710) Unit 1

The inspectors routinely conducted partial walkdowns of ESF systems. Valve and breaker/switch lineups and equipment conditions were randomly verified both locally and in the control room to ensure that lineups were in accordance with operability requirements and that equipment material conditions were satisfactory. The MCREC system was walked down in detail on August 2, 1988. As noted in paragraph 3, a housekeeping discrepancy was observed at that time and brought to the attention of the Unit 1 Shift Supervisor.

No violations or deviations were noted.

7. Radiological Protection (71709) Units 1 and 2

The resident inspectors reviewed aspects of the licensee's radiological protection program in the course of the monthly activities. The performance of health physics and other personnel was observed on various shifts to include: involvement of health physics supervision, use of radiation work permits, use of personnel monitoring equipment, control of high radiation areas, use of friskers and personal contamination monitors, and posting and labeling.

No violations or deviations were noted.

8. Physical Security (71881) Units 1 and 2

In the course of the monthly activities, the resident inspectors included a review of the licensee's rhysical security program. The performance of various shifts of the secure force was observed in the conduct of daily activities to include: ava ty of supervision, availability of armed response personnel, protecte vital access controls, searching of personnel, packages and vehicles badge issuance and retrieval, escorting of visitors, patrols and compensatory posts.

No violations or deviations were noted.

9. Reportable Occurrences (90712 and 92700) Units 1 and 2

A number of Licensee Event Reports (LER) were reviewed for potential generic impact, to detect trends, and to determine whether corrective actions appeared appropriate. Events which were reported immediately were also reviewed as they occurred to determine that technical specifications were being met and the public health and safety were of utmost consideration.

Unit 1: 88-05 Personnel Error Causes Air Introduction Into Turbine Lube Oil Coolers Resulting in Scram

The events of this LER concern an improper exchange of main turbine lube oil coolers that resulted in a turbine trip and reactor scram. The scram occurred on April 19, 1988, and was discussed in NRC Inspection and Nos. 50-321/88-11 50-366/88-11. Investigation revealed that the turbine bearing oil system operating procedure (34SO-N34-D08-IN) did not address the exchange of these coolers. Personnel performed the exchange operation without procedural guidance and inadvertently introduced air into the turbine lube oil system. Technical Specification 6.8.1.a requires that written procedures be established, implemented, and maintained covering the activities referenced in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978. Section 4 of Appendix "A" of Regulatory Guide 1.33 recommends procedures for the operation of the turbine generator system. This matter is considered a violation of Technical Specification 6.8.1.a and will be tracked as violation 321/88-24-02. Inadequate Turbine Bearing Oil System Procedure.

88-07 Lack of Administrative Control Causes Potential Diesel Generator Inoperability

This LER concerns the closing of rollup fire door 1L48-D143 for D/G 1R43-S001B room without adequate consideration of the affect on D/G operability. The fire door was initially found to be stuck at mid position and then closed to comply with requirements of the Fire Hazard Analysis. The licensee subsequently questioned whether the rollup fire door's closed position could adversely affect the operability of D/G 1R43-S001B. An engineering study and special testing have established that the D/G room maximum design temperature (122°F) would be exceeded after approximately 19 minutes of operation at 2800 KW on a 95°F day. The licensee's corrective actions were reviewed by the inspector. This matter appears to be

a violation of Technical Specification D/G operability requirements. However, since all the requirements specified in 10 CFR Part 2, Appendix C, Section V, were satisfied, this licensee-identified violation is not being cited. Additionally, review of the LER is closed.

88-10 Deficient Procedure Allows Configuration Where Monitors Do Not Meet Operability Requirements

This LER concerns a configuration of the Recombiner Building Ventilation Radiation Noble Gas Monitors that would preclude annunctation of an inoperable or downscale condition in the main control room. The Recombiner Building Ventilation Radiation Noble Gas Detection System consists of two separate monitors. These monitors were being maintained with one in service while the other monitor was in a standby mode. The licensee determined that under these conditions failure of the monitor in service due to an inoperable or downscale condition would not be annunciated in the control room. Table 4.14.2-1, Item 3.a, of the technical specification requires that main control room annunciation on inoperable or downscale conditions be demonstrated during quarterly functional testing. Corrective action involved deactivating the redundant monitor and initiating procedure changes to ensure that the redundant monitor is maintained in either a deactivated or fully operable condition. This matter appears to be a violation of the previously cited technical specification requirements. However, since all the requirements specified in 10 CFR Part 2, Appendix C, Section V, were satisfied, this licensee-identified violation is not being cited. Review of the LER is closed.

Unit 2: 87-10 Failed Instrument Line Leakage Exceeds Allowable Limits Resulting in Reactor Shutdown

This LER was previously discussed in NRC Inspection Report Nos. 50-321/88-22 and 50-366/88-22. Review of the LER remained open pending the receipt of a revision to the LER providing the results of a metallurgical analysis of the failed instrument line. Revision 1 of the LER was issued on August 12, 1988. The licensee has determined that the failure mode was high cycle fatigue. The licensee intends to perform an engineering evaluation of this instrument line and its supports to determine if additional modifications are needed to prevent additional high cycle fatigue failures. Review of this LER is closed.

28-01 Inadequate Procedure Causes Mis-Assembly of Valve Resulting in ESF System Inoperability

This LER concerns the mis-assembly of the Unit 2 HPCI turbine stop valve. The problem was initially identified when operations personnel noted a double position indication, indicating that the valve was between the open and closed position. During subsequent troubleshooting involving stroking of the valve, the valve stuck at approximately 50 percent closed and a metal-to-metal binding noise was heard. Disassembly of the valve revealed that the split coupling connecting the valve stem to the hydraulic actuator piston rod had a clearance of 5/8 of an inch between the stem and piston rod. The clearance should have been no greater than 1/16 of an inch. Investigation showed that the stop valve was last disassembled and reassembled in June of 1983. Review of the procedure used at that time revealed that it failed to provide step-by-step instructions for reassembly of the valve. It was concluded that procedural inadequacies resulted in the improper adjustment of the clearance between the stem and the piston rod. Corrective actions involved initiating procedure changes to provide better valve reassembly instructions and ensuring that the Unit 1 HPCI turbine stop valve was properly assembled. Technical Specification 6.8.1.a requires that written procedures be established, implemented, and maintained covering the activities referenced in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978. Section 9 of Appendix "A" of Regulatory Guide 1.33 states that maintenance that can affect the performance of safety-related equipment should be performed in accordance with written procedures, documented instructions, or appropriate drawings. The inadequate maintenance procedure appears to constitute a violation of Technical Specification 6.8.1.a. However, since all the requirements specified in 10 CFR Part 2. Appendix C. Section V. were satisfied, this liceasee-identified violation is not being cited. Review of the LER is closed.

88-08 Calibration Procedural Deficiency for Feedwater Controller Causes Low Water Level Scram

The events of this LER concern the Unit 2 reactor scram on March 21, 1988. Prior to the scram, control room personnel were in the process of trans/erring the FCS from startup control to single element control as part of normal unit startup operations. Fluctuations

in reactor vessel water level were observed and the "2A" RFP subsequently tripped on low suction pressure. The FCS instability was attributed to improper settings on the master controller mcdule (2C32-K636). The licensee could not establish when the controller settings had been changed to the incorrect values. However, the involved calibration procedure (57CP-CAL-048-2) was found to be deficient in that it did not require the recording of as-found and as-left settings for the controller (2C32-K636) and the control amplifier (2C32-K637). The inspector reviewed the licensee's corrective actions which included development of a more comprehensive procedure for calibration of the FCS master control loop. Review of this LER is closed.

88-19 Personnel Error Results in Missed Reactor Protection System Functional Test

> This LER concerns a failure to perform main turbine stop valve RPS surveillance within the interval specified in the technical specifications. More specifically, the functional testing requirements of Technical Specification Table 4.3.1-1, Item 9, were not performed on time. Upon discovery of this situation, the licensee entered the appropriate LCO and initiated the required testing. Testing per procedure 34SV-C71-001-2S, "Turbine Stop Valve Instrument Functional Test." was satisfactorily completed and the LCO was terminated. This matter is considered a violation of the technical specification surveillance requirement. However, since all the requirements specified in 10 CFR Part 2. Appendix C. Section V, were satisfied, this licensee-identified violation is not being cited. Review of the LER is closed.

One violation was identified.

10. Operating Reactor Events (93702) Unit 2

The inspectors reviewed activities associated with the below listed reactor event. The review included determination of cause, safety significance, performance of personnel and systems, and corrective action. The inspectors examined instrument recordings, computer printouts, operations journal entries, and scram reports and also had discussions with operations, maintenance, and engineering support personnel as appropriate.

Unit 2 automatically scrammed from approximately 100 percent of rated power at 1647 on August 5, 1988. Prior to this event, I&C personnel were installing RFP "2A" minimum flow controller 2N21-R3846 in control room panel 2H11-P662. At that time a 3 amp fuse supplying power to the minimum flow controllers for the condensate pumps, condensate booster pumps, and RFPs blew. (This fuse is identified as fuse F7 on licensee print H 23840.) Since the air operated minimum flow valves for these pumps are designed to fail open, the valves all opened when power to the controllers was lost. The condensate booster and RFPs subsequently tripped on low suction pressure. Reactor vessel water level decreased to approximately minus 65 inches indicated during the transient. Both HPCI and RCIC auto initiated as expected, returning vessel water level to its normal band. Reactor pressure was controlled by EHC to less than 920 psig. No SRVs were actuated. However, operations personnel noted that RWCU inboard isolation valve 2G31-F001 did not close as expected at the vessel level setpoint for Group V isolation of minus 35 inches. Investigation revealed that the vessel water level transmitter (2B21-NO81B) providing the isolation signal to 2G31-:001 did not respond to level changes. The defective transmitter was replaced. This transmitter was identified as Rosemount Part No. 1154DP5RJ with Serial No. 411213. Licensee personnel indicated to the inspector that the defective transmitter would be returned to the vendor for a failure analysis.

Within the areas inspected, no violations or deviations were identified.

11. Three Mile Island Items (item numbers from NUREG 0737)

Item II.F.2.3.B concerns the covering of reactor pressure vessel water level reference legs B21-D003A and 8 with insulation to prevent flashing due to high drywell temperatures. This item remained open pending the completion of work and review of packages for DCRs 86-218 and 86-219 for Units 1 and 2, respectively. DCR 86-218 was closed on October 10, 1987, and was subsequently reviewed by the inspector. DCR 86-219 was closed on April 8, 1988, and was subsequently reviewed by the inspector. This item is closed for Units 1 and 2.

No violations or deviations were identified.

12. Review of Licensee's Operational Upgrade Efforts - Units 1 and 2

As discussed in NRC Inspection Report Nos. 50-321/88-14 and 50-366/88-14, the licensee voluntarily initiated a program in April of 1988 to upgrade certain aspects of operational performance. The referenced report mentioned that the resident inspectors would review longer term operational upgrade efforts as related activities were completed. The area discussed below was reviewed during the current reporting period.

Emergency Diesel Generator Testing: The licensee has completed actions to reduce the number of emergency diesel generator fast starts in an effort to prolong engine life and improve reliability. More specifically, the methodology for conducting monthly operability testing has been changed.

In the past, the diesel generators were fast started; i.e, synchronous speed was achieved in a maximum of 12 seconds. The licensee has revised the monthly operability test procedures to provide for slow starting of the diesels and for barring of the engines following operation. The inspector reviewed the following surveillance procedures:

Procedure No.	Rev.	Effective Date	Diesel Generator
34SV-R43-001-1S	6	06/27/88	1A
34SV-R43-001-2S	7	06/27/88	2A
34SV-R43-002-1S	3	06/27/88	18
345V-R43-002-25	3	06/27/88	18
34SV-R43-003-1S	2	06/27/88	10
34SV-R43-003-2S	4	07/19/88	2C

Review of the licensee's upgrade efforts in the emergency diesel generator testing area is closed.

No violations or deviations were identified.

# 13. Certification of Medical Records (71707) Units 1 and 2

A reactive inspection was conducted on August 22-24, 1988, by Michael E. Ernstes to investigate a facility identified problem associated with the certification of the physical examinations required by 10 CFR 55.23 for operator license applications. Interviews were conducted with training department personnel responsible for submitting NKC Form 396 with license applications and with the physicians conducting the physical examinations.

On June 16, 1988, a renewal application was submitted by Plant Hatch for an operator who held a no-solo operators license. The restriction was due to the operator being a diabetic. The NRC requested a copy of his medical evaluation to be reviewed by the NRC doctor. The Hatch training department discovered at this time that there were no blood tests conducted for his evaluation. Further investigation showed that all examinations conducted by Dr. DeJarnette of Vidalia, Georgia, after June 1987 did not have blood, urine, or plumonary tests. In addition, the examinations conducted by Dr. Poblete of Baxley, Georgia, did not have pulmonary tests included.

Effective May 26, 1987, NRC Form 396 was changed such that the physician signed a single statement stating that the individual met the guidance provided in ANSI/ANS 3.4-1983. In July 1987, Georgia Power Company held a meeting with the doctors to discuss these changes in documentation. At this meeting, discussion was given to the possibility of combining some of the testing on the various types of physicals. In order to meet the standards established in ANSI/ANS 3.4-1983, Dr. DeJarnette had been taking credit for the blood, urine, and pulmonary tests conducted through the Employee Health Plan. These physical examinations are performed on-site annually to all licensed personnel. Dr. Poblete had also been using the

pulmonary tests from the same program as part of their evaluations. Although all aspects of ANSI/ANS 3.4-1983 had been met, it could not be readily verified from the records of medical examinations. This prompted the training department to establish corrective actions to better ensure that all parts of the standard are met prior to signing NRC Form 396.

In order to verify that the guidance contained in ANSI/ANS 3.4-1983 was followed, all licensed operators who were examined subsequent to June 1987 were reexamined in the areas which had not been performed as part of the physical. This consisted of 38 individuals getting blood, urine, and pulmonary tests from Dr. DeJarnette and 24 individuals receiving pulmonary tests from Dr. Poblete. All tests were completed for these 62 individuals on August 23, 1988. None of these test results indicated disqualifying conditions.

To prevent recurrence of this problem, a new medical examination form was developed to be used by the doctors. This form includes all of the specifics of ANSI/ANS 3.4-1983. In addition, Dan Monre, Nuclear Training Coordinator, Georgia Power Company, will be reviewing all certificates of medical evaluation for completeness prior to signing and submitting NRC Form 396. In the future, licensing physical examinations will be conducted independently of all other physical examinations.

Dan Moore will also be performing a check of the medical evaluation records at Plant Vogtle to ensure compliance with the previously mentioned standards.

# 14. Exit Interview (30703)

The inspection scope and findings were summarized on August 22 and August 24, 1988, with those persons indicated in paragraph 1 above. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspectors during this inspection. Dissenting comments were not received from the licensee.

Item Number	Status	Description/Reference Paragraph
366/88-24-01	Opened	VIOLATION - Inadequate EHC Drawing (paragraph 2)
321/88-24-02	Opened	VIOLATION - Inadequate Turbine Bearing Oil System Procedure (paragraph 9)

## 15. Acronyms and Abbreviations

ABN - As-Built Notice

ANSI - American National Standards Institute

ARP - Annunciator Response Procedure

DCR - Design Change Request

D/G - Diesel Generator

EHC - Electrohydraulic Control System

ESF - Engineered Safety Feature FCS - Feedwater Control System

GPM - Gallons Per Minute

HPCI - High Pressure Coolant Injection I&C - Instrumentation and Controls

ISI - Inservice Inspection IST - Inservice Testing

LCO - Limiting Condition for Operations

LOCA - Loss of Coolant Accident

LPCI - Low Pressure Coolant Injection

MCREC - Main Control Room Environmental Control

MWO - Maintenance Work Order

RCIC - Reactor Core Isolation Cooling

RFP - Reactor Feed Pump

RHRSW - Residual Heat Removal Service Water

RPS - Reactor Protection System
RWCU - Reactor Water Cleanup System

SRV - Safety Relief Valve