



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

Report Nos.: 50-424/89-16 and 50-425/89-18

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

Docket Nos.: 50-424 and 50-425

License Nos.: NPF-68 and NPF-8.

Facility Name: Vogtle Units 1 and 2

Inspection Conducted: May 6 - June 8, 1989

Inspectors:

J. F. Rogge for  
J. F. Rogge, Senior Resident Inspector

6-21-89

Date Signed

R. F. Aiello for  
R. F. Aiello, Resident Inspector

6-21-89

Date Signed

Approved By:

M. V. Sinkule for  
M. V. Sinkule, Section Chief  
Division of Reactor Projects

6-21-89

Date Signed

### SUMMARY

Scope: This routine inspection entailed resident inspection in the following areas: plant operations, startup (Unit 2), radiological controls, maintenance, surveillance, security, and quality programs and administrative controls affecting quality.

Results: In the areas inspected, four violations were identified which were non-cited violations pursuant to the discretionary provisions of the NRC enforcement policy. In the area of quality programs, one violation was identified for failure to report PORV challenges (paragraph 4.a). In the area of radiological controls, two violations were identified for a failure to perform TS surveillance for sampling the waste gas tank (paragraph 4.b(2)(a)) and for a failure to maintain radiation monitor IRE-2562 operable per TS (paragraph 4.b(3)(e)). Additionally, one violation was identified in the area of operations for failure to establish an adequate procedure for loss of main turbine trip below 50% per TS (paragraph 4.b(2)(b)).

The conduct of the Startup Test Program was considered to be an area of strength. Overall assessment of this area by the inspectors was that the program was implemented in a proper manner which met the regulatory requirements (paragraph 3).

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*G. Bockhold, Jr., General Manager Nuclear Plant
- G. Frederick, Safety Audit and Engineering Group Supervisor
- \*H. Handfinger, Manager Maintenance
- \*W. Kitchens, Assistant General Manager Plant Operations
- \*R. Legrand, Manager Chemistry and Health Physics
- \*G. McCarley, Independent Safety Engineering Group Supervisor
- \*A. Mosbaugh, Plant Support Manager
- W. Mundy, Quality Assurance Audit Supervisor
- \*R. Odom, Nuclear Safety and Compliance Manager
- \*J. Swartzwelder, Manager Operations

Other licensee employees contacted included craftsmen, technicians, supervision, engineers, operations, maintenance personnel, chemistry, quality control inspectors, and office personnel.

#### \*Attended Exit Interview

An alphabetical list of acronyms and initialisms used throughout this report is included in the last paragraph.

### 2. Operational Safety Verification - (71707)(93702)

Unit 1 began this inspection period in Mode 1 (Power Operation) at 100% power. On May 9, 1989, the unit tripped on steam generator #4 Lo Lo water level following the loss of the B main feedwater pump. The unit entered Mode 2 (Startup) on May 9 and reentered Mode 1 on May 10. On May 27 the unit turbine generator was taken off line to replace one main step-up transformer due to an oil leak in a bushing. The unit tied to the grid and returned to Mode 1 on May 29. On May 30 the unit received a fuel handling building isolation on high radiation instrument ARE-2533B due to an improper radioactive water transfer lineup. The unit was operating at 100% power at the end of this inspection period.

Unit 2 began this inspection period in Mode 1 at 75% power conducting startup testing. On May 11, 1989, the unit reduced power to 25% during the performance of the 50% load reduction test. On May 12, following cleanup of secondary chemistry, the unit had returned to the 75% plateau when a reactor trip occurred from a high rate trip signal during adjustment of NI-44 combined with a failure of NI-43. On May 13, the unit returned to Mode 1 and reached the 90% power test plateau on May 14. Later that same day, the unit experienced a main generator unloading event when the control intercept valves spuriously shut for 60 seconds. On May 15, the unit achieved 100% power and commenced the NSSS 100-hour acceptance test. On May 20, the unit was declared commercial and

performed the turbine trip from 100% power test. The unit performed a short outage and returned to Mode 1 on May 21. On May 22, the unit tripped from 13% power on steam generator #2 Lo Lo level while placing the main turbine on line. On May 23, the unit returned to Mode 1 operation. On May 24, the unit reduced power down to 45% to investigate why the main turbine control intercept valves spuriously shut for 20 seconds. The unit main turbine was further removed from service to conduct additional repairs. Later that same day, the main turbine was returned to service. The Unit was operating at 100% power at the end of this inspection period.

a. Control Room Activities

Control Room tours and observations were performed to verify that facility operations were being safely conducted within regulatory requirements. These inspections consisted of one or more of the following attributes as appropriate at the time of the inspection.

- Proper Control Room staffing
- Control Room access and operator behavior
- Adherence to approved procedures for activities in progress
- Adherence to technical specification limiting conditions for operation
- Observance of instruments and recorder traces of safety-related and important to safety systems for abnormalities
- Review of annunciators alarmed and action in progress to correct
- Control Board walkdowns
- Safety parameter display and the plant safety monitoring system operability status
- Discussions and interviews with the On-Shift Operations Supervisor, Shift Supervisor, Reactor Operators, and the Shift Technical Advisor (when stationed) to determine the plant status, plans, and to assess operator knowledge
- Review of the operator logs, unit logs, and shift turnover sheets

No violations or deviations were identified.

b. Facility Activities

Facility tours and observations were performed to assess the effectiveness of the administrative controls established by direct observation of plant activities, interviews and discussions with licensee personnel, independent verification of safety systems status and LCOs, licensee meetings, and facility records. During these inspections, the following objectives were achieved:

- (1) Safety System Status - Confirmation of system operability was obtained by verification that flowpath valve alignment, control and power supply alignments, component conditions, and support systems for the accessible portions of the ESF trains were

proper. The inaccessible portions are confirmed as availability permits.

- (2) Plant Housekeeping Conditions - Storage of material and components and cleanliness conditions of various areas throughout the facility were observed to determine whether safety and/or fire hazards existed.
- (3) Fire Protection - Fire protection activities, staffing, and equipment were observed to verify that fire brigade staffing was appropriate and that fire alarms, extinguishing equipment, actuating controls, fire fighting equipment, emergency equipment, and fire barriers were operable.

On May 23, 1989, Unit 1 experienced a failure of a nonsafety-related transformer and the fire brigade responded.

- (4) Radiation Protection - Radiation protection activities, staffing, and equipment were observed to verify proper program implementation. The inspection included review of the plant program effectiveness. Radiation work permits and personnel compliance were reviewed during the daily plant tours. Radiation Control Areas were observed to verify proper identification and implementation.
- (5) Security - Security controls were observed to verify that security barriers were intact, guard forces were on duty, and access to the Protected Area was controlled in accordance with the facility security plan. Personnel were observed to verify proper display of badges and that personnel requiring escort were properly escorted. Personnel within Vital Areas were observed to ensure proper authorization for the area. Equipment operability or proper compensatory activities were verified on a periodic basis.
- (6) Surveillance (61726)(61700) - Surveillance tests were observed to verify that approved procedures were being used, qualified personnel were conducting the tests, tests were adequate to verify equipment operability, calibrated equipment was utilized, and TS requirements were followed. The inspectors observed portions of the following surveillances and/or reviewed completed data against acceptance criteria:

<u>Surveillance No.</u>	<u>Title</u>
14915-2 Rev. 2	Special Condition Surveillance For AFD and QPTR
14286-2 Rev. 0	Weekly Turbine Trip Device Operability

<u>Surveillance No.</u> (continued)	<u>Title</u>
14825-1 Rev. 10	Monthly NSCW Valve Inservice Test
14495-2 Rev. 0	AFW System Flow Path Verification
14633-2 Rev. 1	SSPS Slave Relay K648 Train "B" Test (SI)
14809-2 Rev. 3	ESF Chiller Pump and Discharge Check Valve Inservice Test
14475-1 Rev. 6	Containment Integrity Verification
14811-1 Rev. 5	Boric Acid Transfer Pumps and Discharge Check Valves Inservice Test
14545-2 Rev. 2	Monthly AFW Pump Operability Test
14980-1 Rev. 15	Diesel Generator Operability Test
14510-1 Rev. 4	Control Room Emergency Filtration System Operability Test

- (7) Maintenance Activities (62703) - The inspector observed maintenance activities to verify that correct equipment clearances were in effect; work requests and fire prevention work permits, as required, were issued and being followed; quality control personnel were available for inspection activities as required; retesting and return of systems to service was prompt and correct; and TS requirements were being followed. The maintenance work order backlog was reviewed. Maintenance was observed and/or work packages were reviewed for the following maintenance activities:

<u>MWO No.</u>	<u>Work Description</u>
28903197	Repair Control Room Annunciator ALB020-C02 And Restore To Operable Status
28903700	Implement Temperature Modification 2-89-031 To Disable Closing Bias For Servo Controlled Valves (Prevents Power Supply Voltage Fluctuations From Causing Load Swings)

No violations or deviations were identified.

3. Startup Test Program Implementation/Verification - Unit 2 (72302)(72400B)

The inspector reviewed the present implementation of the Startup Test Program. Inspected Test Program attributes including review of administrative requirements, document control, documentation of major test events and deviations to procedures, operating practices, instrumentation calibrations, and correction of problems revealed by testing.

Periodic facility tours were made to observe Startup Test activities in progress. The inspector verified that procedural prerequisites and initial conditions were met. Verification was performed by the inspector's review of records (valve lineup sheets, test equipment calibration status, system status checklists, or appropriate sign-offs listed in procedure were maintained current) or by direct observation (monitoring instrumentation indications, valve positions, equipment position switches, or personnel actions). Discussions were held with responsible personnel, as they were available, to determine their knowledge of the Startup Test Program. Schedules for Startup Test Program completion and progress reports were routinely monitored. Specific inspections conducted are listed below:

Power Ascension Test Sequence

The power ascension test sequence directing the test activities as contained in procedure 2-600-13 was reviewed during testing. The following specific tests were partially witnessed.

- (a) Step 6.19.2, Performance of 2-6SC-01 Power Coefficient Measurement
- (b) Step 6.19.4.1, Performance of 2-6SC-02 10% Load Swing Test
- (c) Step 6.19.4.2, Performance of 2-6AE-01 Auto steam generator Level Control
- (d) Step 6.21.1, Performance of 2-700-01 50% Load Reduction

On May 20, 1989, following the trip from 100% power test, the Startup Test Program was essentially complete. The conduct of the Startup Test Program was considered to be an area of strength. Overall assessment of this area by the inspectors was that the program was implemented in a proper manner which met the regulatory requirements.

No violations or deviations were identified.

4. Review of Licensee Reports (90712)(90713)(92700)

a. In-Office Review of Periodic and Special Reports

This inspection consisted of reviewing the below listed reports to determine whether the information reported by the licensee was technically adequate and consistent with the inspector knowledge of the material contained within the report. Selected material within the report was questioned randomly to verify accuracy and to provide a reasonable assurance that other NRC personnel have an appropriate document for their activities.

Monthly Operating Report - The reports dated April 12 and May 10, 1989, were reviewed. The inspector identified to the licensee that the reports did not meet TS 6.8.1.5 in that a recent challenge to the PORV during the April 13 loss of offsite power test was not included in the May report. The licensee responded by correcting the May data via a May 15 memo to incorporate. In addition, the inspector noted that the licensee had failed to correctly report information regarding forecasted and achievement dates for initial criticality, electricity, and commercial operations. The dates were included in the May 15 correction. This NRC-identified violation is not being cited because the criteria specified in Section V.A of the Enforcement Policy were satisfied. This NCV is identified as:

NCV 50-425/89-18-01 "Failure To Comply With TS 6.8.1.5 Reporting Requirements Regarding PORV Challenges."

(Closed) Special Report 50-425/89-02 "Safety Injection." This report dated May 30 was submitted pursuant to TS 3.5.2 to report the actuation cycles as one and nozzle usage factor as less than .70. Further information of this event is documented in LER 50-425/89-06.

b. Licensee Event Reports and Deficiency Cards

Licensee Event Reports and Deficiency Cards were reviewed for potential generic impact, to detect trends, and to determine whether corrective actions appeared appropriate. Events which were reported pursuant to 10 CFR 50.72 were reviewed as they occurred to determine if the technical specifications and other regulatory requirements were satisfied. In-office review of LERs may result in further followup to verify that the stated corrective actions have been completed, or to identify violations in addition to those described in the LER. Each LER is reviewed for enforcement action in accordance with 10 CFR Part 2, Appendix C, and if the violation is not being cited the criteria specified in Section V.G of the Enforcement Policy were satisfied. Review of DCs was performed to maintain a realtime status of deficiencies, determine regulatory compliance, follow the licensee corrective actions, and assist as a basis for closure of the LER when reviewed. Due to the numerous DCs processed, only those DCs which result in enforcement action or further inspector followup with the licensee at the end of the inspection are listed below. The LERs and DCs denoted with an asterisk indicates that reactive inspection occurred at the time of the event prior to receipt of the written report.

(1) Deficiency Card reviews:

- (a) \*DC 1-89-932, "Main Feedwater Pump B Trip Results In Reactor Trip On Steam Generator #4 Lo Lo Level"

On May 9, 1989, Unit 1 tripped from 88% power on steam generator #4 Lo Lo water level. Prior to the reactor trip,

the B main feed pump tripped on high vibration with the reactor at 100% power. Operator actions in reducing power included driving rods in manual for 5 seconds, placing rods in automatic, reducing turbine power below 850 MWe, starting the third condensate pump, and initiating emergency boration. Upon placing rods in automatic, the operator noted failure of rod motion and returned to manual control. The operator was not able to reduce power sufficiently to within the capability of a single feed pump (<75%) when the reactor trip was initiated on steam generator #4 Lo Lo level. Further followup of this event will be performed when submitted as an LER.

- (b) DC 1-89-1008, "License Condition Surveillance of Diesel Engine Oil Missed"

On June 2, 1989 the licensee reported the discovery that the quarterly ferrographic oil analysis had not been performed since October 1988 for the B diesel and since June 1988 for the A diesel. The discovery resulted during corrective action for a licensee quality assurance audit finding. The Unit 2 diesels are also affected; however, no license requirements exist. Further followup of this event will be performed when submitted as an LER.

- (c) \*DC 2-89-1073, "Reactor Trip During Testing From High Flux Rate"

On May 12, 1989, during calibration of NI-44, a failure of NI-43 satisfied the two out of four logic requirements for a high rate trip. Had the reactor operator been more attentive to the work, he would have had the time to stop the NI-44 work when NI-43 bistable had sealed in. Further followup of this event will be performed when submitted as an LER.

- (d) DC-1-89-1004, "Unit 1 Fuel Handling Building Isolation Actuation On High Radiation On ARE-2533B"

On May 30, 1989, a fuel handling building isolation occurred from high radiation on monitor ARE-2532A & B and ARE-2533A & B. High radiation existed due to outgassing of liquid radioactive waste being transferred to the spent fuel pool transfer canal. Operators verified proper ESF actuation, evacuated the area, and terminated the transfer. The resident inspector attended the critique session and has concluded thus far that the necessary corrective actions are being implemented. This item will be further followed up when submitted as a LER.



(e) \*DC 2-89-1086, "Turbine Load Drop Transient At 90%"

On May 14, 1989, the Unit 2 main generator output dropped from approximately 960 to 0 MWe and then reloaded back to 960 MWe. The transient period was approximately 45 to 90 seconds. The inspector attended post event critiques until a regional inspector and a NRC training instructor arrived onsite. Details of the event will be contained in NRC Inspection Report 50-425/89-19.

(f) \*DC 2-89-1112, "Reactor Trip Following Main Turbine Rollup"

On May 22, 1989, with Unit 2 at 15% power, a reactor trip occurred on steam generator #2 Lo Lo level. At 4:47 p.m., the Main Turbine was rolled up to 1800 rpm with the intercept valves shut. The operators failed to follow the main turbine rollup procedure in verifying the valves open. With the valves shut, the normal steam flow path from the high pressure turbine to the low pressure turbines was secured. In order for the turbine to remain at 1800 rpm, the turbine control valves opened to overcome the backpressure inside the turbine. The effect of increasing steam demand and turbine pressurization occurred over a five minute period during post trip review of steam flow trends and first stage turbine pressure. Steam flow increased at an increasing rate until the main steam flow became leveled at an excessive high rate. Due to the steam flow rate, a continuous swell in the steam generators gave the appearance of proper level controls. Operators noticing a decrease in primary temperatures and following discovery of high steam usage, tripped the main turbine. This action terminated steam flow and steam generator levels dropped below the reactor trip setpoint. After the trip, the lifting of the main steam reheater relief was reported. The inspector noted to plant management that the lifting of the relief was not the cause of the high steam flow but acted to limit flow by allowing a discharge path out of the turbine, and the control valves acted to maintain the high pressure turbine at 1800 rpm. Further followup of this event will be performed when submitted as an LER.

(2) The following LERs were reviewed and are ready for closure pending verification that the licensee's stated corrective actions have been completed.

(a) 50-425/89-17, Rev. 0, "Inadequate Procedure Leads To Missed Technical Specification Surveillance"

On April 15, 1989, during startup of the reactor, gas was vented from the Pressurizer Relief Tank to Waste Gas decay tank #10 to clear the high pressure alarm for the PRT. The Radwaste Operator, and Unit 2 Control Room personnel failed

to notify Chemistry of the transfer. Therefore, the waste gas tank was not sampled within 24 hours as required by Technical Specification Surveillance 4.11.2.6. On April 18, during a routine walkdown inspection, the Radwaste Supervisor noted an increase in pressure in waste gas decay tank #10 and notified Chemistry. A review of Chemistry records did not indicate that any additions had been made to waste gas decay tank #10. As normal sampling could not be performed due to the low tank pressure, a standing order for the collection of local samples was developed and the tank was sampled on April 20. The cause of this event was a procedure that was less than adequate. The steps of procedure 13201-2, "Gaseous Waste Processing System," that address venting of the PRT did not require the notification of Chemistry. Procedure 13201-2 (and 13201-1 for Unit 1) will be revised to include a caution to notify Chemistry of any change in system status and any addition or transfer of waste gas within the system. This action is scheduled for completion on August 1, 1989. This item represents a violation of NRC requirements which meets the criteria for non-citation. In order to track this item, the following is established.

NCV 50-425/89-18-02 "Failure To Perform TS Surveillance 4.11.2.6 For Sampling The Waste Gas Tank - LER 89-17"

- (b) 50-425/89-18, Rev. 0, "Loss Of Stator Cooling Water Leads To Feedwater Isolation"

On April 22, 1989, a plant operator performing the weekly transfer of the generator stator cooling water pumps attempted to start pump "A" but found that both pumps had shut down. A turbine trip occurred as designed from the loss of stator cooling water. The steam dumps opened, and reactor power was reduced from 36% to 8% due to automatic rod control motion. Control room operators manually controlled steam generator water levels during the power descent by manipulating the Main Feedwater Regulating Valves. A Feedwater Isolation occurred when steam generator #3 reached its high-high level setpoint. Placing control rod operation in automatic per procedure 18011-C allowed reactor power to rapidly drop to a level at which steam generator level control was difficult when using the MFRVs. This requirement was the cause of the FWI and AFW actuation. Procedure 18011-C will be revised by July 1, 1989, to allow manual control of control rods. This item

represents a violation of NRC requirements which meet the criteria for non-citation. In order to track this item, the following is established.

NCV 50-425/89-18-03 "Failure To Establish An Adequate Procedure For Loss Of Main Turbine Trip Below 50% Per TS 6.7.1.a - LER 89-18"

(3) The following LERs were reviewed and closed.

(a) 50-424/88-33, Rev. 0, "Inadvertent Release Of Clearance Results In Technical Specification Violation"

On November 9, 1988 while adjusting Unit 1 and Unit 2 Heating Ventilation and Air Conditioning controllers, the System Engineer noticed that the Unit 2 Control Room isolation dampers were open. This condition resulted in the plant being in a condition prohibited by technical specifications. Technical Specification 3.7.6 Note 4 requires at least one of these dampers to be locked closed. On August 28, clearance No. 2-88-156 was written and installed on the Unit 2 outside air inlet dampers. On September 26, the clearance was inadvertently released, and the air intake dampers were positioned to the open position. Unit 1 was in Mode 1 at approximately 90% power when the valves were repositioned. The cause of this event was personnel error. The Field Shift Supervisor failed to recognize the significance of the clearance. A contributing cause was that no subclearance holders were on the clearance who had knowledge of the safety significance. The immediate corrective actions were to lock the dampers closed and place a clearance on the dampers. To prevent reoccurrence of this event, instructions have been placed on the clearance to release only with the concurrence of the OSOS and the Unit 2 Operations Superintendent. Both of these individuals were listed as subclearance holders. Previous enforcement is addressed in NRC Report 50-424/88-56. With the completion of Unit 2, this clearance is no longer necessary and was removed.

(b) 50-424/88-34, Rev. 0, "Personnel Error Caused RHR Train B To Be Inoperable"

On November 12, 1988, while performing steps of Procedure 13011, "Residual Heat Removal System," to transfer from Train A to Train B, the RHR Train B heat exchanger inlet valve was found locked closed which resulted in the plant being in a condition prohibited by technical specifications. The plant was in Mode 5 (Cold Shutdown) with reactor coolant loops not filled. The RHR Train 'B'

heat exchanger inlet valve was inadvertently closed on November 8, 1988, while the plant was in Mode 6 (Refueling). A clearance was being released to establish CVCS letdown to start chemical clean up of the Reactor Coolant. At approximately 4:00 p.m., the RCS level was observed to be lowering unexpectedly. Shortly thereafter, a call was received that there was a water leak at the VCT. The release of the clearance was assumed to have resulted in the leak at the VCT either because of an open valve or failure of a weld (VCT level transmitter isolation valves had been replaced during current outage). A plant operator was sent to investigate the leak at the VCT. Meanwhile, it was concluded that valve 1-HV-128 (RHR to CVCS) in the normal CVCS letdown flow path was leaking. The reactor operator determined that valves 021 and 022 needed to be verified closed to isolate valve 1-HV-128. The reactor operator instructed another plant operator to close valves 020 and 021. This was an error; the instruction should have been to close valves 021 and 022. Valves 020 and 021 were found open and were subsequently closed by the operator. The plant operator at the VCT reported that the leak was stopped by closing a root valve on a VCT Level Transmitter. The Emergency Response Facility Computer indicated 20% on LT-112 and 0% on LT-185, indicating that LT-185 had been isolated. The trend of LT-112 indicated an increasing VCT level corresponding to the RCS level decrease. The cause of this event was personnel error. The reactor operator gave inaccurate information to the plant operator. Additionally, the Support Shift Supervisor should have realized that closure of valve 020 was not correct. A contributing cause was the leak at the VCT level transmitter. A single RHR Train provides sufficient heat removal capability in the removal of decay heat. However, to meet single failure criteria, both RHR Trains must be operable. Corrective actions included Counseling the Reactor Operator and SS on the importance of accurate communications, proper valve alignment, and placing a copy of the report in the operations required reading book. Previous enforcement is discussed in NRC Report 50-424/88-36.

- (c) \*50-424/88-43, Rev. 0, "Manual Reactor Trip On Low Steam Generator Level Or Loss Of Instrument Air"

On December 15, 1988, while performing a functional test of the service air dryer, instrument air was isolated from the turbine building. This resulted in a reduction of main feedwater flow and decreasing water level in the steam generator. Load was reduced; however, steam generator water levels continued to decrease. When water levels reached 25%, the reactor was manually tripped at the

direction of the unit shift supervisor. This event occurred because the set point for turbine and building instrument air isolation was 15 pounds above normal. This resulted in isolation of turbine building instrument air prior to the isolation of service air. A contributing cause was a screw head which blocked control air to the blowdown and inlet isolation valves of the service air dryer and allowed an open path to the atmosphere. Corrective actions included changing the frequency of calibration of applicable pressure switches, counseling operators on the use of procedures, adding precautions to procedures that may challenge the air system, and issuing a memo to operators on lessons learned from this event. The inspector verified that both units were calibrating the pressure switch setpoints on a monthly frequency.

- (d) 50-424/89-07, Rev. 0, "Failure To Take Required Temperatures Results In Inadequately Performed Surveillance"

On February 16, 1989, while performing Procedure 14001-1, "Shift Area Temperature Log," the plant operator noted that there was no entry for Fuel Handling Building Room B008 for the two previous shifts. The shift supervisor was notified of the missed readings, which are required per Technical Specification 3.7.10. The current temperature was taken for Room B008 (76°F), and as it was well within the normal maximum technical specification limit (104°F), no compensatory action was required. The cause of this event was personnel error. Two plant operators failed to take the required reading and their respective shift supervisors failed to note the missing temperatures when the data sheets were reviewed. Corrective actions included counseling of the operators and shift supervisors on the importance of ensuring that all required technical specification surveillance temperatures are obtained and data sheets thoroughly reviewed. Previous enforcement is discussed in NRC Report 50-424/89-14.

- (e) 50-424/89-11, Rev. 0, "Valve Closure Leads To Operation Prohibited By Technical Specification Requirements"

On April 25, 1989, while collecting a routine sample, a technician found the 1RE-2562 inlet valve closed. This prevented the flow of containment building air from passing through the monitor. Therefore, the monitor was unable to perform its function and grab samples were not representative of containment atmosphere. The valve was opened and the monitor tested to demonstrate operability. Technical Specifications 3.3.3.1 and 3.4.6.1 require that radiation monitor 1RE-2562 be operable at various times

during unit operation. Technical Specification 4.11.2.1 required that grab samples be taken, and the inlet line to IRE-2562 is used for this purpose. An investigation found that IRE-2562 radiation level readings had changed on March 27, 1989 and this is considered to be the date that the inlet valve was closed. However, no explanation for the valve closure was found. Corrective actions include setting the IRE-2562 low fail alarm to one-half the normal background value to alert personnel if flow from the Containment building is interrupted. This item represents a violation of NRC requirements which meets the criteria for non-citation. In order to track this item, the following is established.

NCV 50-424/89-16-01 "Failure To Maintain Radiation Monitor IRE-2562 Operable Per TS 3.3.3.1 And 3.4.6.1 - LER 89-11"

- (f) 50-425/89-19, Rev. 0, "Turbine Trip Device Testing Leads To Turbine/Reactor Trip"

On May 2, 1989, personnel were performing a check of turbine trip devices per procedure 14286-2, "Weekly Turbine Trip Device Operability Test," prior to placing the turbine in standby. An overspeed trip device test malfunctioned, and after consulting the turbine vendor representative, the operator attempted to reset the malfunction using the "STOP/GO NORMAL" button. When this button was pushed and released, the turbine tripped which resulted in a reactor trip. Prior to the turbine trip, a defective weld in a one inch steam line was releasing steam into an area under the turbine front standard where the turbine trip device controls are located. The cause of the turbine trip has not been determined despite extensive troubleshooting. Following the trip, the turbine trip device malfunction could not be duplicated. In addition to the information provided in the LER, on May 17, General Electric faxed to Georgia Power Company an Engineering change notice (T370-CE-017) dated May 4 concerning the trip latch assembly. It was discovered that the minimum clearance required from the emergency governor ring was not met. The licensee has taken steps to correct this discrepancy. General Electric would neither confirm nor deny that this was the cause of the trip.

Four non-cited violations were identified.

5. Actions on Previous Inspection Findings - (92701)(92702)
- a. (Closed) 10 CFR Part 21 Report 50-424 and 50-425/88-02, "TDI Diesel Engine Control Device Failure"

On April 29, 1988, the NRC received notification from IMO DeLaval Inc. that a potential problem with engine control devices in the air

start, lube oil, jacket water systems, and crankcase systems existed. The inspector verified that the licensee has corrected the problems addressed in the letter during the Unit 1 refueling outage.

- b. (Closed) 10 CFR Part 21 Report 50-424 and 50-425/88-03 and 88-08, "TDI Diesel Left Intercooler Inlet Adapter Defect"

On October 20, 1988, the NRC received notification of this problem. The inspector witnessed inspection and repairs in progress during the Unit 1 outage and prior to Unit 2 licensing.

- c. (Closed) 10 CFR Part 21 Report 50-424 and 50-425/89-01, "Brown Boveri Kline, K-225 thru K-2000 Circuit Breaker Rebound Spring"

On January 13, 1989, the NRC received notification of this problem. The inspector reviewed this item with the electrical supervisor during a previous inspection and concluded that this item was not applicable to Vogtle.

- d. (Closed) Construction Deficiency Report 50-424/86-134, "Solid State Protection System Relays"

This item was examined in NRC Report 50-425/89-08 for Unit 2. The applicability of this item is identical to Unit 2. Unit 1 modification was tested during preoperational test 1-300-01.

- e. (Closed) IFI 50-424/86-90-01, "Resolve Safety Injection Block When Transferred To Remote Shutdown Panel"

This item represents an issue which is considered generic to all reactor plants and is not a site specific issue. Further NRC action on this issue will be addressed in generic communications to the licensee if warranted.

- f. (Closed) IFI 50-425/88-79-01, "Retrain And Establish Procedure Guidance In The Use Of The Plant Safety Monitor System"

The licensee's closure package was reviewed which documented the establishment of procedural guidance and the addition a Plant Safety Monitor System training segment to the requalification program. The inspector concluded that this issue has been resolved properly.

## 6. Exit Interviews - (30703)

The inspection scope and findings were summarized on June 8, 1989, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection results. No dissenting comments were received from the licensee. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection. Region based NRC exit interviews

were attended during the inspection period by a resident inspector. This inspection closed two Inspector Followup Items (paragraphs 5.e and 5.f), three 10 CFR Part 21 Reports (paragraphs 5.a, 5.b, and 5.c), one Construction Deficiency Report (paragraph 5.d), one Special Report (paragraph 4.a) and six Licensee Event Reports (paragraph 4.b(3)). The items identified during this inspection were:

- NCV 50-424/89-16-01 "Failure To Maintain Radiation Monitor 1RE-2562 Operable Per 3.3.3.1 And 3.4.6.1 - LER 89-11" (paragraph 4.b(3)(e)).
- NCV 50-425/89-18-01 "Failure To Comply With TS 6.8.1.5 Reporting Requirements Regarding PORV Challenges" (paragraph 4.a).
- NCV 50-425/89-18-02 "Failure To Perform TS Surveillance 4.11.2.6 For Sampling The Waste Gas Tank - LER 89-17" (paragraph 4.b(2)(a)).
- NCV 50-425/89-18-03 "Failure To Establish An Adequate Procedure For Loss Of Main Turbine Trip Below 50% Per TS 6.7.1.a - LER 89-18" (paragraph 4.b(2)(b)).

Another subject discussed at the exit interview was the conduct of the Startup Test Program being considered an area of strength (paragraph 3).

#### 7. Acronyms And Initialism

AFD	Axial Flux Difference
AFW	Auxiliary Feedwater System
CFR	Code of Federal Regulations
CVCS	Chemical and Volume Control System
DC	Deficiency Cards
ESF	Engineered Safety Features
FWI	Feedwater Isolation
GPM	Gallons Per Minute
IFI	Inspector Followup Item
LCO	Limiting Conditions for Operations
LER	Licensee Event Reports
MFRV	Main Feedwater Regulating Valve
MWO	Maintenance Work Order
NCV	Non-cited Violation
NPF	Nuclear Power Facility
NRC	Nuclear Regulatory Commission
NSCW	Nuclear Service Cooling Water System
NSSS	Nuclear Steam Supply System
OSOS	On Shift Operation Supervisor
PORV	Pressure Operated Relief Valve
QPTR	Quadrant Power Tilt Ratio
RCS	Reactor Coolant System
RHR	Residual Heat Removal System
RPM	Revolutions Per Minute



RPT	Pressurizer Relief Tank
SI	Safety Injection System
SSPS	Solid State Protection System
TDI	Transamerica DeLaval Inc.
TS	Technical Specification
VCT	Volume Control Tank