March 19, 1999

Southern Nuclear Operating Company, Inc.
ATTN: Mr. J. B. Beasley, Jr.
Vice President - Vogtle
P. O. Box 1295
Birmingham, AL 35201-1295

SUBJECT: PLANT PERFORMANCE REVIEW (PPR) - VOGTLE

Dear Mr. Beasley:

On February 2, 1999, the NRC staff completed a Plant Performance Review (PPR) of Vogtle. The staff conducts these reviews for all operating nuclear power plants to develop an integrated understanding of safety performance. The results are used by NRC management to facilitate planning and allocation of inspection resources. PPRs provide NRC management with a current summary of licensee performance and serve as inputs to the NRC's senior management meeting (SMM) reviews. PPRs examine information since the last assessment of licensee performance to evaluate long term trends, but emphasize the last six months to ensure that the assessments reflect current performance. The PPR for plant Vogtle involved the participation of all technical divisions in evaluating inspection results and safety performance information for the period August 1997 to January 1999. The NRC's most recent summary of licensee performance was provided in a letter of September 15, 1997, and was discussed in a public meeting with you on September 24, 1997.

As discussed in the NRC's Administrative Letter 98-07 of October 2, 1998, the PPRs provide an assessment of licensee performance during an interim period that the NRC has suspended its Systematic Assessment of Licensee Performance (SALP) program. The NRC suspended its SALP program to complete a review of its processes for assessing performance at nuclear power plants. At the end of the review, the NRC will decide whether to resume the SALP program or terminate it in favor of an improved process.

During the last six months, Unit 1 operated near or at 100 percent power. Power was reduced two times to perform maintenance activities for equipment problems. In addition, a maintenance personnel error caused the 4B feedwater heaters to isolate causing a transient. On May 8, 1998, Unit 2 automatically tripped following a lightning strike which damaged one of the main step-up transformers. The unit was brought critical on May 9, but was shut down for five days to inspect the main generator and repair an auxiliary feedwater system valve. On June 9, the unit automatically tripped following a loss of all reactor coolant pumps due to a fault on a condensate pump and incorrect tap settings on instantaneous overcurrent relays. Following corrective maintenance, the unit returned to full power on June 15. On August 14, the unit was manually tripped following the closure of a main feedwater regulation valve due to component failures in the power supplies to the control loop. On September 4, the unit was manually tripped following

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a loss of both main feedwater pumps during surveillance testing due to incorrect testing methodology. Corrections were made and the unit returned to full power on September 5.

Overall performance at plant Vogtle was acceptable. Both units operated well, although there was a noticeable increase in the number of equipment and personnel induced transients. Management oversight, involvement, and emphasis on plant safety and equipment problem resolution continued to be strong, however, some lapses in performance were observed early in the assessment period. General maintenance and surveillance testing activities continued to be performed well. Management was aggressive in resolving equipment related problems. Preventive maintenance activities were generally performed in accordance with requirements, however, there was an increase in the number of human performance errors related to procedure adequacy and compliance. There was no significant change in engineering performance during this assessment period. Excellent support continued from engineering and maintenance in resolving plant equipment problems. Engineering support for operations and maintenance was usually effective and thorough. Plant support functions were generally performed well, however some decline was noted in security performance in the area of escort control and security evaluations for work in the owner controlled area.

In the operations area, performance was consistent. Day-to-day control room conduct was professional and safety conscious. Control room operators responded well during plant transients, although, late in the assessment period the operator response to a specific feedwater transient was untimely resulting in a period of time operating in excess of the licensed maximum rated power limit. Management exhibited conservative decisions in addressing plant problems. An exception to this conservative management action involved a decision to enter Mode 4 without all of the Technical Specification (TS) required reactor coolant system relief valves operable. There were examples where human performance errors related to TS compliance and logging, procedure compliance, and inattention to detail occurred. However, an improving trend was noted toward the end of the assessment period. The operator license training program remains effective. Operations performance during this assessment period does not warrant any additional inspection effort above the NRC core inspection program, although some increased emphasis will be placed on the areas identified above.

In the maintenance area, performance was consistent. Management was aggressive in resolving equipment related problems. Preventive maintenance activities were generally performed in accordance with requirements. A number of human performance errors related to procedure adequacy and compliance did occur during this period. Recent examples of performance errors were identified in instrumentation, calibration, and electrical maintenance areas. Also, a number of equipment failures occurred during the period which resulted in challenges to safety systems and operators. Inservice testing activities were well planned and conducted in accordance with requirements and documented commitments. In addition to the NRC core inspections, a regional initiative inspection is planned in March to review procedures and electrical maintenance activities as a result of recent problems identified with seismic restraints for circuit breakers.

In the engineering area, performance was consistent. Engineering support for operations and maintenance was usually effective and thorough. Modifications were generally performed in accordance with program requirements. Engineering performance during this assessment

period does not warrant any additional inspection effort above the NRC core inspection program.

Overall in the plant support area, performance was consistent. The Emergency Preparedness program was maintained in a state of operational readiness, and exhibited an improving trend as a result of equipment upgrades. The licensee controlled occupational radiation exposures as low as reasonably achievable. Liquid and airborne effluent releases were maintained below regulatory limits and did not result in any adverse consequences to the public or the environment. Quality Assurance audits identified and corrected appropriate radiological issues. In the Security area a decline in performance over the assessment period was indicated. Response force capabilities continue to be competent; although some response strategies were questionable due to a failure to perform an adequate evaluation. Additionally, an adequate security evaluation was not performed concerning work in the Owner Controlled Area that impacted the Protected Area. The NRC also identified deficiencies in the area of escort control. Security related equipment testing, maintenance, and operability continued to be effective. Plant Performance during this assessment period does not warrant any additional inspection effort above the NRC core inspection program, although some increased emphasis will be placed on the areas identified above.

Enclosure 1 contains a historical listing of plant issues, referred to as the Plant Issues Matrix (PIM), that were considered during this PPR process to arrive at an integrated view of licensee performance trends. The PIM includes items summarized from inspection reports or other docketed correspondence between the NRC and plant Vogtle. The NRC does not attempt to document all aspects of licensee programs and performance that may be functioning appropriately. Rather, the NRC only documents issues that the NRC believes warrant management attention or represent noteworthy aspects of performance.

This letter advises you of our planned inspection effort resulting from the plant Vogtle PPR review. It is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival onsite. Enclosure 2 details our inspection plan for the next 8 months. The rationale or basis for each inspection outside the core inspection program is provided so that you are aware of the reason for emphasis in these program areas. Resident inspections are not listed due to their ongoing and continuous nature.

We will inform you of any changes to the inspection plan. If you have any questions, please contact me at (404) 562-4520.

Sincerely,

(Original signed by
Pierce H. Skinner)

Pierce H. Skinner, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Docket Nos. 50-424 and 50-425
License Nos. NPF-68 and NPF-81

Enclosures: 1. Plant Issues Matrix
2. Inspection Plan

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SIGNATURE							
NAME	BLHolbrook:dka*	GPelisle*	KLandis*	HChristensen*	KBarr*		
DATE	3/ /99	3/ /99	3/ /99	3/ /99	3/ /99	3/ /99	3/ /99
COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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SIGNATURE							
NAME	BLHolbrook:dka*	GBelisle	KLandis	HChristensen	KBarr		
DATE	3/ /99	3/ /99	3/ /99	3/ /99	3/ /99	3/ /99	3/ /99
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SIGNATURE														
NAME	BLHolbrook:dka		GBelisle		KLandis		HChristensen		KBarr					
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COPY?	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO

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PLANT ISSUE MATRIX

By Primary Functional Area

Region II
VOGTLE

Date	Source	Functional Area	ID	Type	Template Codes	Item Description
11/15/1998	1998009	Pri: OPS Sec: ENG	NRC	POS	Pri: 1B Sec: 3A Ter: 4B	Operator response to a dilution event on Unit 2 was prompt and timely. Maintenance activities were well controlled and coordinated. Engineering involvement to investigate and determine the cause of the dilution was good.
11/14/1998	1998008-01	Pri: OPS Sec:	NRC	NCV	Pri: 2B Sec: 2A Ter:	Following a surveillance, Operations personnel failed to identify that the Unit 2 Essential Chiller was inoperable due to check valve leakage. Contributing to the problem was a surveillance test procedure that did not contain acceptance criteria for operability.
11/14/1998	1998008	Pri: OPS Sec: MAINT	NRC	POS	Pri: 1C Sec: 2A Ter:	Adequate compensatory actions were being taken for degraded freeze protection and heat tracing equipment.
09/26/1998	1998007	Pri: OPS Sec:	NRC	POS	Pri: 1B Sec: 3A Ter: 5B	Operator actions to initiate a manual reactor trip prior to automatic protection actuations were proactive. The rapid identification and response to decreasing steam generator level was indicative of good operator performance. The licensee's root cause investigation and subsequent corrective actions for a manual reactor trip on September 4 were thorough and addressed the cause of the trip. Operations personnel were prepared for the possible loss of feedwater and responded in an appropriate manner.
09/26/1998	1998007	Pri: OPS Sec: OTHER	NRC	NEG	Pri: 5A Sec: Ter:	The observed Plant Review Board (PRB) committee did not fully discuss the subjects presented and several members had not reviewed the material prior to the meeting.
09/10/1998	1998006-01	Pri: OPS Sec:	NRC	VIO IV	Pri: 1A Sec: 1C Ter: 5A	The Unit 1 Supervisor failed to enter Technical Specification (TS) (LCO) Limiting Condition for Operation 3.3.6, "Containment Ventilation Isolation Instrumentation," for inoperable radiation monitors during performance of surveillance procedure 14420-1, "Solid State Protection System and Reactor Trip Breaker Train A Operability Test," Revision 30, in the control room log. The failure of the corrective actions for previous violations to preclude this occurrence was not effective.
07/23/1998	1998005-01	Pri: OPS Sec:	NRC	VIO IV	Pri: 3A Sec: 2B Ter: 3B	1) Unit 2 entered Mode 4 without meeting TS 3.4.12, which requires two relief valves to be operable. Only one power operated relief valve was operable when the mode change was made. 2) Unit 2 entered Mode 2 without the turbine trip function operable as required by TS 3.3.2-1.
06/15/1998	1998004-01	Pri: OPS Sec:	NRC	VIO IV	Pri: 1A Sec: 3A Ter: 3B	The Unit Shift Supervisor (USS) decided to enter solid plant operation without all three letdown orfice isolation valves open as required by procedure. The USS made the decision to continue with solid plant operation without fully understanding the intent of having all three isolation valves open. Additionally, the decision was made without thoroughly evaluating the impact of the change in normal solid plant operation or soliciting guidance from engineering or management personnel.
06/15/1998	1998004-03	Pri: OPS Sec:	NRC	VIO IV	Pri: 3A Sec: 2B Ter:	Personnel failed to properly log equipment that entered and exited the Spent Fuel Pool Zone II Foreign Material Exclusion area.

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05/16/1998	1998004	Pri: OPS Sec: Ter:	NRC	NEG	Pri: 3A Sec: 2B Ter:	Operations personnel performance during Emergency Diesel Generator surveillance testing represented a weakness in the licensee's planning and preparation prior to commencement of the surveillance activity. Operations personnel did not understand what it would take to support the temperature measurement activity. Also, no specific training had been given to aid the operators in understanding or implementing the new procedure revision and operations personnel were not sensitive to the action required.
05/16/1998	1998004	Pri: OPS Sec: Ter:	NRC	POS	Pri: 1A Sec: 3A Ter:	The identification by a Plant Equipment Operator of a degraded condition associated with the Unit 1 Train B Sequencer was an example of good attention to detail.
05/16/1998	1998004	Pri: OPS Sec: Ter:	NRC	POS	Pri: 1B Sec: 3A Ter: 5B	The operators properly responded to a Unit 2 automatic reactor trip that occurred as a result of a lightning strike to the 500 kilovolt transmission line. Plant recovery actions were comprehensive and restart activities were well controlled and coordinated.
04/18/1998	1998003	Pri: OPS Sec: Ter:	NRC	NEG	Pri: 1A Sec: 3A Ter: 5C	Several discrepancies were identified in the licensee's implementation of foreign material exclusion (FME) controls around the refueling cavity during Unit 2 core offload activities. The licensee adequately resolved these discrepancies and improvement was noted in FME controls during core reload.
04/18/1998	1998003	Pri: OPS Sec: Ter:	NRC	POS	Pri: 1A Sec: 5B Ter: 5C	2R6 refueling activities were performed in a controlled manner and in accordance with procedures. A thorough event review was performed after a fuel assembly was gripped by its hold-down springs during core unload. The licensee's corrective actions for this problem were comprehensive.
04/18/1998	1998003	Pri: OPS Sec: Ter:	NRC	POS	Pri: 1A Sec: 5B Ter: 5C	The decision to manually trip Unit 2 while shutting down for refueling outage 2R6 was justified based on the observed rod position discrepancies between Digital Rod Position Indication and the demand position step counters. The root cause of the rod control malfunction was adequately determined and corrected prior to unit restart.
04/18/1998	1998003	Pri: OPS Sec: Ter:	NRC	STR	Pri: 1A Sec: 3A Ter: 3C	Managment's direct involvement in contingency plan walkdowns and the heightened awareness of the operating staff to the contingency plans during periods of increased risk during refueling outage 2R6 was a strength.
04/18/1998	1998003-02	Pri: OPS Sec: Ter:	NRC	NCV	Pri: 1A Sec: 3A Ter:	The Test Coordinator performed a step out of sequence, resulting in the inadvertent resetting of the required SI signal.
04/02/1998	1998002-01	Pri: OPS Sec: Ter:	NRC	VIO IV	Pri: 1A Sec: 2B Ter: 3B	Failure to enter a LCO for the CREFS which was rendered inoperable by scheduled heater maintenance work. Operations personnel failed to fully understand the CREFS design and the impact that the maintenance activity had on system operability prior to authorizing the work.

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03/07/1998	1998002	Pri: OPS Sec:	NRC	POS	Pri: 1B Sec: 3A Ter: 5B	The operators properly responded to a voltage transient on Channel 1, 125 VAC vital instrument panel. Abnormal operating procedures were entered and properly followed. A failed 7300 process instrument power supply was identified as the root cause of the voltage transient.
02/18/1998	1998003	Pri: OPS Sec:	NRC	NEG	Pri: 1A Sec: 3C Ter: 5C	Some debris was identified following the licensee's Unit 2 containment closeout inspection. The amount of debris found would not have challenged containment sump performance.
01/24/1998	1997012	Pri: OPS Sec:	NRC	NEG	Pri: 1C Sec: 1A Ter: 3A	Inconsistencies were observed in the quality of performance for short relief turnovers for the various operator positions. Shift supervision and operations management expectations for short relief turnovers varied and were not clearly delineated.
01/24/1998	1997012-01	Pri: OPS Sec:	NRC	NCV	Pri: 1A Sec: 3A Ter:	Operators failed to take appropriate actions as required by an alarm response procedure associated with the Turbine Building Ventialtion system. The Balance-of-Plant operator sent to investigate the alarm problem did not report the findings to control room operators with respect to what was in alarm or whether actions were needed to correct the problem.
12/31/1997	1997011-01	Pri: OPS Sec:	NRC	NCV	Pri: 3A Sec: Ter:	Failure to follow the standing order procedure preventing non-licensed operators from being assigned multiple dedicated duties, e.g., fire brigade team response and closure of a Residual Heat Removal drain valve. It was determined that there was adequate availability of other operators onsite to respond to events.
12/13/1997	1997011	Pri: OPS Sec: MAINT	NRC	POS	Pri: 1C Sec: 2A Ter:	Freeze protection and heat tracing equipment was capable of performing its intended function and was being maintained in better condition from previous inspections in 1996. The improved system conditions were the result of the licensee's efforts to closeout previously identified problem areas.
12/1[illegible]/1997	1997011	Pri: OPS Sec: PLTSUP	NRC	POS	Pri: 1B Sec: 4A Ter: 3B	Adequate instructions in Emergency Operating Procedures and adequate operator training was provided to ensure that personnel properly operate dual function valves as needed during design bases events.
11/26/1997	1997010-01	Pri: OPS Sec: MAINT	NRC	VIO IV	Pri: 1A Sec: 3A Ter:	Failure to follow the electrical system alignment procedure resulted in misalignment of the emergency diesel generator heater breakers.
11/14/1997		Pri: OPS Sec:	Licensee	LER	Pri: 2A Sec: 1B Ter:	Initiating a manual reactor trip from Mode 3 in response to a Digital Rod Position Indication (DRPI) problem was appropriate during startup testing on Unit 1. The root cause was determined to be a failed detector/encoder card associated with DRPI.

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11/01/1997	1997010	**Pri:** OPS **Sec:** ENG	NRC	WK	**Pri:** 1A **Sec:** 1C **Ter:** 4B	Several plant events and incidents resulted from inadequate surveillance and/or startup procedures. A weakness was identified for multiple examples of a failure to properly review procedure revisions which resulted in the procedure errors.
11/01/1997	1997010	**Pri:** OPS **Sec:** MAINT	NRC	POS	**Pri:** 2A **Sec:** 2B **Ter:**	The licensee's implementation of a new program to clean the containment prior to the performance of a closeout exit inspection adequately addressed previously identified weaknesses in the containment closeout program. The increased emphasis that the licensee placed on material control within containment during refueling outage 1R7 achieved successful results.
11/01/1997	1997010	**Pri:** OPS **Sec:** PLTSUP	NRC	NEG	**Pri:** 1A **Sec:** 1C **Ter:** 3A	An inadvertent dilution event occurred during activities to flush a chemical volume and control system mixed bed demineralizer resulting in a power increase from 2% to 4.6%. Poor work practices and communications by operations personnel in conjunction with the use of out-dated boron samples of the boric acid tank concentration contributed to the incident.
10/18/1997	1997010	**Pri:** OPS **Sec:**	NRC	WK	**Pri:** 1A **Sec:** 3A **Ter:** 3B	The operations crew failed to recognize that a emergency core cooling system (ECCS) valve mis-positioning on Unit 1 resulted in a Technical Specification Limiting Condition for Operation for an inoperable ECCS condition.
11/24/1998	1997012	**Pri:** MAINT **Sec:**	NRC	NEG	**Pri:** 3A **Sec:** 3C **Ter:**	Maintenance activities on a spent fuel pool cooling pump did not meet the licensee's normal level of performance, in that there were numerous difficulties and maintenance rework involved. Activities were not properly scoped prior to work commencement. The lack of maintenance personnel experience contributed to pump assembly difficulties. There was poor coordination and communication between the licensee and vendor.
11/14/1998	1998008	**Pri:** MAINT **Sec:**	NRC	POS	**Pri:** 2B **Sec:** 5C **Ter:**	Troubleshooting activities for a Loop 3 Main Feedwater Regulation valve flow anomaly were well controlled and coordinated. Detailed troubleshooting plans were developed and operations personnel were thoroughly briefed prior to risk involved troubleshooting evolutions. There was good management involvement in coordinating the troubleshooting activities and a strong commitment toward resolving the problem.
10/15/1998	1998006	**Pri:** MAINT **Sec:** OPS	NRC	POS	**Pri:** 3A **Sec:** 2B **Ter:** 3C	The observed maintenance and surveillance activities were generally completed by personnel knowledgeable of their assigned tasks. Procedures were present at the work location and being followed. Procedures provided sufficient detail and guidance for the intended activities. (Also IRs 98-05, 98-03, 98-02)
10/07/1998	1998009-01	**Pri:** MAINT **Sec:** ENG	NRC	URI	**Pri:** 4B **Sec:** 3A **Ter:** 2B	The licensee identified that some breaker seismic clips were not in place and some bolts were not securely fastened. The licensee indicated that they would evaluate the overall risk impact of the systems impacted during a seismic event as it relates to their existing Probabilistic Risk Assessment (PRA) model. At the end of the report period, the licensee had not completed this evaluation. This breaker seismic qualification issue will remain unresolved pending licensee completion of the PRA evaluation and NRC's review of the results.
09/26/1998	1998007-01	**Pri:** MAINT **Sec:**	NRC	VIO IV	**Pri:** 2B **Sec:** **Ter:**	During modification of DG exhaust missle barrier, the licensee did not have sufficient controls in place to remove concrete debris at a set interval. Debris had accumulated to a height of approximately 30 inches blocking the exhaust opening. The licensee determined that DG 1A would not have been able to perform its intended safety function in this condition.

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05/16/1998	1998004	Pri: MAINT Sec: OPS	NRC	POS	Pri: 1A Sec: 3A Ter:	The licensee's initial response to the identification of errors in the Emergency Core Cooling System (ECCS) accumulator level indications were appropriate. Calibration procedures were revised and compensatory actions were taken.
05/15/1998	1998003-04	Pri: MAINT Sec:	NRC	VIO IV	Pri: 3A Sec: 2B Ter:	An ISI examiner failed to adequately perform pre-examination cleaning for a safety injection system weld, in that, the inspectors noticed a deposit left in the weld area after precleaning and prior to the application of penetrant.
04/18/1998	1998003-03	Pri: MAINT Sec:	NRC	NCV	Pri: 2A Sec: 3A Ter: 2B	Instrumenation and Control technician failure to follow a sequencer calibration procedure resulting in the incorrect landing of a jumper that prevented an auxiliary component cooling water pump from auto-starting during Engineered Safety Features Actuation System testing.
01/30/1998	1998001	Pri: MAINT Sec: ENG	NRC	NEG	Pri: 2A Sec: Ter:	A lack of detail existed in the Maintenance Rule procedures for structural monitoring and how unavailability was determined.
01/30/1998	1998001	Pri: MAINT Sec: ENG	NRC	NEG	Pri: 2B Sec: 4B Ter:	Maintenance Rule program procedures did not contain sufficient detail to clearly describe the requirements for balancing reliability and unavailability for risk-significant systems, structures, and components (SSCs).
01/30/1998	1998001	Pri: MAINT Sec: ENG	NRC	NEG	Pri: 2B Sec: 4B Ter:	The Maintenance Rule procedure covering the periodic assessments was vague and did not provide details in the areas of: (1) review of effectiveness of corrective actions, and (2) optimizing availability and reliability for Structures, System, and Components.
01/30/1998	1998001	Pri: MAINT Sec: ENG	NRC	POS	Pri: 2B Sec: 4B Ter:	For Maintenance Rule (a)(2) systems, structures, and components (SSCs), industry-wide operating experience had been considered, where practical, and operating data had been properly captured. Performance criteria had been established, suitable trending had been performed, and corrective actions were taken when SSCs failed to meet performance criteria or experienced failures.
01/30/1998	1998001	Pri: MAINT Sec: ENG	NRC	POS	Pri: 2B Sec: 4B Ter:	In general, for Maintenance Rule (a)(1) systems, structures, and components (SSCs), operating experience was being properly captured, and industry-wide operating experience was considered, as appropriate. The licensee considered safety in establishment of Maintenance Rule goals and monitoring for the (a)(1) systems and components reviewed. Also, corrective actions, goals, and monitoring were generally adequate for the (a)(1) SSCs reviewed.
01/24/1998	1997012	Pri: MAINT Sec:	NRC	NEG	Pri: 3A Sec: 3B Ter: 3A	Two radioactive spills occurred during auxiliary building floor drain tank cleaning activities. The spills resulted from personnel not fully understanding the configuration and limitations of the vendor supplied cleaning equipment that was used.

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11/01/1997	1997010	Pri: MAINT Sec: Ter:	NRC	POS	Pri: 3A Sec: 3B Ter: 2B	Unit 1 split pin replacement and Steam Generator #4 tubesheet rework activities during refueling outage 1R7 were supported by appropriate evaluations and controlled by well written procedures and highly trained individuals.
11/01/1997	1997010	Pri: MAINT Sec: Ter:	NRC	WK	Pri: 3C Sec: 2B Ter:	The licensee's programmatic coverage of arc strikes excluded requirements for the repair of arc strikes.
11/01/1997	1997010	Pri: MAINT Sec: ENG Ter:	NRC	POS	Pri: 2B Sec: 3A Ter:	Troubleshooting efforts implemented during outage work involved the proper personnel, procedures and work orders were developed in a timely manner, and activities performed were in accordance with procedure guidance.
11/01/1997	1997010-03	Pri: MAINT Sec: ENG Ter:	NRC	NCV	Pri: 2B Sec: Ter:	Maintenance calibration procedures implemented during the outage resulted in instrument setpoints outside the trip setpoints stated in the Technical Specifications.
10/20/1997	1997009-01	Pri: MAINT Sec: ENG Ter:	NRC	VIO IV	Pri: 2B Sec: 3B Ter: 3C	A violation was identified for the licensee's failure to generate the required work order documentation prior to performing work on the 2B emergency diesel generator for repairing jacket water cooling system leaks. No documentation of the existence of these leaks or the corrective actions taken was made by maintenance personnel. This problem indicated a lack of maintenance and engineering personnel understanding of the work order process requirements.
10/14/1997	1997010	Pri: MAINT Sec: Ter:	NRC	NEG	Pri: 3A Sec: Ter:	The failure to block a containment radiation monitor during control rod drive shaft removal from containment resulted in an inadvertent engineered safety features actuation when a containment isolation signal was generated. The incident was caused by poor work practices and poor communications associated with the work activity.
08/15/1998	1998006	Pri: ENG Sec: Ter:	NRC	POS	Pri: 4A Sec: Ter:	Engineering design packages reviewed were well prepared, safety evaluations were complete, thorough, and appropriate. Equipment changes as a result of engineering documents implemented were achieved without adversely impacting plant operations.
06/09/1998	1998005	Pri: ENG Sec: Ter:	NRC	WK	Pri: 5A Sec: 4C Ter:	A weakness in design documentation resulted in incorrect instantaneous overcurrent relay tap settings which caused a loss of power to all four reactor coolant pumps. Also, the licensee's review of a similar industry event did not identify the potential for a plant cooldown as a result of current system configuration and recent design changes completed on the air operated steam supply valves to the MSRs.
05/16/1998	1998004	Pri: ENG Sec: Ter:	NRC	POS	Pri: 1A Sec: 3A Ter:	Engineering and Instrumentation and Control personnel support in addressing sequencer degradation was aggressive and timely. A temporary modification implementation to restore the sequencer to operation was properly prepared and reviewed.

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Region II
VOGTLE

PLANT ISSUE MATRIX

By Primary Functional Area

Date	Source	Functional Area	ID	Type	Template Codes	Item Description
04/18/1998	1998003	Pri: ENG Sec:	NRC	POS	Pri: 4B Sec: 4C Ter:	Electrical modifications on Unit 2 involving the 125-Volt DC ground detection system, emergency diesel generator fuse protection, and Class 1E switchgear were being performed in accordance with the design change control program. The material condition of the completed work was good. Overall, the design change packages and the 10 CFR 50.59 safety evaluation were adequate.
04/18/1998	1998003-05	Pri: ENG Sec:	NRC	NCV	Pri: 4B Sec: Ter:	A non-cited violation was identified for an inadequate engineering temporary test procedure to retest the sequencer engineered safeguards feature actuation system (ESFAS) actuation signal to an auxiliary component cooling water pump. The procedure was inadequate, in that, as written, the pump did not receive the correct start signal and other components actuated unexpectedly.
03/07/1998	1998002	Pri: ENG Sec:	NRC	NEG	Pri: 5A Sec: 5B Ter: 5C	A Deficiency Card (DC) failed to address all the problems associated with a breaker failure that occurred during refueling outage 1R7. The DC was not comprehensive or complete.
01/30/1998	1998001	Pri: ENG Sec: MAINT	NRC	STR	Pri: 2A Sec: 3 Ter: 4B	Effective integration of assigned system engineers in the process for implementation of the Maintenance Rule (MR) program was a major contributing factor to the program effectiveness. This was considered a strength in the MR program implementation.
01/30/1998	1998001	Pri: ENG Sec: MAINT	NRC	WK	Pri: 2A Sec: 2B Ter:	The lack of check or oversight of the system engineer's decisions relative to functional failure calls was considered to be a procedural weakness in the Maintenance Rule program implementation.
01/30/1998	1998001	Pri: ENG Sec: OPS	NRC	NEG	Pri: 2A Sec: 2B Ter: 4B	A sensitivity analysis had not been performed to determine if Maintenance Rule reliability criteria were conserving the assumptions in the Probalistic Risk Assessment.
01/30/1998	1998001	Pri: ENG Sec: OPS	NRC	POS	Pri: 2A Sec: 2B Ter: 4B	The licensee's process for ensuring that critical safety functions were available during planned outages was adequate. The approach for assessing the risk impact of maintenance activities was good.
01/24/1998	1997012	Pri: ENG Sec: OPS	NRC	POS	Pri: 4B Sec: 5B Ter:	The licensee's short term corrective actions for degraded conditions associated with the Emergency Diesel Generator (EDG) exhaust system were satisfactory. Concrete debris that had fallen into the EDG exhaust piping was removed.
11/26/1997	1997010-04	Pri: ENG Sec:	NRC	VIO IV	Pri: 4B Sec: 5C Ter:	A violation was identified for the failure to adequately implement corrective actions for a previous violation involving weaknesses in the APEX computer code user manual that is used for manual calculations of estimated critical position. Corrective actions were not completed in a timely manner due to resource limitations.

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PLANT ISSUE MATRIX

By Primary Functional Area

Region II
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Date	Source	Functional Area	ID	Type	Template Codes	Item Description
11/01/1997	1997010	Pri: ENG Sec:	NRC	WK	Pri: 5A Sec: 5B Ter:	The licensee's review for Licensee Event Report (LER) 50-424/96-005 did not identify the full scope of the Eaton Cable splicing discrepancy issue.
11/01/1997	1997010	Pri: ENG Sec:	NRC	WK	Pri: 5B Sec: 4C Ter:	The process to document and determine if an LER issue qualified as an MPFF does not ensure timely determinations, nor is it clearly proceduralized. In addition, the responsibility to document and determine if an LER issue qualified as an MPFF is also not clearly proceduralized.
12/26/1998	1998009	Pri: PLTSUP Sec: OPS	NRC	NEG	Pri: 2B Sec: 3A Ter: 3C	The licensee's water chemistry control program for monitoring primary and secondary water quality had been effectively implemented. However, miscommunications and unfamiliarity with an infrequently performed evolution resulted in a release of sulfates that exceeded chemistry action levels.
10/09/1998	1998012	Pri: PLTSUP Sec:	NRC	NEG	Pri: 1C Sec: Ter:	Security procedures were weak in that they failed to require a security review for non-safety related Owner Controlled Area work in order to prevent unauthorized access into the protected area.
10/09/1998	1998012	Pri: PLTSUP Sec:	NRC	NEG	Pri: 1C Sec: Ter:	The response capabilities were generally acceptable except when static positions were utilized as compensatory measures.
10/09/1998	1998012	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: 2A Ter:	Both the active and passive barriers of the Vehicle Barrier System were in place and operational as required by the Physical Security Plan and licensee procedures.
09/10/1998	1998006-02	Pri: PLTSUP Sec:	NRC	VIO IV	Pri: 2A Sec: 3A Ter:	An employee failed to properly secure the door to a locked high radiation area upon exit. Contributing to this problem was a weakness in the licensee's preventative maintenance for locked high radiation doors.
09/10/1998	1998006-03	Pri: PLTSUP Sec:	NRC	VIO IV	Pri: 3A Sec: 3B Ter:	An employee failed to understand their visitor escort responsibilities and follow requirements for maintaining proper control and visual contact of escorted individuals.
06/27/1998	1998005	Pri: PLTSUP Sec:	NRC	POS	Pri: 2B Sec: 3C Ter:	The licensee was maintaining programs for controlling exposures ALARA and continued to be effective in controlling overall collective dose.

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PLANT ISSUE MATRIX

By Primary Functional Area

Region II
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Date	Source	Functional Area	ID	Type	Template Codes	Item Description
06/27/1998	1998005	Pri: PLTSUP Sec:	NRC	POS	Pri: 2B Sec: 3C Ter:	The licensee met 10 CFR 20 requirements for control of personnel monitoring, radioactive material, radiological postings, radiation areas controls, and high radiation areas.
06/26/1998	1998011	Pri: PLTSUP Sec:	NRC	NEG	Pri: 3A Sec: 1C Ter:	The utilization of the shift technical advisor functional responsibility did not provide for an independent engineering assessment of plant conditions.
06/26/1998	1998011	Pri: PLTSUP Sec:	NRC	POS	Pri: 3A Sec: 1C Ter:	The scenario was effective for testing the integrated emergency response capability for the onsite and offsite emergency organizatrion. The simulator control room operating crew properly analyzed plant conditions and responded with timely and correct actions.
06/26/1998	1998011	Pri: PLTSUP Sec:	NRC	POS	Pri: 3A Sec: 1C Ter: 5A	Command and control of Technical Support Center (TSC) operations were proficient. Accident management and mitigation efforts were adequate in scope and effective in their implementation. The Operations Support Facility staff effectively managed to support the repair tasks directed by the TSC. A thorough post exercise critique process was followed by an outstanding management presentation that summarized the most significant exercise observations. The Emergency Operations Facility staff functioned efficiently in performing assigned tasks.
05/15/1998	1998003-06	Pri: PLTSUP Sec:	NRC	VIO IV	Pri: 1C Sec: 3B Ter:	On two separate occasions, the escort responsible for the cameraman did not maintain control or visual while working inside the Protected Area.
04/18/1998	1998003	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	Radiation and contamination controls for routine and refueling outage 2R6 were appropriate and met applicable UFSAR, Technical Specification, and 10 CFR 20 requirements. Worker doses from 2R6 were properly evaluated. The reactor coolant system cleanup and refueling outage chemistry programs contributed to reduced dose rates.
01/24/1998	1997012	Pri: PLTSUP Sec:	NRC	STR	Pri: 3A Sec: 1A Ter:	Personnel performance during a Fire Brigade drill was very good. The brigade leader effectively performed duties and good fire ground tactics and victim rescue operations were performed.
01/24/1998	1997012	Pri: PLTSUP Sec: ENG	NRC	POS	Pri: 4B Sec: 5B Ter: 3A	Plant fire barrier penetration seal designs were properly supported by seal testing documentation, vendor data, installer qualifications and training records, and Quality Assurance records. Fire barrier penetration seal engineering evaluations for deviations satisfied Generic Letter 86-10.
12/13/1997	1997011	Pri: PLTSUP Sec: OPS	NRC	STR	Pri: 2B Sec: 3B Ter:	The licensee's program for operator requalification, specifically the implementation of segment examinations, met the established program and procedure requriements. Requalification procedures adequately addressed the various aspects of segment examinations to effectively administer exams and implement remedial training as deemed appropriate.

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PLANT ISSUE MATRIX

By Primary Functional Area

Region II
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Date	Source	Functional Area	ID	Type	Template Codes	Item Description
11/01/1997	1997010	**Pri:** PLTSUP **Sec:** MAINT	NRC	POS	**Pri:** 1C **Sec:** 3A **Ter:**	The removal and storage activities for the lower guide tube were well controlled, coordinated, and in accordance with the vendor procedure. Worker precautions were appropriate. The licensee's awareness of radiological and personnel safety associated with this activity was identified as a strength.
10/20/1997	1997009-03	**Pri:** PLTSUP **Sec:**	NRC	VIO IV	**Pri:** 1C **Sec:** **Ter:**	A violation was identified due to packages and materials permitted to enter a Unit 1 vital area without performing a security search. Security procedures did not incorporate the requirements of the physical security plan accurately.
10/20/1997	1997009-04	**Pri:** PLTSUP **Sec:** OPS	NRC	VIO IV	**Pri:** 3A **Sec:** 3B **Ter:**	A violation was identified for fire watch fire extinguishers being used to support plant activities beyond the valid inspection date on the extinguishers. Licensee inspections were not performed within the 28 day requirement for 54 extinguishers issued to personnel. This issue resulted from a lack of training and knowledge of the inspection process for fire protection and maintenance personnel.

United States Nuclear Regulatory Commission

PLANT ISSUE MATRIX

By Primary Functional Area

Legend

Type Codes:

BU	Bulletin
CDR	Construction
DEV	Deviation
EEI	Escalated Enforcement Item
IFI	Inspector follow-up item
LER	Licensee Event Report
LIC	Licensing Issue
MISC	Miscellaneous
MV	Minor Violation
NCV	NonCited Violation
NEG	Negative
NOED	Notice of Enforcement Discretion
NON	Notice of Non-Conformance
P21	Part 21
POS	Positive
SGI	Safeguard Event Report
STR	Strength
URI	Unresolved Item
VIO	Violation
WK	Weakness

Template Codes:

1A	Normal Operations
1B	Operations During Transients
1C	Programs and Processes
2A	Equipment Condition
2B	Programs and Processes
3A	Work Performance
3B	KSA
3C	Work Environment
4A	Design
4B	Engineering Support
4C	Programs and Processes
5A	Identification
5B	Analysis
5C	Resolution

ID Codes:

NRC	NRC
Self	Self-Revealed
Licensee	Licensee

Functional Areas:

OPS	Operations
MAINT	Maintenance
ENG	Engineering
PLTSUP	Plant Support
OTHER	Other

EEIs are apparent violations of NRC Requirements that are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action" (Enforcement Policy), NUREG-1600. However, the NRC has not reached its final enforcement decision on the issues identified by the EEIs and the PIM entries may be modified when the final decisions are made.

URIs are unresolved items about which more information is required to determine whether the issue in question is an acceptable item, a deviation, a nonconformance, or a violation. A URI may also be a potential violation that is not likely to be considered for escalated enforcement action. However, the NRC has not reached its final conclusions on the issues, and the PIM entries may be modified when the final conclusions are made.

VOGTLE
INSPECTION PLAN

INSPECTION PROCEDURE/ TEMPORARY INSTRUCTION	TITLE/PROGRAM AREA	NUMBER OF INSPECTORS	PLANNED INSPECTION DATES	TYPE OF INSPECTION - COMMENTS
73753	In service Inspection	1	March 1999	Core
62700	Electrical Maintenance	1	March 1999	Regional Initiative - Electrical Maintenance during Outage Activities
84750/86750	Rad. Protection/Chemistry	1	June 1999	Core
81700	Security	1	July 1999	Core
37550	Engineering	3	July/August 1999	Core
71001	Requalification Inspection	1	August 1999	Core
83750	Rad. Protection/Chemistry	1	August 1999	Core
37001	Engineering - 50.59	1	August 1999	Core
NUREG-1201	Initial Exams	3	Nov./Dec. 1999	Initial Exams

Enclosure 2