

U. S. NUCLEAR REGULATORY COMMISSION (NRC)

REGION II

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

Report No: 50-424/97-12, 50-425/97-12

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Vogtle Electric Generating Plant (VEGP) Units 1 and 2

Location: 7821 River Road  
Waynesboro, GA 30830

Dates: December 14, 1997 through January 24, 1998

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Enclosure

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## EXECUTIVE SUMMARY

Vogtle Electric Generating Plant, units 1 and 2  
NRC Inspection Report 50-424/97-12, 50-425/97-12

This integrated inspection included aspects of licensee operations, engineering, maintenance, and plant support. The report covers a 6-week period of resident inspection. It also includes the results of announced inspections by regional inspectors in the areas of fire protection and security.

### Operations

- In general, the conduct of operations was professional and safety-conscious. The inspectors discussed with licensee management inconsistencies in the level of quality in the performance of short relief turnovers for the different operator positions. Shift supervisor and operations management expectations for short relief turnovers varied and were not clearly delineated (Section 01.1).
- Generally, the control room operators properly responded to control room alarms and followed the prescribed actions delineated in the applicable alarm response procedures. The inspectors observed one instance, however, where an operator did not implement the required actions of an alarm response procedure. The inspectors concluded that this incident was an isolated case and was identified as a Non-Cited Violation (Section 01.2).
- The Component Cooling Water system on both units was properly aligned and was being adequately maintained to ensure availability. No significant items or discrepancies were identified during system walkdowns (Section 02.1).

### Maintenance

- Routine and corrective maintenance activities were performed satisfactorily. Two radioactive spills during floor drain tank cleaning activities indicated that personnel did not fully understand the configuration and limitations of the vendor-supplied transfer equipment that was used. Maintenance activities on the spent fuel pool cooling pump represented an example of maintenance that did not meet the licensee's normal level of performance, in that it was not properly scoped prior to work commencement, the lack of maintenance personnel experience contributed to pump assembly difficulties, and poor coordination and communication between the licensee and the vendor led to maintenance difficulties and re-work (Section M1.1).

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- Surveillance activities were performed satisfactorily. Detailed contingency repair plans and evaluations were performed prior to stroke testing a Residual Heat Removal (RHR) pump suction valve that had previously experienced a packing leak. A turbine driven auxiliary feedwater pump test had to be reperformed as a result of personnel error in implementing vibration instrument software changes (Section M1.2).

### Engineering

- The licensee's short term corrective actions for degraded concrete conditions identified with the Emergency Diesel Generator (EDG) missile barrier exhaust system were satisfactory. Concrete debris that had fallen into the EDG exhaust piping was removed and root cause and long term corrective actions were being developed. Although the evaluation of the degraded conditions was based on qualitative engineering judgement and some important aspects were not thoroughly supported, the determination that the EDGs would remain operable following design basis events was adequate. An Inspector Followup Item was identified to review the root cause of the concrete degradation and licensee long term corrective actions (Section E1.1).

### Plant Support

- With minor exceptions, radiological postings in the Radiation Controlled Area were properly controlled and accurate. An inaccurate status sign associated with the Unit 2 RHR Train "A" Pump Room was attributed to personnel error in updating the posting following a non-routine survey. Minor discrepancies were also identified in the update of several local area survey maps. These discrepancies were adequately resolved (Section R1.1).
- Procedures for implementing compensatory measures for degraded or inoperable security equipment were a strength (Section S1.1).
- Security equipment testing practices and applicable procedures met the requirements specified in the Physical Security Plan. The dedicated security maintenance team was identified as a strength (Section S2.1).
- The armed repository was well controlled and was considered a strength (Section S2.2).
- Physical Security and Contingency Plan changes submitted by the licensee under 10 CFR 50.54(p) did not decrease the effectiveness of those plans. One exemption request with respect to abandonment of the Central Alarm Station was not approved by the NRC (Section S3.1).
- The fire prevention program was effectively implemented (Section F1.1).



- Plant fire barrier penetration seal designs were properly supported by seal testing documentation, vendor data, installer qualification and training records, and Quality Assurance inspection records. The licensee's fire barrier penetration seal engineering evaluations provided for deviations from fire barrier configurations qualified by tests which satisfied the guidance of NRC Generic Letter 86-10 (Section F2.1).
- The fire brigade organization and training met the requirements of plant procedures. Performance by the fire brigade during a drill was very good. The brigade leader properly established a command post, assessed the fire area conditions, deployed the fire brigade personnel, and effectively used radio communications. The fire brigade exhibited very good fire ground tactics, and victim rescue operations. The brigade actions met the established drill objectives and clearly demonstrated the capability of effectively responding to a fire situation (Section F5.1).
- The licensee's 1997 Safety Audit and Engineering Review assessment of the facility's fire protection program was comprehensive and effective in reporting fire protection program performance to management. The licensee's corrective actions in response to the identified automatic sprinkler system issues were comprehensive and timely (Section F7.1).



## Report Details

### Summary of Plant Status

#### Unit 1

The unit operated at full power throughout the inspection period.

#### Unit 2

The unit operated at full power throughout the inspection period.

## I. Operations

### 01 Conduct of Operations

#### 01.1 General Comments (71707)

The inspectors conducted frequent reviews of ongoing plant operations.

In general, the reviews indicated that the conduct of operations was professional and safety-conscious. The inspectors discussed a minor problem with management involving inconsistencies observed in operator performance of short relief turnovers for the Reactor Operator (RO) "at the controls" position. Specifically, control room operators did not perform a joint control panel walkdown prior to assuming the duties of the RO "at the controls." The inspectors noted that shift supervision and operations management expectations for proper performance of a short term relief for licensed operations personnel varied and was unclear.

#### 01.2 Inadequate Operator Response to Control Room Alarm

##### a. Inspection Scope (71707)

The inspectors observed operator responses to control room alarms, reviewed alarm response procedures, and discussed operator alarm response expectations with the Unit Shift Supervisor (USS), and operations manager.

##### b. Observations and Findings

The inspectors observed inconsistencies in the quality of operator response to control room alarms. Generally, operators properly responded to control room alarms and followed the prescribed actions delineated in applicable alarm response procedures. However, the inspectors observed one instance where an operator did not take appropriate actions for a turbine building heating ventilation and air conditioning (HVAC) trouble alarm.

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This alarm was on the Unit 2 Annunciator Light Board (ALB) 50 for Panel QHVC, located behind the main control boards. Alarm Response Procedure 17052-2, "Annunciator Response Procedures for ALB 50 on QHVC Panel," Revision (Rev.) 8, required the operator to dispatch a plant equipment operator to the local turbine building HVAC alarm panel to identify the source of the local alarm and take further actions, as necessary. The inspectors observed the Balance of Plant (BOP) operator leave the main control board area to acknowledge the alarm, and upon return, the operator resumed activities in which he was involved prior to receiving the alarm. The inspectors also observed that the BOP operator did not communicate to the RO or USS which alarm had been received on the QHVC panel after returning to the control room.

The inspectors immediately brought this observation to the attention of the USS and an extra USS, who were in the control room at the time. The inspectors determined that when the alarm occurred, the BOP operator had not been involved in any critical evolutions that would have justified a delay in taking the alarm response actions. Following these discussions, the USS requested that a plant equipment operator be dispatched to the local turbine building HVAC alarm panel to determine the source of the alarm. In subsequent discussions with the extra USS that morning, the inspectors were informed that this incident was discussed with the control room staff to emphasize expectations for properly responding to all control room alarms.

The inspectors discussed this incident with the Operations Manager, who indicated that each of the Shift Superintendents would be briefed on this incident to ensure that expectations for proper control room alarm response and communications were reiterated to the operators.

The inspectors concluded that this incident was an isolated case and had little safety consequence. Nevertheless, it is expected that operators properly respond to all control room alarms. The inspectors determined that the corrective actions for this incident were adequate.

Technical Specification (TS) 5.4.1.a requires that written procedures be implemented for the activities identified in Appendix A of Regulatory Guide (RG) 1.33, Rev. 2. RG 1.33, Rev. 2, requires that control room alarm response procedures be implemented. The inspectors determined that the operator's failure to follow the actions in alarm response procedure 17052-2 was a violation of TS 5.4.1.a. This failure constitutes a violation of minor significance and, consistent with Section IV of the NRC Enforcement Policy, is identified as Non-Cited Violation (NCV) 50-425/97-12-01, "Operator Failure to Implement Actions in Accordance with Alarm Response Procedure."

c. Conclusions

Generally, the control room operators properly responded to control room alarms and followed prescribed actions delineated in the applicable

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alarm response procedures. However, the inspectors observed one instance where an operator did not take appropriate actions as required by an alarm response procedure. The failure to properly follow the alarm response procedure was identified as a NCV.

## 02 Operational Status of Facilities and Equipment

### 02.1 Safety-Related Walkdowns

#### a. Inspection Scope (71707)

The inspectors walked down portions of the Component Cooling Water (CCW) engineered safety feature (ESF) systems on both units using system drawings to verify availability and overall condition of the systems.

#### b. Observations and Findings

The inspectors verified proper system configurations both electrically and mechanically of accessible portions in the plant. The inspectors also observed overall material condition of system components during the walkdowns. A review of the maintenance work history of the CCW system components did not identify any unusual performance or significant issues. A recently completed maintenance activity involved the replacement of a damaged outboard bearing on the Unit 2 CCW Pump Number 1. The licensee's preliminary investigation attributed the bearing damage to inadequate oil flow due to improper installation of a TRICO bearing oiler, which probably occurred following routine lubrication maintenance. A Deficiency Card (DC) was written to address the oiler installation problem. At the completion of maintenance, the licensee returned the pump to service without incident.

#### c. Conclusions

The inspectors concluded that the CCW systems were properly aligned and were being adequately maintained to ensure availability. No significant items or discrepancies were identified during these inspections.

## 03 Operations Procedures and Documentation

### 03.1 Walkdown of Clearances (71707)

During the inspection period, the inspectors walked down the following clearances:

2970C417	CCW pump 1 train A; rework outboard bearing
29700432	Positive displacement pump; packing leakage
29800025	Diesel generator fuel oil storage tank transfer pump/motor preventative maintenance

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The inspectors did not identify any problems or concerns during these walkdowns.

## II. Maintenance

### M1 Conduct of Maintenance

#### M1.1 Maintenance Work Order Observations

##### a. Inspection Scope (62707 and 92902)

The inspectors observed portions of maintenance activities involving the following maintenance work orders (MWOs):

C9700189	Clean Unit 1 and Unit 2 Floor Drain Tanks
29701284	Spent Fuel Pool Heat Exchanger Tube Sheet Repair
29702230	Hydrogen Monitor 21513P5HMB Power Supply Replacement in Heat Trace Cabinet
29703260	Diesel Generator Train "B" Air Compressor No. 1 Valve Work
29703334	Positive Displacement Pump Trip Investigation and Handswitch Replacement

##### b. Observations and Findings

The observed maintenance activities were generally completed thoroughly and professionally. Personnel were knowledgeable of their assigned tasks. Procedures were present at the work location and being followed. Procedures provided sufficient detail and guidance for the intended maintenance activities. Other specific observations and comments for the items listed above included the following:

- Activities associated with the removal of radioactive material, i.e., sludge, from the Unit 1 and Unit 2 floor drain tanks under MWO C9700189, were adequately planned and controlled. The Temporary Modification and associated evaluations to support this activity were detailed. Good radiological considerations and precautions were implemented for this potentially high dose activity. While performing the activities, there were two spills of radioactive tank material in the Auxiliary Building. The spills were properly contained and the areas decontaminated by health physics personnel. These incidents indicated that some personnel did not fully understand the configuration and limitations of the vendor-supplied transfer equipment that was used.
- Maintenance personnel experienced problems during performance of maintenance on the Unit 2 spent fuel pool pit cooling pump. MWO 29701284 was developed to allow the maintenance personnel to replace the seal and packing on the pump due to excessive leaks. During performance of the work order, the shaft was "galled" twice

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due to improper installation of a shaft key. In addition, maintenance personnel identified a discrepancy between the maintenance procedure instructions, vendor manual, and vendor drawings with respect to the orientation of the stuffing box bushings. A DC was generated to address the manual and drawing issue. After discussions with the vendor and twice replacing the pump shaft, work was successfully completed.

c. Conclusions

The inspectors concluded that routine and corrective maintenance activities were performed satisfactorily. Two radioactive spills during floor drain tank cleaning activities indicated that some personnel did not fully understand the configuration and limitations of the vendor supplied transfer equipment that was used. Maintenance activities on the spent fuel pool cooling pump represented an example of maintenance that did not meet the licensee's normal level of performance, in that it was not properly scoped prior to work commencement, the lack of maintenance personnel experience contributed to pump assembly difficulties, and poor coordination and communication between the licensee and the vendor led to maintenance difficulties and re-work.

M1.2 Surveillance Observation

a. Inspection Scope (61726)

The inspectors observed the performance or reviewed the following surveillances and plant procedures:

14230-1	AC (Alternating Current) Source Verification, Rev. 12
14415-C	Fuel Handling Building Post-Accident Ventilation Actuation Logic Surveillance Test, Rev. 15
14421-1	Solid State Protection System and Reactor Trip Breaker Train "B" Operability Test, Rev. 9
14546-1	Turbine Driven Auxiliary Feedwater Pump (TDAFW) Operability Test, Rev. 17
14801-1	Nuclear Service Cooling Water (NSCW) Transfer Pump Inservice Test, Rev. 13
14810-2	TDAFW Pump and Check Valve Inservice Response Time Test, Rev. 19
14825-2	Quarterly Inservice Valve Test, Rev. 33
14980-2	Diesel Generator Operability Test, Rev. 29

b. Observations and Findings

The observed surveillance activities were generally completed thoroughly and professionally. Personnel were experienced and knowledgeable of their assigned tasks. Procedures provided sufficient detail and guidance for the surveillance activities. Activities were properly authorized and coordinated with operations prior to starting.

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Surveillance tests were performed within their required frequencies and test results met acceptance criteria contained in the procedure. Other specific observations and comments for the items listed above included the following:

- Contingency plans and preparations for repacking Unit 2 Train "A" Residual Heat Removal (RHR) Suction Valve, 2HV-8812A, were detailed. These contingency plans were completed prior to stroke testing 2HV-8812A per procedure 14825-2. When 2HV-8812A was stroked, the packing leakage stopped, and the resultant stroke time was well within acceptance criteria limits. Based on these results, contingency repair plans were not implemented. The licensee planned to continue to monitor valve packing leakage until the March 1998 refueling outage at which time permanent valve repairs were planned.
- During the performance of the Unit 2 TDAFW pump inservice testing per procedure 14810 2, a problem was encountered with measuring pump vibration, resulting in the suspension of testing. Testing was reperformed with satisfactory results following corrections to the vibration instrument software configuration setup. The licensee determined that the vibration frequency range for the pump had been improperly entered following instrument software setup changes. The licensee initiated a DC to address the instrument setup error.

c. Conclusions

The inspectors concluded that surveillance activities were performed satisfactorily. Detailed contingency repair plans were completed prior to stroke testing a RHR suction valve that had previously experienced packing leakage.

### III. Engineering

#### E1 Conduct of Engineering

##### E1.1 Degraded Missile Barrier Enclosure for Emergency Diesel Generator (EDG) Exhaust Pipes

###### a. Inspection Scope (37551)

The inspectors reviewed the licensee's evaluations of degraded concrete associated with each of the EDG exhaust pipe missile barrier enclosures. The inspectors reviewed the design function of the enclosures, structural drawings, construction records of the concrete pours, discussed the degraded condition with licensee engineering personnel, and visually examined the enclosures. Additionally, the inspectors reviewed 10 CFR 50.72 and 50.73 reporting requirements.

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b. Observations and Findings

On January 7, 1998, during investigation into the source of higher than expected exhaust leakage into the Unit 1 Train "A" EDG building, on-site engineering personnel inspected each EDG exhaust pipe enclosure. These concrete enclosures are located on the roof of the EDG buildings and provide missile protection for the EDG exhaust pipes that penetrate the building roof. Licensee personnel performing the inspections reported that there was concrete damage found inside the 1A EDG enclosure where the exhaust pipe passed through the roof. Damage was also found on the 1B EDG enclosure, but was reported to be less severe. The following morning, at the daily management meeting, the damage was characterized as minor spalling. An operability evaluation was not initiated at this time to determine if the degradation impacted the missile protection design capability of the EDG exhaust system.

On January 14, 1998, civil engineers from the licensee's corporate engineering office performed a more thorough examination of the 1A and 1B exhaust enclosures. The results of this examination characterized the condition as significant degradation of both concrete enclosures. Concrete had spalled from the inside wall of the enclosures exposing the interior layers of rebar which was imbedded at a depth of 4-5 inches. Damage to the 1A enclosure was found to be the more severe; concrete had spalled to the rebar in almost the entire sloped section in the ceiling of the enclosure.

The inspectors reviewed the results of the licensee's evaluation of the degraded conditions as documented in REA 98-VIA601, dated January 19, 1998. The licensee determined that the extent of the degradation indicated that the enclosures could probably not withstand the impact of the most severe design basis missile. However, the licensee determined that damage from a design basis missile event would not result in the EDGs being incapable of operating properly and performing their intended safety function.

The licensee was concerned that this degraded condition involved the potential for dislodged concrete from the inside of the enclosure to fall into the open end of the exhaust pipe resulting in exhaust flow blockage. In the event of extensive exhaust flow area blockage, the performance of the EDG could be adversely impacted. It was evident that some concrete had already fallen into each EDG exhaust pipe opening; however, there was no immediate evidence of adverse impact on EDG operability based on recent EDG surveillance test performance data results. In the licensee's judgement, a design basis missile or earthquake event would not result in additional concrete falling into the exhaust piping to the extent that EDG operability would be impacted. When the inspectors visually examined the Unit 1 enclosures, it was evident from the large cracks and missing concrete that the integrity of the remaining concrete, both in the sloped section of the ceiling, as well as in the sides of the enclosures, was potentially compromised.

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The licensee's evaluation assumed that the worst case scenario event resulted in exhaust flow blockage less than 160 square inches (approximately 11.5% blockage). The licensee's assumption that blockage would be bounded at 11.5% was not supported by a technical analysis. The licensee had not obtained sufficient information to determine if the integrity of the remaining concrete and rebar had been compromised. The licensee did not estimate the volume of concrete that had already fallen into the exhaust pipe, nor the amount of concrete that was reasonably expected to fall during a design basis missile or earthquake event. Based on subsequent discussions with licensee engineering personnel and information from the engine manufacturer, the EDGs would perform their safety function even if blockage exceeded 11.5%.

On January 21, 1998, the licensee identified similar concrete degradation following inspections of the Unit 2 EDG enclosures. The licensee determined that the evaluation performed on Unit 1 also bounded Unit 2.

Between January 22-23, 1998, the licensee conducted inspections inside of each EDG silencer to determine if there was any blockage or damage caused by concrete falling into the exhaust piping. Access to the silencer internals was accomplished by removing a manway cover on the side of each silencer. Concrete debris of various sizes and amounts was found in all four exhaust pipes at the outlet portion of the silencers. Approximately 5-7, five-gallon buckets of debris were removed from each silencer. No damage to the silencer or exhaust piping was identified.

Removal of the existing concrete debris resolved any remaining uncertainties that the inspectors had regarding the potential for adverse EDG impact from exhaust flow blockage. The inspectors concluded that the amount of exhaust blockage from any remaining concrete susceptible to falling was significantly minimized.

At the end of the report period, the licensee was still evaluating the cause of the degraded concrete conditions, as well as long term corrective actions. The inspectors will continue to review the licensee's root cause evaluations and long term corrective actions. Pending completion of these reviews, this issue was identified as Inspector Followup Item (IFI) 50-424, 425/97-12-02, "Complete Review of EDG Missile Enclosure Degradation."

The inspectors reviewed the NRC reportability requirements of 10 CFR 50.72. A 1-hour report to the NRC is required by 10 CFR 50.72(b)(1)(ii) for any event or condition that results in the plant being in a condition outside its design basis. The inspectors' initial determination upon review of the degradation, was that a 1-hour report was applicable, in that, the EDG exhaust systems were no longer capable of withstanding the worst case design basis missile scenario for which they were originally designed. In addition, Updated Final Safety Analysis Report (UFSAR) Section 3.5.1.4, "Missiles Generated by Natural

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Phenomena," states that safety-related systems and components are protected by missile barriers (which included the EDG exhaust systems) that have concrete exterior walls and roofs which are at least 21 inches thick. The licensee had identified conditions where this minimum concrete thickness was no longer met for the EDG exhaust system.

The licensee determined that the degraded condition did not represent a condition that was outside the design basis of the plant. The basis for this position was the determination that the EDGs were still capable of performing their intended safety function following the design basis missile event even though the exhaust system itself was degraded. On January 20, 1998, during a phone call between the licensee and NRC Region II and NRR management, the licensee indicated that a courtesy 30-day Licensee Event Report would be submitted on this issue. This issue is identified as Unresolved Item (URI) 50-424, 425/97-12-03, "Reportability per 10 CFR 50.72 and 10 CFR 50.73 of Emergency Diesel Generator Exhaust System Degradation," pending additional review of the reportability requirements by the NRC.

c. Conclusions

The inspectors concluded that licensee short term corrective actions for degraded conditions associated with the EDG exhaust system were satisfactory. Concrete debris that had fallen into the EDG exhaust piping was removed and root cause and long term corrective actions were being developed. Although the evaluation of the degraded conditions was based on qualitative engineering judgement and some important aspects were not thoroughly supported, the determination that the EDGs would remain operable following design basis events was adequate. An IFI was identified with respect to the licensee's root cause evaluation and long term corrective actions.

#### IV. Plant Support

##### R1 Radiological Protection and Chemistry (RP&C) Controls

###### R1.1 Radiological Postings

###### a. Inspection Scope (71750)

The inspectors periodically conducted tours of the Radiation Controlled Areas (RCA) to verify that radiological postings of radiation and contamination areas were properly established and controlled in accordance with NRC requirements and licensee procedure 43005-C, "Establishing and Posting Radiation Controlled Areas and High Radiation Area Access Control," Rev. 17. Additionally, the inspectors verified that routine radiation and contamination surveys were performed at their prescribed frequency and in accordance with procedure 43000-C, "Radiation and Contamination Surveys," Rev. 13.

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b. Observations and Findings

The inspectors determined that radiological postings for the RCA, Radiation, High Radiation, and Locked High Radiation Areas were properly established. Locked High Radiation Areas were properly secured to prevent unauthorized entry. With one exception involving an inaccurate radiological "Status Sign," radiation and contamination surveys of local areas in the RCA were accurate and were performed at their required frequency.

During a routine tour, the inspectors identified an inaccurate status sign posted at the entrance to the Unit 2, Train "A" RHR Pump Room. The status sign indicated that the maximum contamination level in the room was less than 1000 disintegrations per minute per 100 square centimeters (dpm/100cm<sup>2</sup>); however, the local room survey map, also posted at the room entrance, indicated that a smear measurement obtained from valve 2HV-8812A was 3000 dpm/100cm<sup>2</sup>. The inspectors notified health physics personnel who later updated the status board to reflect the higher contamination.

The inspectors attributed this problem to human error, in that, health physics personnel forgot to update the RHR room status sign following a non-routine survey conducted in preparation for upcoming work on valve 2HV-8812A. The inspectors determined that the radiological consequences of this error was minimal since valve 2HV-8812A had been enclosed in plastic when the non-routine survey was performed. Therefore, the potential for personnel contamination had been minimized.

The inspectors noted that procedure 43000-C did not specifically require health physics personnel to update area status signs following the performance of non-routine surveys. However, based on discussions with health physics technicians and managers, this expectation was clearly understood and was being performed. The health physics manager indicated that 43000-C would be enhanced to add a step requiring personnel to update status signs following the performance of non-routine surveys.

The inspectors also noted that the Train "A" RHR Pump Room local area survey map contained other outdated information from previously performed surveys. Local area survey maps are posted at the entrance to most Emergency Core Cooling System pump and valve rooms. Survey maps are considered to be for "information only." Status signs provide the official radiological conditions. However, management expectations are that the survey maps be kept up-to-date and accurate to prevent miscommunication of actual area radiological conditions. The licensee corrected this survey map, as well as four others that were identified, following additional licensee reviews of all survey maps in the auxiliary building. The inspectors concluded that adequate licensee corrective actions were taken for this minor problem.

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c. Conclusions

The inspectors concluded that, with minor exceptions, radiological postings in the RCA were properly controlled and accurate. An inaccurate status sign associated with the Unit 2 RHR Train "A" Pump Room was attributed to personnel error in updating the posting following a non-routine survey. Minor discrepancies were also identified in the update of local area survey maps. These discrepancies were adequately resolved by the licensee.

S1 **Conduct of Security and Safeguards Activities**

S1.1 Compensatory Measures

a. Inspection Scope (81700)

The inspectors reviewed procedures for implementation of compensatory measures in the event of degraded or inoperable security equipment.

b. Observations and Findings

The inspectors reviewed licensee procedure 90106-C, "Compensatory Measures for Degraded Security Systems," Rev. 22. The inspectors considered the procedure to be a strength in that it was clear and concise. Compensatory measures for various security system degradations and proposed contingencies were accurately outlined.

c. Conclusions

The licensee's procedure for implementing compensatory measures for degraded or inoperable security equipment was a strength.

S2 **Status of Security Facilities and Equipment**

S2.1 Testing and Maintenance

a. Inspection Scope (81700)

The inspectors evaluated the licensee's processes and procedures for the testing and maintenance of security related equipment.

b. Observations and Findings

The inspectors reviewed the applicable procedures for testing security equipment for operability on a seven day basis, as required by the licensee's NRC approved Physical Security Plan (PSP). All procedures reviewed accurately reflected the requirements and were thorough.

Procedure 90204-C, "X-Ray Equipment Test Procedure," Rev. 10, required that X-ray equipment be operability tested on a daily basis. The inspectors identified that although the X-ray equipment at the Plant Entry and Security Building (PESB) was tested daily, the X-ray equipment used at the warehouse was only tested prior to use. The inspectors determined that X-ray equipment located at the warehouse was operability tested every seven days in accordance with the PSP. The licensee agreed to revise the wording in the procedure to specify daily operability testing at the PESB and warehouse.

The inspectors reviewed operability test records for security related equipment for the period of November 17 - 23, 1997. Tests on vital doors; X-ray, metal, and explosive equipment; turnstiles; microwaves; gates; vehicle barrier equipment; and duress alarms were conducted according to established procedures for this period. On January 7, 1998, the inspectors observed operability testing on the perimeter intrusion detection equipment located in zones 6 and 7. Tests observed were in accordance with procedures and met the requirements of the PSP.

The inspectors reviewed documentation and applicable procedures to ensure that cameras, lighting, and vehicle barrier walkdowns were conducted on a quarterly basis. All documents were accurate and reflected procedural requirements.

Procedures also clearly addressed the post maintenance testing process. The security organization was being supported in its maintenance efforts by a dedicated maintenance team, which has resulted in minimal outstanding work orders. Typically, security related work orders were completed within 48 hours, unless parts were on order. This was a strength.

On January 6, 1998, the licensee conducted performance testing on microwaves 17, 18, and 19 along with the associated components. The inspectors reviewed computer hardcopy, and verified that the test was completed in accordance with procedure 23657-C, "Microwave Intrusion Detection System," Rev. 7.

c. Conclusions

Security testing practices and applicable procedures met the requirements specified in the PSP. The dedicated security maintenance team was a strength.



## S2.2 Security Equipment Storage

### a. Inspection Scope (81700)

The inspectors toured the armed repository to determine if security equipment was being appropriately controlled.

### b. Observations and Findings

The inspectors toured the licensee's armed repository located in the PESB, which was formerly the badging island prior to the installation of hand geometry. The inspectors noted that the repository was secure, locked, bullet resistant, and steel enclosed. All arms were secured and locked within the repository. The area was well controlled by the licensee and was a strength.

### c. Conclusions

The inspectors concluded that the armed repository was well controlled and was considered a strength.

## S3 **Security and Safeguards Procedures and Documentation**

### S3.1 Security Program Plans

#### a. Inspection Scope (81700)

The inspectors reviewed PSP and Contingency Plan (CP) changes to determine if they met the requirements of 10 CFR 50.54(p) and to verify those changes incorporated did not decrease the effectiveness of the PSP and CP.

#### b. Observations and Findings

The inspectors evaluated PSP and CP Amendments 30 through 34.

##### Amendment 30

This PSP/CP amendment pertained to the implementation of the newly installed vehicle barrier system (VBS), non-designated vehicles, organizational changes, searching of officers, and required containment posts. The inspectors determined the changes incorporated did not decrease the effectiveness of the PSP/CP.

##### Amendment 31 and Rev. 1 to Amendment 31

Under the provisions of 10 CFR 50.90, the licensee requested an exemption to the PSP/CP to abandon the Central Alarm Station (CAS) under certain contingency situations. This exemption request was not approved by the Commission.

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Amendment 32

Amendment 32 to the PSP/CP basically incorporated contingency and compensatory measures in the event of a degradation of the VBS and also documented organizational changes. The inspectors determined the changes implemented did not decrease the effectiveness of the PSP.

Amendment 33

The licensee determined, in Amendment 33 to the PSP/CP, that designated or non-designated vehicles under 10,000 pounds did not have to be secured or escorted inside the protected area. The inspector reviewed and evaluated the engineering analysis that resulted in this determination. The inspectors concluded that there was no decrease in the effectiveness of the plan.

Amendment 34

This PSP/CP amendment was administrative in nature and met the requirements specified in 10 CFR 50.54(p).

c. Conclusions

The PSP/CP amendments submitted under 10 CFR 50.54(p) did not decrease the effectiveness of those plans. One exemption request with respect to abandonment of the CAS was not approved by the NRC after being reviewed.

**S8 Miscellaneous Security and Safeguards Issues (92904)**

- S8.1 (Closed) Violation (VIO) 50-424/97-03-03: "Failure to Establish and Maintain Security Procedures to Implement the PSP." Under the provisions of 10 CFR 50.54(p) the licensee outlined a contingency measure in their Response Plan, Revision 3, Phase 2, which allowed the CAS to be unmanned during certain contingencies, resulting in a violation of NRC requirements. The licensee's response dated May 27, 1997, outlined corrective actions that were immediately implemented. The inspectors identified that compensatory measures to implement a contingency strategy in lieu of abandonment of the CAS were in place at the time of the inspection. The inspectors also verified that the Response Plan, Revision 4, dated March 6, 1997, had been revised to exclude abandonment of the CAS.

By letter dated April 30, 1997, under the provisions of 10 CFR 50.90, the licensee submitted Amendment 31 to the PSP/CP to request an exemption from 10 CFR 73.55(e)(1), which was outlined in the PSP. The exemption request was denied.

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S8.2 (Closed) VIO 50-424, 425/97-06-05: "Failure to Sign Fitness for Duty (FFD) Sign-In Sheets at an Emergency Drill." The inspectors reviewed the following procedures to evaluate the licensee's corrective actions as documented in a response to the NRC dated August 27, 1997:

- 91104-C, "Duties of the OSC Manager," Rev. 13.
- 91106-C, "Duties of the TSC Support Coordinator," Rev. 8.
- 91023-C, "Activation and Operation of the Emergency Operations Facility," Rev. 16.

All procedures reviewed were revised to reflect that an individual was required to be present at each emergency response facility to ensure personnel responding to an emergency signed the applicable roster.

Also reviewed was "Lessons Learned Emergency Drill May 27, 1997," dated July 9, 1997. Under lessons learned for all personnel, the licensee clearly stressed the requirements of 10 CFR 26, with respect to answering questions related to staff's FFD status.

Through discussion with licensee representatives and review of applicable procedure, the inspectors determined that the licensee implemented their corrective action to Violation 50-424, 425/97-06-05.

S8.3 (Closed) VIO 50-424, 425/97-07-07: "Failure to Compensate a Degraded Vital Area Barrier." In a response dated September 25, 1997, the licensee determined that the violation occurred because a shift captain failed to follow procedural requirements for the removal of a vital area barrier and to retain established compensatory measures. The inspectors determined that the following corrective actions were completed by September 10, 1997:

- the responsible shift captain was coached.
- department shift supervision was instructed on the need to follow established procedures, and,
- shift supervision was directed to elevate all decisions regarding degraded vital area barriers to department management prior to discontinuing compensatory actions.

Additionally, the inspectors determined that a Request for Engineering Review (97-0264) was initiated on July 16, 1997, to determine whether all protected and vital area barriers currently in place were required by security commitments. The review would also ensure that appropriate plant drawings reflected actual barrier locations. The review was ongoing at the time of the inspection.



- S8.4 (Closed) VIO 50-424, 425/97-09-03: "Failure to Search Category III Material." Corrective action was outlined in a response to the NRC dated November 14, 1997. The inspectors verified that the Category III material that was not originally searched, had been searched by the licensee upon notification of the non-compliance. The inspectors reviewed procedure 90019-C, "Warehouse Materials Access Controls," Rev. 18. This procedure was revised to reflect that all Category III material would be searched prior to entering the protected area. In the event the material cannot be searched outside the protected area, it would be positively controlled and searched upon opening. On January 6, 1998, the inspectors observed a shipment of Westinghouse fuel being delivered to the site. The fuel shipment was escorted to the storage location and was secured with security locks. The following day, the inspectors observed security search the contents of the fuel shipment upon opening the shipping containers, as required by the newly revised procedure.
- S8.5 (Closed) Licensee Event Report (LER) 50-425/97-S01: "Security System Degradations Due to Inclement Weather." On August 16, 1997, the licensee experienced severe weather conditions which resulted in a failed multiplexer for several vital area doors. The licensee was unable to compensate for the degraded vital area doors within the ten minute specified timeframe due to personnel safety concerns in such severe weather. Additionally, due to the number of failures that occurred, normal shift operations could not compensate for all the failures. Through discussion with licensee representatives, the inspectors determined that compensatory posts were established as promptly as concerns for personnel safety permitted. Additional security personnel were called to compensate for the losses. A protected area patrol was established. Following completion of repairs and testing of the degraded security components, a search of the affected protected and vital areas was conducted, with no evidence of unauthorized intrusion. The inspectors determined that the PSP and applicable procedures were followed as permitted by the circumstances.

## F1 Control of Fire Protection Activities

### F1.1 Fire Reports and Investigations

#### a. Inspection Scope (64704)

The inspectors reviewed the plant fire incident reports for 1997 and selected operator logs for November and December 1997, to assess maintenance related or material condition problems with plant systems and equipment that initiated fire events. The inspectors verified that plant fire protection requirements were met in accordance with procedure 00601-C, "Fire Investigation Report Procedure", Rev. 7, when fire related events occurred.

b. Observations and Findings

The fire incident reports and selected operator logs indicated that there was only one incident of a fire within a safety related plant area in 1997, which required fire brigade response and the licensee's fire protection staff investigation. This indicates that the fire prevention program was effectively implemented. A small welding fire occurred on July 15, 1997, but had been extinguished by the welder's fire watch prior to the arrival of the fire brigade. Also a non-safety-related warehouse fire occurred at the A. B. Wilson combustion turbine plant near the Vogtle site on December 2, 1997, and is discussed in NRC Event Notification (EN) 33338.

c. Conclusions

The fire prevention program was effectively implemented.

F2 **Status of Fire Protection Facilities and Equipment**

Passive Fire Barriers

Fire barriers include penetration seals, wraps, walls, structural member fire resistant coatings, doors, and dampers, etc. Fire barriers are used to prevent the spread of fire and to protect redundant safe shutdown equipment. Laboratory testing of fire barrier materials is done only on a limited range of test assemblies. In-plant installations can deviate from the tested configurations. Under the provisions of Generic Letter (GL) 86-10, "Implementation of Fire Protection Requirements," licensees are permitted to develop engineering evaluations justifying such deviations.

F2.1 Fire Barrier Penetration Seals

a. Inspection Scope (64704)

The inspectors reviewed the fire barrier penetration seal designs and testing. The inspectors compared selected as-built fire barrier penetration seals to fire endurance test configurations to verify that those seals were qualified by appropriate fire endurance tests and representative of the design and construction of the fire endurance test specimens. During plant walkdowns the inspectors observed the installation configurations of selected fire barrier penetration seals to confirm that the licensee had established an acceptable design basis for those fire barriers used to separate safe shutdown functions.

b. Observations and Findings

The inspectors reviewed the silicone foam fire barrier seal design records, quality assurance installation records, testing records, and engineering evaluations for sever mechanical and electrical fire barrier seal penetrations.

The inspectors reviewed Vogtle Specification No. X1AG11, "Specification for Penetration Sealing for the Vogtle Electric Generating Plant Units 1 and 2," Rev. 9; Evaluation Report, "Vogtle Unit 2, Penetration Seal Evaluation No. 2X4S-001," dated September 23, 1988; Evaluation Report, "Vogtle Unit 1, Penetration Seal Evaluation No. X7BD108," dated August 21, 1989; Insulation Consultant and Management Service (ICMS) vendor data concerning NRC Information Notice (IN) 88-56, dated October 12, 1988; fire protection surveillance procedure 29144-C, "Fire Area Boundaries and Fire Rated Penetration Seals 18 Month Visual Inspection," Rev. 8; Calculation X4C-2301-S255, "Penetration Seal Engineering Evaluation," Rev. 0; Calculation X4C-2301-S020, "Evaluation of Seismic Gaps and Boot Seals Between Safety Related Buildings," Rev. 2, UFSAR Section 9B, and the Fire Hazards Analysis (FHA) to determine the location and description of fire areas; and assessed the licensee's supporting technical justifications and available engineering evaluations for the sampled silicone foam type penetration seals.

The inspectors' review focused on verifying that the following design and installation parameters for the as-built configurations were adequately bounded and justified by the licensee's engineering evaluations:

- penetration type and opening sizes.
- seal material type and depth.
- damming material type and orientation.
- thermal mass of penetrating items.
- clearances of penetrating items, and.
- fire test results for unexposed surface temperatures.

The following penetration seals were inspected and the quality assurance records for these seals were reviewed:

PENETRATION SEAL SUMMARY			SEAL MATERIAL	DAMMING MATERIAL	FIRE TEST REPORTS
IDENTIFICATION / ICMS DESIGN			DEPTH / TYPE	TYPE / ORIENTATION	
ELECTRICAL CABLE TRAY PENETRATION V1211Z1268-A-001	CONTROL BUILDING /FLOOR BETWEEN ROOMS RA66 AND RB78	E0114	9" - SILICONE FOAM	FIBERFRAX HOTBOARD - 1" - BOTTOM SIDE	FMR 2-24-77 SWRI 8-28-79 CTL 6-3-82

Enclosure



PENETRATION SEAL SUMMARY			SEAL MATERIAL	DAMMING MATERIAL	FIRE TEST REPORTS
IDENTIFICATION / ICMS DESIGN			DEPTH / TYPE	TYPE / ORIENTATION	
ELECTRICAL CABLE TRAY PENETRATION V1211Z1201-B-001	CONTROL BUILDING /WALL BETWEEN ROOMS RB70 AND RB58	E0101	9"- SILICONE FOAM	FIBERFRAX HOTBOARD 1"-TWO SIDES	FMR 2-24-77 SWRI 8-28-79 CTL 6-3-82
MECHANICAL PIPE PENETRATION SLEEVE 1-07-0231	DIESEL GENERATOR BUILDING/ WALL BETWEEN 1A DIESEL ROOM AND FUEL OIL DAY-TANK ROOM	M0101	7"- SILICONE FOAM	FIBERFRAX HOTBOARD 1"-TWO SIDES	FMR 2-24-77 CTL 5-20-82 CTL 3-19-82
MECHANICAL PIPE PENETRATION 1-11-1070-B	CONTROL BUILDING /WALL BETWEEN ROOMS RB52 AND RB54	M0101	7"- SILICONE FOAM	FIBERFRAX HOTBOARD 1"-TWO SIDES	FMR 2-24-77 CTL 5-20-82 CTL 3-19-82
MECHANICAL PIPE PENETRATION WITH EXTENSION SLEEVE 1-11-1279 1-11-1280 1-11-1281	CONTROL BUILDING /DOOR TRANSOM BETWEEN ROOMS RA44 AND RA36	M0101 M0007	7"- SILICONE FOAM WITH WALL EXTENSION SLEEVE	FIBERFRAX HOTBOARD 1"-TWO SIDES	CTL 3-19-82 CTL 1-27-86 CTL 5-13-86 CTL 3-31-86

No discrepancies were identified by the inspectors in the review of the licensee's fire barrier penetration seal installation procedures, ICMS vendor data, the seal installers' qualification and training records, the quality assurance inspection records associated with those seals inspected, and the visual inspection of the seal installations. The inspectors concluded that the fire barrier penetration seal designs were properly supported by seal testing documentation, vendor data, installer qualification and training records and quality assurance inspection records. The licensee's fire barrier penetration seal engineering evaluations provided for deviations from fire barrier configurations qualified by tests satisfied the guidance of NRC GL 86-10. Also, the inspectors did not identify any degradation of seal integrity or missing seals.

The inspectors' review of the fire barrier surveillance procedure 29144-C, noted that procedure section 5.3, "Acceptance Criteria for Penetration Seals," allowed penetration seal shrinkage gaps at interfaces of up to 1/4" wide and 50 percent of the seal depth. This information differed from the seal manufacturer's criteria of 1/8" wide or less and not more than one-third of the seal's thickness as outlined in NUREG-1552, "Fire Barrier Penetration Seals in Nuclear Power Plants," dated July 1996. During plant visual inspections of sample seal installations, the inspectors did not observe any examples of silicone foam shrinkage gaps at the fire barrier penetration seal interfaces.

Enclosure

After discussions with the licensee, Procedure Rev. ER 98-007 was initiated to revise the surveillance procedure acceptance criteria for interface gaps to agree with that recommended by the seal manufacturer outlined in NUREG-1552.

c. Conclusions

The inspectors concluded that fire barrier penetration seal designs were properly supported by seal testing documentation, vendor data, installer qualification and training records, and quality assurance inspection records. The licensee's fire barrier penetration seal engineering evaluations provided for deviations from fire barrier configurations qualified by tests satisfied the guidance of NP 86-10.

F3 **Fire Protection Procedures and Documentation**

F3.1 Surveillance Procedures for Fire Protection Seismic Dry Standpipe System

a. Inspection Scope (64704)

The inspectors reviewed the scope of the design, maintenance, and surveillance testing procedures for the seismic dry standpipe system which was System No. 2303. The review examined the licensee's compliance with UFSAR Section 9.5.1.2.2, Procedure 92025-C, "Fire Protection Surveillance Program," and Technical Specifications.

b. Observations and Findings

The inspectors selected the inspection and surveillance requirements from the UFSAR for the independent seismic dry standpipe system designed and installed to be operable for manual fire control following a safe shutdown earthquake (SSE) to verify that the components that provide this function had been incorporated into the appropriate surveillance procedures.

The inspectors reviewed UFSAR Section 9.5.1.2.2, "Fire Protection (Active Systems);" UFSAR Section 9.5.1.2.2.7, "Seismic Dry Standpipe System;" and UFSAR 9B, Section C.6.c.(4), "Water Sprinkler and Hose Standpipe Systems." These UFSAR sections describe the functional interface of the NSCW and the fire protection dry standpipe system to provide post-SSE manual fire protection capability in areas required for safe plant shutdown.

The inspectors reviewed procedure 92000-C, "Fire Protection Program," Rev. 12; procedure 92025-C, "Fire Protection Surveillance Program,"

Rev. 11; and procedure 92035-C, "Fire Protection Operability Requirement," Rev. 10. The inspectors noted that no approved fire protection surveillance testing procedures existed within the fire protection surveillance program to verify the functional operability of the seismic fire protection dry standpipe system.

The inspectors also reviewed system 2303 drawings X4DB174-6, Revs. 12 and 10, for Units 1 and 2 respectively. Seismic dry standpipe system components identified on these drawings included six seismically qualified manual isolation valves per unit. These valves provide the NSCW supply to the seismic standpipe system which is independent of the normal fire protection water standpipe distribution system which may have failed during the seismic event. Also included in the system are a number of standpipe hose valves and associated restriction orifices in the control, containment, auxiliary, and diesel generator buildings.

The inspectors discussed this issue with licensee operations and engineering management. On January 13, 1998, the licensee's operability review determined that the dry standpipe system isolation valves were operable based on their indoor protected locations and not being exposed to harsh environments. The inspectors, during walkdowns of the dry standpipe system isolation valves, observed that the valves were in good material condition with their hand wheels locked in the "Closed" position. On January 13, 1998, the licensee issued DC No. 2-98-012 which identified that some Unit 2 seismic standpipe hose connections were not equipped with restriction orifices as indicated on plant drawings.

Technical Specification 5.4.1.d and Regulatory Guide 1.33, Appendix A, Section 8.b.1.h, require written procedures for fire protection functional tests. The licensee's initial review was unable to locate documentation for: (1) the design basis calculation that established flow restriction orifice settings; (2) the performance of routine system component maintenance; or, (3) the preoperation testing of the seismic fire protection dry standpipe system. The licensee stated that additional review of this issue would be required to establish whether this documentation was available.

Pending further review by the licensee to determine if design, maintenance, and testing requirements for the seismic fire protection dry standpipe system are necessary; and subsequent review by the NRC, this issue will be identified as URI 50-424, 425/97-12-04, "Determine If Design, Maintenance, and Testing Requirements for the Seismic Fire Protection Dry Standpipe System Are Necessary."

Enclosure



c. Conclusions

An Unresolved Item was identified regarding the licensee's design, maintenance, and testing documentation of the seismic fire protection dry standpipe system that provides a fire protection function and NSCW system integrity following a SSE.

F5 Fire Protection Staff Training and Qualification

F5.1 Fire Brigade

a. Inspection Scope (64704)

The inspectors reviewed the fire brigade organization and training program for compliance with plant procedures and NRC guidelines and requirements.

b. Observations and Findings

The organization and training requirements for the plant fire brigade were established by the fire protection program procedure, 92000-C, "Fire Protection Program," Rev. 12. The fire brigade for each shift was composed of a fire brigade leader and at least four brigade members from operations. The fire brigade leader was a shift supervisor or shift support supervisor. The other members from operations were plant equipment (non-licensed) operators.

Each fire brigade member was required to receive initial, quarterly and annual related training and to satisfactorily complete an annual medical evaluation and certification for participation in fire brigade activities. In addition, each member was required to participate in at least two drills per year.

A review of the qualification and training status report for the fire brigade members indicated that the training, drill, respiratory and physical examination requirements for each active member were up to date and met the established site training procedural requirements.

On January 15, 1998, the inspectors witnessed a fire brigade drill involving a simulated fire in the Unit 1 Component Cooling Water Pump No. 1 on Level A of the auxiliary building. The response of the fire brigade to the simulated fire was very good. The fire brigade leader properly established a command post, assessed the fire area conditions, deployed the fire brigade personnel, and effectively used radio communications. A room search was conducted by the brigade members and a practice injured victim was successfully retrieved and treated. The fire brigade exhibited very good fire ground tactics, and victim rescue operations. The brigade actions clearly demonstrated the capability of

effectively responding to a fire situation. A drill critique was conducted following the drill to discuss the drill participants' performance. The critique verified that the established drill objectives were met. During the critique both challenges and successes were discussed. Areas of brigade challenges were identified and were being addressed by the training staffs.

c. Conclusions

The fire brigade organization and training met the requirements of the site procedures. Performance by the fire brigade during a drill was very good. The brigade leader properly established a command post, assessed the fire area conditions, deployed the fire brigade personnel, and effectively used radio communications. The fire brigade exhibited very good fire ground tactics, and victim rescue operations. The brigade actions met the established drill objectives and clearly demonstrated the capability of effectively responding to a fire situation.

**F7 Quality Assurance in Fire Protection Activities**

F7.1 Fire Protection Audit Reports

a. Inspection Scope (64704)

The inspectors reviewed the Safety Audit and Engineering Review (SAER) Audit Report OP-20/97-12, "Fire Protection Program," dated May 29, 1997, and the status of the corrective actions implemented for the Audit Finding Reports (AFRs) initiated for the audit report.

b. Observations and Findings

The licensee's Safety Audit and Engineering Review organization performed an evaluation of the fire protection program during the time period from May 5 through 23, 1997. The report for this assessment was Report No. OP-20/97-12. This report included an oversight assessment of the fire protection program as applied to fire protection systems and barriers, fire loading, fire protection equipment, maintenance and surveillance procedures, training and qualification, transient combustible controls, and plant modification. The inspectors reviewed the final audit report and the licensee's response to AFR-653, dated July 31, 1997.

The SAER assessment of the facility's fire protection program was comprehensive and effective in reporting fire protection program performance to management. The evaluation team determined that the fire protection program was adequate and there were no programmatic problems.

Enclosure

The inspectors reviewed the licensee's response and corrective actions to AFR-653, dated July 31, 1997. The licensee corrective actions in response to the identified automatic sprinkler systems issues were comprehensive and timely.

c. Conclusions

The licensee's 1997 SAER assessment of the facility's fire protection program was comprehensive and effective in reporting fire protection program performance to management. The licensee's corrective actions in response to the identified automatic sprinkler systems issues were comprehensive and timely.

V. Management Meetings and Other Areas

X **Review of Updated Final Safety Analysis Report**

A recent discovery of a licensee operating its facility in a manner contrary to the UFSAR description highlighted the need for a special focused review that compares plant practices, procedures and/or parameters to the UFSAR descriptions. While performing the inspections discussed in this report, the inspectors reviewed the applicable portions of the UFSAR that related to the areas inspected. The inspectors verified that the UFSAR wording was consistent with the observed plant practices, procedures and/or parameters.

X1 **Exit Meeting Summary**

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on January 27, 1998. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

X2 **Other NRC Personnel On Site**

On December 18, 1997, P. Skinner was onsite to meet with the resident inspectors and licensee management.

On January 9 and 16, 1998, A. Belisle, Chief, Special Inspections Branch, Division of Reactor Safety, Region II, was onsite to attend pre-exits conducted for fire protection and security inspectors.



On January 13, 1998, the following personnel from the office of NRR were onsite to discuss with the licensee recent NRR Project Manager position changes:

H. Berkow, Director, Project Directorate PD II-2, NRR  
 D. Jaffe, Senior Project Manager, PD II-2, Vogtle Site  
 L. Olshan, Senior Project Manager, PD II-2, Hatch Site  
 L. Wheeler, Senior Project Manager, Non-Power Reactors  
 and Decommissioning

#### PARTIAL LIST OF PERSONS CONTACTED

##### Licensee

J. Beasley, Nuclear Plant General Manager  
 S. Chestnut, Manager, Operations  
 G. Fredrick, Plant Support Assistant General Manager  
 J. Gasser, Plant Operations Assistant General Manager  
 K. Holmes, Manager, Maintenance  
 M. Sheibani, Nuclear Safety and Compliance Supervisor  
 C. Tippins, Jr., Nuclear Specialist I

#### INSPECTION PROCEDURES USED

IP 37551: Onsite Engineering  
 IP 61726: Surveillance Observation  
 IP 62707: Maintenance Observation  
 IP 64704: Fire Protection Program  
 IP 71707: Plant Operations  
 IP 71750: Plant Support Activities  
 IP 81700: Physical Security Program for Power Reactors  
 IP 92902: Followup - Maintenance  
 IP 92904: Followup - Plant Support

#### ITEMS OPENED AND CLOSED

##### Opened

<u>Type</u>	<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
NCV	50-425/97-12-01	Open	Operator Failure to Implement Actions in Accordance with Alarm Response Procedure (Section 01.2)
IFI	50-424, 425/97-12-02	Open	Complete Review of EDG Missile Enclosure Degradation (Section E1.1)

Enclosure

URI	50-424, 425/97-12-03	Open	Reportability per 10 CFR 50.72 and 10 CFR 50.73 of Emergency Diesel Generator Exhaust System Degradation (Section E1.1)
URI	50-424, 425/97-12-04	Open	Determine if Design, Maintenance, and Testing Requirements for the Seismic Fire Protection Dry Standpipe System are Necessary (Section F3.1)

Closed

<u>Type</u>	<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
NCV	50-425/97-12-01	Closed	Operator Failure to Implement Actions in Accordance with Alarm Response Procedure (Section 01.2)
VIO	50-424, 425/97-03-03	Closed	Failure to Establish and Maintain Security Procedures to Implement the PSP (Section S8.1)
VIO	50-424, 425/97-06-05	Closed	Failure to Sign FFD Sign-In Sheets at an Emergency Drill (Section S8.2)
VIO	50-424, 425/97-07-07	Closed	Failure to Compensate a Degraded Vital Area Barrier (Section S8.3)
VIO	50-424, 425/97-09-03	Closed	Failure to Search Category III Material (Section S8.4)
LER	50-425/97-S01	Closed	Security System Degradations Due to Inclement Weather (Section S8.5)

Enclosure