



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

JAN 10 1991

MEMORANDUM FOR: James M. Taylor
Executive Director for Operations

FROM: Stewart D. Ebnetter
Regional Administrator

SUBJECT: PLANT-SPECIFIC STAFF ACTIONS FROM THE INVESTIGATION OF THE
MARCH 20, 1990 INCIDENT AT VOGTLE UNIT 1 (NUREG-1410)

Enclosed is a summary of the actions which have been completed by the Region to resolve the plant-specific issues which you identified in your memorandum of June 21, 1990. For each of the three plant-specific items, the component task, the particular organization which was responsible for its completion, and the date of completion are provided. The reports/memoranda/etc. which documented the items' completion are also referenced. This summary information is provided as Enclosure 1.

All of the plant-specific actions to which the Region committed in my July 20, 1990 memorandum have been completed. This includes those items performed by other organizations (AEOD/IRM). Mr. Ron Lloyd is being provided with a copy of each of the referenced reports, memoranda, etc. to ensure that an accurate and complete record is available at headquarters. Enclosure 2 provides, in a single report, an executive summary of the resolution of each of the action items and fulfills the Region's response to your tasking memorandum.

Georgia Power Company has completed all of the material-related actions which they internally identified, except for those requiring the shutdown of Unit 1. Completion of these items is scheduled for the next refueling outage (September 1991). There are still a few training actions which are currently being completed within the facility's requalification training schedule. All of these items will be confirmed by the resident inspector staff.

If you have any questions, or require any additional information, please contact me.

Stewart D. Ebnetter
Stewart D. Ebnetter

- Enclosures:
1. Plant-Specific Actions From
NUREG-1410
 2. Executive Summary

cc w/encls:
P. Skinner, RII
✓ A. Herdt, RII
L. Reyes, RII
D. Matthews, NRR
D. Hood, NRR
R. Lloyd, AEOD

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January 9, 1991

ENCLOSURE 1

TASK PLAN FOR ADDRESSING THE PLANT-SPECIFIC ACTIONS FROM NUREG-1410

TASK DESCRIPTION	LEAD ORGANIZATION	COMPLETION DATE	REFERENCE
ADEQUACY OF CONTROL OVER SWITCHYARD ACTIVITIES			
Evaluate the corrective actions taken at Vogtle to ensure adequate control of activities and hazardous materials in the switchyard (Issue 2b)			
2b-1 Review the immediate corrective action of the licensee for access control to the Unit 1 switchyard.	RPS3B	04/09/90	RI Ltr to GPC, "Completion of CAL Commitments," 04/12/90
2b-2 Review site Security and Safety procedures to ensure adequate guidance exists for vehicular movement control.	RPS3B (RI) SAFE	10/01/90	Insp. Rpt. 90-25
2b-3 Review the site Administrative Procedures concerning:		10/01/90	
a. Spotting of portable equipment; and	RPS3B (RI)	10/01/90	Insp. Rpt. 90-25
b. "Topping-off" practice of portable equipment.	RPS3B (RI)	10/01/90	Insp. Rpt. 90-25
2b-4 Inspect the application of the guidance provided in items 2b-1 - 2b-3 during Unit 2 outage (2R1).	RPS3B (RI)	11/09/90	Insp. Rpt. 90-25
2b-5 Inspect the General Employee Training Program to ensure incorporation of vehicular movement control guidance into the safety training portion of the program.	RPS3B (RI) OPS	10/01/90 12/07/90	Insp. Rpt. 90-25 Insp. Rpt. 90-29

NOTE: RPS3B (Projects Section 3B - P. Skinner)
SAFE (Safeguards Section - D. McGuire)
OPS (Operational Programs Sections - L. Watson)
RI (Resident Inspectors)

January 9, 1991

ENCLOSURE 1

TASK PLAN FOR ADDRESSING THE PLANT-SPECIFIC ACTIONS FROM NUREG-1410

TASK DESCRIPTION	LEAD ORGANIZATION	COMPLETION DATE	REFERENCE
ADEQUACY OF DIESEL GENERATOR INSTRUMENTATION AND CONTROL SYSTEMS			
Evaluate Vogtle's procedures and training for emergency diesel generators and local sequencer panel operations including response to malfunctions (Issue 3c)			
3c-1 Review the licensee's actions for operational feedback (Req'd Rdg/PM Policy/etc) to ensure the EDG and sequencer start and restart features and guidance concerning logging malfunctions have been disseminated to all operators.	RPS3B (RI)	08/17/90	Insp. Rpt. 90-25
3c-2 Review the licensee's Surveillance Instructions to ensure design changes and calibration "lessons learned" have been incorporated.	PSS	07/31/90	Insp. Rpt. 90-20
3c-3 Verify operator proficiency in EDG and local sequencer (US operations via Job Performance Measures (JPM) during annual requalification examinations.	US	08/31/90	Exam Rpt. 0L-90-03
3c-4 Conduct a performance-based training inspection (IP 4700) during the March 20, 1990, event at the entry point.	OPS	12/07/90	Insp. Rpt. 90-25

NOTE: RPS3B (Projects Section 3B - P. Skinner)
 PSS (Plant Systems Section - M. Shymlock)
 OLS (Operator Licensing Section - L. Lawyer)
 OPS (Operational Programs Section - L. Watson)

January 9, 1991

ENCLOSURE 1

TASK PLAN FOR ADDRESSING THE PLANT-SPECIFIC
ACTIONS FROM NUREG-1410

TASK DESCRIPTION	LEAD ORGANIZATION	COMPLETION DATE	REFERENCE
ADEQUACY OF EMERGENCY PREPAREDNESS			
Identify and correct Vogtle's recent ENS problems (Issue 4B)			
4b-1 Develop a tasking memorandum to the Telecommunications AEOD/IRB Branch to quantify the ENS problem and propose a corrective action plan.	AEOD/IRB	07/12/90	Memo: Weiss to Keillem, 07/12/90
4b-2 Initiate corrective action for the ENS problem	DCIS/IB	07/26/90	Memo: Jordan to Edmeter, 08/08/90

NOTE: AEOD/IRB (Incident Response Branch - R. Priebe)
DCIS/IB (Telecommunications Branch - T. Baldesi/T. Keillem)

ENCLOSURE 2

Summary of Plant-Specific Actions

Issue 2 - Adequacy of Control Over Switchyard Activities

Action b - Evaluate the corrective actions taken at Vogtle to ensure adequate control of activities and hazardous materials in the switchyard.

The evaluation of this concern required both an immediate and a long-term review of the licensee's program and its implementation. Five specific action items were identified as needing to be completed to ensure that the corrective actions were adequate and complete.

In a letter dated April 9, 1990, the licensee described the immediate corrective actions which had been implemented to ensure that vehicular control in the low voltage switchyard for the site was adequate enough to allow the restart of Unit 1. This included establishing a temporary barricade to the switchyard and the issuance of a site directive stipulating that ground guides were to be used for movement of all vehicles with restricted visibility over the size of a pickup truck. These items were confirmed by the resident inspectors and found to be acceptable.

The licensee has revised the security and administrative procedures applicable to vehicle and hazardous material control, with emphasis upon proper controls in high-risk areas (e.g., Switchyards). These procedural revisions include the requirement to stage portable equipment at remote locations when not in actual use and the requirement to use ground guides. This latter requirement was in the site safety manual but has now been incorporated into site procedures. The implementation and adequacy of these actions was evaluated by the security and resident inspectors during normal inspections and during the recently completed outage for Unit 2. They were found to be acceptable.

The General Employee Training curricula has incorporated the above described procedural changes. All personnel receiving their initial and requalification training will be instructed on the requirements concerning vehicle and hazardous materials controls. The training is on-going; completion will take another 12 months due to requalification frequency. The Operational Programs Section verified the training's comprehensiveness and adequacy during the conduct of a Training Inspection in December 1990.

Issue 3 - Adequacy of Diesel Generator Instrumentation and Control Systems

Action c - Evaluate Vogtle's procedures and training for emergency diesel generators and local sequencer panel operations, including response to malfunctions.

The evaluation process for this action also included immediate and long-term follow-up activities. These activities inspected the licensee's immediate information feedback process to the plant's operating staff and the incorporation of the lessons learned from this issue into the ongoing initial and requalification training programs.

On March 23, 1990, immediately after the incident, the Control Room Shift Briefing Book was annotated with guidance as to the specific operator actions that were to be taken when a situation required a diesel generator load sequencer reset. Additionally, the applicable plant operating procedures were revised to include steps concerning proper acknowledgment and recording of annunciators prior to the resetting of those annunciators. The resident inspectors verified the completion of these actions.

The licensee's upgrading and revision of the surveillance procedures used for the CALCON temperature switches in place on the diesel jacket water header have been completed. The initial procedures were for generic temperature switch calibrations and were not specific to the anomalies of the CALCON switches. The peculiarities of the CALCON switches were discovered by the licensee subsequent to the March 20 event and have been incorporated into their procedures. The adequacy of the procedures was reviewed by an inspector from the Region's Division of Reactor Safety and found to be lacking. Subsequent revisions to the procedure were reviewed as part of the licensee's response to the Enforcement Conference of September 5, 1990, and found to be satisfactory.

As part of the normal licensed operator requalification program evaluation, the Region's Operator Licensing Section included five Job Performance Measures which addressed local diesel generator and load sequencer operations within the operational proficiency portion of the examination. Additionally, electrical malfunctions which required operation of the diesel generator were included in several of the simulator scenarios. In all cases, the performance of the operators showed proficiency in being able to recognize the occurrence and impact of the loss of vital electrical power, and the ability to restore vital electrical power to the plant. No substantive performance deficiencies were noted.

In order to ensure that the licensee's training programs had incorporated the lessons learned from the March 20 event, the Region conducted a training inspection at the site during December 1990. All aspects of the operational event were evaluated to identify their impact on the training programs that were in place at the time of the event and the subsequent modifications that have been incorporated into the training programs. This included both the licensed and non-licensed operator training curricula, the training programs for the maintenance and I&C personnel, and Emergency Plan training and drills. The inspection also extended to the General Employee training program.

The team identified numerous shortcomings that contributed to the March 20 event, but in all cases these deficiencies had been incorporated into the training programs of the effected personnel. Where essential, initial training had been conducted; however, on the whole, the licensee's continuing training programs were being utilized to upgrade the personnel and all actions should be completed in accordance with the appropriate requalification program cycles.

Item 4 - Adequacy of Emergency Preparedness

Action b.2 - Identify and correct Vogtle's recent ENS problem.

In response to the difficulties experienced with the ENS phone during the event, the Incident Response Branch, AEOD, the Telecommunications Branch, IRM, and AT&T effected the repairs. The repairs consisted of replacing a component on the EDF portion of the Main Control Card, installing a new cable to the TSC phone, and swapping out a circuit board in the WESCOM equipment in Bethesda. Testing of the repairs was conducted during July 1990, with the system operating normally.