



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

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Report Nos.: 50-416/85-15 and 50-417/85-04

Licensee: Mississippi Power and Light Company
Jackson, MS 39205

Docket Nos.: 50-416 and 50-417

License Nos.: NPF-29 and CPPR-119

Facility Name: Grand Gulf

Inspection Conducted: May 6-10, 1985

Inspectors:

W. E. Cline
for R. R. Marston

5/21/85
Date Signed

W. M. Sartor
W. M. Sartor

May 21, 1985
Date Signed

M. B. Poston-Brown
M. B. Poston-Brown

5/21/85
Date Signed

Approved by:

W. E. Cline
W. E. Cline, Section Chief
Division of Radiation Safety and Safeguards

5/21/85
Date Signed

SUMMARY

Scope: This routine, unannounced inspection involved 95 inspector-hours on site in the areas of emergency preparedness.

Results: Of the areas inspected, one violation was identified - failure to provide training for offsite support agencies.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *J. E. Cross, General Manager
- *R. F. Rogers, Assistant to General Manager
- *L. F. Daughtery, Compliance Superintendent
- *J. V. Parrish, Chemistry and Radiation Control Superintendent
- G. L. McMillin, Shift Superintendent
- W. C. Cade, Shift Superintendent
- C. D. Stafford, Shift Superintendent
- *P. B. Benedict, Emergency Planning Coordinator
- *J. C. Vincelli, Radiation Control Supervisor
- R. G. Williams, Office Services Supervisor
- *J. G. Hurley, Site Emergency Planning Coordinator
- J. D. Bailey, Licensing and Compliance Coordinator
- D. H. Wells, Senior Health Physics Instructor
- *W. A. Russell, Operations Assistant

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

Other Organizations

- D. Schneck, TERA, Emergency Planner
- G. Dempsey, Mississippi State Department of Health
- S. Jennings, Chief, Claiborne County Fire Department
- V. Green, Personnel Director, Claiborne County Hospital
- K. Little, Director of Nursing, Claiborne County Hospital
- A. Garner, Director, Claiborne County Civil Defense

NRC Resident Inspectors

- *R. C. Butcher, Senior Resident Inspector
- *J. L. Caldwell, Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on May 10, 1985, with those persons indicated in paragraph 1 above. The enforcement item discussed in paragraph 9 was discussed at this time. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection.

3. Licensee Action on Previous Enforcement Matters

(Closed) Unresolved Item* 416/84-45-03: Failure to provide emergency training to offsite fire departments. This item has now been incorporated in a violation.

4. Emergency Detection and Classification (82201)

Pursuant to 10 CFR 50.47(b)(4) and 10 CFR Part 50, Appendix E, Sections IV.B and IV.C, this program area was inspected to determine whether the licensee used and understood a standard emergency classification and action level scheme.

The inspector reviewed the licensee's classification procedures. The event classifications in the procedures were consistent with those required by regulation. The classification procedures did not appear to contain impediments or errors which could lead to incorrect or untimely classification.

Selected emergency action levels (EALs) specified in the classification procedures were reviewed. The reviewed EALs appeared to be consistent with the initiating events specified in Appendix 1 of NUREG-0654. The inspector noted that some of the EALs were based on parameters obtainable from Control Room instrumentation.

The inspector verified that the licensee's notification procedures included criteria for initiation of offsite notifications and for development of protective action recommendations. The notification procedures required that offsite notifications be made promptly after declaration of an emergency.

The inspector discussed with licensee representatives the coordination of EALs with State and local officials. Licensee documentation showed that the licensee had discussed the EALs during 1983 and 1984 with State and local officials, and that these officials agreed with the EALs used by the licensee.

Interviews were held with three Shift Superintendents to verify that they understood the relationship between core status and such core damage indicators as inadequate-core-cooling indicator, high-range effluent monitor, and post accident primary coolant analysis. All interviewees appeared knowledgeable of the various core damage indications and their relationship to core status.

*An unresolved item is a matter about which more information is required to determine whether it is acceptable or may involve a violation or deviation.

The responsibility and authority for classification of emergency events and initiation of emergency action were prescribed in licensee procedures and in the emergency plan. Interviews with selected key members of the licensee's emergency organization revealed that these personnel understood their responsibilities and authorities in relation to accident classification, notification, and protective action recommendations.

Selected Emergency Operation Procedures (EOPs) were reviewed by the inspector. The EOPs provided direction to users concerning timely classification of accidents. All personnel interviewed appeared to be familiar with the classification information in the EOPs.

Walk-through evaluations involving accident classification problems were conducted with three Shift Superintendents. All personnel interviewed promptly and properly classified the hypothetical accident situations presented to them, and appeared to be familiar with appropriate classification procedures.

No violations or deviations were identified in this program area.

5. Protective Action Decision-Making (82202)

Pursuant to 10 CFR 50.47(b)(9) and (10) and 10 CFR Part 50, Appendix E, Section IV.D.3, this area was inspected to determine whether the licensee had 24-hour-per-day capability to assess and analyze emergency conditions and make recommendations to protect the public and onsite workers, and whether offsite officials had the authority and capability to initiate prompt protective action for the public.

The inspector discussed responsibility and authority for protective action decision-making with licensee representatives and reviewed pertinent portions of the licensee's emergency plan and procedures. The plan and procedures clearly assigned responsibility and authority for accident assessment and protective action decision-making. Interviews with members of the licensee's emergency organization revealed that these personnel understood their authorities and responsibilities with respect to accident assessment and protective action decision-making.

Walk-through evaluations involving protective action decision-making were conducted with three Shift Superintendents. Personnel interviewed appeared to be cognizant of appropriate onsite protective measures and aware of the range of protective action recommendations appropriate to offsite protection. Personnel interviewed were aware of the need for timeliness in making initial protective action recommendations to offsite officials. Interviewees demonstrated adequate understanding of the requirement that protective action recommendations be based on core condition and containment status even if no release is in progress.

The capability of offsite officials to make protective action decisions and to promptly notify the public was discussed with licensee representatives. Licensee procedures made provisions for contacting responsible offsite

authorities on a 24-hour basis. Backup communications links with offsite authorities were available.

No violations or deviations were identified in this program area.

6. Notification and Communication (82203)

Pursuant to 10 CFR 50.47(b)(5) and (6) and 10 CFR Part 50, Appendix E, Section IV.D, this area was inspected to determine whether the licensee was maintaining a capability for notifying and communicating (in the event of an emergency) among its own personnel, with offsite supporting agencies and authorities, and with the population within the EPZ.

The inspector reviewed the licensee's notification procedures. The procedures were consistent with the emergency classification and EAL scheme used by the licensee. The inspector determined that the procedures made provisions for message verification.

The inspector determined by review of applicable procedures and by discussion with licensee representatives that adequate procedural means existed for alerting, notifying, and activating emergency response personnel. The procedures specified when to notify and activate the onsite emergency organization, corporate support organization, and offsite agencies.

The content of initial emergency messages was reviewed and discussed with licensee representatives. The initial messages appeared to meet the guidance of NUREG-0654, Sections II.E.3 and II.E.4. Licensee representatives stated that the format and content of the initial emergency messages had been reviewed by State and local government authorities.

The licensee's management control program for the prompt notification system was reviewed. According to licensee documentation and discussions with offsite representatives, the system consisted of 28 fixed sirens on the Mississippi side of the river and 13 fixed sirens on the Louisiana side of the river. Maintenance of the system had been provided for by the licensee. The sirens were fully tested once a month and growl tested twice a month. No offsite agency problems relating to the prompt notification system were disclosed during these discussions.

Communications equipment in the Control Room OSC, and TSC was inspected. Provisions existed for prompt communications among emergency response organizations, to emergency response personnel and to the public. The installed communication systems at the emergency response facilities were consistent with systems descriptions in the emergency plan and implementing procedures.

The inspector conducted operability checks on selected communications equipment in the TSC. No problems were observed. The inspector reviewed records for the period of December 1984 to April 1985, which indicated that communication tests were conducted at the frequencies specified in

NUREG-0654, Section II.N.2.a. Licensee records also revealed that corrective action was taken on problems identified during communications tests.

Redundancy of offsite and onsite communication links were reviewed in the licensee's Emergency Plan; Section 7.5, Communications. The plan verified that the licensee had established a backup communication system. The backup system made use of a Corporate Hotline; and UHF radio communications.

No violations or deviations were identified in this program area.

7. Changes to the Emergency Preparedness Program (82204)

Pursuant to 10 CFR 50.47(b)(16), 10 CFR 50.54(q), and 10 CFR 50, Appendix E, Sections IV and V, this area was reviewed to determine whether changes were made to the program since the last routine inspection in November 1984, and to note how these changes affected the overall state of emergency preparedness.

The inspector discussed the licensee's program for making changes to the emergency plan and implementing procedures. The inspector reviewed the licensee's procedures (Nuclear Licensing and Safety Administrative Procedure 1.3, Procedure Initiation, Revision and Approval Control, and 2.8, Control of the GGNS Emergency Plan) governing review and approval of changes to the plan and procedures. The inspector verified that changes to the plan and procedures were reviewed and approved by management. It was also noted that all such changes were submitted to NRC within 30 days of the effective date, as required.

Discussions were held with licensee representatives concerning recent modifications to facilities, equipment, and instrumentation. Licensee representatives stated that there had been no significant changes in this area.

The organization and management of the emergency preparedness program were reviewed. The inspector verified that there had been no significant changes in the organization or assignment of responsibility for the plant and corporate emergency planning staffs since the last inspection. The inspector's discussion with licensee representatives also disclosed that there had been no significant changes in the organization and staffing of the offsite support agencies since the last inspection.

The inspector reviewed the licensee's program for distribution of changes to the emergency plan and procedures. Document control records for the period December 1984 to April 1985, showed that appropriate personnel and organizations were sent copies of plan and procedural changes, as required.

No violations or deviations were identified in this program area.

8. Shift Staffing and Augmentation (82205)

Pursuant to 10 CFR 50.47(b)(2) and 10 CFR Part 50, Appendix E, Sections IV.A and IV.C, this area was inspected to determine whether shift staffing for emergencies was adequate both in numbers and in functional capability, and whether administrative and physical means were available and maintained to augment the emergency organization in a timely manner.

Shift staffing levels and functional capabilities of all shifts were reviewed and found to be consistent with the guidance of Table B-1 of NUREG-0654. The licensee has established a duty roster so that essential off-shift personnel are available if needed. The call-in procedure appeared to be effective in meeting Table B-1 goals.

The inspector discussed staff augmentation times with licensee representatives. Licensee representatives indicated that a drill had confirmed that Table B-1 augmentation times could be met. The inspector reviewed records which showed that an augmentation drill had been held at the 1985 exercise and staff augmentation times were consistent with Table B-1 guidance.

No violations or deviations were identified in this program area.

9. Knowledge and Performance of Duties (Training) (82206)

Pursuant to 10 CFR 50.47(b)(15) and 10 CFR 50, Appendix E, Section IV.F, this area was inspected to determine whether emergency response personnel understood their emergency response roles and could perform their assigned functions.

The inspector reviewed the description (in the emergency plan) of the training program, training procedures, and selected lesson plans, and interviewed members of the instructional staff. Based on these reviews and interviews, the inspector determined that the licensee had established a formal emergency training program.

Records of training for key members of the emergency organization for the period November 1984 to April 1985, were reviewed. The training records revealed that personnel designated as alternates in the emergency organization were provided with appropriate training. According to the training records, the type, amount, and frequency of training were consistent with approved procedures.

The inspector conducted walk-through evaluations with selected key members of the emergency organization. During these walk-throughs, individuals were given various hypothetical sets of emergency conditions and data and asked to describe their response if such an emergency actually existed. The individuals demonstrated familiarity with emergency procedures and equipment, and no problems were observed in the areas of emergency detection and classification, assessment action (to include plant conditions), and protective action decision-making.

During the course of the inspection, training of offsite emergency response support organizations was reviewed. The review involved discussions with

licensee representatives, discussion with offsite agency personnel, and examination of licensee records and correspondence. Based on the review, training provided to emergency medical personnel and local civil defense authorities appeared adequate. However, the training program for offsite fire support personnel appeared to be inadequate and was determined to be in violation of 10 CFR 50.54(q) as relates to maintaining a plan which meets planning standards in 10 CFR 50.47(b), and in particular, the training standard specified by 10 CFR 50.47(b)(15). Contrary to these requirements, it was determined that the training program was inadequate because: (1) licensee records and discussion with licensee representatives revealed that training of offsite fire department personnel had not been conducted in approximately two years, (2) there was indication of personnel turn-over in the fire department since the last training session which indicated reliance on untrained personnel, (3) an apparent lack of program followup as evidenced by a fire department management representative statement to the NRC inspector that training had not been given in over a year and that training was needed, (4) the licensee emergency plan (Table 8-1) states that training will be offered to the local fire department annually, and there was no indication that a written or verbal offer of training was made directly to the fire department, and (5) training records for 1984 and 1985 did not show any record of offsite agency fire department training. It should be noted that the licensee has a written support agreement with the local fire department. The matter of fire department training was identified as an unresolved item in NRC report 50-416/84-45. Based on a review of licensee records and discussion with licensee representatives, it did not appear that the licensee took any immediate action to resolve this NRC identified initiative. The previous unresolved item 84-45-03 is closed, and a violation is identified: failure to provide emergency response training to those who may be called upon to assist in an emergency as required by 10 CFR 50.47(b)(15) (50-416/85-15-01 and 50-417/85-04-01).

10. Dose Calculation and Assessment (82207)

Pursuant to 10 CFR 50.47(b)(9), this area was inspected to determine whether there was an adequate method for assessing the consequences of an actual or potential radiological release.

The inspector reviewed EPP 10-S-01-12 "Offsite Dose Calculations." The procedure had provisions for calculating doses for ground and elevated releases, and monitored and unmonitored pathways such as plant stack, building vents, and steam releases. The procedure allowed for refinement of dose projections through incorporation of feedback from field monitoring.

The inspector discussed the dose projection models used by the licensee and the State of Mississippi with representatives of both parties. The two models were compatible and no major differences were noted.

The licensee procedures made provision for timely incorporation of dose assessment results into the offsite protective action recommendation process.

An inspection and operability check was made of selected equipment and support items used for dose assessment at the Control Room, TSC, and EOF. No problems were observed.

The inspector discussed the backshift availability of personnel qualified to make dose calculations. Licensee representatives stated that such personnel were available on all shifts. The inspector verified from a review of current staffing levels and emergency response training records that this capability existed.

The inspector conducted a comparison test between the licensee dose model and the NRC Interactive Rapid Dose Assessment Model (IRDAM). Results were compared and discussed with the licensee. Some minor differences were noted. The reasons for, and significance of, these differences were recognized and understood.

No violations or deviations were identified in this program area.

11. Public Information Program (82209)

Pursuant to 10 CFR 50.47(b)(7) and 10 CFR 50, Appendix E, Section IV.D.2, this area was inspected to determine whether basic emergency planning information was disseminated to the public in the plume-exposure-pathway emergency planning zone (EPZ) on an annual basis.

The licensee has developed an emergency public information calendar for use by the public residing in or frequenting the 10-mile EPZ, with a new calendar being issued each year to provide annual updating. The calendar was developed in a cooperative effort between the licensee and State and local agencies, and was printed by the licensee. The inspector reviewed the current calendar and verified that it included the information specified by NUREG-0654, Section II.G.

Based on these reviews and interviews with licensee personnel, the inspector determined that the licensee's public information program continued to meet the applicable regulatory requirements.

No violations or deviations were identified in this program area.

12. Licensee Audits (82210)

Pursuant to 10 CFR 50.47(b)(14) and (16) and 10 CFR 50.54(t), this area was inspected to determine whether the licensee had performed an independent review or audit of the emergency preparedness program.

Records of audits of the program were reviewed. The records showed that an independent audit of the annual exercise was conducted by Audits QA during the period February 27, 1985, to March 27, 1985. This audit and those examined during the previous inspection fulfilled the 12-month frequency

requirement for such audits. The audit records showed that the State and local government interfaces were evaluated. Audit findings and recommendations were presented to plant and corporate management. A review of past audit reports indicated that the licensee complied with the five-year retention requirement for such reports.

Licensee emergency plans and procedures required critiques following exercises and drills. Licensee documentation showed that critiques were held following periodic drills as well as the annual exercise. The records showed that deficiencies were discussed in the critiques, and recommendations for corrective action were made.

The licensee's program for follow-up action on audit, drill, and exercise findings was reviewed. Licensee procedures required follow-up on deficient areas identified during audits, drills, and exercises. The inspector reviewed licensee records which indicated that corrective action was taken on identified problems, as appropriate. The licensee had established a tracking system as a management tool in following up on actions taken in deficient areas.

No violations or deviations were identified in this program area.

13. Inspector Followup (92701)

(Closed) Inspector Followup Item (50-416/84-08-03) TSC too small and noisy. This matter is currently closed; however, the TSC function, operability, and layout will be evaluated in a future emergency response facility appraisal.