



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

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Report No.: 50-348/84-30, 50-364/84-30

Licensee: Alabama Power Company
 600 North 18th Street
 Birmingham, AL 35291

Docket No.: 50-348 and 50-364

License No.: NPF-2 and NPF-8

Facility Name: Farley 1 and 2

Inspection Conducted: November 27 - 30, 1984

Inspection at Farley site near Dothan, Alabama

Inspector: A. L. Cunningham
 A. L. Cunningham

12/19/84
 Date Signed

Accompanying Personnel: W. E. Cline, NRC, RII
 G. A. Stoetzel
 J. B. Davis
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Approved by: W. E. Cline
 W. E. Cline, Section Chief
 Division of Radiation Safety and Safeguards

12/21/84
 Date Signed

SUMMARY

Scope: This routine, announced inspection entailed 176 inspector-hours on site in the area of an emergency exercise.

Results: Of the area inspected, no violations or deviations were identified.

REPORT DETAILS

1. Licensee Employees Contacted

- *J. D. Woodard, Plant Superintendent
- D. Morey, Assistant Plant Superintendent
- *W. G. Hairston, III, Manager, Nuclear Engineering and Technical Support
- *K. W. McCracken, Superintendent of Regulation and Procedural Control
- D. E. Grissette, Environmental and Emergency Planning Supervisor
- J. W. Beckham, Nuclear Information Supervisor
- J. C. Conway, Media Representative Corporate Communications
- W. B. Shipman, Assistant Plant Manager, Support
- R. M. Coleman, Quality Control Supervisor
- M. O. Gibson, Emergency Planning Specialist
- N. M. Maddox, Technical Training Supervisor
- *H. O. Thrash, Manager, Nuclear Operations and Administration

NRC Resident Inspectors

- *W. H. Bradford
- *W. H. Ruland

*Attended exit interview

2. Exit Interview (30703)

The inspection scope and findings were summarized on November 29, 1984, with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Enforcement Matters (92700)

Not inspected.

4. Exercise Scenario (82301)

The scenario for the emergency exercise was reviewed to assure that provisions were made to test the integrated capability and a major portion of the basic elements defined in the licensee's emergency plan and organization pursuant to 10 CFR 50.47(b)(14), paragraph IV.F of Appendix E to 10 CFR 50, and specific criteria defined in Section II.N of NUREG 0654, Revision 1.

The scenario was reviewed in advance of the scheduled exercise date and was discussed in detail with licensee representatives on November 27, 1984. While no major problems with the scenario were identified during the review, several inconsistencies became apparent during the exercise. The inconsistencies, however, failed to detract from the overall performance of the licensee's emergency organization.

The scenario developed for this exercise was detailed, and fully exercised the onsite emergency organizations. The scenario provided sufficient information to the state and local government agencies consistent with their participation in the exercise.

The licensee made a large commitment to training and personnel through the use of controllers, evaluators, and required personnel participating in the exercise. The controllers appeared to provide adequate guidance throughout the exercise; however, some minor prompting was noted by the inspector. This item was discussed during the exercise critique.

No violations or deviations were identified.

5. Assignment of Responsibility (82301)

This area was observed to assure that primary responsibilities for emergency response by the licensee were specifically established, and that adequate staff was available to respond to an emergency pursuant to 10 CFR 50.47(b)-(1), paragraph IV.A of Appendix E to 10 CFR 50, and specific criteria defined in Section II.A of NUREG-0654, Rev. 1.

The inspectors observed that specific emergency assignments were made for the licensee's emergency response organization, and that adequate staff was available to respond to the simulated emergency. The initial response organization was augmented by designated licensee representatives; however, because of the scenario scope and conditions, long term or continuous staffing of the emergency response organization was not required. Discussions with licensee representatives indicated that sufficient technical staff was available to provide for continuous staffing of the augmented emergency organization if needed.

The inspectors also observed the activation, staffing, and operation of the emergency organization in the TSC, OSC, and EOF. At each response center, the required staffing and assignment of responsibility appeared to be consistent with the licensee's approved procedures.

No violations or deviations were identified.

6. Onsite Emergency Organization (82301)

The licensee's onsite emergency organization was observed to assure that the following requirements were implemented pursuant to 10 CFR 50.47(b)(2), paragraph IV.A of Appendix E to 10 CFR 50, and specific criteria promulgated in Section II.B of NUREG-0654, Rev. 1: (1) responsibilities for emergency response were unambiguously defined; (2) adequate staffing was provided to insure initial facility accident response in key functional areas at all times; (3) onsite and offsite support organizational interactions were specified.

The inspectors observed that the initial onsite emergency organization was adequately defined and that staff was available to fill key functional positions within the emergency organization. Augmentation of the initial

emergency response organization was accomplished through mobilization of off-shift personnel. The on-duty Shift Supervisor assumed the duties of Emergency Coordinator promptly upon initiation of the simulated emergency and directed the response until relieved by the Station Manager.

Required interactions between the licensee's emergency response organization and State and offsite support agencies were adequate and consistent with the scope of the exercise.

No violations or deviations were identified.

7. Emergency Response Support and Resources (82301)

This area was observed to assure that the following arrangements for requesting and effectively using assistance resources were made pursuant to 10 CFR 50.47(b)(3); paragraph IV.A of Appendix E to 10 CFR 50, and Section II.C of NUREG-0654, Rev. 1, namely: (1) accommodation of State and local staff at the licensee's near-site Emergency Operations Facility; (2) organizations capable of augmenting the planned response were identified.

A State of Georgia representative was accommodated at the licensee's EOF. Licensee contact with offsite organizations was prompt, effective and consistent with the scope of the exercise. Assistance resources from state and local agencies were available to the licensee.

No violations or deviations were identified.

8. Emergency Classification System (82301)

This area was observed to assure that a standard emergency classification and action level scheme was in use by the nuclear facility licensee pursuant to 10 CFR 50.47(b)(4), paragraph IV.C of Appendix E to 10 CFR 50, and specific criteria promulgated in Section II.D of NUREG-0654, Rev. 1.

An emergency action level matrix was used to promptly identify and properly classify the emergency and escalate to more severe emergency classifications as the simulated emergency progressed. Licensee actions in this area were considered adequate.

No violations or deviations were identified.

9. Notification Methods and Procedures (82301)

This area was observed to assure that procedures were established for notification of State and local response organizations and emergency personnel by the licensee, and that the content of initial and followup messages to response organizations were established. This area was further observed to assure that means to provide early notification to the populace within the plume exposure pathway were established pursuant to 10 CFR 50.47(b)(5), paragraph IV.D of Appendix E to 10 CFR 50, and specific criteria defined in Section II.E of NUREG-0654.

An inspector observed that notification methods and procedures were established and available for use in providing information concerning the simulated emergency conditions to Federal, State, and local response organizations, and to alert the licensee's augmented emergency response organizations. The alert notification to the States of Alabama and Georgia, and local offsite organizations was completed within 25 minutes following declaration of the subject emergency classification. The area of prompt notification is the subject of an unresolved item issued during a recent inspection (50-348/84-26-03, 50-364/84-26-03). Since this matter has not yet been resolved by the NRC staff, the subject item will be discussed during a subsequent inspection.

Telephone notification of State and local response organizations was promptly followed by transmission of hard copies of the notification to these organizations. Such copies included prevailing meteorological information, average release rate (source terms in $\mu\text{Ci}/\text{sec}$), site boundary integrated dose projections, and recommended protective actions when necessary.

The prompt notification system (PNS) for alerting the public within the plume exposure pathway was in place and operational. The system was activated during the exercise to simulate warning the public of significant events occurring at the reactor site.

No violations or deviations were identified.

10. Emergency Communications (82301)

This area was observed to assure that provisions existed for prompt communications among principal response organizations and emergency personnel pursuant to 10 CFR 50.47(b)(6), paragraph IV.E of Appendix E to 10 CFR 50 and specific criteria promulgated in Section II.F of NUREG-0654, Rev. 1.

Communications among the licensee's emergency response facilities and emergency organization and between the licensee's emergency response organization and local offsite authorities were adequate and consistent with the scope of the exercise.

No violations or deviations were identified.

11. Emergency Facilities and Equipment (82301)

This area was observed to assure that adequate emergency facilities and equipment to support an emergency response were provided and maintained pursuant to 10 CFR 50.47(b)(8), paragraph IV.E of Appendix E to 10 CFR 50, and specific criteria defined in Section II.H of NUREG-0654, Rev. 1.

The inspectors observed the activation, staffing and operation of the emergency response facilities, and evaluated the equipment provided for emergency use during the exercise.

- a. Control Room - The inspector observed that initially reactor operations personnel acted promptly to initiate emergency responses to simulated emergencies in the Unit 1 Control Room. Emergency procedures were readily available and routinely followed, and the responses to simulated emergencies were prompt and effective.

Control Room personnel involvement was essentially limited to those persons assigned routine and special operational duties. Effective management of personnel gaining access to the control room precluded overcrowding and maintained an ambient noise level required for the orderly conduct of operations under emergency conditions.

The shift supervisor in Unit 1 control rooms demonstrated proficiency in the following critical areas: (1) evaluation of conditions for classification of events; and (2) assessment of radiation levels associated with operation of specific reactor systems to identify the location of leakage sources.

- b. Technical Support Center (TSC) - The TSC was activated and staffed promptly upon notification by the Emergency Coordinator of the simulated emergency conditions leading to the Alert and Site Area Emergency classifications. The TSC staff appeared to be knowledgeable concerning their emergency responsibilities and TSC operations proceeded smoothly. The TSC appeared to have adequate equipment for the support of the assigned staff. TSC security was promptly established. The independent ventilation system was actuated during the exercise. During operation of this facility, radiological habitability was routinely monitored and documented, and personnel dosimetry was distributed as required. Status boards and related visual aids were centrally located to readily facilitate viewing by the TSC staff. Dedicated communicators were assigned to the facility and all required notifications were promptly implemented.

The inspection disclosed the following additional findings, namely: (1) engineering, maintenance, and other technical support functions were readily accommodated and factored into problem solving exercises; (2) assumption of duties by the Emergency Director was definite and firm; (3) transfer of certain emergency responsibilities from TSC to EOF was firmly declared and announced to the TSC staff; (4) briefings of the TSC staff were frequent and consistent with changes in plant status and the related emergency conditions; (5) accountability, including identified missing personnel, was readily implemented within the accepted thirty minute time regime.

- c. Operations Support Center (OSC) - The OSC was staffed promptly upon activation of the emergency plan by the Emergency Coordinator. An inspector observed that teams were promptly assembled, briefed, and dispatched. The OSC supervisor appeared to be cognizant of his duties and responsibilities. During operation of the facility, radiological habitability was routinely monitored and documented.

The post accident sampling system (PASS) appeared to be adequate for emergency sampling. The PASS team demonstrated proficiency in operating the automated post accident sampling system.

- d. Emergency Operations Facility (EOF) - The EOF is located in the Training Building at the reactor site. The facility appeared to be adequately equipped and staffed to support an emergency response.

EOF security was promptly established, and the independent ventilation system was actuated. During operation of the facility, radiological habitability was routinely monitored and documented. Status boards and other related visual aids were strategically located and were readily accessible for viewing by the EOF staff. Dedicated communicators were assigned to the facility, and all required notifications were promptly implemented.

No violations or deviations were identified regarding emergency response facilities and equipment.

12. Accident Assessment (82301)

This area was observed to assure that adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition were in use as required by 10 CFR 50.47(b)(9), paragraph IV.B of Appendix E to 10 CFR 50, and specific criteria in Section II.I of NUREG-0654, Rev. 1.

The accident assessment program included an engineering assessment of plant status, and an assessment of radiological hazards to onsite and offsite personnel resulting from the accident. During the exercise, the engineering accident assessment team functioned effectively in analyzing the plant status to provide recommendations to the Site Emergency Manager concerning mitigating actions required to reduce damage to plant equipment, prevent releases of radioactive materials, and terminate the emergency condition.

Radiological assessment activities involved several groups. An inplant group was effective in estimating the radiological impact within the plant based on inplant monitoring and onsite measurements. Offsite radiological monitoring teams were dispatched to determine the level of radioactivity in those areas within the path of the plume. Radiological effluent data was received in the EOF. The EOF calculations were computed and compared on a timely basis with results received from the TSC and offsite monitoring groups.

Routine verification of the contents of monitoring kits issued to offsite radiation monitoring team personnel disclosed that the following items were not provided: (1) an inventory listing of kit contents including all applicable monitoring instructions defined in Appendix O to procedure RCP-25 (Environmental Sampling - Emergency); (2) full complement of the other support instructions defined in Appendix O to RCP-25. This finding was

discussed with licensee representatives both during and following the exercise critique. A cognizant licensee representative concurred with the finding. Although a kit inventory listing is posted in the secured area designated for storage of offsite monitoring kits, the licensee representative agreed that inclusion of an inventory list in each kit was more effective. It was further agreed that all instructions required for sampling and related calculations, as referenced in procedure RCP-25, would also be included in each kit. This item will be reviewed during a subsequent inspection (50-348/84-30-01, 50-364/84-30-01).

The inspectors noted that labeling of samples collected by the offsite radiation monitoring teams required a more accurate method of sample identification to assure that sampling location, time, and monitoring teams are specifically defined. This finding was also identified by the licensee during the exercise critique. The licensee agreed to improve the current method of sample identification to assure required accuracy of sampling time and specific location. This item will be reviewed during subsequent inspections (50-348/84-30-02, 50-364/84-30-02).

The dose assessment procedure used in the EOF incorporated detailed meteorological parameters which were available from onsite meteorological instruments. Default values were available for use should there be any question concerning the reliability of the meteorological instrumentation or data therefrom.

No violations or deviations were identified regarding accident assessment.

13. Public Education and Information (82301)

This area was observed to assure that information concerning the simulated emergency was made available for dissemination to the public as required by 10 CFR 50.47(b)(7), 10 CFR 50, Appendix E, paragraph IV.D, and specific criteria in NUREG-0654, Section II.G.

Information was provided to the media and the public in advance of the exercise. The information included details on how the public would be notified and the initial actions which should be taken in an emergency. A rumor control program was also in place.

The licensee activated and staffed a near site Emergency News Center (ENC). The facility was used by the licensee for preparation, coordination and dissemination of emergency news information. Written press releases were prepared and issued from the ENC. Releases issued were timely, and adequately reflected plant emergency conditions. A corporate spokesman was designated to conduct periodic press briefings. The briefings were technically accurate and presented in a manner readily understood by laymen. Visual aids were effectively used; however, one visual aid, depicting the reactor vessel was poor. This item was identified by the licensee during the briefing and exercise critique. The licensee agreed to provide representative visual aids. Question and answer sessions were held after each briefing.

No violations or deviations were identified.

14. Radiological Exposure Control (82301)

This area was observed to determine that methods for controlling radiological exposures in an emergency were established and implemented for emergency workers, and that these methods included exposure guidelines consistent with EPA recommendations as required by 10 CFR 50.47(b)(11), and specific criteria defined in Section II.K of NUREG-0654.

An inspector noted that radiological exposures were controlled throughout the exercise by issuing supplemental dosimeters to emergency workers and by conducting periodic radiological surveys in the emergency response facilities. Exposure guidelines were in place for various categories of emergency actions, and adequate protective clothing and respiratory protection were available and used as appropriate.

No violations or deviations were identified.

15. Recovery and Reentry Planning (82301)

This area was observed to assure that general plans were made for recovery and re-entry as required by 10 CFR 50.47(b)(13), paragraph IV.H of Appendix E to 10 CFR 50, and specific criteria in Section II.M of NUREG-0654.

The licensee developed general plans and procedures for re-entry and recovery which addressed both existing and potential conditions. The plans contained the position/title, authority and responsibilities of each key individual in the recovery organization. The plans and the criteria by which the emergency would be escalated were coordinated with offsite government agencies consistent with scope of the small-scale emergency preparedness exercise and the detailed scenario developed therefor.

No violations or deviations were identified.

16. Exercise Critique (82301)

The licensee's critique of the emergency exercise and weaknesses noted in their emergency response organization were formally presented to licensee management for corrective actions as required by 10 CFR 50.47(b)(14), paragraph IV.E, of Appendix E to 10 CFR 50 and specific criteria in Section II.N of NUREG-0654.

The exercise critique was conducted on November 29, 1984. Licensee management, key exercise participants, and NRC representatives were present. The licensee discussed areas of the exercise in which items for possible improvement were identified. The inspectors determined that the critique was comprehensive, and adequately addressed the weaknesses identified in their emergency response program during the exercise.

No violations or deviations were identified.