



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30303

OCT 11 1984

Report Nos.: 50-280/84-27 and 50-281/84-27

Licensee: Virginia Electric and Power Company
Richmond, VA 23261

Docket Nos.: 50-280 and 50-281

License Nos.: DPR-32 and DPR-37

Facility Name: Surry 1 and 2

Inspection Conducted: September 19-20, 1984

Inspection at Surry Nuclear Power Plant near Surry, Virginia.

Inspector: J. R. Decker
T. R. Decker

10/9/84
Date Signed

Accompanying Personnel: A. K. Lopusser
J. L. Kenoyer
J. M. Pisarcik
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Approved by: W. E. Cline
W. E. Cline, Chief
Emergency Preparedness Section
Division of Reactor Safety and Safeguards

10/10/84
Date Signed

SUMMARY

Scope: This routine, announced inspection involved 80 inspector-hours on site during normal duty hours in the area of an emergency preparedness exercise.

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

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REPORT DETAILS

1. Licensee Employees Contacted

- *W. L. Stewart, Vice President - Nuclear Operations
- *J. W. Martin, Director - Emergency Planning
- *R. F. Saunders, Station Manager
- *H. L. Miller, Assistant Station Manager
- *W. W. Cameron, Director Health Physics
- *S. U. Burgold, Operations Coordinator
- *S. P. Sarver, Supervisor - Health Physics
- *J. L. Wilson, Manager, FEA
- *W. R. Cartwright, Manager, Nuclear Operation Support
- *D. L. Benson, Assistant Station Manager
- *E. S. Grechek, Superintendent-Projects
- *W. R. Runner, Jr., Supervisor - Administrative Services

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

NRC Resident Inspector

*D. J. Burke

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on September 20, 1984, with those persons indicated in paragraph 1 above.

3. Unresolved Items

Unresolved items were not identified during this inspection.

4. Exercise Scenario (82301)

The scenario for the emergency exercise was reviewed to determine that provisions had been made to test the integrated capability and a major portion of the basic elements existing within the licensee's emergency plan and organization as required by 10 CFR 50.47(b)(14), 10 CFR 50, Appendix E, paragraph IV.F and specific criteria in NUREG 0654, Section II.N.

The scenario was reviewed in advance of the scheduled exercise and was discussed with licensee representatives. The scenario developed for this exercise was adequate to fully exercise the onsite and offsite emergency organizations of the licensee and provided sufficient emergency information to the state and local government agencies for their limited participation in the exercise. The inspector had no further questions in this area.

No violations or deviations were identified.

5. Assignment of Responsibility (82301)

This area was observed to determine that primary responsibilities for emergency response by the licensee had been specifically established and that adequate staff was available to respond to an emergency as required by 10 CFR 50.47(b)(1), 10 CFR 50, Appendix E, paragraph IV.A, and specific criteria in NUREG 0654, Section II.A.

The inspectors observed that specific emergency assignments had been made for the licensee's emergency response organizations and there was adequate staff available to respond to the simulated emergency. The initial response organization was augmented by designated licensee representatives. The inspector had no further questions in this area.

No violations or deviations were identified.

6. Onsite Emergency Organization (82301)

The licensee's onsite emergency organization was observed to determine that the responsibilities for emergency response were unambiguously defined, that adequate staffing was provided to insure initial facility accident response in key functional areas at all times, and that the interfaces were specified as required by 10 CFR 50.47(b)(2), 10 CFR 50, Appendix E, paragraph IV.A, and specific criteria in NUREG 0654, Section II.B.

The inspectors determined that the licensee's onsite emergency organization was effective in dealing with the simulated emergency. Adequate staffing of the emergency response facilities was provided for the initial accident response and the interfaces between the onsite organization and offsite support agencies appeared to be adequate. The inspector had no further questions in this area.

No violations or deviations were identified.

7. Emergency Response Support and Resources (82301)

This area was observed to determine that arrangements for requesting and effectively using assistance resources had been made, that arrangements to accommodate State and local staffs at the licensee's near-site Emergency Operations Facility had been made, and that other organizations capable of augmenting the planned response had been identified as required by 10 CFR 50.47(b)(3), 10 CFR 50, Appendix E, paragraph IV.A, and specific criteria in NUREG 0654, Section II.C.

State and local staffs could have been accommodated at the near-site Emergency Operations Facility. The state and local agencies were involved in only a limited way for this exercise. Licensee contact with offsite

organizations was prompt and assistance resources from various agencies were prepared to assist in the simulated emergency. The inspector had no further questions in this area.

No violations or deviations were identified.

8. Emergency Classification (82301)

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

An emergency action level scheme was used to promptly identify and properly classify the emergency and escalate to more severe emergency classes as the simulated emergency progressed. Licensee actions in this area were considered adequate and the inspector had no further questions.

No violations or deviations were identified.

9. Notification Methods and Procedures (82301)

This area was observed to determine that procedures had been established for notification by the licensee of State and local response organizations and emergency personnel, and that the contents of initial and followup messages to response organizations had been established; and means to provide early notification to the populace within the plume exposure pathway had been established as required by 10 CFR 50.47(b)(5), 10 CFR 50, Appendix E, paragraph IV.D, and specific criteria in NUREG 0654, Section II.E.

An inspector observed that notification methods and procedures had been established and were used to provide information concerning the simulated emergency conditions to Federal, State and local response organizations and to alert the licensee's augmented emergency response organization. The inspector had no further questions in this area.

No violations or deviations were identified.

10. Emergency Communications (82301)

This area was observed to determine that provisions existed for prompt communications among the principal response organizations and emergency personnel as required by 10 CFR 50.47(b)(6), 10 CFR 50, Appendix E, paragraph IV.E, and specific criteria in NUREG 0654, Section II.F.

Communications among the licensee's emergency response facilities and emergency organization and between the licensee's emergency response organization and offsite authorities were good. No communications related problems were identified during this exercise.

No violations or deviations were identified.

11. Public Education and Information (82301)

This area was observed to determine 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 what initial actions they should take in an emergency.

No violations or deviations were identified.

12. Emergency Facilities and Equipment (82301)

This area was observed to determine that adequate emergency facilities and equipment to support an emergency response were provided and maintained as required by 10 CFR 50.47(b)(8), 10 CFR 50, Appendix E, paragraph IV.E, and specific criteria in NUREG 0654, Section II.H.

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

- a. Control Room - An inspector observed that control room personnel acted promptly to initiate emergency response to the simulated emergency. Emergency procedures were readily available and the response was effective. The inspector had no further questions in this area.
- 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 an Alert emergency classification. 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. The inspector had no further questions in this area.
- c. Operations Support Center (OSC) - The OSC was staffed promptly upon activation by the Emergency Coordinator. An inspector observed that teams were formed promptly, briefed and dispatched efficiently. The inspector had no further questions in this area.
- d. Emergency Operations Facility - The EOF is located adjacent to the training facility on the reactor site. The facility appears to be adequately designed, equipped and staffed to support an emergency response. The inspector had no further questions in the area.

No violations or deviations were identified.

13. Accident Assessment (82301)

This area was observed to determine 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), 10 CFR 50, Appendix E, paragraph IV.B, and specific criteria in NUREG 0654, Section II.I.

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

Radiological assessment activities are spread over several groups. A group in the TSC was effectively estimating the radiological impact in the plant based on inplant monitoring and on-site measurements. Similar calculations were being performed in the EOF in concert with the evaluation of field monitoring data. Verification (cross checks) of the dose assessments performed in the TSC was not observed prior to the information being passed to the EOF. On at least one occasion, inappropriate information was relayed. This inspector followup item will be observed during a future inspection (50-280/84-27-01, 50-281/84-27-01).

No violations or deviations were identified.

14. Protective Responses (82301)

This area was observed to determine that guidelines for protective actions during the emergency, consistent with Federal guidance, were developed and in place, and protective actions for emergency workers, including evacuations of nonessential personnel, were implemented promptly as required by 10 CFR 50.47(b)(10), and specific criteria in NUREG 0654, Section II.J.

An inspector verified that the licensee had and used emergency procedures for formulating protective action recommendations for offsite populations within the 10 mile EPZ. The licensee's protective action recommendations were consistent with the EPA and other criteria and notifications were made to the appropriate State and local authorities within the 15 minute criteria.

An inspector observed that protective actions were instituted for on-site emergency workers which included periodic radiation surveys in the facility, evacuation of nonessential personnel, and continued accountability of emergency response personnel. The inspector had no further questions in this area.

No violations or deviations were identified.

15. Radiological Exposure Control (82301)

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

An inspector noted that radiological exposures were controlled throughout the exercise by issuing emergency workers supplemental dosimeters and by periodic 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. The inspector had no further questions in this area.

No violations or deviations were identified.

16. Medical and Public Health Support (82301)

This area was observed to determine that arrangements were made for medical services for contaminated injured individuals as required by 10 CFR 50.47(b)(12), 10 CFR 50, Appendix E, paragraph IV.E, and specific criteria in NUREG 0654, Section II.L.

An inspector observed the emergency medical rescue activities at the accident scene. In all portions of the exercise, appropriate judgement was generally displayed with regard to medical practices, decontamination of the patient, and contamination control. The inspector had no further questions in this area.

No violations or deviations were identified.

17. Recovery and Reentry Planning (82301)

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

The licensee developed general plans and procedures for re-entry and recovery which addressed both existing and potential conditions. The inspector had no further questions in this area.

No violations or deviations were identified.

18. Exercise Critique (82301)

The licensee's critique of the emergency was observed to determine that deficiencies identified as a result of the exercise and weakness noted in the licensee's emergency response organization were formally presented to

licensee management for corrective actions as required by 10 CFR 50.47(b)(14), 10 CFR 50, Appendix E, paragraph IV.E, and specific criteria in NUREG 0654, Section II.N.

The exercise critique was conducted shortly after the conclusion of the exercise. 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 inspector determined that the critique was comprehensive and adequately addressed weaknesses identified in the licensee's emergency response program during this exercise.

No violations or deviations were identified.

19. Inspector Followup (92701)

(Open) Inspector Followup Item 81-28-05: improve status boards for clarity and to reflect data trends. The data boards in the TSC were lettered with print too small to be seen at a reasonable working distance. Management staff has available new consoles with individual CRT s (not yet installed) so that data will be readily available. The remainder of the staff is left without adequate information. In the EOF, the status boards were taken down and replaced by distributing individual status sheets to the players.