



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
161 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Report No. 50-327/79-69

Licensee: Tennessee Valley Authority
500A Chestnut Street Tower II
Chattanooga, Tennessee 37401

Facility Name: Sequoyah

Licensee No. CPPR-72

Inspection at Sequoyah Nuclear Plant

Inspector: G. T. Gibson

11/30/79
Date Signed

Accompanying NRC Personnel: R. T. Trojanowski
G. A. Belisle
K. M. Clark
G. L. Troup
J. R. Wray
J. R. Allen
W. T. Cottle
H. C. Dance
G. R. Jenkins

Approved by: G. R. Jenkins
G. R. Jenkins, Acting Section Chief, FFMS
Branch

11/30/79
Date Signed

SUMMARY

Inspection on October 28-29 and November 20, 1979

Areas Inspected

This special, unannounced inspection involved 53 inspector-hours onsite and 84 inspector-hours offsite by nine NRC inspectors to observe and evaluate the TVA Sequoyah and State of Tennessee emergency preparedness exercise.

Results

In the area inspected, no apparent items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

Tennessee Valley Authority

- *J. Green, Assistant Manager of Power Operations
- *J. Calhoun, Director, Division of Nuclear Power
- *E. Belvin, Jr., Director, Office of Health and Safety
- *G. Stone, Acting Director of Occupational Health and Safety
- *J. Ingwersen, Supervisor, Low Level Rad Waste Management Group
- J. Ballentine, Plant Manager

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

Other Organizations

- *Dr. E. W. Fowinkle, Commissioner of Public Health, State of Tennessee
- *Major General C. D. Wallace, Adjutant General, State of Tennessee
- *W. P. DeBrock, Director, Hamilton County Civil Defense

Other organizations who participated in the exercise and subsequent drill critique included: Office of the Governor (Tennessee); USFEMA; USDOE; USFDA; USEPA; and State of Tennessee support agencies.

NRC Resident Inspector

*W. T. Cottle

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on November 20, 1979 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

Not inspected

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Sequoyah Drill Exercise

- a. The exercise at the Sequoyah facility was based upon a postulated small-break LOCA, with additional equipment failure. The incident

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scenario was developed to last approximately 30 hours, with a gradually increasing severity level. The purpose of the exercise was to test all phases of the TVA emergency organization and to provide the State of Tennessee with an exercise which would test the State emergency preparedness capability. The drill began at approximately 10:00 a.m. on October 28 and was terminated at 12:00 noon on October 29, 1979.

- b. Although NRC Region II was requested to send one observer/participant, Region II utilized the opportunity to test the NRC Region II Emergency Plan. With the exception of the Regional Director and Regional Emergency Officer, the drill scenario was unknown to Region II personnel.
- c. At approximately 12:20 p.m. (EST) on Sunday, October 28, 1979, Region II was notified by TVA that an emergency condition was present in the plant and an NRC decision was made to respond. At 1:00 p.m., members of the response team had been selected, briefed and had left for the airport embarkation point, the Region II Mobile Radiological Laboratory had been placed on alert and dispatched, and the Region II Emergency Center was manned and fully activated. At 3:15 p.m., the Region II Site Inspection Team (SIT) had arrived onsite and at 4:00 p.m. the Region II Mobile Laboratory was onsite. The SIT was comprised of an Operations Section Chief, Reactor Operations Specialist, two Health Physicists, and the plant NRC Resident Inspector. The Region II Emergency Officer and the Public Affairs Officer also accompanied the SIT, however, they immediately integrated into the State Emergency Center (Chattanooga) Organization. At 5:00 p.m. the Emergency Officer went to the site to assume control of the SIT. The Public Affairs Officer remained at the State Emergency Center (Chattanooga) to coordinate activities there.
- d. The SIT observed licensee actions onsite and evaluated the adequacy of licensee emergency plans, procedures, and proposed actions. In addition, the SIT maintained communications with the Region II Emergency Center. The SIT remained onsite from 3:15 p.m. until 7:30 p.m. on October 28, 1979, reconvening at approximately 4:30 a.m., October 29, remaining until drill termination. The Region II Emergency Center was deactivated at 6:00 p.m. for purposes of the drill.
- e. At 7:30 p.m. on October 28, the Region II Emergency Officer and other SIT personnel returned to the State Emergency Center (Chattanooga) and provided interaction with State and Federal drill participants. In addition, the Region II personnel participated in a briefing of the State of Tennessee Tripartite Committee (Central Emergency Management Committee) until 11:00 p.m.
- f. At 5:30 a.m., October 29, with the SIT in place onsite and the mobile laboratory and PAO at the State Emergency Center (Chattanooga), the Region II Emergency Officer, Reactor Operations Specialist, and a Health Physicist joined the TVA Central Emergency Command Center (CECC). At approximately 7:45 a.m., the Region II Emergency Center

was reactivated into full emergency operation. At approximately 9:00 a.m., the NRC Health Physicist at the CECC diverted to the Hamilton County Emergency Center and maintained communications to the Region II Emergency Center.

- g. From the CECC, the Region II Emergency Officer was in HOTLINE communications to the State Tri-Partite Committee at Nashville, Tennessee, TVA Environmental Assessment at Muscle Shoals, Alabama, TVA Technical Assessment at Knoxville, Tennessee. In addition, the Region II Director, from the Region II Emergency Center, participated in the exercise and tested communication and organizational interfaces between the NRC, TVA and the State of Tennessee.
- h. The emergency exercise was concluded at approximately 12:00 noon on October 29, 1979. On November 20, 1979, utility management met with participating federal agency representatives and State of Tennessee personnel at Nashville, Tennessee to critique the exercise.

6. NRC Drill Observations

- a. It is recognized by the NRC that the drill was one of the largest exercises, in terms of scope and numbers of drill participants, ever conducted in the Southeast. The NRC recognizes that improvements will inevitably come from such exercises, but that overall the TVA and State of Tennessee response actions were acceptable.
- b. With regard to the conduct of the exercise, it was noted that TVA is conducting an evaluation and implementation of a new set of emergency classification criteria, which will be consistent with NRC NUREG-0610. Although the new classification system is not yet completed, it is expected before mid-1980. This item is routinely reviewed by the NRC Office of Nuclear Reactor Regulation as part of the licensing process, and will be examined further by the Office of Inspection and Enforcement, Region II, during a subsequent inspection (50-327/79-69-01).
- c. At approximately 8:30 a.m., October 29, 1979, a simulated evacuation of river traffic and simulated issuance of an order placing area cows on silage was made by the State of Tennessee (Nashville). This information was not recorded in the CECC logbook until 10:00 a.m. and the NRC personnel in the CECC, RII Emergency Center, Site Control Room, and State Emergency Center (Chattanooga) were not given this vital information. However, it is expected that during a real emergency NRC personnel would be present at the State Emergency Center (Nashville) to receive such information.

- d. As noted by the SIT, data received onsite was not always accurate. Several instances were noted, which caused confusion, such as:
 - 1. Measured vs estimated dose rates; the corresponding units of measurements, and measurement specifics (equipment specification).
 - 2. Time Zones; TVA grid is on Central Time as is Nashville, and Muscle Shoals, but the Sequoyah Emergency Director, Control Room, CECC, Hamilton County Emergency Center, and the State Emergency Center (Chattanooga) are on Eastern Time.
- e. NRC personnel were told by State Officials if anyone released information they would be immediately arrested. The NRC, however, has a constituted responsibility to present information to Congress, the President, and the press. Although the NRC will always attempt to coordinate with appropriate state officials and to work within established state communication/information approval lines, a generic policy by the State for arrest, is considered inappropriate.

7. NRC Response To Other Agency Comments

As prepared by the Tennessee Division of Civil Defense and Emergency Preparedness, draft "Sequoyah Nuclear Exercise" critique, the following comments are presented:

- a. Page 17, "Role of NRC"
 - 1. In an emergency, all necessary resources of the NRC will be available to respond to an emergency.
 - 2. The Region II Director will go to the site to direct NRC activities and will be the single point of authority for the NRC site response. The Region II Director will direct response personnel to the plant control room, technical support center, offsite support center, state/local emergency centers, TVA CECC and other TVA locations, as appropriate.
 - 3. The NRC will respond primarily onsite with the safety of plant personnel and mitigation/termination of the emergency of utmost priority; and will evaluate the situation, formulate information/recommendations to the State of Tennessee Tripartite Committee and the licensee. The resources of the NRC will be available to the State of Tennessee through the Federal Emergency Management Agency for offsite assistance.
 - 4. The NRC in Washington, D.C. will provide technical expertise and field support the site response. In addition, the NRC in Washington will also interface with the Tripartite Committee to provide the State of Tennessee the benefit of the Commission's technical expertise.

b. Page 25, "Mobile Laboratory"

The NRC Region II has excellent mobile laboratory capability. In an emergency this capability is immediately dispatched, if appropriate, and support from the NRC site response is available, if needed, through FEMA to the State of Tennessee.

c. Page 27, "Sample Analysis"

The NRC mobile laboratory has containers available for processing any environmental/plant sample. In addition, for the sample the Division of Radiological Health (DRH) obtained, the NRC gamma spectroscopy system is calibrated for the DRH sample geometry, as well as many other geometries.