



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30303

Report Nos.: 50-327/78-24 and 50-328/78-19

Docket Nos.: 50-327 and 50-328

License Nos.: CPPR-73 and CPPR-74

Category: A3, A2

Licensee: Tennessee Valley Authority  
830 Power Building  
Chattanooga, Tennessee 37401

Facility Name: Sequoyah Nuclear Plant Units 1 and 2

Inspection at: Daisy, Tennessee

Inspection conducted: September 26-29, 1978

Inspectors: T. D. Gibbons  
A. Ruff, Trainee

Reviewed by:

*J. C. Bryant*  
J. C. Bryant, Chief

Engineering Support Section No. 1

Reacto: Construction and Engineering Support Branch

*10/27/78*  
Date

Inspection Summary

Inspection on September 26-29, 1978 (Report Nos. 50-327/78-24  
and 50-328/78-19)

Areas Inspected: Licensee Action on Previous Inspection Findings, Licensee Identified Item, Instrumentation Work and QC Records. This inspection involved 34 on site hours by one NRC inspector.

Results: There were no items of noncompliance or deviations identified.

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DETAILS I

Prepared by:

J. D. Gibbons  
P. D. Gibbons, Electrical Engineer  
Engineering Support Section No. 1  
Reactor Construction and Engineering  
Support Branch

10/27/78  
Date

Dates of Inspection: September 26-29, 1978

Reviewed by:

J. C. Bryant  
J. C. Bryant, Chief  
Engineering Support Section No. 1  
Reactor Construction and Engineering  
Support Branch

10/27/78  
Date

1. Persons Contacted

Tennessee Valley Authority (TVA)

- \*G. G. Stack, Project Manager
- J. E. Wilkins, Construction Engineer
- J. M. Munns, Construction QA Engineer
- \*W. E. Andrews, Power Production QA Staff Supervisor
- \*D. W. Mack, Assistant Construction Engineer
- \*J. D. Fowler, Instrumentation Engineering Supervisor
- W. Pope, Power Production Assistant Plant Superintendent

\*Denotes those who attended the exit interview.

2. Licensee Actions on Previously Identified Inspection Findings

(Open) Infraction 328/77-21-2. The inspector reviewed the licensee's proposed corrective action which required review of all transformers purchased on the contract. This is not responsive to the specification which requires that all instruments and electrical components mounted in Class 1 structures will be seismically mounted. This item will remain open.

3. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. Unresolved items disclosed during the inspection are discussed in Paragraph 4.

4. Independent Inspection Effort (Units 1 and 2)

The inspector conducted a two hour walk through inspection of the cable installation on the second shift. The inspector reviewed the implementation of the permanent plant fire protection system. The detail instructions from Design Engineering do not fully define the requirements to be imposed on Construction. There is correspondence requesting further definition of the requirements. This item is unresolved pending the full definition and implementation of the required QA program. This item will be identified as 327-78-24-1 and 328-78-19-1. There were no items of noncompliance identified.

5. Instrumentation (Components and Systems II) Observation of Work and Work Activities (Unit 1)

The inspector selected instruments, as indicated below, for a review of the installation to assure that the FSAR requirements are being followed in the areas of identification and location, protection and cleanliness, construction testing, nonconformance control, and inspection records. Instruments selected were:

- (1) O-PI-32-66 in Auxiliary Air Compressor System
- (2) 1-PDT-30-45 and 1-PDT-30-44 in High Containment Sensing System
- (3) O-PS-32-62 in Auxiliary Air Compressor System
- (4) 1-RE-90-170, O-RE-90-102 and O-RE-90-122 in Radiation Monitoring System
- (5) 1-FIS-70-81, PI-70-136 and PI-70-136 in Component Cooling Water (Booster Pump) System

Within the areas examined there were no items of noncompliance identified.

6. Instrumentation (Components and Systems II) - Review of Quality Records (Unit 1)

The inspector selected instruments identified in paragraph 5 for a record review to assure that FSAR requirements are being followed in the areas of receipt inspection, material certification, storage, handling and identification, and installation inspection. The inspector selected five nonconformance reports (NCR's), Numbers 149, 150, 516, 1194 and 1100R, for review to assure that the FSAR and QAM requirements are adhered to in the area of adequacy, legibility, completeness, QC review, retrievability and that corrective action status is current.

The records for three (3) QA and three (3) inspection (QC) personnel were checked to see that they were current, complete and confirmed that personnel were adequately qualified for their assigned duties.

Within the areas examined there were no items of noncompliance identified.

7. Licensee Identified Item (Units 1 and 2)

The licensee has identified an inadvertent operation of the Cardox Fire system in the diesel generator building which occurred on September 26 at 11:10 a.m. The system dumped a full six ton tank of carbon dioxide into the ten fire zones in the building. There were nineteen men working in the area when the system activated. Twelve men were in the building when the system was activated. All fire doors closed automatically as designed and all workers escaped from the building. As a result of this system's activation, a minor injury was experienced by one worker and two workers fainted after exiting the building. All workers reported for work the following day. The plant safety committee is preparing a full report. The inadvertent operation of the Cardox Fire System was caused by the opening of a breaker on the vital a.c. panel which supplies 120V a.c. power to hold the main valve in the closed position and by the valves in the individual cell boxes being in the wrong position. The latter resulted from each individual cell valve box being mislabelled as to the open and shut position. The licensee has not identified the cause of the breaker opening. The label plates were locally fabricated with the valve position indication reversed. The licensee has installed new plates showing correct position designation for individual cell valve boxes and the new label plates are also transparent to allow visual verification of the correct valve position. The system has been retested to verify that it will operate. The licensee is considering additional steps to prevent recurrence. This open item is identified as 327-78-24-2 and 323-78-19-2.

Within the areas examined there were no items of noncompliance identified.

8. Exit Interview

The inspector met with licensee representatives (listed in paragraph 1) at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection as listed below.

- a. Licensee Actions on Previous Inspection Finding: Infraction 328-77-21-2 (Open)

- b. Licensee Identified Item - Inadvertent Cardox Operation
- c. Instrumentation (Components and Systems II)
  - (1) Observation of Work and Work Activities
  - (2) Review of Quality Records
- d. (Open) Unresolved Item 327-78-24-1 and 328-78-19-1: Full definition and implementation of the fire protection QA program

There were no items of noncompliance identified.