



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303
JUN - 5 1980

Report Nos. 50-327/80-17 and 50-328/80-10

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

Facility Name: Sequoyah

Docket Nos. 50-327 and 50-328

License Nos. DPR-77 and CPPR-73

Inspection at Sequoyah site near Chattanooga, Tennessee

Inspector: W. H. Miller, Jr.

6/2/80
Date Signed

Approved by: T. E. Conlon
T. E. Conlon, Section Chief, RCES Branch

6-2-80
Date Signed

SUMMARY

Inspection on May 13-15, 1980

Areas Inspected

This special, announced inspection involved 23 inspector-hours on site in the areas of fire protection/prevention.

Results

Of the areas inspected, no items of noncompliance were identified; one deviation (deviation - inadequate fire barriers for conduits containing steam generator instrumentation circuits - Paragraph 5.a) was identified.

DETAILS

1. Persons Contacted

Licensee Employees

- *G. G. Stack, Construction Project Manager
- *T. B. Northern, Construction Engineer
- *J. M. Munns, QA Unit Supervisor
- *J. L. Smith, ACE - Construction
- *J. Bynum, Nuclear Power
- H. Crisler, ENDES - MEB
- *R. E. Thompson, Nuclear Power - Supervisor Fire Protection Engineer
- *M. A. McBurnett, Power - Regulatory Staff
- *D. Wall, OEDC - Licensing
- B. Nicholson, ENDES - SWP
- *E. C. Pendergrass, Construction - QCRU
- *E. A. Craigge, Safety/Fire Protection
- *R. Miles, Coordination Supervisor
- *H. Fisher, Mechanical Engineering
- C. Cherry, Startup Coordination
- R. C. McKay, Civil Engineer
- R. Ector, Outage Department
- M. L. Cowan, Outage Department
- R. Jarvis, Mechanical Engineer

NRC Resident Inspector

*W. T. Cottle

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on May 15, 1980 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

- a. (Closed) Unresolved Item (327/79-34-01 and 328/79-19-01, Substandard fire pumps installation. By telephone conversation of May 16, 1980, G. A. Harrison of NRC/NRR advised W. H. Miller, Jr., of NRC Region II that the existing fire pump installation at Sequoyah was acceptable to NRR and that no further modifications or changes were required on this system. Therefore, this item is closed.
- b. (Closed) Deviation (327/79-34-03 and 328/79-19-03), Inadequate QA documentation of inspection and tests on fire protection system installations. A QA program meeting all of the requirements of NRC Branch Technical Position 9-5.1, Fire Protection Program, Appendix A was not provided for the installation and construction of fire protection

systems and features at the plant. The fire protection systems installed since 1977 were inspected by a responsible engineer and inspector to assure the installations were in conformance with the construction drawings. These inspections were documented. The licensee advised that systems installed prior to 1977 were inspected to assure conformance but inspections were not documented. In addition, construction documentation was apparently not provided for any of the flushing and hydrostatic pressure tests conducted on the systems. A review of TVA Pre-operational test 25C indicates that the piping systems were flushed at the designed flow rate. These tests are considered adequate for meeting the required flushing documentation. The licensee has reviewed log entries and other data to assure that the entire fire protection water piping system was properly hydrostatically tested. TVA's letter from L. M. Mills to James P. O'Reilly Director, RII dated May 22, 1980 confirms that these tests were performed.

The functional tests on all of the fire detectors were witnessed by a responsible engineer and these tests were documented. A random sample of the detectors were tested during the pre-operational tests. Surveillance Inspection SI-234 completed in November 1979 verified that all of the detectors had been properly tested. Based on the above, this item is closed.

- c. (Open) Deviation (327/80-10-01), Substandard fire protection administrative control procedures. The licensee's procedures have been revised to require quarterly fire brigade classroom training for the brigade and to require at least one fire brigade drill per year per shift to be conducted on the back shift. The licensee has taken exception to the deviation concerning the lack of fire fighting procedures for all safety-related areas and the use of fire retardant painted wood in lieu of pressure fire retardant type treated wood in safety-related areas of the plant. This item remains open pending further evaluation by the NRC.
- d. (Open) Deviation (327/80-10-02), Substandard supervision of fire protection control valves. The licensee has revised the surveillance procedure for the interior control valves to the fire suppression systems to require these valves to be sealed in the correct position and inspected weekly for proper alignment. The exterior control valves and the fire pump control valves will be locked in the correct position and inspected monthly for proper alignment. The licensee's proposal is consistent with the provision of National Fire Protection Association Standard 26 (NFPA-26), Supervision of Valves, but does not comply with previous commitment to the NRC. This item remains open pending further evaluation.
- e. (Open) Unresolved Item (327/80-10-03), two inch drain test for sprinkler system. This item is being evaluated by the licensee.

- f. (Closed) Unresolved Item (327/80-10-04), Tests of Unsupervised fire protection system circuits. The licensee's surveillance inspection procedure (SI-234) has been revised to require a semi-annual test of all unsupervised alarm system circuits. This item is closed.
- g. (Open) Unresolved Item (327/80-10-05), Equipment for exterior fire equipment houses. The licensee is to revise the equipment requirements for the exterior fire equipment storage houses. This item will remain open pending NRC's (NRR) review of the licensee's proposed equipment list.
- h. (Closed) Unresolved Item (327/80-10-06), Tests of supervisory features of fire alarm control panel. These tests have been included in the surveillance inspection procedure (SI-234) for the fire alarm system. Therefore, this item is closed.
- i. (Open) Unresolved Item (327/80-10-07), Supervision of containment isolation fire protection valves. No action has been taken on this item. This item remains open.
- j. (Closed) Unresolved Item (327/80-10-08 and 328/80-06-08), Unprotected penetration in fire wall of fuel oil transfer room at diesel generator building. Necessary modifications have been made to correct this discrepancy. This item is closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Fire Protection Modifications

a. Conduit Fire Barriers

TVA's response to NRC question No. 1 on the Fire Protection Program Reevaluation (FPPR) states that the redundant circuits for the steam generator pressure instrumentation were inadequately separated. Table 1.3 of the FPPR states that the circuits for loops 2 and 3 steam generator pressurizer level and pressure instrumentation for Unit 1 were to be wrapped with a 1-inch "Kaowool" insulation from the containment penetration at elevation 734 to the Q-line wall penetration at elevation 714. This insulation was to provide a 1/2 hour fire rated barrier between redundant circuits and installation was to be completed prior to October 5, 1979. A visual inspection of these conduits on May 15, 1980 indicated the following:

- (1) Approximately 4 feet of all seven conduit adjacent to column line A5/X at elevation 714 were not insulated.
- (2) Several short sections of conduit adjacent to column line A4/W were not insulated.

- (3) Three conduit fittings adjacent to column line A4/U at elevation 714 did not contain cover plates. The conduit fittings and connecting conduit in this area were not insulated.

This item was identified as Deviation Item (327/80-17-01); Inadequate fire barriers for conduits containing redundant steam generator instrumentation circuits.

b. Other Modifications

The licensee advised that several other modifications would probably not be completed prior to the committed completion dates and a revised completion schedule was being forwarded to NRC/NRR for review. These modifications will be evaluated during a subsequent NRC inspection.

Except as noted above, no additional items of noncompliance or deviations were noted in the areas examined.