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

Report Nos.: 50-327/84-10 and 50-328/84-10

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

Docket Nos.: 50-327 and 50-328

License Nos.: DPR-77 and DPR-79

Facility Name: Sequoyah 1 and 2

Inspection at Sequoyah site near Chattanooga, Tennessee

Inspectors: _____ 5/11/84
E. J. Ford Date Signed

_____ 5/11/84
S. D. Butler Date Signed

Approved by: _____ 5/11/84
C. A. Julian, Section Chief Date Signed
Division of Reactor Projects

SUMMARY

Inspection on March 6 - April 5, 1984

Areas Inspected

This routine inspection involved 208 inspector-hours on site in the areas of Operational Safety Verification, ESF System Operability Verification, Refueling Activities, Maintenance and Modifications, Surveillance Testing, and Independent Inspection Effort.

Results

Of the six areas inspected, no violations or deviations were identified in five areas; one violation was found in one area (Failure to follow AI-36 for [illegible] storage, paragraph 8).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

C. C. Mason, Plant Superintendent
L. M. Nobles, Assistant Plant Superintendent
J. B. Krell, Assistant Plant Superintendent
D. H. Tullis, Maintenance Supervisor (M)
B. M. Patterson, Maintenance Supervisor (I)
D. C. Craven, Maintenance Supervisor (E)
J. M. Anthony, Operations Supervisor
R. W. Fortenberry, Engineering Supervisor
D. E. Crawley, Health Physics Supervisor
J. T. Crittenden, Public Safety Service Supervisor
J. E. Law, Quality Assurance Supervisor
M. R. Harding, Compliance Supervisor
W. M. Halley, Preoperational Test Supervisor
J. Robinson, Field Services Group Director

Other licensee employees contacted included field services craftsmen, technicians, operators, shift engineers, security force members, engineers, maintenance personnel, contractor personnel and corporate office personnel.

2. Exit Interview

The inspection scope and findings were summarized with the Plant Superintendent and members of his staff on March 22, 1984. The violation was discussed and the licensee acknowledged the inspectors' findings.

During the reporting period, frequent discussions are held with the Plant Superintendent and his assistants concerning inspection findings.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Operational Safety Verification (71707)

The inspector toured various areas of the plant on a routine basis throughout the reporting period. The following activities were reviewed/verified:

a. Adherence to limiting conditions for operation which were directly observable from the control room panels;

b. Control board instrumentation and recorder traces;

c. Proper control room and shift manning;

d. The use of approved operating procedures;

e. Unit operator and shift engineer logs;

f. General shift operating practices;

g. Housekeeping practices;

h. Posting of hold tags, caution tags, and temporary alteration tags;

i. Personnel, package, and vehicle access control for the plant protected area;

j. General shift security practices on post manning, vital area access control and security force response to alarms;

k. Surveillance testing in progress;

l. Maintenance activities in progress;

m. Health physics practices.

6. Refueling Activities (60710)

During the reporting period, the inspector observed refueling activities in progress on Unit 1. Prior to the start of refueling, the inspector verified that surveillance requirements and prerequisites for refueling were met and that activities were being accomplished in accordance with approved procedures. The inspector observed fuel movement on a selected basis to ensure that the work was being done by qualified personnel under the direct supervision of a licensed Senior Reactor Operator as required by Technical Specifications. The inspector periodically verified that containment integrity was being maintained during fuel movement and that periodic surveillance testing was being performed as required. No discrepancies were noted.

No violations or deviations were identified.

7. ESF System Operability Verification (71710)

During the reporting period, the inspector performed a detailed operability review of the Unit 2 Upper Head Injection System. The review included accessible system walkdowns, surveillance test results review, valve alignment verification and power availability checks for various components.

No violations or deviations were identified.

8. Maintenance and Modifications (62701, 62703, 37700)

During the reporting period, the inspector continued to observe work in progress on the replacement of the 1A-A Component Cooling Water (CCW) pump motor. The work was being done in accordance with Work Plan WP 10546. On March 9, the inspector observed that when the electrician attempted to drain oil from the motor bearing reservoirs as required by the work plan, the reservoirs were empty. The oil was to be replaced to ensure that the correct oil was being used prior to starting the motor. The inspector subsequently went to the modification warehouse and checked the remaining five motors that were being stored prior to replacement and determined that none of the motors had oil in the bearing reservoirs. The inspector reviewed the motor contract which stated that the proper oil should be used to fill the bearing reservoirs when they are received and placed in storage. In addition, the licensee's Operational Quality Assurance Manual, Part III, Section 2.2, paragraph 4.2 and Administrative Instruction AI-36, "Storage, Handling, and Shipping of QA Material", paragraph 5.11.8, requires that motors greater than 100 HP and all 4 kv/6.6-kv motors be stored with the bearing reservoirs full of oil. The warehouse supervisor and Field Services personnel recalled that the motors had been megger checked and had their shafts turned as required, but there were no records available to that affect. The motor winding heaters were energized as required. Failure to properly store QA material and equipment is a violation (327, 328/84-10-01).

On April 3, the inspector reviewed the work package for the change out of leaking steam traps on the steam supply to the Unit 1 Turbine Driven Auxiliary Feedwater Pump (TDAFWP). The work packages consisted of maintenance requests MR#A-040025, A-085323, and A-231429 and attached procedures Modification and Addition Instruction MEAI-1, "Control of Weld Documentation", detailed welding procedure DWPGT-11-0-1A, weld map AFD-4, and inspection procedures N-VT-3 for visual and fitup and N-PT-4 for surface examination. MR#A-231429 was specifically for removing pipe hangers to support the work and it had associated procedures Maintenance Instruction MI-6.21, "Repairs and Replacement of ASME Section XI Components", and MEAI-11 "Fabrication Installation and Documentation of Seismic Supports and Supports Attached to Seismic Category I Structures." The review of the work completed appeared to be properly documented and inspected in accordance with applicable requirements and the work package was adequate to control the work.

On April 4 and 5, the inspector reviewed test procedures and witnessed post modification testing PMT-53. The test is to ensure that the replacement of the Auxiliary Feedwater Pump (AFW) pressure control valves with cavitating venturi(s) does not significantly alter the performance of the system. The pressure control valves are being replaced with passive devices due to the significant maintenance and operational problems that have been experienced with the hydraulically operated valves. The inspector reviewed Work Plan WP-10920 which contained the Safety Evaluation required by 10 CFR 50.59, the PMT and also performed the installation of testing equipment. The inspector verified that prerequisites and system alignment was acceptable, and witnessed the testing of both the A and B train pumps at full flow

conditions, (steam generator pressure less than 100 psig). The pumps performed satisfactorily in that the flow was less than 650 gpm but greater than 440 gpm. Other parameters such as motor current, suction and discharge pressure were acceptable. The A train pump had slightly excessive vibration on the discharge piping at maximum flow but was within the acceptable range at the design flow rate. The discrepancy was documented and will be evaluated by the design organization. No other discrepancies were noted.

9. Surveillance Testing (61726)

On March 13, the inspector observed a portion of Surveillance Instruction SI-260 SIS/BNT", Injection Flow Balance Test Following Modifications". The testing in progress was for the A and B train Safety Injection (SI) pumps. The inspector verified that initial test conditions and prerequisites were met, that test equipment was connected and properly calibrated, and that the testing was being performed by properly qualified personnel. Data taking for the "A" train SI pump run was observed. Calculated values for flow met the procedure acceptance criteria and the technical specification requirements in 4.5.2.h.1.a and b. The setup and start of the "B" train pump was observed. No discrepancies were noted.

On March 20, the inspector observed the performance of Surveillance Instruction SI-196.2, "Upper Head Injection Level Switch Calibration", on switches 2-LS-87-21 and 23. The inspector verified that the work was approved by Operations personnel, power was removed from the control circuit as required, test equipment was connected and properly calibrated, and that the work was being performed by qualified personnel. No discrepancies were noted. The level switch trip and reset values met the procedure and technical specification acceptance criteria.

On April 4, the inspector witnessed a portion of the Unit 1 Individual Rod Position Indication (IRPI) periodic channel calibration. The procedure in use was Surveillance Instruction SI-67, "Periodic Calibration of RPI System", and Instrument Maintenance Instruction IMI-85-RPI. The inspector verified that the work was being done by qualified personnel, using calibrated test equipment and using a technically adequate procedure.

No violations or deviations were identified.

10. Independent Inspection Effort

The inspector routinely attended the morning staff meetings during the reporting period. These meetings provide a daily status report on operational and maintenance activities in progress as well as a discussion of significant problems or incidents associated with the plant.

No violations or deviations were identified.