



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

Report Nos.: 50-327/83-10 and 50-328/83-10

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: L. J. Watson 6/22/83
 for E. J. Ford _____ Date Signed

for L. J. Watson 6/22/83
 S. D. Butler _____ Date Signed

Approved by: D. R. Quick 6/24/83
 D. R. Quick, Section Chief _____ Date Signed
 Project Branch No. 1
 Division of Project and Resident Programs

SUMMARY

Inspection on May 6 - June 5, 1983

Areas Inspected

This routine inspection involved 121 inspector-hours on site in the areas of ESF System Operability, Operational Safety Verification, Reactor Trip Followup and LER Review.

Results

No apparent violations or deviations were identified in the four areas inspected.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

C. C. Mason, Plant Superintendent
L. M. Nobles, Assistant Plant Superintendent
P. R. Wallace, Assistant Plant Superintendent
J. M. McGriff, Assistant Plant Superintendent
D. H. Tullis, Acting Maintenance Supervisor (M)
H. D. Elkins, Acting Maintenance Supervisor (I)
M. A. Skarzinski, Acting Maintenance Supervisor (E)
J. M. Anthony, Operations Supervisor
R. W. Fortenberry, Engineering Supervisor
R. A. Beck, Acting Health Physics Supervisor
J. T. Crittenden, Public Safety Service Supervisor
J. E. Law, Quality Assurance Supervisor
W. M. Halley, Acting Compliance 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 on June 8, 1983, with the Plant Superintendent and/or his staff.

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

3. Licensee Action on Previous Enforcement Matters and Inspector Followup Items (IFI)

(Closed) Unresolved Item 327/81-42-01 and 328/81-52-02 and IFI 327/80-51-01
The inspector reviewed the corrective action taken to prevent recurring freeze problems on instrument sensing lines. A program of preventative modification has been successful this past winter. These items are closed.

(Closed) IFI 327/80-51-02 The inspector has reviewed corrective actions taken regarding Upper Head Injection (UHI) sampling techniques and considers this item closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. ESF System Operability Verification

On June 4 the inspector verified the operability of the Units 1 and 2 UHI systems by performing a walkdown of the accessible portions of the system. This included a confirmation that the licensee's system lineup procedures (System Operating Instruction SOI-87.1) matched plant drawings (47W811-2 R13) and the as-built configuration. The inspector verified that valves were properly positioned, that instrumentation was valved in and appeared functional, that electrical breakers were aligned and power was available. The UHI equipment and general area was observed for conditions which might degrade performance (e.g., hangers and supports, housekeeping, etc.). No significant discrepancies were noted.

No violations or deviations were identified.

6. Operational Safety Verification

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; and
- m. Health physics practices.

On May 10, 1983, the inspector learned that the licensee had identified a small steam generator (SG) tube leak on the Unit 2, Number 3 SG. The inspector discussed the problem with responsible licensee personnel to determine if they were taking the necessary action to monitor the leak, determine its magnitude and ensure compliance with Technical Specification requirements for primary to secondary leak rate, secondary coolant activity and radiological effluent limitations. The licensee appears to be managing the problem adequately and will continue to monitor the leak rate and plug the leaking tube at the next scheduled outage. Region II management is being kept informed of the problem.

On May 18, 1983, a ground fault on the 1B start bus damaged the bus and made it inoperable. In that the 1B start bus is one source of offsite power, Technical Specifications require that the bus be restored to service within 72 hours or the unit shut down. The inspector verified that the licensee was testing diesel generator operability every eight hours as required and was taking action to repair the bus. The inspector determined that the start buses are not on the licensee's Critical Systems, Structures and Components (CSSC) list and, therefore, were not being repaired under their approved Quality Assurance program. Region II management was informed. The inspector observed repair work on the damaged bus and discussed the work with cognizant engineering personnel and craftsmen. All appeared knowledgeable of the required work and manufacturer specifications. The replacement material also appeared to be essentially equivalent to the original buswork. The inspector observed testing of the bus after repairs which consisted of megger and high potential testing. No problems were noted. The 1B start bus areas returned to service within the time required by Technical Specifications.

No violations or deviations were identified.

7. Reactor Trip Follow-Up

On May 29, 1983, Unit 1 tripped from 100% power. The inspector discussed the cause of the trip with the instrument supervisor, cognizant engineer, and a senior technician. It was determined that during the performance of Technical Instruction TI-52, "Special Instruction for Removing the SSPS from Service and Returning it to Service", instrument personnel had caused a "general warning" trip to be generated while manipulating Solid State Protection System (SSPS) test circuitry switches. The procedure in use, TI-52, had been properly adhered to but for the particular circumstances involved the procedure was in error.

When an SSPS train is disturbed (switch out of position, logic card pulled, etc.), for testing, maintenance, or otherwise, a partial trip is generated and an alarm annunciated. Furthermore, the multiplexer test switch generates this signal in the inhibit position which is passed through while aligning it to its normal position. Train B of the SSPS was out of service

(creating a general warning partial trip) due to TI-52 being used to troubleshoot an annunciator problem. During the restoration of the SSPS to operation the Train A multiplexer test switch was prematurely aligned to its normal position (passing through the inhibit position) causing a Train A general warning. At this point both trains were generating a partial trip resulting in a full reactor trip.

The procedure was promptly changed to prevent further recurrence. It should be noted that the licensee had discovered the existence of this procedural defect during a routine procedure review and had initiated a change request. The change request was lost, however, just prior to being formally documented and circulated for review and approval. The inspector inquired into the circumstances and cause of the change being lost. As a result of this inquiry it was determined that this was an anomaly and not representative of the normal workings of the administrative controls. The inspector also determined that sufficient management attention was given to the problem.

The inspector discussed the plant response to the trip with operations personnel and the post-trip pre-restart evaluation process with the operations supervisor.

No violations or deviations were identified.

8. Licensee Event Report (LER) Review

During the reporting period, LERs were reviewed on a routine basis as they were received from the licensee. Each LER was reviewed to determine that:

- a. The report accurately described the event;
- b. The report cause was accurate and the LER form reflected the proper cause code;
- c. The report satisfied the Technical Specification reporting requirement with respect to information provided and timing of submittal;
- d. Corrective action appeared appropriate to correct the cause of the event;
- e. Corrective action has been or is being taken;
- f. Generic implications if identified were incorporated in corrective action;
- g. Corrective action taken or to be taken was adequate, particularly to prevent recurrence; and
- h. The event did not involve continued operation in violation of regulatory requirements or license conditions.

The inspector reviewed LERs which involved UHI level switches being out of tolerance. Due to difficulties staying within specified tolerances, the licensee had previously agreed to running a shortened interval (30-day) surveillance using Surveillance Instruction SI-196. The periodicity required by Technical Specifications is 18 months. The licensee has consulted with other utilities experiencing similar problems with this equipment and is working with the vendor to improve tolerance reliability. Additionally, NRR has approved new setpoints and wider tolerance bands. After corrective actions have been effected and new data has become available the surveillance periodicity will be reevaluated for return to Technical Specification requirements. The inspector will continue to monitor this area.

The following LERs were closed during this inspection:

SQRO-50-327/82135, 83002, 83041, 83052 and 83066
SQRO-50-328/82137, 83013, 83023, 83044 and 83062

No violations or deviations were identified.

9. 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.