



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
1011AHIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report Nos.: 50-327/90-40 and 50-328/90-40

Licensee: Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Docket Nos.: 50-327 and 50-328 License Nos.: DPR-77 and DPR-79

Facility Name: Sequoyah Units 1 and 2

Inspection Conducted: December 6, 1990 - January 4, 1991

Lead Inspector: *P. Harmon*
P. Harmon, Senior Resident Inspector

1/23/91
Date Signed

Inspectors: Scott Shaeffer, Resident Inspector

Approved by: *W. S. Little*
W. S. Little, Chief, Project Section I
TVA Projects

1/24/91
Date Signed

SUMMARY

Scope:

This announced inspection involved inspection effort by the Resident Inspectors in the area of operational safety verification including control room observations, operations performance, system lineups, radiation protection, safeguards, and conditions adverse to quality. Other areas inspected included surveillance testing observations, maintenance observations, review of previous inspection findings, follow-up of events, review of licensee identified items, and review of inspector follow-up items.

Results:

No violations or unresolved items were identified.

A unit load reduction and turbine trip that occurred during the inspection period is described in paragraph 8. Unit 2 continued to experience leakage from the RCS into one of the four cold leg accumulators. Details of the problem and the licensee's efforts to resolve it are described in paragraph 2.

The areas of Operations, Maintenance, and Surveillance were adequate and fully capable to support current plant operations. The observed activities of the control room operators were professional and well executed.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

J. Bynum, Vice President, Nuclear Power Production
*J. Wilson, Site Vice President
W. Byrd, Manager, Project Controls/Financial Officer
*C. Vondra, Plant Manager
R. Beecken, Maintenance Manager
L. Bryant, Work Control Superintendent
*M. Cooper, Site Licensing Manager
J. Gates, Technical Support Manager
G. Hipp, Licensing Engineer
W. Lagergren, Jr., Operations Manager
*M. Lorek, Operations Superintendent
R. Lumpkin, Site Quality Manager
*A. Meller, Nuclear Quality Assurance Auditor
*R. Proffitt, Compliance Licensing Manager
*W. Pruett, Quality Assurance Supervisor
J. Smartt, System Engineer
R. Rogers, Technical Support Program Manager
M. Sullivan, Radiological Control Manager
P. Trudel, Project Engineer
R. Thompson, Licensing Engineer
*J. Walker, Maintenance Program Manager
*C. Whittemore, Licensing Engineer

NRC Employees

B. A. Wilson, Chief TVA Projects
W. S. Little, Chief, Project Section 1

*Attended exit interview

Acronyms and initialisms used in this report are listed in the last paragraph.

2. Operational Safety Verification (71707)

a. Control Room Observations

The inspectors conducted discussions with control room operators, verified that proper control room staffing was maintained, verified that access to the control room was properly controlled, and that operator attentiveness was commensurate with the plant configuration and plant activities in progress, and with on-going control room operations. The operators were observed adhering to appropriate, approved procedures, including Emergency Operating Procedures, for the on-going activities. The inspectors observed upper management in the control room on a number of occasions.

The inspector verified that the licensee was operating the plant in a normal plant configuration as required by TS and when abnormal conditions existed, that the operators were complying with the appropriate LCO action statements. The inspector verified that RCS leak rate calculations were performed and that leakage rates were within the TS limits.

The inspectors observed instrumentation and recorder traces for abnormalities and verified the status of selected control room annunciators to ensure that control room operators understood the status of the plant. Panel indications were reviewed for the nuclear instruments, the emergency power sources, the safety parameter display system and the radiation monitors to ensure operability and operation within TS limits.

Following the Unit 2 Cycle 4 refueling outage, Unit 2 was returned to full system pressure, temperature and power. After placing the cold leg accumulators in service, operators observed an inleakage into the #3 accumulator. The inleakage was determined to be from the RCS through the accumulator's two series check valves and into the accumulator. The present leakage rate is 0.2 gpm. The inleakage causes the accumulator to gradually fill and also dilutes the contents from the normal 2400/2700 ppm boric acid concentration. When the boron concentration reaches the administrative limit of 2500 ppm or the accumulator tank level reaches the upper level limit, operators begin draining the tank and then refilling with RWST water, which is maintained close to 2700 ppm boron. The appropriate TS Action Statement, TS 3.5.1.1 is entered when the tank level drops below minimum. The Action Statement is exited when the tank level and pressure are restored. This evolution takes approximately 4 hours. The time limits for TS 3.5.1.1 requires the accumulator to be restored to Operable within one hour or shutdown to Hot Standby within the next 6 hours.

With the present leak rate, a full draindown and refill cycle is performed approximately every 36 hours. The licensee is pursuing options to either reduce the leak rate or align the check valve test header to divert the leakage to the holdup tank. Safety Evaluations are being prepared for each of these options.

No violations or deviations were identified.

b. Control Room Logs

The inspectors observed control room operations and reviewed applicable logs including the shift logs, operating orders, night order book, clearance hold order book, and configuration log to obtain information concerning operating trends and activities. The TACF log was reviewed to verify that the use of jumpers and lifted leads causing equipment to be inoperable was clearly noted and understood. The licensee is actively pursuing correction to

conditions requiring TACFs. No issues were identified with these specific logs.

Plant secondary chemistry reports were reviewed. The inspector verified that primary plant chemistry was within TS limits.

The implementation of the licensee's sampling program was observed. Plant specific monitoring systems including seismic, meteorological and fire detection indications were reviewed for operability. A review of surveillance records and tagout logs was performed to confirm the operability of the RPS.

No violations or deviations were identified.

c. ECCS System Alignment

The inspectors walked down accessible portions of the Units 1 and 2 Essential Raw Cooling Water System to verify operability, flow path, heat sink, water supply, power supply, and proper valve and breaker alignment for the lineup to provide an emergency source of Auxiliary Feedwater.

The inspectors verified that a selected portion of the containment isolation lineup was correct.

No deviations or violations were identified.

d. Plant Tours

Tours of the diesel generator, auxiliary, control, and turbine buildings, and exterior areas were conducted to observe plant equipment conditions, potential fire hazards, control of ignition sources, fluid leaks, excessive vibrations, missile hazards and plant housekeeping and cleanliness conditions. The plant was observed to be clean and in adequate condition. The inspectors verified that maintenance work orders had been submitted as required and that followup activities and prioritization of work was accomplished by the licensee.

The following WRs were reviewed:

WR # C015151, Unit 1 Positive Displacement Charging Pump
WR # C015631, Unit 2 Positive Displacement Charging Pump

The inspector visually inspected the major components for leakage, proper lubrication, cooling water supply, and any general condition that might prevent fulfilling their functional requirements.

The inspector observed shift turnovers and determined that necessary information concerning the plant systems status was addressed.

No violations or deviations were identified.

e. Radiation Protection

The inspectors observed HP practices and verified the implementation of radiation protection controls. On a regular basis, RWPs were reviewed and specific work activities were monitored to ensure the activities were being conducted in accordance with the applicable RWPs. Workers were observed for proper frisking upon exiting contaminated areas and the radiologically controlled area. Selected radiation protection instruments were verified operable and calibration frequencies were reviewed.

No violations or deviations were identified.

f. Safeguards Inspection

In the course of the monthly activities, the inspectors included a review of the licensee's physical security program. The performance of various shifts of the security force was observed in the conduct of daily activities including protected and vital area access controls, searching of personnel and packages, escorting of visitors, badge issuance and retrieval, and patrols and compensatory posts.

The inspectors observed protected area lighting, and protected and vital areas barrier integrity. The inspectors verified interfaces between the security organization and both operations and maintenance.

No violations or deviations were identified.

g. Conditions Adverse to Quality

The inspectors reviewed selected items to determine that the licensee's problem identification system as defined in Site Standard Practice SSP-3.2, Problem Reporting, Evaluation, and Corrective Action, was functioning. CAQR's were routinely reviewed for adequacy in addressing a problem or event. Additionally a sample of the following documents were reviewed for adequate handling:

- Work Requests
- Conditions Advers to Quality, CAQRs
- Radiological Incident Reports
- Problem Evaluation Reports
- Correct-on-the-Spot Documents
- Licensee Event Reports

Of the items reviewed, each was found to have been identified by the licensee with immediate corrective action in place. For those issues that required long term corrective action the licensee was making adequate progress.

No violations or deviations were identified.

3. Surveillance Observations and Review (61726)

Licensee activities were directly observed/reviewed to ascertain that surveillance of safety-related systems and components was being conducted in accordance with TS requirements.

The inspectors verified that testing was performed in accordance with adequate procedures; test instrumentation was calibrated; LCOs were met; test results met acceptance criteria and were reviewed by personnel other than the individual directing the test; deficiencies were identified, as appropriate, and any deficiencies identified during the testing were properly reviewed and resolved by management personnel; and system restoration was adequate. For completed tests, the inspector verified that testing frequencies were met and tests were performed by qualified individuals.

SI-CC-1, Centrifugal Charging Pump Suction Line Venting was observed/reviewed with no deficiencies identified.

No violations or deviations were identified.

4. Monthly Maintenance Observations and Review (62703)

Station maintenance activities on safety-related systems and components were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides, industry codes and standards, and in conformance with T.S.

The following items were considered during this review: LCOs were met while components or systems were removed from service, redundant components were operable, approvals were obtained prior to initiating the work, activities were accomplished using approved procedures and were inspected as applicable, procedures used were adequate to control the activity, troubleshooting activities were controlled and the repair records accurately reflected the activities, functional testing and/or calibrations were performed prior to returning components or systems to service, QC records were maintained, activities were accomplished by qualified personnel, parts and materials used were properly certified, radiological controls were implemented, QC hold points were established where required and were observed, fire prevention controls were implemented, outside contractor force activities were controlled in accordance with the approved QA program, and housekeeping was actively pursued.

The following work requests were reviewed:

WR B265383	Circuit 410 Heat Trace
WR B292813	Condensate Pipe Trench Cover

No violations or deviations were identified.

5. Management Activities in Support of Plant Operations

TVA management activities were reviewed on a daily basis by the NRC inspectors. Resident Inspectors observed that planning, scheduling, work control and other management meetings were effective in controlling plant activities in most instances. Management of the freeze protection program was observed to be less than fully effective and is discussed further in paragraph 6. First line supervisors appear to be knowledgeable and involved in the day to day activities of the plant. First line supervisor involvement in the field has been observed and appeared to be adequate. Management response to those plant activities and events that occurred during this inspection period appeared timely and effective.

6. Cold Weather Preparations (71714)

The inspectors conducted a review of the licensee's cold weather preparations to ascertain if effective measures were implemented for protection of safety-related systems from extreme cold weather.

The licensee implements a freeze protection program through General Operating Instruction (GOI) 6H, Freeze Protection, in order to identify equipment and/or areas needing freeze protection and provide the necessary surveillance requirements to ensure operability during the months of freezing temperatures. This instruction is to be completed by November 1 of each year. The instruction provides a freeze protection checklist used to ensure that applicable freeze protection equipment and insulation is in service. The checklist also includes requirements to complete various System Operating Instructions (SOI) associated with building heating during the initial November 1 performance. In addition to the freeze protection checklist performed by Operations, SI-706, Vital Instrumentation Sense Line Insulation Inspection, and SI-706.1 and SI-706.2, Heat Trace Verifications, are performed monthly, from October 1 through March 1 of each year. These SI's are also to be performed on a contingency basis if freezing weather is predicted and the SI's have not been performed in the last week.

On December 16, 1989, the licensee experienced freezing of some of the RWST level sense lines which resulted in both units entering LCO 3.0.3. TVA also requested and was granted enforcement discretion to extend the provisions of LCO 3.0.3 to allow for continued operation of the units until the sense lines could be thawed out (see NRC Inspection Report 327,328/90-01 for details). Additional transmitter failures occurred in the east main steam valve vault and outside the auxiliary building. The root cause of the frozen RWST sense lines was prior removal of power to heater and thermostats installed in the transmitter enclosures

due to an inappropriate use of calculations. The root cause for the frozen sense lines in the main steam valve vault was inadequate consideration of freeze protection requirements during design changes to increase ventilation flow, and the freezing outside the auxiliary building was due to insulation not installed per design requirements.

Following the 1989 freezing event, numerous work requests (WR's) were written to perform the necessary repairs and installation of permanent insulation, operable heat tracing, adequate portable space heaters, etc. It appeared to the inspector that once the threat of cold weather was past for the season, that many of the WR's were no longer of a high priority and were not completed in lieu of the upcoming unit outages. The freeze protection WR's which were not completed, were not aggressively tracked again until the current winter months of 1990. The delaying of the work on numerous heat trace circuit resulted in "last minute" contingency measures to be carried out to protect plant equipment once the threat of cold weather became apparent.

The licensee's management was aware of the lack of followup on the freeze protection issues of the previous season, and in September of 1990 began some efforts to expedite repair to the vulnerable portions of the systems which included the scheduled performance of GOI 6H, Freeze Protection package and the SI-706 series surveillances. SI-706.1 and SI-706.2 were completed on September 7, 1990. The GOI 6H package was only partially performed and no work requests were written for the deficiencies that were identified. GOI 6H was not started again until October 29, 1990 and finally completed on November 12. During this performance of the instruction, twenty deficiencies were identified and twelve WR's were written. On November 20, 1990, as the result of a QA monitoring activity, a Significant CAQR (SQ900457) was signed by plant management due to the condition that test deficiencies identified during the performance of the freeze protection SIs were not being corrected in a timely manner and were not receiving adequate priority to ensure against freezing during the expected severe weather. These issues, identified as a QA programmatic deficiency, included WRs from last season, which included work tied to NRC commitments, as well as those identified during the recent performance of the SI-706 surveillance series. In addition, some WRs used to disposition test deficiencies were not found in the WR status system and/or were receiving a priority 4, which is designated as necessary maintenance activity that should start within 21 days, but can be postponed for a currently scheduled system outage if required.

As a result of the CAQR, plant management became more involved in tracking of the freeze protection issues. The items were placed on the plan of the day package for daily review by management and additional daily meetings were held with maintenance personnel to discuss ongoing work and contingency measures that were necessary. The inspector attended a number of these meetings and determined that adequate attention was being given to the issues. However, due to the threat of poor weather, many of the activities pertained to satisfying the need for temporary insulation or heaters rather than permanent resolution of the problems.

Following both unit outages in 1990, the Maintenance Department was aware that insulation workers could be required to be retained in order to complete heat trace repairs. However, after the outage, only three insulators were retained and heat trace repairs were hindered. Another problem occurred when insulators removed insulation to expose heat trace circuits during early day shift, the electricians would only have a limited amount of time to find and repair the circuit before the insulators would need to begin replacing the permanent insulation or apply temporary insulation due to the threat of freezing in the evening. The delays in addressing the outstanding WRs over the summer months forced repairs to commence at the most inopportune time to repair heat trace, that is, when it is freezing. Other problems were noted by the inspector relating to the scheduling of work which would complete a number of WRs on the priority list being tracked by management, rather than addressing the heat trace circuits which were determined to be the most vulnerable to freezing based on the contingency measures taken.

The inspector walked down numerous contingency measures on heat trace circuits and safety-related sense lines. No problems were identified. The inspector also performed a review of the applicable procedures and Surveillance Instructions. One issue was identified during the review of SI-706.1. Part of the corrective actions taken for the 1989 RWST sense line freezing event included replacement of the sense line strip heater thermostats with a non-adjustable type. ICF 90-0601 revised SI-706.1 to allow for testing of the RWST strip heater circuits by jumpering out the pre-set thermostats, instead of the previous method of activating the strip heaters by manually adjusting the thermostat. In this configuration, the new thermostats are not tested and a defect would not be recognized. The inspector discussed this with the system engineer. He stated that he would pursue a method of activating the thermostats at the correct temperature to include them in the test circuit. No other problems were identified.

Although the cold weather preparations at the site were not aggressively followed until freezing weather was a threat, the overall coverage appears to be adequate, as freezing temperatures have occurred with no problems being identified. Accurate flow and level indications available to the operators are necessary to ensure the safe operation of the units. Efforts to permanently resolve ongoing freeze protection issues should continue.

No violations or deviations were identified.

7. NRC Inspector Follow-up Items, Unresolved Items, Violations (92701, 92702)

(Closed) IFI 327,328/89-14-03, Analysis of Past Overvoltages in Element Report 30202.

This IFI identified deficiencies in the licensee's element report for the electrical and communication subcategory, number 30202. The deficiencies

cited by the inspector included a lack of an adequate analysis of the effects of past overvoltages on all affected plant equipment, and a lack of a root cause of the overvoltage condition.

The element report was revised to require an analysis of the effects of the overvoltage on plant equipment, and also identified the root cause of the overvoltage condition. The root cause of the overvoltage condition was determined to be the failure to include adequate operational requirements in the applicable surveillance instruction, SI-3, Shift Logs, when overvoltage conditions were noted by the operators. SI-3 was revised to include requirements for operators to notify Engineering for analysis and Load Dispatch for correction of the overvoltage condition. The element report has been revised to address the inspector's concerns. IFI 327,328-89-14-03 is closed.

(Closed) TMI Item II.K.3.2.5, Effects of Loss of Alternating Current Power on Pump Seals.

TVA was required to review the subject TMI item for possible plant specific changes which may have been required. TVA's response was that no plant changes would be required due to the original design of the power supply for the component cooling water pumps. Sequoyah supplies emergency power to the component cooling water pumps through auto sequencing the pump's electrical loads onto the diesel generators after a loss of offsite power. Based on this, TVA's conclusion was that regardless of the results of any further analysis on the pump seals, compliance with this requirement has been met. This was documented to the NRC by letter on December 19, 1980, from L. Mills to A. Schwencer. This item is closed.

(Closed) TMI Item II.K.3.5.b, Automatic Reactor Coolant Pump Trip.

The issue involved the automatic trip issue of the RCP's during a loss of coolant accident as defined in TMI Action Plan II.K.3.5. This issue was satisfactorily closed out for both Sequoyah units by the NRC per letter dated May 18, 1989, from S.C. Black of the Office of MRR to O.D. Kingsley, Jr. of TVA. Based on the stated letter, the NRC staff generically approved the Westinghouse Owners Group (WOG) methodologies (among others) in the Generic Letters 86-05, 86-06, and 85-12, with the condition that plant-specific information would be addressed. The NRC's subsequent review of the plant specific information progressed to the point where it could be concluded that WOG methodologies had significantly improved reactor safety. Based on TVA's December 15, 1987 letter, Sequoyah has adopted and implemented the WOG methodologies. In addition, the NRC identified no major safety significant concerns for the plant-specific information identified. This Item is closed.

8. Event Follow-up (93702)

On January 3 at approximately 2:10 p.m., Unit 2 experienced a runback from 98% power to 72% power when the #3 heater drain tank level control system malfunctioned. This power runback occurs to prevent a turbine trip/reactor trip when the level control system malfunctions. The runback is effected by the automatic reduction of the turbine governor valve

position limiter to a preset value of approximately 70%, which forces the governor valves to the same setting and lowering turbine load. In this instance, the runback was initiated when the #3 heater drain tank level control valve 2-FCV-106B malfunctioned. This caused the bypass valve 2-FCV-105 to open, and started the runback sequence.

After the unit stabilized at 72% power, operators decided to lower power to 60% to allow repairs to be made on the heater drain tank level control system. The initial step to prepare the turbine EHC system for load reduction involves resetting the EHC Reference and Setter displays, which were still indicating 98%. To clear the indicators after a runback, the operators select the "Imp In" load reference, and then return the selector to the "Imp Out" position. This clears the Reference and Setter windows and causes the correct power to be displayed with no actual change in turbine load. When the operators selected the "Imp In" reference, at approximately 3:10 p.m., the governor valves went fully shut, causing turbine load to be reduced to zero. The reactor control rods stepped in automatically, reducing reactor power. The turbine tripped at 3:17 p.m. on reverse power, but the reactor did not trip since reactor power was below the P-9 setpoint of 50% when the turbine tripped.

Following the turbine trip, steam dump actuation and other secondary side system transients caused steam generator levels to begin fluctuating. The main feed pumps tripped when SG levels reached 80% a few seconds after the turbine trip. Tripping of the feed pumps causes the Auxiliary feed pumps to start and control levels to 33%.

The trip report covering this event was completed and PORC-approved on January 4, 1991. The trip report was prepared under a new procedure, Site Standard Practice SSP 12.7, Incident Investigations and Root Cause Analysis. This new procedure was found to be very hard to follow and lacked adequate guidelines for controlling the trip review process. The licensee discussed these problems with the residents and stated that the procedure would be revised to address the problems. The resident inspectors reviewed the trip report and concluded that the report was adequate, but expressed concern to licensee management regarding the procedure and the loss of some data from the computer-generated Post Trip Review program and Sequence of Events recorder. The computer generated programs contains gaps which failed to identify alarms in several instances. Previous examples of incomplete data acquisition for these computer programs have been identified in Inspection report IR 90-32. URI 90-32-02, Computer Adequacy to Provide Post Trip Review discusses these issues. Licensee efforts to resolve the computer problems are continuing.

9. Exit Interview (30703)

The inspection scope and findings were summarized on January 4, 1991, with those persons indicated in paragraph 1. The Senior Resident Inspector described the areas inspected and discussed in detail the inspection

findings listed below. The licensee acknowledged the inspection findings and did not identify as proprietary any of the material reviewed by the inspectors during the inspection.

Inspection Findings:

No violations or deviations were identified.

Licensee management of the Freeze Protection Program was discussed.

During the reporting period, frequent discussions were held with the Site Director, Plant Manager and other managers concerning inspection findings.

10. List of Acronyms and Initialisms

ABGTS-	Auxiliary Building Gas Treatment System
ABI -	Auxiliary Building Isolation
ABSCE-	Auxiliary Building Secondary Containment Enclosure
AFW -	Auxiliary Feedwater
AI -	Administrative Instruction
AOI -	Abnormal Operating Instruction
AUO -	Auxiliary Unit Operator
ASOS -	Assistant Shift Operating Supervisor
ASTM -	American Society of Testing and Materials
BIT -	Boron Injection Tank
BFN -	Browns Ferry Nuclear Plant
C&A -	Control and Auxiliary Buildings
CAQR -	Conditions Adverse to Quality Report
CCS -	Component Cooling Water System
CCP -	Centrifugal Charging Pump
CCTS -	Corporate Commitment Tracking System
CFR -	Code of Federal Regulations
COPS -	Cold Overpressure Protection System
CS -	Containment Spray
CSSC -	Critical Structures, Systems and Components
CVCS -	Chemical and Volume Control System
CVI -	Containment Ventilation Isolation
DC -	Direct Current
DCN -	Design Change Notice
DG -	Diesel Generator
DNE -	Division of Nuclear Engineering
ECN -	Engineering Change Notice
ECCS -	Emergency Core Cooling System
EDG -	Emergency Diesel Generator
EI -	Emergency Instructions
ENS -	Emergency Notification System
EOP -	Emergency Operating Procedure
EO -	Emergency Operating Instruction
ERCW -	Essential Raw Cooling Water
ESF -	Engineered Safety Feature
FCV -	Flow Control Valve
FSAR -	Final Safety Analysis Report

GDC - General Design Criteria
 GOI - General Operating Instruction
 GL - Generic Letter
 HVAC - Heating Ventilation and Air Conditioning
 HIC - Hand-operated Indicating Controller
 HO - Hold Order
 HP - Health Physics
 ICF - Instruction Change Form
 IDI - Independent Design Inspection
 IN - NRC Information Notice
 IFI - Inspector Followup Item
 IM - Instrument Maintenance
 IMI - Instrument Maintenance Instruction
 IR - Inspection Report
 KVA - Kilovolt-Amp
 KW - Kilowatt
 KV - Kilovolt
 LER - Licensee Event Report
 LCO - Limiting Condition for Operation
 LIV - Licensee Identified Violation
 LOCA - Loss of Coolant Accident
 MCR - Main Control Room
 MI - Maintenance Instruction
 MR - Maintenance Report
 MSIV - Main Steam Isolation Valve
 NB - NRC Bulletin
 NOV - Notice of Violation
 NQAM - Nuclear Quality Assurance Manual
 NRC - Nuclear Regulatory Commission
 OSLA - Operations Section Letter - Administrative
 CSLT - Operations Section Letter - Training
 OSP - Office of Special Projects
 PLS - Precautions, Limitations, and Setpoints
 PM - Preventive Maintenance
 PPM - Parts Per Million
 PMT - Post Modification Test
 PORC - Plant Operations Review Committee
 PORS - Plant Operation Review Staff
 PRD - Problem Reporting Document
 PRO - Potentially Reportable Occurrence
 QA - Quality Assurance
 QC - Quality Control
 RCA - Radiation Control Area
 RCDT - Reactor Coolant Drain Tank
 RCP - Reactor Coolant Pump
 RCS - Reactor Coolant System
 RG - Regulatory Guide
 RHR - Residual Heat Removal
 RM - Radiation Monitor
 RO - Reactor Operator
 RPI - Rod Position Indication
 RPM - Revolutions Per Minute

RTD - Resistivity Temperature Device Detector
RWP - Radiation Work Permit
RWST - Refueling Water Storage Tank
SER - Safety Evaluation Report
SG - Steam Generator
SI - Surveillance Instruction
SMI - Special Maintenance Instruction
SOI - System Operating Instructions
SOS - Shift Operating Supervisor
SQM - Sequoyah Standard Practice Maintenance
SQRT - Seismic Qualification Review Team
SR - Surveillance Requirements
SRO - Senior Reactor Operator
SSOMI - Safety Systems Outage Modification Inspection
SSQE - Safety System Quality Evaluation
SSPS - Solid State Protection System
STA - Shift Technical Advisor
STI - Special Test Instruction
TACF - Temporary Alteration Control Form
TAVE - Average Reactor Coolant Temperature
TDAFW - Turbine Driven Auxiliary Feedwater
TI - Technical Instruction
TREF - Reference Temperature
TROI - Tracking Open Items
TS - Technical Specifications
TVA - Tennessee Valley Authority
UHI - Upper Head Injection
UO - Unit Operator
URI - Unresolved Item
USQD - Unreviewed Safety Question Determination
VDC - Volts Direct Current
VAC - Volts Alternating Current
WCG - Work Control Group
WP - Work Plan
WR - Work Request