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EXECUTIVE SUMMARY

The purpose of the Integrated Performance Assessment Process at Sequoyah was to (1) develop an integrated perspective of Sequoyah strengths and weaknesses based on an independent review of selected objective information on the Sequoyah docket and validated through an on site assessment, (2) develop inspection recommendations for future NRC inspections at Sequoyah, and (3) develop information for NRC on the effectiveness of the regulatory programs and their implementation at Sequoyah.

This Phase II final assessment of the Sequoyah Nuclear Power Plant was the result of integrating the Phase I preliminary review of docketed information for the Sequoyah plant with observations obtained during an on site review conducted between November 27 and December 8, 1995. The original docket review covered a two year period from October 1993 through October 1995, but the team placed major focus on information after December 1994. The results of the preliminary assessment were documented in NRC Inspection Report 50-327/95-22 and 50-328/95-22 dated November 9, 1995.

The team evaluated the overall functional area of Safety Assessment and Corrective Actions as adequate and increased inspection effort is recommended. Problem Identification continues to be good and improvements have been and continue to be made in Problem Analysis and Evaluation. However, the most important aspect of corrective action programs is effective Problem Resolution. Docketed material and onsite review indicates the plant continues to be slow in achieving effective plant corrective actions to reduce the number of challenges to plant systems and plant operators. Personnel errors and procedure related problems continue. Replacement of degraded safety related equipment has not been completed. Balance of plant problems continue to cause plant transients and operator challenges. System Health Reports for Probabalistic Risk Assessment significant systems have shown continuing long term need for improvement of those systems.

The team evaluated the overall functional area of Operations as good and it is recommended that inspection effort be maintained. Shift Operations Supervisor oversight, and management involvement and Safety Focus were good during normal operations. Problem Identification by operators, and by line management and independent self-assessments was very good. Based on a large number of control room deficiency tags and continuing improvement needed in operator performance issues, the Problem Resolution area was determined to be adequate. The Quality of Operations area has improved and was determined to be good as evidenced by operator performance during control room normal and abnormal conditions. Although procedure compliance issues were noted, improvements were noted in the Program and Procedures area, resulting in an assessment of good performance.

The team evaluated the overall functional area of Engineering as good and it is recommended that inspection effort be maintained. Safety Focus was good. Problem Identification was good, but additional attention needs to be focused on Problem Resolution to ensure effective prioritization and timely resolution of plant problems such as operator work-arounds and issues which affect the reliability of risk significant safety systems.

The improving trend in the Quality of Engineering Work, which was noted during the latter part of the assessment period, was verified during the onsite inspection.

The team evaluated the overall functional area of Maintenance as good and it is recommended that inspection effort be maintained. Maintenance Safety Focus, Problem Identification/Problem Resolution, and Programs and Procedures were evaluated as good. The Equipment Performance and Material Condition was evaluated as adequate with recent improvements. The Quality of Maintenance area was evaluated as adequate due to recent trends of increasing personnel performance problems.

Based on docketed information and onsite review, the team evaluated the area of Plant Support as superior and recommends decreased inspection effort. Effective Radiological Controls and Chemistry controls were being implemented. However, the team concluded challenges remain in the area of As Low As Reasonably Achievable planning and reduction in source term radioactivity. Chemistry technicians continue to be challenged during periods that radiation monitors are inoperable and plant transients are occurring. Although several major components of the new physical security system had been implemented at the time of the onsite inspection, the new physical security system had not been fully implemented. Some officer attentiveness to duty issues had been self identified although attentiveness to duty appeared good during the team's onsite review. Emergency Preparedness facilities, equipment, procedures were being maintained in a state of operational readiness and the training of an appropriate number of personnel to respond to an actual operational event had been completed.

1.0 SELF ASSESSMENT AND CORRECTIVE ACTION

1.1 Problem Identification

Overall, based on docketed information and onsite review, the team evaluated the area of Problem Identification as GOOD and recommends maintaining inspection effort.

This area was identified as GOOD in the preliminary assessment. Internal self assessments done by Operations, Engineering, Maintenance, and Plant Support organizations were identifying negative issues and trending parameters to detect problems. Additionally, the Nuclear Assurance organization was thorough in identifying negative trends in performance in implementation of the Corrective Action Program.

During the onsite review, the team noted continuing efforts by each of the organizations and Nuclear Assurance to identify problems within each organization and trend parameters to identify potential problem areas. The site effort in lowering the threshold for problem identification had resulted in a significant increase in the number of level C PERs for the last three months. Between August and October 1995, the average number of level C PERs increased by a factor of six compared to the previous seven month average. This increase was attributed to efforts of site management to encourage engineering and craft level personnel to report known problems to site management for resolution through the PER process. Additionally, the MRC reviews all level C PERs for significance to assure proper classification. Also, the site contracted with an outside company to perform third party assessments of the site corrective action program and other selected areas to further identify areas of needed improvement.

1.2 Problem Analysis and Evaluation

Overall, based on docketed information and onsite review, the team evaluated the area of Problem Analysis and Evaluation as GOOD and recommends maintaining inspection effort.

This area was identified as indeterminate in the preliminary assessment on the basis of mixed performance. Additionally, recent programmatic improvements had been made but it was too early to determine the effect of those improvements.

During the onsite review, it was determined that root cause analyses done in the last few months for significant issues had been satisfactory. Improvements are being made to analyze less significant level B PER problems more effectively. System and Component Engineers had recently been trained in root cause analysis for hardware deficiencies. That training helped provide recent insights into determining root causes for the rapid failures associated with several balance of plant feedwater heater level control valves. Also, a special group of lead investigators had been established for performing required root cause analyses. These investigators were also given special root cause analysis training aimed at getting to the deeper, more significant

causes that can be addressed by management. These recent improvements had not been implemented sufficiently long to conclude they will lead to real, long term improvements.

During the onsite review, the team reviewed the results of the analysis done to evaluate the control room instrument response during the Unit 1 generator exciter arcing on November 27, 1995. The team concluded that the analysis was good in that the problem evaluation methodically reviewed possible causes of the control room instrument responses before determining the most likely cause was from RFI caused by the arcing.

The charter of the MRC includes reviewing PERs to assure needed interim corrective actions have been identified, needed root cause analyses are done, needed evaluations of operability and reportable are done and that primary closure responsibility is clearly assigned within the line organization. Based on observations of several MRC meetings, the team concluded that the effectiveness of the MRC would be enhanced through a more questioning evaluation of the less conservative decisions for the above items made by the PER line reviewers (eg. no root cause analysis needed, system is operable, etc.)

The team also noted that Operations review of internal trend reports showing late corrective actions for PERs prompted a management review of Operations work processes and led to significant improvements in timeliness of PER corrective actions assigned to Operations.

System Health Reports were effective in evaluating the condition of plant systems. These reports provided management with a good tool for focusing plant improvements.

1.3 Problem Resolution

Overall, based on docketed information and onsite review, the team evaluated the area of Problem Resolution as ADEQUATE and recommends increased inspection effort.

This area was identified as ADEQUATE in the preliminary assessment based on the timeliness and effectiveness for addressing known problems. Examples included resolution of Arrow-Hart motor starter issues, CCP room cooler leaks, and secondary plant problems. Problems due to personnel errors were noted.

During the onsite period, the team observed and reviewed a number of plant transients and problems. These included a Unit 1 turbine shutdown due to exciter arcing, Unit 1 primary transient due to inadequate maintenance, Unit 1 AFW unexpected pressurization due to an operator error, a radioactive material transportation event due to less than adequate inspection, and other balance of plant problems due to either design, maintenance, or operations issues. The number of the issues that challenged the plant within the short time the team was onsite indicated weaknesses in the problem resolution area.

Replacement of degraded safety related equipment had not been completed. During the onsite review, the team noted continued efforts to replace Arrow-Hart motor starters. Replacement of these components in the 6.9 KV and 480 V

shutdown electrical systems resulted in SQN reclassifying those systems from RED (NOT ACCEPTABLE) to YELLOW (NEEDS IMPROVEMENT) in the SQN System Health Report. These electrical power systems are very important from a PRA perspective. The team also noted that the other two mechanical systems which are most important from a PRA perspective, ERCW and CCS, have been identified as YELLOW (NEEDS IMPROVEMENT) for the past 5 calendar quarters. In the most recent calendar quarter, a negative trend was identified for the ERCW system performance due to the decision to delay implementation of a new water treatment system. During the Unit 1 outage, the Unit 1 CCP room coolers were replaced. The Unit 2 CCP room coolers continue to leak and are scheduled for replacement during the next outage.

Balance of plant equipment continues to cause plant challenges. A Unit 1 generator exciter problem caused the operators to rapidly reduce power to avoid a reactor trip. On returning to power, deficiencies with feedwater heater level control valves caused site management to limit Unit 1 core power to less than 100% for several days until an equipment evaluation was completed. Shortly after the team left the site, Unit 1 tripped due to a balance of plant problem. This was the second Unit 1 trip and the fifth trip for both units in 1995 due to balance of plant problems. Equipment clearance problems continue to occur although at a reduced rate.

Recent (First quarter FY 1996) licensee self assessments have coded Operations and plant Material Condition as YELLOW (NEEDS IMPROVEMENT). In addition, third party assessments continue to note problems including control room deficiencies and personnel performance issues. Although the recent trends indicate improvements, licensee focus and attention remains high in these areas.

1.4 Summary and Inspection Recommendations

Overall, the team evaluated the overall functional area of Safety Assessment and Corrective Actions as ADEQUATE and recommends INCREASED inspection effort.

Problem Identification continues to be good and improvements have been and continue to be made in Problem Analysis and Evaluation. Docketed material and onsite review indicate the plant continues to be slow in achieving effective plant corrective actions to reduce the number of challenges to plant systems and plant operators. Personnel errors and procedure related problems continue. Replacement of safety related equipment has not been completed. Balance of plant problems continue to cause plant transients and operator challenges. System Health Reports for PRA significant systems have shown continuing need for improvement with even a recent negative trend on one system.

Inspection Recommendations:

Evaluate the Self Assessment/ Corrective Action program area using selected portions of NRC Inspection Procedure 40500 to evaluate progress in problem identification, problem evaluation and resolution of identified issues. Specific emphasis should include problems which have led to unit challenges, personnel performance problems, and effectiveness and timeliness for resolving known problems.

Enclosure

2.0 OPERATIONS

2.1 Safety Focus

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

The preliminary assessment also concluded that this area was GOOD with a recommendation for normal inspection. Docketed information indicated that operators responded well to unit trips and other transients, management oversight was good, shutdown risk was addressed appropriately, and safety committee performance and independent oversight were good. Docketed weaknesses included poor shift supervision oversight, weak safety focus during a unit restart, clearance errors, and personnel performance issues.

The onsite team noted strong SOS/ASOS oversight during the shift turnover process, a positive command and control demonstration, and proactive problem identification, including PER initiations. Management demonstrated a conservative decision making process, including removing Unit 1 from service due to an exciter problem and holding the unit at less than full power due to concerns with level control valves. Good briefings were noted during both in-plant and simulator observations. The team noted a proactive trip reduction program, including operations development and use of a sensitive activities manual.

Management presence was noted during plant and control room tours, and at shift turnover meetings. This included back shift and deep back shift observations. Shutdown risk was appropriately addressed, as evidenced by team observations and QA assessments. Operations management demonstrated a sense of ownership, and provided strong and timely followup to issues that the team raised. This included response to procedure compliance issues, operator work around questions, and control room deficiencies. PORC routine meetings were effective, and members displayed a good questioning attitude.

The onsite team noted effective interfaces with other site groups including Radiological Controls, Maintenance, and System Engineering. The Maintenance shift supervisor position appeared to be effective in providing good coordination with the operating shifts.

The onsite team noted some weaknesses in shift supervision safety focus, including failure to detect procedure compliance issues, the ASOS/SOS use of a conditional operability statement when reviewing a Unit 1 AFW unexpected pressurization problem, and the SOS not in attendance at the morning management meeting. The team also noted that the ASOS or SOS could have been more involved in reactivity management oversight. In addition, the team noted that PORC did not review a Unit 1 NOUE, and the PORC did not proactively review risk significant safety system poor health (e.g., systems which need improvement).

2.2. Problem Identification and Resolution

2.2.1 Problem Identification

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and observed a positive trend. The team recommends decreased inspection effort.

The preliminary assessment also concluded that this area was also GOOD with a recommendation for decreased inspection. Docketed information noted that the licensee post trip review process was effective, operators were sensitive in identifying problems with degraded equipment, and operations and third party assessments were effective in identifying performance improvements. A few docketed weaknesses were observed early in the assessment period. Licensee attention to this area had been apparently effective.

The onsite team noted good problem identification during AUO tours and control room observations. Further, corrective action documents (PERs) were being appropriately initiated. A recent new assessment system by operations and training appeared effective in identifying problems and assessing performance. A Unit 1 rapid shutdown post-event critique and the bi-weekly operations management meetings demonstrated effective self-assessment and problem identification.

The onsite team noted that self-assessments, including those performed by operations line management, by training, by the NA/QA organizations, and by other third party organizations, have been effective in identifying problems which require corrective actions. Examples noted by the team included QA control room observations of the Unit 1 turbine generator restart, the recent site quarterly trend reports, and recent third party assessments of operations performance and clearance program enhancements.

The onsite team also noted weaknesses in the area of integrating and prioritizing all known system related deficiencies which may effect the ability of operators to adequately respond to abnormal or emergency conditions. There were also several instances where operators were unaware of hardware problems. Examples included Unit 1 RCS temperature indication used for monitoring, and a Unit 2 RHR to containment spray leak interaction.

2.2.2 Problem Resolution

Overall, based on docketed information and onsite review, the team evaluated this area as ADEQUATE and recommends increased inspection effort.

The preliminary assessment also concluded that this area was also ADEQUATE with significant weaknesses, and with a recommendation for increased inspection. Operations problem resolution was slow and sometimes ineffective in the areas of equipment clearances and configuration control. Long standing equipment deficiencies challenged operations, including balance of plant initiated reactor trips.

The onsite team noted that a large number of equipment deficiencies existed on both safety and important-to-safety systems. These hardware issues included

problems with control room monitoring instrumentation and control functions, with out-of-service alarm functions, operator work arounds, and problems with field equipment. Although operations periodically reviews system health status, it was not clear that a higher level review of the aggregate effects of the number of deficiencies was done. For example, the three most risk significant systems (CCS, ERCW, and electrical shutdown boards) have historically needed improvement. Operations was not sufficiently aggressive to ensure that possible synergistic effects of deficiencies were understood, and that these issues were prioritized and addressed. Further, during the team's visit, operations was continuing to be challenged with balance of plant related issues and plant transients.

The onsite team noted that the post trip review process effectively identified and resolved problems, and that the temporary alteration control form process appropriately tracked temporary system modifications. Further, recent improvements were noted relative to personnel performance and configuration control problems. Clearance related problem resolution issues remained ongoing, although short term improvements were noted. These improvements were noted in PER trends, QA assessments, use of an electronic clearance program, and during the most recent refueling outage (UIC7).

2.3 Quality of Operations

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD with noted recent performance improvements. The team recommends maintaining inspection effort.

The preliminary assessment concluded that this area was ADEQUATE with a recent improving trend and with a recommendation for normal inspection. Docketed weaknesses included operator performance errors due to a lack of self-checking resulting in unit trips, testing errors, and a slow response to abnormal conditions. Further, historical significant weaknesses were noted in the equipment clearance process. Docketed good performance was noted during response to unit transients and trips, outage periods and unit startups, and reviews of the improvements in the shift turnover process.

The onsite team noted that the operations staff, including management, control room operators, and support groups, demonstrated positive performance in the area of quality of operations. Examples included a positive attitude, openness, and a desire to improve; a professional control room atmosphere; effective shift turnover meetings, with excellent briefings; effective AUO tours; well conducted training programs; good problem identification by operators; good outage performance; excellent response to abnormal conditions; and, good coordination and communication with other site groups.

The onsite team also noted weaknesses in this area including the quality and completeness of operator logs, several instances of procedures not being followed, and historical labelling deficiencies.

2.4 Programs and Procedures

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

The preliminary assessment concluded that this area was ADEQUATE with a recommendation for increased inspection. Weaknesses were noted in the EOP and AOP processes, and inadequate procedures and a failure to follow the clearance procedure were identified. Docketed good performance included alarm response procedures use, unit restart process and related procedures, and the procedure change process.

The onsite team noted good licensee attention to completing procedure upgrade projects, good use of AOPs and EOPs during unit operations and simulator training, effective control of the procedure backlog, and sound programs associated with standing orders, operator aids, and equipment control. The onsite team also noted that AOPs were enhanced based on post-event critique comments and that the upgraded AOPs now follow the EOP two-column format. General operating procedures were upgraded and were well used during team observations of unit startups and shutdowns. Improvements were noted in operator AOP/EOP parallel and simultaneous use.

The onsite team also noted several instances of failure to follow system operating procedures for secondary boric acid injection and primary boron concentration control. Further, continuous use procedures were not always directly referred to as required by station administrative procedures. Notwithstanding these deficiencies, the onsite team noted overall improvements in the quality of procedures and programs.

The final assessment changed from ADEQUATE to GOOD based on the onsite team's recognition of recent improvements in the quality of programs and procedures. These improvements were not detailed in the docketed information.

2.5 Summary and Inspection Recommendations

The team evaluated the overall functional area of operations as GOOD and recommends MAINTAINING inspection effort. SOS oversight, and management involvement and Safety Focus were good during normal operations. Problem Identification by operators, and by line management, and independent self-assessments were very good. Based on a large number noted control room deficiency tags and continuing improvement needed in operator performance issues, the Problem Resolution area was determined to be adequate. The Quality of Operations area has improved and was determined to be good as evidenced by operator performance during control room normal and abnormal conditions. Although procedure compliance issues were noted, improvements were noted in the Program and Procedures area, resulting in an assessment of good performance.

Inspection Recommendations:

Evaluate Operations efforts to assess the effect of safety system deficiency backlog, including the impact of operator work arounds.

Evaluate the completed Operations procedure upgrade projects, including efforts to address procedural use and compliance issues.

Evaluate the effects of specific instances of poor quality of operations which challenge the units and force the operators to frequently respond to transients and trips.

Evaluate timeliness and effectiveness of Operations actions for problems being resolved through the Corrective Action Program.

3.0 ENGINEERING

3.1 Safety Focus

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

During the preliminary assessment, this area was identified as GOOD by the team because the reviewed information showed that licensee management had demonstrated a proper safety perspective and had implemented initiatives (such as design changes for analyzing heat exchanger performance and upgrading of the lower containment coolers to safety-related) to improve plant safety and performance.

During the onsite review, the team reviewed operability evaluations, system engineer System Health Reports, and other management initiatives. The team reviewed operability evaluations for selected PERs and determined that the licensee had performed conservative operability evaluations and provided adequate technical bases for the problems identified in the PERs. The System Health Reports were detailed and provided TVA management with indicators of the condition of the systems and trends in performance. The Plant Reliability Study performed in 1995 was a good effort that identified hardware and programmatic initiatives to improve plant performance. Several initiatives from the study were implemented during the Unit 1 Cycle 7 outage.

The onsite team noted that management expectations for the various engineering groups were clearly established and communicated throughout the groups. The responsibilities and interfaces between Site Engineering, Technical Support (system engineering), and Component Engineering were defined and documented in procedure SSP-8.50, Conduct of Technical Support.

3.2 Problem Identification and Problem Resolution

Overall, based on docketed information and onsite review, the team evaluated the area of Problem Identification and Problem Resolution as GOOD and recommends maintaining inspection effort.

During the preliminary assessment, the team evaluated this area as ADEQUATE. The reviewed information reflected mixed performance in this area. Normal inspection effort was recommended based on an improving trend in performance.

During the onsite review, the team reviewed engineering effectiveness in identifying, resolving, and preventing problems by reviewing corrective actions, self assessments, resolution of technical issues, and system engineer system health reports. Technical Support and Component Engineering provided good support and involvement during the main generator exciter issue. The team observed Site Engineering involvement during efforts to resolve the exciter issue and concluded that a logical approach was used in assessing the RFI issue. The team noted that the efforts to resolve the generator exciter and related issues demonstrated good interface and coordination between Technical Support and Site Engineering.

Good interface, communication, and coordination were observed between Technical Support, Site Engineering, and Component Engineering during the licensee's evaluation of emergent issues such as the condensate booster pump recirculation valve leakage, the Masonellan positioner pilot problem, and the RCP motor high stator winding temperatures. The team noted that the licensee's efforts to resolve these three issues were continuing at the conclusion of this onsite review. Site Engineering initiated a self assessment program within the design control area during the second quarter of 1995. Internal Nuclear Assurance and third party assessment efforts were effective in identifying areas for improvement and appropriate actions were being taken to address the findings. The plant reliability study performed in 1995 also identified hardware and programmatic initiatives to improve plant performance.

The team noted weaknesses in the area of Problem Identification/Problem Resolution during the onsite review. The System Health Reports showed that PRA risk significant safety systems such as ERCW, CCS, and the 6.9KV/480V shutdown boards have either been evaluated by the licensee as YELLOW (NEEDS IMPROVEMENT) or RED (NOT ACCEPTABLE) for the last five calendar quarters. The operator work-around list contained over 65 issues, and a number of the issues were assigned to engineering for resolution. Proposed resolutions for some of the operator work-around issues were not scheduled to be completed for several years. Engineering did not appear to be proactive or aggressive in pursuing resolutions for these operator work-arounds. During discussions with the team, licensee personnel indicated that they had recognized the need to re-evaluate their prioritization process because issues such as operator work-arounds and TACFs were not receiving the appropriate attention through the licensee's current priority process. The team noted other equipment problems which had not yet been resolved by Engineering. These equipment problems included containment electrical penetrations, radiation monitors, and continued leakage problems with the Unit 2 CCP room coolers.

3.3 Quality of Engineering Work

Overall, based on docketed information and onsite review, the team evaluated the area of Quality of Engineering Work as GOOD and recommends maintaining inspection effort.

During the preliminary assessment, the team evaluated this area as ADEQUATE because the reviewed information reflected a negative performance with some improvement noted toward the latter part of the assessment period. Increased inspection effort was recommended.

During the onsite review, the team was provided with additional information which indicated that some of the issues that were identified and docketed during the assessment period had occurred prior to the period and, due to subsequent enhancements in the design control process, were not a reflection of current engineering practices.

During the onsite review, the team reviewed operability evaluations, safety assessments, safety evaluations, engineering evaluations, completed DCNs, procurement commercial grade dedications, PERs, System Health Reports, and training provided to some engineering personnel. The safety assessments and

safety evaluations reviewed were satisfactory and generally provided a technically adequate basis for applicable issues. The DCNs reviewed resolved the problems they were intended to address. Training on root cause analysis for hardware failures was recently provided to systems engineers and component engineers. The team accompanied several system engineers during walkdowns of their assigned systems and noted that the system engineers demonstrated ownership and were knowledgeable of issues on their assigned systems. The System Health Reports were detailed and were a good tool for providing TVA management with indicators of the condition of the systems and trends in performance.

The team also noted several weaknesses in the quality of engineering work during the onsite review. The licensee performed a review of PERs initiated over a six-month period (April 1995 - October 1995) and noted that a number of PERs had been written against various aspects of the design control performance such as drawing errors, EMS database errors, calculation errors, etc. The team reviewed several PERs which identified design related problems. This included PER SQ950353PER which was written to address a design related problem that affected testing of the control room ventilation system. In addition to the PERs written for equipment database errors, the team also noted that the EMS database had some inaccuracies which impacted performance of maintenance. The commercial grade dedication procurement package for the CCP room coolers lacked detail with regard to the critical characteristics. The documented engineering evaluation that addressed the RFI issue lacked sufficient detail to support some of the conclusions reached.

3.4 Programs and Procedures

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

During the preliminary assessment, the team recommended maintaining inspection effort.

During the onsite review, the team reviewed the licensee's air operated valve program which is described in licensee procedure SSP-9.58, Air Operated Valve Program, Revision 0. The AOV program was implemented in May 1995. The Component Engineering AOV engineer was responsible for the coordination and oversight of the site program. The team noted that diagnostic testing had been used to improve valve setup and operation. This diagnostic testing enabled the licensee to address leakage problems associated with the auxiliary feedwater system level control valves.

The team also reviewed procedure SSP-8.50, Conduct of Technical Support, Revision 7, which was implemented September 22, 1995. The procedure was revised to more clearly define management expectations concerning the threshold for identifying, documenting, and correcting plant deficiencies; provide guidance on the process for turnover of responsibilities from one engineer to another. The team also noted that the procedure described the interfaces between Technical Support and Operations, site Engineering, Maintenance/Modifications, and Component Engineering. The team concluded the procedure revision met its objectives.

3.5 Summary and Inspection Recommendations

The team evaluated the overall functional area of Engineering as GOOD and recommends MAINTAINING inspection effort. Safety Focus was good. Problem Identification and Problem Resolution were generally good. The improving trend in the Quality of Engineering Work which was noted in docketed information during the latter part of the assessment period was verified during the onsite inspection. Programs and Procedures were good.

Inspection Recommendations:

Evaluate Engineering's efforts to ensure effective prioritization and timely resolution of plant problems such as operator work-arounds and issues which affect the reliability of risk significant safety systems.

Evaluate timeliness and effectiveness of Engineering's actions for problems being identified through the Corrective Action Program.

Evaluate the timeliness and effectiveness of the implementation of recommendations from Plant Reliability studies.

4.0 MAINTENANCE

4.1 Safety Focus

Overall, based on the docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

This area was identified as GOOD in the preliminary assessment. Good performance was noted by the reduction in the maintenance backlog and the response of the safety equipment during plant transients. Power reductions for BOP maintenance rather than operating with known equipment problems demonstrated good safety focus. Poor performance was noted by missed TS surveillances, two plant trips which could have been avoided by PM performance and degraded pipe chase and penetration room coolers were assigned a low maintenance priority. Personnel safety issues were noted in the docketed information.

During the onsite review the team noted that maintenance had been proactive in improving the scheduling and work control processes and was successful in reducing the backlog of maintenance work. Improved performance on SIs and PMs was noted with a low percentage of deferred items and fewer missed surveillances. Management focus on PMT has improved PMT timeliness. Maintenance turnover meetings were effective and demonstrated that maintenance was emphasizing support to Operations. Maintenance shift supervisors provided good coordination between Maintenance and Operations. Prioritization of work activities was adequate however management consciously decided to defer some work during the outage to work it as on-line maintenance. The number of work requests for the most risk significant systems was high although the non outage CM WRs for the risk significant systems had been reduced. Outage planning observed on the exciter shutdown showed good coordination between Maintenance, Operations, and Technical Support. Several items were worked off the forced outage list. Management, supervision, and nuclear assurance personnel were involved in the exciter repair activity.

Staffing stability within the maintenance department was good. Pre-job briefings observed were good, however review of completed work packages showed that the documentation of pre-job briefings was inconsistent. Management communications of expectations to maintenance personnel was evident however personnel errors and problems with work practices were still occurring. Maintenance self assessments and nuclear assurance assessments identified similar concerns.

4.2 Problem Identification/Problem Resolution

Overall, based on the docketed information and onsite review the team evaluated this area as GOOD and recommends maintaining inspection effort.

This area was identified as GOOD in the preliminary assessment. Strong performance was noted in the reduction of the maintenance backlog, and in the use of thermography to identify and repair deficiencies in main transformer bushings. Maintenance had developed formal corrective actions in response to nuclear assurance audit findings to improve maintenance performance. Poor

performance was noted for instances where the licensee did not write PERs for adverse conditions and for a number of long standing unresolved equipment problems.

During the onsite review, the team noted a reduction of the threshold for writing PERs and an increase in problem identification showing an increase in PER generation. PERs were generated for all significant issues which occurred for the maintenance activities observed. Approximately 23 % of the PERs were generated by the maintenance / modifications department. Maintenance had the lowest age of the PERs indicating emphasis in resolution of these deficiencies.

The Maintenance self assessments and Nuclear Assurance Maintenance assessments were thorough and performance based. Improved performance in the resolution of M&TE Out of Tolerance Investigations was noted, however this appeared to be a separate corrective action system which was not included in the site-wide corrective action tracking system. Licensee trending identified a problem with the personnel self checking process and a level A PER was initiated.

Management was responding appropriately to the findings of the Nuclear Assurance and Maintenance self assessments. Corrective actions for maintenance PERs appeared adequate and PER corrective action timeliness for maintenance was good. Repeat problems continued to occur with personnel errors and on selected equipment (voltage regulator/exciter). Several long standing equipment problems were addressed including the rod control group step counters, electrical penetrations, condensate booster pumps, and switchyard breakers. The backlog of maintenance was reduced however some risk significant systems continue to have a high backlog of work requests. Long standing equipment problems with Arrow-Hart motor starters still caused work arounds, however actions were taken to focus the replacement schedule.

4.3 Equipment Performance/Material Condition

Overall, based on the docketed information and onsite review, the team evaluated this area as ADEQUATE, with recent significant improvements noted, and recommends maintaining inspection effort.

This area was identified as ADEQUATE with recent significant improvements noted in the preliminary assessment. Good performance was noted by safety system equipment response to plant transients, replacement of the unit 2 containment lower compartment coolers, and upgrading of the material condition of selected BOP equipment. Poor performance included the examples where equipment problems necessitated plant shutdowns to comply with plant TS, and the material condition of the BOP systems which resulted in reductions in plant power level. Additional material condition deficiencies included Unit 1 lower compartment coolers, high pressure fire protection system, CCP room cooler leakage, and AOV and air system problems.

During the onsite review, the team noted that the licensee continued to make material condition improvements. The EDGs and the AFW system were meeting their system unavailability goals. Material condition improvements were noted on the Unit 1 lower compartment coolers, Unit 1 CCP room coolers, Arrow-Hart motor starter replacements, replacement of selected containment electrical

penetrations, BOP pumps, (hotwell, condensate booster pumps, heater drain pumps), and No. 2 250 VDC station battery and board rooms.

Examples of degraded material condition included the leaking Unit 2 CCP room coolers, moisture separator re-heater relief valve leakage, water inleakage in the turbine and control buildings, and poor reliability of the exciter and voltage regulators. Minor deficiencies were noted by the team in the switchyard which had not been identified by the licensee. Material condition was noted as poor in the ERCW and circulating water buildings and the high pressure fire protection system. Equipment performance issues were noted in the transients which occurred during the team's onsite evaluation period. These included a potential fuse/breaker coordination problem noted on the annunciator troubleshooting transient, and unanticipated operation of several BOP AOVs during shutdown board feeder breaker transfers.

Many material condition improvements were noted both in the safety related and BOP systems. However, the recent performance of the plant indicates that additional material condition improvements are needed particularly on equipment which can affect the reliable operation of the units.

4.4 Quality of Maintenance Work

Overall, based on the docketed information and onsite review, the team evaluated this area as ADEQUATE based on recent trends and recommends increased inspection effort.

This area was identified as GOOD in the preliminary assessment. Good performance was noted in maintenance on Unit 2 main bank transformer, waste gas analyzer flow switches, CCS temperature control circuitry, feedwater flow transmitters, EDG air compressors, HPFP pressure control valve, AFW and main steam safety valve testing, ERCW pump and EDG heat exchanger outlet check valves. Poor performance was noted with an EDG relay wiring error, an inadvertent feedwater isolation during reactor trip breaker testing, FME control implementation and excess time for resolution of M&TE out of tolerance investigations.

During the onsite review, the team noted good performance on FIN team maintenance activities and SIs witnessed. Maintenance supervisors were noted at the jobsite during high visibility troubleshooting efforts (Unit 1 exciter). Good coordination between maintenance and operations was observed which was facilitated by the maintenance shift supervisors. Maintenance management and NA personnel recognized and instituted higher FME controls on the exciter repair activity.

Better performance has been noted recently on M&TE control. Maintenance department managers were very knowledgeable regarding their equipment upgrades, and problem equipment and the status of the maintenance backlog. Maintenance performance errors were noted in self assessments and the Nuclear Assurance assessments in the following areas: self checking, pre-shift briefings, stopping for guidance on work package/procedure usage/control problems and industrial safety requirements. Scenario training was conducted prior to the recent Unit 1 outage to reinforce these aspects of maintenance practices. Performance problems were noted on the Unit 1 annunciator

troubleshooting (self checking), safety related breaker maintenance and exciter troubleshooting (procedure/work package usage/control guidance), and adherence to industrial safety requirements on accumulator room limit switch maintenance. Review of several completed work orders indicated that documentation of work needs increased emphasis. Problems noted included failure to include pre-shift briefing forms, failure cause not determined and documented, and documentation not clearly describing work activities accomplished.

The team noted mixed performance on quality of maintenance with minor problems noted on most of the activities observed. Team observations, NA assessments, maintenance self assessments and third party evaluations have all noted continuing performance problems during the conduct of maintenance activities. While the rate of human error from PER data shows performance has improved from 1994 performance, the most recent data shows a trend of increasing personnel performance issues. Management initiated scenario training prior to the Unit 1 Cycle 7 outage to improve performance in this area. However, there has not been improvement to date.

4.5 Programs and Procedures

Overall, based on the docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

This area was identified as ADEQUATE with improvement in recent performance noted in the preliminary assessment. Good performance was noted with the reduction in the use of leak sealants (Furmanite), good welding control and erosion and corrosion program, and good ERCW pump and valve PM programs. Poor performance was noted with the PM program for RHR manual valve reach rods, IST of ERCW and ERCW travelling screen wash pumps, and MOV trending program. Some equipment was not included in the PM program such as ERCW sump pumps, Auxiliary Building Crane, and the Security EDG.

During the onsite review, the team noted good initiatives to upgrade the maintenance administrative procedures with input from a contractor, the contractor procedure survey, the PM optimization program, and the establishment of a work order Quality Improvement Team. The licensee incorporated a risk matrix into the on line maintenance procedure and upgraded the material condition of the security EDG. Poor performance was noted in the PM procedure for CCS pump packing adjustment. The electrical breaker PM procedure did not require the use of the detailed disassembly and reassembly instructions in the vendor manual for breaker operating mechanism replacement. The data in plant databases was incomplete and sometimes incorrect and caused incorrect maintenance and delays in accomplishing maintenance. Examples included incorrect end use data for Westinghouse DS safety related breaker operating mechanisms, lack of equipment location for safety related accumulator room AOVs and incompatibility between EMS, MAMS, and MPAC databases. Replacement parts were not always available for scheduled work. The Materials organization had developed short term and long term corrective actions for resolution. The resistors for the exciter were previously stocked but were surplussed in 1991 due to usage history without system engineer review.

4.6 Summary and Inspection Recommendations

The team evaluated the overall functional area of Maintenance as GOOD and recommends MAINTAINING inspection effort. Maintenance Safety Focus, Problem Identification/Problem Resolution and Programs and Procedures were evaluated as good. The Equipment Performance and Material Condition was evaluated as adequate with recent improvements noted. The Quality of Maintenance area was evaluated as adequate due to recent trends of increasing personnel performance problems.

Inspection Recommendations:

Evaluate implementation of troubleshooting maintenance activities which could lead to plant challenges during corrective maintenance activities.

Evaluate maintenance planning for complex corrective maintenance activities to determine whether instructions provide sufficient detail.

Evaluate PM program for repeat cause equipment identified in secondary plant reliability study.

Evaluate PM optimization and maintenance procedure upgrade efforts.

5.0 PLANT SUPPORT

5.1 Safety Focus

5.1.1 Radiological Controls

Overall, based on docketed information and onsite review, the team evaluated this area as SUPERIOR and recommends decreased inspection effort.

This area was identified as SUPERIOR in the preliminary assessment based on docketed information. The superior performance rating was based on management's involvement with controlling personnel and environmental exposures and the organizational response to radiological events. Docketed information also concluded departmental level management involvement in daily activities in the areas of Radiological Controls, Chemistry, and radioactive effluent controls was effective.

During the onsite review, the team concluded that management involvement in daily activities in Radiological Controls, Chemistry, and radioactive effluent controls continued to be effective. Recent facilities and equipment upgrades have enhanced worker protection by improving entry/exit controls for personnel and equipment and new chemistry sampling equipment had enhanced chemistry analysis capabilities.

5.1.2 Security

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

This area was identified as GOOD in the preliminary assessment based on docketed information. The licensee was in the process of implementing a new facility security program upgrade. The access authorization program was well managed and thorough.

During the onsite review, the team concluded the licensee continued to have an effective access authorization program which was well managed and thorough. The team observed that department management was involved in routine activities. Although the new physical security upgrade had not been fully completed at the time of the onsite inspection, some recently implemented access authorization controls demonstrated a positive security safety focus. Management had exercised additional efforts to reduce security equipment inoperability by dedicating maintenance personnel to the security department. During tours, the team observed that management expectations were effectively communicated to officers.

5.1.3 Emergency Planning

Overall, based on docketed information and onsite review, the team evaluated this area as SUPERIOR and recommends decreased inspection effort.

This area was identified as SUPERIOR in the preliminary assessment based on docketed information. The licensee's safety focus was evaluated based on managements attention to a 1994 Annual exercise and managements attention to actual operational events.

During the onsite review, the team concluded the licensee has continued to exercise a positive management safety focus to maintain facilities and equipment in an operational state of readiness. Management had also continued to exercise positive controls during operational events. Management's overall involvement in a training exercise observed during the onsite inspection was viewed by the team as a positive commitment to improving worker emergency preparedness skills. However, safety focus regarding prompt action to revise Emergency Preparedness Implementing Procedures was not evident for a condition involving accelerated degradation of Emergency Core Cooling System throttle valves which could cause premature system pump failure during accident scenarios.

5.2 Problem Identification and Resolution

5.2.1 Radiological Controls

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

This area was identified as GOOD in the preliminary assessment based on docketed information. The Site Trend Analysis Committee, comprised of Operations, Maintenance, Quality, and Radiological Controls assessed performance, addressed worthwhile issues and had substantive comments and recommendations. The initial assessment concluded that, although licensee internal audits and assessments were effective in identifying issues, corrective actions were not always thorough and timely. As an example, many online chemistry instruments were inoperable for an extended period and require significant compensatory measures. However, some improvement was noted late in the assessment period.

During the onsite review, the team noted interdepartmental assessments, monthly performance evaluations, outage assessments and annual audits were being conducted. The team confirmed each area's performance was being trended quarterly. Self assessments continued using experienced personnel who followed pre-established objectives in conducting departmental assessments. Audits were well planned and items of substance were being identified, tracked and trended. At the time of the inspection, the licensee was progressing toward accomplishing corrective actions to improve operability of online secondary chemistry monitors. However, the number of instrument failures and problem evaluation reports associated with inoperable monitors trended upward during the third and fourth quarters of 1995. Inoperable radiation monitors continued to challenge Offsite Dose Calculation Manual and Technical Specification requirements. A special FIN team had been established to

perform maintenance on monitors to reduce inoperability. However, timely maintenance was sometimes dependent on availability of radiation monitor parts. The licensee had identified weaknesses in the procurement process. Frequent compensatory samples are required during safety related radiation monitor malfunctions and additional chemistry measurements required during transients are challenging to chemistry personnel, especially on backshift when staffing is low. During the onsite review, the licensee identified a transportation event involving a small amount of uncontained low level radioactive liquid detected on the bed of the transport truck after departing the site. The licensee did not identify uncontained liquid in the truck prior to the truck departing the site. The licensee began an investigation while the team was on site. Although the safety significance of this event was low, the licensee suspended future planned shipments of additional quantities of liquid until a root cause analysis of the event was completed.

5.2.2 Security

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

This area was identified as GOOD in the preliminary assessment based on docketed information. The licensee conducted a Nuclear Assurance Audit of their access authorization program between February 7 and April 29, 1994, and found no deficiencies. However, one declining trend regarding several examples of inattentiveness to duty was noted during recent NRC inspections. These issues were resolved in 1995 as a result of the licensee initiating a Problem Evaluation Report to analyze, identify, and correct the issues.

During the onsite review, the team concluded TVA corporate assessments were effective in evaluating program adequacy and the licensee was performing timely corrective actions based on review and followup of the most recent audit findings. The security department was tracking and trending SERs and had shown a decrease during 1995 in the number of SERs being issued.

5.2.3 Emergency Planning

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

This area was identified as INDETERMINATE in the preliminary assessment based on the lack of docketed information.

During the onsite review, the team concluded the licensee continued to meet requirements for conducting an independent audit of the emergency preparedness program and the emergency plan implementing procedures based on a review of the licensee's 1994 and 1995 Nuclear Assurance Audit Reports and Quarterly Site Assessments of this area. Further inspection of this area determined the licensee was initiating corrective action for issues identified.

5.3 Quality of Plant Support

5.3.1 Radiological Controls

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

This area was identified as GOOD in the preliminary assessment based on docketed information. Laboratory controls for water chemistry were considered to be a Chemistry Program strength. Radiological Controls continued controlling contamination at the source resulting in a reduction in plant contaminated square footage and a reduction in personnel contamination events. The ALARA program also continued to be effective in controlling overall collective dose.

During the onsite review, the team concluded that workers were knowledgeable of radiation work permit requirements and demonstrated good work practices. Radiological Controls and Chemistry personnel were observed conducting surveys and all surveys reviewed were well documented. Radiological Controls support to maintenance personnel during a containment entry was observed as good. Management and staff are well trained. Challenges remain in the area of ALARA planning and implementation to reduce exposures and remove source term. Exposure goals for the recent Unit 1 outage were exceeded primarily as a result of unanticipated work scope. The team noted both Radiological Controls and Operations could be more proactive in decontaminating selected rooms and eliminating locked high radiation areas which slow operator access to such areas.

5.3.2 Security

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

This area was identified as GOOD in the preliminary assessment based on docketed information. The licensee's access authorization program was effective and thorough with strengths in terms of background investigations, psychological evaluations, and revocation of clearance and appeals. The officers demonstrated an acceptable level of job knowledge and performance capability. However, the docket review identified a declining trend during the later half of the inspection period due to examples relating to inattentiveness to duty.

During the onsite review, the team concluded attentiveness to duty was observed to be good during the onsite inspection. Communications equipment observed was functioning satisfactorily and officer response times to alarms were observed to be good. All guard post observed were being operated in accordance with the licensee's physical security plan. The team observed a key control inventory being performed by supervisory personnel and concluded keys were being appropriately controlled.

5.3.3 Emergency Planning

Overall, based on docketed information and onsite review, the team evaluated this area as SUPERIOR and recommends decreased inspection effort.

This area was identified as SUPERIOR in the preliminary assessment based on docketed information. The licensee demonstrated the ability to respond to a major event during its annual emergency preparedness drill. Also, Good communications capabilities existed among the licensee's emergency response organization and between the licensee's emergency response organization and offsite authorities.

During the onsite review, the team concluded site management had been effective in 1995 in implementing a training plan which had been designed to train four Emergency Response Organization teams annually. An onsite review determined four teams had been trained in 1995. During the onsite review, a random review of training records was conducted by the team for ten ERO members selected from each of the four designated ERO team rosters. The team concluded training records were well maintained and no training discrepancies were noted. The team also observed a quarterly exercise during the onsite inspection and determined training for emergency preparedness personnel was effectively being accomplished. However, the team observed that a more challenging training drill scenario would have provided a better learning opportunity for the players and a better opportunity to identify programmatic deficiencies.

5.4 Programs and Procedures

5.4.1 Radiological Controls

Overall, based on docketed information and onsite review, the team evaluated this area as SUPERIOR and recommends decreased inspection effort.

This area was identified as SUPERIOR in the preliminary assessment based on docketed information. An effective water chemistry control program was implemented and an effective training program for Radiological Control and Chemistry technicians was implemented. Timely procedural changes were made as corrective actions for several identified problems in the areas of Radiological Controls and Chemistry.

During the onsite review, the team concluded health physics and chemistry controls continued to be effective in controlling personnel and environmental exposures. The team reviewed 8 Radiological Control procedures and determined that they provided appropriate guidance. During plant tours, the team confirmed that radiological postings and high radiation areas were controlled as required by procedures. The team also concluded that radioactive material was being controlled appropriately.

5.4.2 Security

Overall, based on docketed information and onsite review, the team evaluated this area as GOOD and recommends maintaining inspection effort.

This area was identified as GOOD in the preliminary assessment based on docketed information. The review of documented information concluded the licensee continued to maintain an approved Physical Security Plan, and programs and procedures for access authorization, and fitness for duty were generally good.

During the onsite review, the team concluded the licensee continued to implement a good physical security program as evidenced by management commitments to facility and equipment upgrades. The onsite inspection also concluded the licensee continued to maintain an approved Physical Security Plan.

5.4.3 Emergency Planning

Overall, based on docketed information and onsite review, the team evaluated this area as SUPERIOR and recommends decreased inspection effort.

This area was identified as GOOD in the preliminary assessment based on docketed information. The licensee's 1994 Annual Emergency Preparedness Exercise and an inspection of the licensee's Quality Assurance required annual audit indicated that the licensee's emergency preparedness program and procedures were satisfactory.

During the onsite review, the team concluded programs and procedures were being implemented effectively. This conclusion was based on a review of 1995 tracking records in the areas of pager testing, onsite and offsite worker training, team participation, drills, Federal Emergency Management Agency exercise report findings, internal critique findings, Nuclear Assurance findings, regulatory findings, emergency medical response performance, and communication systems maintenance history.

5.5 Summary and Inspection Recommendations

Overall, based on docketed information and onsite review, the team evaluated the area of Plant Support as SUPERIOR and recommends DECREASED inspection effort.

Effective Radiological Controls and Chemistry controls were being implemented. However, the team concluded challenges remain in the area of ALARA planning and reduction in source term radioactivity. Chemistry technicians continue to be challenged during periods that radiation monitors are inoperable and plant transients are occurring.

Although several major components of the new physical security system had been implemented at the time of the onsite inspection, the new physical security system had not been fully implemented. The licensee identified some officer attentiveness to duty issues. However, attentiveness to duty appeared good during the team's onsite review.

Emergency Preparedness facilities, equipment and procedures were being maintained in a state of operational readiness and the training of an appropriate number of personnel to respond to an actual operational event had been completed.

Inspection Recommendations for Radiological Controls and Chemistry:

Evaluate the area of ALARA planning and source term reduction.

Evaluate radiation monitor operability and compensatory measurements performed by chemistry technicians when radiation monitors are out of service. Consider accident scenarios.

Evaluate areas where high radiation and/or high contamination preclude routine entry into spaces to assess radiological and operational impacts.

Evaluate the effects high radiation areas and high contamination conditions have on operator access to important plant equipment.

Inspection Recommendations for Physical Security:

Evaluate the new physical security upgrade system nearing completion during adverse weather and high traffic times.

Evaluate Security officer attentiveness to duty.

Inspection Recommendations for Emergency Preparedness:

Evaluate licensee practices for maintaining EP proficiency of response teams and individual team members.

Evaluate the complexity of emergency preparedness exercises and training drills.

LIST OF ACRONYMS

AFW	Auxiliary Feedwater
ALARA	As Low As Reasonably Achievable
AOP	Abnormal Operating Procedure
AOV	Air Operated Valve
ASOS	Assistant Shift Operations Supervisor
BOP	Balance of Plant
CCP	Centrifical Charging Pump
CCS	Component Cooling Water System
CM	Corrective Maintenance
DCN	Design Change Notice
EDG	Emergency Diesel Generator
EMS	Equipment Management System
EOP	Emergency Operating Procedure
EP	Emergency Preparedness
ERCW	Essential Raw Cooling Water
ERO	Emergency Response Organization
FIN	Fix It Now
FME	Foreign Material Exclusion
FY	Fiscal Year
HPFP	High Pressure Fire Protection
IST	Inservice Test
KV	Kilovolt
MAMS	Materials Management System
M&TE	Measurement and Test Equipment
MPAC	Maintenance Planning and Control
MOV	Motor Operated Valve
MRC	Management Review Committee
NA	Nuclear Assurance
NOUE	Notification of Unusual Event
NRC	Nuclear Regulatory Commission
PER	Problem Evaluation Report
PORC	Plant Operations Review Committee
PM	Preventive Maintenance
PMT	Post Maintenance Test
PRA	Probabalistic Risk Assessment
QA	Quality Assurance
RCS	Reactor Coolant System
RFI	Radio Frequency Interference
RHR	Residual Heat Removal
SER	Safeguards Event Report
SI	Surveillance Instruction
SOS	Shift Operations Supervisor
SQN	Sequoyah Nuclear Plant
SSP	Site Standard Procedure
TACF	Temporary Alteration Control Form
TS	Technical Specifications
TVA	Tennessee Valley Authority
U1C7	Unit 1 Cycle 7
V	Volt
VDC	Voltage - Direct Current
WR	Work Request

SEQUOYAH UNITS 1 AND 2

PERFORMANCE ASSESSMENT/INSPECTION PLANNING TREE

