UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

February 3, 2003

Tennessee Valley Authority
ATTN: Mr. J. A. Scalice
Chief Nuclear Officer and
Executive Vice President
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: SEQUOYAH NUCLEAR PLANT - NRC INTEGRATED INSPECTION REPORT 50-327/02-05 AND 50-328/02-05

Dear Mr. Scalice:

On January 4, 2003, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Sequoyah Nuclear Plant, Units 1 and 2. The enclosed integrated inspection report documents the inspection results, which were discussed on January 8, 2003 with Mr. Purcell and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified.

Since the terrorist attacks on September 11, 2001, the USNRC has issued two Orders (dated February 25, 2002, and January 7, 2003) and several threat advisories to licensees of commercial power reactors to strengthen licensee capabilities, improve security force readiness, and enhance access authorization. The USNRC also issued Temporary Instruction 2515/148 on August 28, 2002, that provided guidance to inspectors to audit and inspect licensee implementation of the interim compensatory measures (ICMs) required by the February 25th Order. Phase 1 of TI 2515/148 was completed at all commercial nuclear power plants during calendar year (CY) '02, and the remaining inspections are scheduled for completion in CY '03. Additionally, table-top security drills were conducted at several licensees to evaluate the impact of expanded adversary characteristics and the ICMs on licensee protection and mitigative strategies. Information gained and discrepancies identified during the audits and drills were reviewed and dispositioned by the Office of Nuclear Security and Incident Response. For CY '03, the USNRC will continue to monitor overall safeguards and security controls, conduct inspections, and resume force-on-force exercises at selected power plants. Should threat conditions change, the USNRC may issue additional Orders, advisories, and temporary instructions to ensure adequate safety is being maintained at all commercial power reactors.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams/html (the Public Electronic Reading Room).

Sincerely,

/RA/

Stephen J. Cahill, Chief
Reactor Projects Branch 6
Division of Reactor Projects

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

Enclosure: NRC Inspection Report 50-327/02-05, 50-328/02-05
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

cc w/encl:
Karl W. Singer
Senior Vice President
Nuclear Operations
Tennessee Valley Authority
Electronic Mail Distribution

James E. Maddox, Acting Vice President
Engineering and Technical Services
Tennessee Valley Authority
Electronic Mail Distribution

Richard T. Purcell
Site Vice President
Sequoyah Nuclear Plant
Electronic Mail Distribution

General Counsel
Tennessee Valley Authority
Electronic Mail Distribution

Robert J. Adney, General Manager
Nuclear Assurance
Tennessee Valley Authority
Electronic Mail Distribution

Mark J. Burzynski, Manager
Nuclear Licensing
Tennessee Valley Authority
Electronic Mail Distribution

Pedro Salas, Manager
Licensing and Industry Affairs
Sequoyah Nuclear Plant
Tennessee Valley Authority
Electronic Mail Distribution

D. L. Koehl, Plant Manager
Sequoyah Nuclear Plant
Tennessee Valley Authority
Electronic Mail Distribution

Lawrence E. Nanney, Director
TN Dept. of Environment & Conservation
Division of Radiological Health
Electronic Mail Distribution

County Executive
Hamilton County Courthouse
Chattanooga, TN 37402-2801

Ann Harris
341 Swing Loop
Rockwood, TN 37854

John D. White, Jr., Director
Tennessee Emergency Management
Agency
Electronic Mail Distribution

Distribution w/encl: (See page 4)

Distribution w/encl:
R. Anand, NRR
L. Slack, RII EICS
RIDSNRRDIPMLIPB
PUBLIC

OFFICE	DRP/RII	DRP/RII	DRP/RII	DRP/RII	DRP/RII	DRP/RII	
SIGNATURE	RPC	RCH	NG	RT		WB	
NAME	RCarrion:aws	RHagar	NGarrett	RTelson	PTaylor	WBearden	
DATE	01/30/2003	01/30/2003	02/03/2003	01/31/2003	2/ /2003	01/30/2003	2/ /2003
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO
PUBLIC DOCUMENT	YES NO						

OFFICE	DRS/RII	DRS/RII	DRS/RII	DRS/RII	DRS/RII	DRS/RII	
SIGNATURE	DJ	AN	JE	JE for	WS	JK	
NAME	DJones	ANielsen	JEnnis	DForbes	WSartor	JKreh	
DATE	02/02/2003	01/30/2003	01/31/2003	01/31/2003	01/31/2003	02/03/2003	2/ /2003
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO
PUBLIC DOCUMENT	YES NO						

OFFICIAL RECORD COPY DOCUMENT NAME: C:\ORPCheckout\FileNET\ML030350027.wpd

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos:	50-327, 50-328
License Nos:	DPR-77, DPR-79
Report No:	50-327/02-05, 50-328/02-05
Licensee:	Tennessee Valley Authority (TVA)
Facility:	Sequoyah Nuclear Plant, Units 1 & 2
Location:	Sequoyah Access Road Soddy-Daisy, TN 37379
Dates:	September 29, 2002 - January 4, 2003
Inspectors:	R. Hagar, Acting Senior Resident Inspector N. Garrett , Acting Senior Resident Inspector R. Telson, Resident Inspector P. Taylor, Senior Project Engineer (Sections 1R05, 1R16, 40A1) R. Carrion, Project Engineer (4OA1) W. Bearden, Reactor Inspector (Section 1R12) D. Jones, Senior Health Physicist (4OA5.3) A. Nielsen, Health Physicist (Sections 2OS1, 4OA1) J. Ennis, Physical Security Specialist (Section 4OA5) D. Forbes, Physical Security Specialist (Section 4OA5) W. Sartor, Senior Emergency Preparedness Inspector (Sections 1EP1, 1EP4, 4OA1) J. Kreh, Emergency Preparedness Inspector (Sections 1EP1, 1EP4, 4OA1)
Approved by:	Stephen J. Cahill, Chief Reactor Projects Branch 6 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000327/2002-005, IR 05000328/2002-005, Tennessee Valley Authority; 9/29/2002 - 01/04/2003 Sequoyah Nuclear Plant, Units 1 and 2; routine integrated report.

The report covered a three-month period of inspection by resident inspectors and project engineers and announced inspections by emergency preparedness inspectors, health physicists, physical security inspectors, and a reactor inspector. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

A. Inspector-Identified and Self-Revealing Findings

None

B. Licensee-Identified Violations

None

Report Details

Summary of Plant Status

Unit 1 operated at or near 100 percent power for the entire inspection period. Unit 2 operated at or near 100 percent power until December 26, when a failure of the No. 3 reactor coolant pump motor resulted in an automatic reactor trip. Unit 2 entered a forced outage and remained shutdown for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather Protection

a. Inspection Scope

The inspectors performed a review of the cold weather and freeze protection systems and walked down portions of the systems protecting the emergency diesel generators (EDGs), essential raw cooling water (ERCW) intake structure, refueling water storage tanks (RWST), and the primary water storage tanks (PWST). The inspectors reviewed the UFSAR, technical specifications (TS), the licensee's freeze protection Procedure, O-PI-OPS-000-006.0, Freeze Protection, and the most recently completed preventive maintenance checklists from 1, 2-PI-EFT-234-706.0, Freeze Protection Heat Trace Functional Test, to assess the system readiness for cold weather and the status of system deficiencies. The inspectors compared licensee performance to the procedure requirements.

b. Issues and Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

The inspectors conducted two partial walkdowns of the following systems to verify the availability of redundant or diverse systems and components and that defense-in-depth was maintained during periods when safety equipment was inoperable. The inspectors reviewed applicable operating procedures to determine correct system lineups and walked down critical system components (e.g., power supplies and support systems) to verify they were properly aligned. Documents reviewed are listed in the attachment.

- Alternate EDGs during unavailability of EDG 1B-B
- Train 'A' EGTS during unavailability of 'B' EGTS

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors conducted a tour of seven areas important to reactor safety to assess the material condition, operational status, and operational lineup of fire protection systems, equipment and features. The inspectors assessed control of transient combustibles and ignition sources, and verified fire protection equipment was available for use. The inspectors reviewed Procedure SPP-10.10, Control of Transient Combustibles, and/or pre-fire plans for these areas, as appropriate. Documents reviewed are listed in the attachment.

- Auxiliary building Elev. 669 (1A-A safety injection pump room)
- Auxiliary building Elev. 669 (2A-A centrifugal charging pump room)
- Auxiliary building Elev. 690 (general area adjacent to component cooling water pump)
- Control building Elev. 669 (24, 48, and 250 V batteries and panels)
- Emergency Diesel Generator Building
- Essential Raw Cooling Water Building
- Unit 1 and 2 auxiliary building elevation 749 (125 V batteries and panels and 480 V panels).

On October 9, the inspectors observed the performance of the site fire brigade during an unannounced drill to evaluate the readiness of the fire brigade to fight fires. The drill observed simulated a fuel-oil fire in the DG building.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures

a. Inspection Scope

The inspectors reviewed the Updated Final Safety Analysis Report (UFSAR), flooding mitigation plans, and plant equipment to verify consistency with the licensee design requirements and risk analysis assumptions. Specifically, the inspectors reviewed selected risk-important plant design features and procedures and other documents intended to protect the plant and its safety-related equipment from internal flooding events. The inspectors conducted walkdowns of the following areas to verify that the floor drain system, including sump pump and level sensors, were operable. Documents reviewed are listed in the attachment.

- Auxiliary building elevations 653' and 669'
- Turbine building lower elevation

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

On October 9, the inspectors observed operators in the plant simulator respond to a simulated steam generator tube rupture accident, using Procedures E2, Faulted Steam Generator Isolation, and ES-1.1, [Safety Injection] Termination. The inspectors reviewed simulator evaluations for previously identified weaknesses and assessed the following operating crew attributes: (1) clarity and formality of communication; (2) ability to take timely action in the safe direction; (3) prioritization, interpretation, and verification of alarms; (4) correct use and implementation of procedures, including the alarm response procedures; (5) timely control board operation and manipulation, including high-risk operator actions; (6) oversight and direction provided by the shift manager, including ability to identify and implement appropriate TS action such as reporting and emergency plan actions and notifications; and (7) the group dynamics involved in crew performance.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

.1 Routine Inspection

a. Inspection Scope

The inspectors conducted a detailed review of the Units 1 and 2 Electric Board Room Chillers, Units 1 and 2 Vital Low Voltage AC/DC system, and the Units 1 and 2 Turbine Driven Auxiliary Feedwater Pump room sump system. The inspectors performed a system walkdown and interviewed the system engineers to determine the existing system configuration and deficiencies. The inspectors reviewed the system health reports, work orders (WOs), Problem Evaluation Reports (PER), and system modifications to assess the overall system condition and maintenance related issues. Additionally, the inspectors reviewed the licensee's maintenance rule (MR) reports and scoping documents to determine that the systems were properly scoped, in the proper maintenance rule category, and appropriate actions were being taken on the system. Plant procedures and documents reviewed are listed in the attachment.

b. Findings

No findings of significance were identified.

.2 Review of Maintenance Rule Periodic Assessment

a. Inspection Scope

The inspector reviewed the licensee's third MR periodic assessment report, Revision 0 and Revision 1, dated October 19, 2001 and November 1, 2002, respectively, to determine if the assessment was issued in accordance with the time requirements of the MR and included an evaluation of balancing reliability, unavailability, MR (a)(1) and (a)(2) activities, and use of industry operating experience. The review was for the period of January 1, 2000 - September 30, 2001. To verify compliance with 10 CFR 50.65, the inspector reviewed selected MR activities covered by the assessment period from the following risk significant systems: 120 VAC Vital Inverters (system 250B), Unit 1 1A Motor Driven Auxiliary Feedwater Pump (MDAFW), (system 003D), and the Unit 1 1B Coolant Charging pump (system 062). The inspector also reviewed selected maintenance rule activities associated with corrective actions for control room type W2 handswitches and the Unit 2 control rod system (system 085) which was recently reclassified as MR (a)(1). Additionally, the inspector reviewed quarterly system status reports and one MR self- assessment report issued during the period covered by the periodic assessment to determine if corrective actions for deficiencies were being appropriately addressed.

b. Issues and Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the following five Plan-of-the-Day (POD) documents or emergent activities to verify that the appropriate risk assessments were performed prior to removing equipment for work. When emergent work was performed, the inspectors verified that the risk for the work was assessed and required equipment was protected. The inspectors referenced Procedure SPP-7.1, Work Control Process and Instruction and 0-TI-DSM-000-007.1, Equipment to Plant Risk Matrix, during these inspection activities.

- Solid state protection system (SSPS) train A troubleshooting of ground indication following routine surveillance
- Plan of the Week for November 4 - 10, 2002
- Plan of the Week for November 12 - 15, 2002
- Plan of the Week for November 18 - 24, 2002 (includes emergent maintenance on Unit 2 containment door)
- Plan of the Week for November 25 - December 1, 2002

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-Routine Plant Evolutions - Unit 2 Automatic Reactor Trip Following Loss of the No. 3 Reactor Coolant Pump

a. Inspection Scope

The inspectors reviewed human performance associated with the loss of the No. 3 Reactor Coolant Pump (RCP) motor and subsequent automatic reactor trip that occurred on December 26, while Unit 2 was operating at 100 percent power. The review evaluated what occurred and how operators responded to the event. The inspectors reviewed plant operating logs, plant computer information, PER 02-15494-000, and conducted discussions with operations and engineering personnel. The inspectors also reviewed plant procedures, to determine whether the operator's response was in accordance with those procedures. Documents reviewed are listed in the attachment.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed selected functional evaluations (FE) and related documents to verify that the licensee had adequately assessed TS operability. In addition, the inspectors reviewed applicable documents to verify that the system or component was capable of performing required functions and any required compensatory actions were properly implemented. The inspectors reviewed the FEs against the requirements of licensee Procedure SPP-10.6, Engineering Evaluations for Operability Determination.

- PER 02-012877-000, Presence of air bubbles during venting of the 2 A-A Safety Injection pump and associated piping
- PER 02-013748-000, Operability of vital battery charger III
- PER 02-013981-000, Operability of Unit 1 TDAFW pump with a degraded room sump system
- PER 02-015592-000, Metal Wastage on Unit 2 Reactor Vessel Head

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds

a. Inspection Scope

The inspectors reviewed all open Operator Work Arounds (OWA), auxiliary unit operator round deficiencies, and selected caution orders and standing orders to evaluate the cumulative effects of OWAs on the reliability, availability, and potential for misoperation of plant systems. Specifically, the cumulative effects were evaluated for the potential to: (1) increase initiating event frequency, (2) affect multiple mitigating systems, or (3) affect the ability of operators to respond in a correct and timely manner to plant transients and accidents. The inspectors also assessed whether OWAs were being identified and entered into the corrective action program at an appropriate threshold. Documents reviewed are listed in the attachment.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope

The inspectors observed performance of or reviewed the test results for the following four post maintenance testing activities. The inspectors reviewed the licensee Procedure SPP-6.3, Pre/Post Maintenance Testing and verified that the tests selected and performed were adequate to show that work was properly completed and the affected equipment was operable. The inspectors reviewed the work packages to verify tests were performed as written and that the equipment was returned to the status required to perform its safety function.

- WO 02-013516-000, Repair of the Discharge Flexible Expansion Joint on EGTS Exhaust Fan B-B
- WO 02-006802-000, Replacement of Relief Valve 2-VLV-063-0536
- WO 02-014387-000, Repair of Unit 2 Upper Containment Inner Airlock Door
- WO 02-010525-000, Repair of Unit 2 A-A Containment Spray Pump

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities

a. Inspection Scope

The inspectors reviewed licensee records, conducted control room observations and observed selected maintenance and outage activities to verify that the licensee managed risk and maintained proper defense-in-depth of safety systems during the Unit 2 No. 3 RCP forced outage that commenced December 26, 2002.

Monitoring of Shutdown Activities: The inspectors reviewed plant cooldown data to insure that cooldown rates did not exceed TS limits.

Licensee Control of Outage Activities: The inspectors reviewed licensee Procedure O&SSDM 4.0, Outage and Site Scheduling Directive Manual and verified that required systems and equipment were available and protected to provide defense-in-depth of safety systems. The inspectors monitored the licensee response to a small unidentified leak in containment that had been identified prior to the forced outage. After initial walkdowns in upper and lower containment did not locate the leak, the licensee removed a missile barrier to inspect the reactor head area. The licensee located a fitting leak on the Reactor Vessel Level Indicating System (RVLIS) connection on top of the vessel which had leaked boric acid on the head and head flange area and a very slight leak from an empty control rod stand pipe canopy seal weld. The inspectors verified the licensee appropriately repaired the leaks, cleaned affected components, and addressed the buildup of boric acid on both the mirror insulation and the reactor vessel head and flange area from the RVLIS leak. The inspectors reviewed the licensee engineering assessments that evaluated the consequences of the two boric acid leaks on the reactor vessel head. The inspectors observed the results of the above efforts in containment and performed independent walkdowns of the containment to verify that debris and equipment which could affect emergency core cooling were removed.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors witnessed surveillance tests and/or reviewed test data of selected risk-significant Structures, Systems and Components (SSC) conducted using the surveillance instructions (SI), listed below, to assess, as appropriate, whether the SSCs met TS operability requirements, the UFSAR and licensee procedure requirements, and to determine if the testing effectively demonstrated that the SSCs were operationally ready and capable of performing their intended safety functions.

- 2-SI-OPS-063-129.A, 2A-A Safety Injection Pump and Discharge Piping Vent
- 1-SI-OPS-082-007.B, Electrical Power System Diesel Generator 1 B-B Surveillance Instruction
- 2-SI-SXP-003-201.2, Turbine Driven Auxiliary Feed Water Pump 2 A-A Performance Test

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation

a. Inspection Scope

The inspectors reviewed the objectives and scenario for the Sequoyah Nuclear Plant biennial, full-participation 2002 emergency response exercise to determine whether they were designed to suitably test major elements of the licensee's emergency plan.

During the period October 1 - 4, 2002, the inspectors observed and evaluated the licensee's performance in the exercise, as well as selected activities related to the licensee's conduct and self-assessment of the exercise. The exercise was conducted on October 2, 2002. Licensee activities inspected during the exercise included those occurring in the control room simulator, technical support center, operational support center and the central emergency control center. The inspectors' evaluation focused on the risk-significant activities of event classification, notification of governmental authorities, onsite protective actions, offsite protective action recommendations, and accident mitigation. The inspectors also evaluated command and control, the transfer of emergency responsibilities between facilities, communications, adherence to procedures, and the overall implementation of the emergency plan. The inspectors attended the post-exercise critique to evaluate the licensee's self-assessment process, as well as the presentation of critique results to plant management. Documents reviewed are listed in the attachment to this report.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

The inspectors reviewed changes made to the Radiological Emergency Plan (REP) since the last inspection, (conducted in October 2001) against the requirements of 10 CFR 50.54(q) to determine whether any of the changes decreased REP effectiveness. REP Revisions 62, 64, and 65 contained modifications to Appendix B (Sequoyah site-specific) involving only minor changes to the Emergency Action Levels

(EALs). No changes were made to the generic portion of the REP since Revision 61. The inspector ascertained whether the EAL modifications were reviewed with, and agreed upon by, State and local officials prior to implementation, as required by Section IV.B of Appendix E to 10 CFR Part 50.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY
Cornerstones: Occupational Radiation Safety

2OS1 Access Controls To Radiologically Significant Areas

.1 Access Controls

a. Inspection Scope

During the week of November 12, 2002, licensee activities for controlling worker access to radiologically significant areas were evaluated. The inspectors directly observed implementation of administrative and physical controls, appraised radiation worker and health physics (HP) technician knowledge and proficiency in implementing radiological controls, and reviewed procedural guidance and licensee records for the control of access to radiologically significant areas.

The inspectors directly observed the posting and locking status of 10 Locked High Radiation Areas (LHRAs) in the auxiliary building and radwaste storage areas. Based on known radiological conditions, posting and labeling in these areas were evaluated for consistency with procedural guidance and compliance with regulations. Independent dose rate measurements were taken in the Unit 1 Residual Heat Removal pump rooms and the results compared to current licensee surveys.

The inspectors evaluated radworker and HP technician performance during the movement of a High Integrity Container (HIC) from a shielded cask to the storage bunker. The inspectors' activities included: attending the pre-job briefing, observing the work, evaluating the use of radiological (airborne and direct radiation) controls, observing HP technician and radworker actions, evaluating Radiation Work Permit (RWP) requirements and alarm setpoints, and discussing the task evolution with selected workers. Radiation Control supervision was interviewed regarding controls for the HIC movement job, protocols for making at-power containment entries, and changes to the licensee's key control program.

The inspectors reviewed parts of six administrative guidance documents including procedures for: key control, posting of areas, access control to LHRAs and Very High Radiation Areas (LHRAs), and administration of RWPs. In addition, the inspectors reviewed key control logsheets to verify adherence to sign in/out protocols.

Radiation protection program activities and their implementation were evaluated against Title 10 Code of Federal Regulations (10 CFR) 19.12; 10 CFR 20, Subparts B, C, F, G, H, and J; TS Section 6.12, High Radiation Area; and approved licensee procedures. Licensee guidance documents, records, and data reviewed within this inspection area are listed in Section 2OS1 of the attachment.

b. Findings

No findings of significance were identified.

.2 Problem Identification and Resolution

a. Inspection Scope

Licensee PERs associated with access controls were reviewed. The inspectors also reviewed an audit in the area of airborne sampling. The inspectors assessed the licensee's ability to identify and resolve the identified issues. Licensee documents reviewed and evaluated in detail during inspection of this program area are identified in the attachment to this report.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

a. Inspection Scope

Licensee records were reviewed to determine whether the submitted Performance Indicators (PI) statistics were calculated in accordance with the guidance contained in Nuclear Energy Institute 99-02, Regulatory Assessment Performance Indicator Guideline.

Cornerstone: Mitigating Systems

- Safety System Unavailability, Residual Heat Removal (RHR)
- Safety System Functional Failures

The inspector assessed the accuracy of the PI for RHR system unavailability for the period July 1, 2001, through June 30, 2002, for both units by a review of out-of-service logs, operating logs, and the maintenance rule database. In addition the inspector verified RHR system selected unavailable hours documented as planned, unplanned, or fault exposure. To assess the accuracy of the safety system functional failures PI for the period of July 1, 2001, through June 30, 2002, the inspector reviewed maintenance rule records and licensee event reports (LERs) listed below:

- LER 50-327/2002-001, Westinghouse Error Resulted in a Non-Conservative Low-Low S/G Level Setpoint
- LER 50-327/2002-002, Reactor Trip Due to Breaker Failure and Trip of RCP on 2B Start Bus
- LER 50-328/2002-001, Inadvertent Auxiliary Feedwater Actuation Signal Due to RCS Temperature Decreasing below Setpoint
- LER 50-328/2002-002, Reactor Trip Due to Failed Relay in Rod Control System
- LER 50-328/2002-003, Reactor Trip Due to Failed valve that Isolated Main Generator Stator Cooling Water

Cornerstone: Barrier Integrity

- Reactor Coolant System Specific Activity

The inspectors reviewed daily Reactor Coolant System (RCS) chemistry sample analysis results for maximum dose equivalent iodine (DEI)-131 for the period from July 2001 through September 2002 to verify that the percent of TS limit was the same or lower than the maximum value reported by the licensee for the applicable month. The inspectors also observed a chemistry technician take and analyze a routine RCS grab sample to verify that the sample and analysis were performed according to the guidance in Instruction 0-TI-CEM-000-016.3, Sampling Methods - Primary Systems, and TI-12, Radiological Analytical Methods. The analyzed value of DEI from such RCS samples provided the data for the PI involving RCS specific activity.

Cornerstone: Emergency Preparedness

- Emergency Response Organization Drill/Exercise
- ERO Drill Participation
- Alert and Notification System Reliability

The inspector assessed the accuracy of the licensee's reported PI value for Emergency Response Organization (ERO) drill and exercise performance (DEP) through review of a sample of drill records. Documentation was reviewed for ERO drills conducted on October 5, 2001 and June 28, 2002; licensed operator requalification evaluations conducted during January-February 2002; and a Notification of Unusual Event declared on October 30, 2001, to verify the licensee's reported data regarding successes in emergency classifications, notifications, and protective action recommendations. In addition, through direct observation the inspectors assessed the accuracy of the licensee's determinations with respect to the ten DEP PI opportunities during the exercise on October 2, 2002, (see Section 1EP1). The latest reported DEP PI value (an aggregate of data from the past eight quarters) was 95.5 percent.

The inspector assessed the accuracy of the licensee's reported PI value for ERO drill participation through review of the training records (particularly drill and exercise rosters) for 8 of the 56 individuals assigned to key positions in the ERO as of the end of the second quarter of 2002. The latest reported ERO drill participation PI value was 96.4 percent.

The inspector assessed the accuracy of the PI for the alert and notification system (ANS) reliability through review of a sample of the licensee's records of the bi-weekly silent tests, monthly full volume tests, and an annual growl test conducted for the past 4 quarters. The latest reported ANS reliability PI value was 99.6 percent.

Cornerstone: Occupational Radiation Safety

- Occupational Radiation Safety

The PI results for the Occupational Radiation Safety were reviewed for the period October 2001 through September 2002. For the review period the inspectors: reviewed data reported to the NRC, sampled and evaluated applicable PERs, reviewed dosimeter alarm logs, and evaluated the licensee procedure for reporting PIs. The documents reviewed are listed in the attachment to this report. The licensee's guidance and disposition of reviewed issues and events were reviewed against Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Indicator Guide, Revision 2.

Cornerstone: Public Radiation Safety

- Radiological Control Effluent Release Occurrences

The inspectors reviewed the Radiological Control Effluent Release Occurrences PI results for the Public Radiation Safety Cornerstone from October 2001 through September 2002. For the review period the inspectors: reviewed data reported to the NRC, assessed selected liquid and gaseous effluent release data, reviewed out-of-service process radiation monitor and compensatory sampling data, and evaluated selected PERs documented in Section 4OA1 of the attachment to this report. The licensee's guidance and disposition of reviewed issues and events were reviewed against NEI 99-02, Regulatory Assessment Indicator Guide, Rev. 2.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

.1 Degradation of Unit 1 Auxiliary Feedwater Room Sump

a. Inspection Scope

The inspectors reviewed SQ970558PER and PER 02-013981-00 following discovery of the Unit 1 Turbine Driven Auxiliary Feedwater (TDAFW) sump pump in a degraded condition. The complete failure of the drain sump has the potential to render the TDAFW pump inoperable. The inspector reviewed the licensee program used for corrective actions, SPP-3.1, Corrective Action Program, Rev. 4, and conducted an in-depth review of the corrective action activities associated with past corrective actions and current corrective action plans to insure they included:

- Complete and accurate identification of the problem in a timely manner commensurate with its significance and ease of discovery.
- Consideration of extent of condition, generic implications, common cause, and previous occurrences.
- Classification and prioritization of the resolution of the problem commensurate with its safety significance.
- Identification of corrective actions in a timely manner which are appropriately focused to correct the problem.
- Completion of corrective actions in a timely manner commensurate with the safety significance of the issue.
- Identification of corrective actions which are appropriately focused to correct the problem.

b. Findings and Observations

The inspectors identified that the need for an adequate design basis for the sump had not been identified in the root cause for SQ970558PER. As a result, various PERs and work orders were written to address degradation that had resulted from design changes that modified sump inputs. The various new inputs to the sump affected the operation of the sump level indication and accelerated pump wear. The licensee subsequently wrote PER 02-015389-000 identifying the need for a design basis review of the sump system. The inspectors noted that the TDAFW sump system was not rendered inoperable by the degradation. No findings of significance were identified.

.2 Resolution of Diesel Generator Air System Blowdown

a. Inspection Scope

The inspectors reviewed PER's 01-007184-000, and 02-012966-000 documenting the uncontrolled blow-down of diesel engine starting air systems for Unit 1 and 2 Emergency Diesel Generators following an engine start. The inspectors reviewed the procedure used for the corrective action program, SPP-3.1, Corrective Action Program, Rev.4 and conducted an in-depth review of the licensee's problem identification and resolution activities to insure they included:

- Complete and accurate identification of the problem in a timely manner commensurate with its significance and ease of discovery.
- Consideration of extent of condition, generic implications, common cause, and previous occurrences.
- Classification and prioritization of the resolution of the problem commensurate with its safety significance.
- Identification of corrective actions in a timely manner which are appropriately focused to correct the problem.
- Completion of corrective actions in a timely manner commensurate with the safety significance of the issue.
- Identification of corrective actions which are appropriately focused to correct the problem.

b. Findings and Observations

The inspectors observed that the licensee identified and corrected the initial configuration problem of some of the installed pressure control valves (PCV) when they determined a plug had been improperly transferred between old and new valves. When the configuration problem was corrected, the first air system blowdown occurred. The licensee documented the problem in PER 01-007184-000. The licensee and the diesel vendor determined the uncontrolled air system blowdowns resulted from a change to the PCV design by the valve vendor. The modified PCV was incorporated into the diesel air start system without testing at the actual system pressures for the installed diesels. The valve vendor developed a modification to address the valve blowdown in 250 psi systems and issued a 10 CFR Part 21 report for the PCVs. The licensee developed a modification to install the modified components in the PCVs and closed the PER.

On November 8, 2002, another starting air system blowdown occurred. The licensee determined the vendor modified parts were developed for a 250 psi air system while the licensee diesel air start system was a 300 psi system. Licensee engineering had not fully scoped system operating parameters for the vendor during the PCV redesign effort. As a result, the licensee wrote PER 02-012966-000 and is working with the vendor to develop further modifications to the PCVs to prevent blowdowns on the 300 psi air start systems. The inspectors observed that the diesel generators remained operable following the air system blowdowns. No findings of significance were identified.

4OA3 Event Follow-up

.1 Unit 2 Automatic Reactor Trip

On December 26, following a Unit 2 automatic reactor trip from 100 percent power in response to the failure of No. 3 RCP motor, the inspectors evaluated plant status, mitigating actions, and the licensee's classification of the event, to enable the NRC to determine an appropriate NRC response. The event was reported to the NRC as event notification (EN) 39473 and documented in the licensee corrective action program as PER 02-015494-000.

.2 (Closed) LER 50-328/2002-002: Unit 2 Manual Reactor Trip as a Result of Control Rods Not Responding as Required. On May 19, 2002, at 4:47 a.m., operators manually tripped the Unit 2 reactor from Mode 2 following a rod control system urgent failure alarm on shutdown bank B and control bank D. The manual reactor trip was reported as Event No. 38928 in accordance with 10 CFR 50.72(b)(2). Reactor physics testing was in progress at the time and a slight positive reactivity existed in the core (power was increasing).

Operators were attempting to insert shutdown bank B when the rod control system urgent failure alarm actuated. Operators observed shutdown bank B group one at 40 steps and group two at 45 steps. Operators then attempted to insert control bank D. When group two of control bank D did not move, the reactor was manually tripped based on inability to insert control rods with an increasing power trend. The appropriate shutdown procedures were implemented without significant complication.

The cause of rod control system malfunction could not be determined conclusively at the time of the event but subsequent licensee investigation identified the most likely cause to be the intermittent bridging of electrical contacts in mercury-wetted multiplexing relay (C.P. Clare, and Company, Model No. HG3A 1004) in power cabinet 2BD. The relay was replaced.

The inspectors completed an in-office review of the LER, the annunciator response procedure, the event notification, operator logs, and licensee corrective action documentation. This event is addressed in the licensee's corrective action program in PER 02-005600-000. The inspectors did not identify any significant licensee performance deficiency in connection with the event.

4OA5 Other

.1 Temporary Instruction (TI) 2515/148, Appendix A, Pre-inspection Audit for Interim Compensatory Measures (ICMs) at Nuclear Power Plants

a. Inspection Scope

The inspectors conducted an audit of the licensee's actions in response to an order dated February 25, 2002, which required the licensee to implement certain interim security compensatory measures. The audit consisted of a broad-scope review of the licensee's actions in response to the order in the areas of operations, security, emergency preparedness, and information technology as well as additional elements prescribed by the TI. The inspectors selectively reviewed relevant documentation and procedures; directly observed equipment, personnel, and activities in progress; and discussed licensee actions with personnel responsible for development and implementation of the ICM actions. These activities were reviewed against the requirements of the order; the provisions of TI 2515/148, Appendix A; the licensee's response to the order; and the provisions of the NRC-endorsed NEI Implementation Guidance, dated July 24, 2002. A more in-depth review of the licensee's implementation of the February 25, 2002 Order, utilizing Appendix B and C of TI 2515/148 will be conducted in the near future.

b. Findings

No findings of significance were identified.

.2 Review of Institute of Nuclear Power Operations (INPO) Evaluation Report

On November 4, the inspectors reviewed the results of an INPO evaluation of licensee performance conducted during July 2002. The report was dated September 9, 2002. The report did not identify any significant licensee performance issues that had not been previously addressed and/or reviewed by the NRC.

.3 (Closed) Inspector Follow-up Item (IFI) 50-327/02-06-01 and 50-328/02-06-01, Follow-up on licensee's actions with regard to 1977 exposure data being entered into the reconstructed RADPERS database as 1973 data

a. Inspection Scope

During an inspection of the Radiological Exposure Records Reconciliation Project (RERRP), conducted on February 25 - March 1, 2002, at the licensee's corporate offices, inaccuracies were detected in the 1999 reconstructed Radiological Hygiene Personnel Exposure Database (RADPERS) database. Those detected inaccuracies involved incorrect entry of 1977 personnel exposure data into the 1999 reconstructed RADPERS database as 1973 exposures and was documented in problem evaluation report (PER) 02-000061-000 to investigate this apparent anomaly. Licensee investigation determined that similar inaccuracies also existed in the RADPERS database for the year 1975. Corrective actions involved recreating the reconstructed RADPERS database for the years 1973 and 1975, and comparing the 2002 recreated RADPERS exposure data to the Exposure Data Repository (EDR), the official dose records system, to determine whether any additional missing exposure data or dose mismatches existed. Five new line items for individuals missing exposure data and 20 line items for apparent dose mismatches were identified by that comparison.

The inspectors reviewed the licensee's final corrective actions during an inspection conducted December 2 - 4, 2002. The inspector reviewed hard copies of the original RADPERS records to evaluate the five instances of individuals with missing exposure records. The discrepancies from data transcription errors were reviewed and the inspectors verified that current EDR data were accurate. The inspectors reviewed records for ten of the twenty dose mismatches and verified that the issues were resolved and documented, as necessary. Exposure data for five individuals whose 1977 exposure results had been entered as 1973 exposures in the 1999 reconstructed RADPERS database were reviewed and the inspectors verified that the problems had been corrected in the 2002 reconstructed RADPERS database. In addition, ten additional samples of personnel dose records not identified as discrepant by the RERRP were reviewed for evaluated consistency between the EDR and original RADPERS databases.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

On January 8, 2003, the resident inspectors presented the inspection results to Mr. Rick Purcell and other members of his staff, who acknowledged the findings. The inspectors confirmed that proprietary information for the repair of the canopy seal weld was provided during the inspection.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:

G. Buchanan, Supervisor, Component Engineering
R. Brown, Project Manager, Corporate Licensing
M. Burzynski, Manager Nuclear Licensing
T. Carson, Maintenance Manager
E. Chandrasekaran, Manager, Radiological and Chemistry Services
D. Curtley, Maintenance Rule Coordinator
R. Drake, Maintenance and Modifications Manager
J. Flanigan, Program Manager, Radiological and Chemistry Services
R. Ford, Emergency Preparedness Planning Manager
E. Freeman, Operations Manager
J. Gates, Manager, Business & Work Performance
C. Kent, Radcon/Chemistry Manager
D. Koehl, Plant Manager
M. Lorek, Assistant Plant Manager
D. Lundy, Site Engineering Manager
B. Marks, Manager, Emergency Preparedness
R. Proffitt, Nuclear Engineering, Licensing Specialist
R. Purcell, Site Vice President
P. Salas, Licensing and Industry Affairs Manager
K. Stephens, Security Manager
J. Valente, Engineering & Support Services Manager
J. Vincelli, Superintendent, Radiation Control

NRC personnel:

R. Bernard, Region II Senior Reactor Analyst
W. Rogers, Region II Senior Reactor Analyst

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

50-328/2002-002	LER	Unit 2 Manual Reactor Trip as a Result of Control Rods Not Responding as Required (Section 4OA3).
50-327, 328/02-06-01	IFI	Follow up Licensee's Action 1997 Exposure Data Being Entered into Reconstructed RADPERS Database as 1973 Data (Section 4OA5.3).

Attachment

LIST OF DOCUMENTS REVIEWED

1R01 Adverse Weather Protection

1-PI-EFT-234-706.0, Freeze Protection Heat Trace Functional Test
2-PI-EFT-234-706.0, Freeze Protection Heat Trace Functional Test
0-PI-OPS-000-006.0, Freeze Protection

1R04 Equipment Alignment

0-SO-65-1, Emergency Gas Treatment System Air Cleanup and Annulus Vacuum

1R05 Fire Protection

Pre-fire Plan No: CON-0-669-00, Fire Protection Pre-fire Plan for Control Building, Elevation 669.
Drawing 1,2-47W494-6, Fire Protection Compartmentation-Fire Cells Plan EL 669.0 & 685.0
Drawing 1,2-47W600-251, Mechanical Instruments and Controls
Drawing 1,2-47W850-9, Flow Diagram, Fire Protection

1R06 Flood Protection Measures

Abnormal operating procedure (AOP), AOP-M.01, Loss of Essential Raw Cooling Water
AOP-M.03, Loss of Component Cooling Water
Annunciator response procedure, 1-AR-M15-B, Miscellaneous 1-XA-55-15B
0-PI-IFT-040-001.0, Functional Test of Auxiliary and Reactor Building Drains
Calculation SQN-SQS4-0056, Moderate Energy Line Breaks, Rev. 9
Drawing 1, 2-47W478-1, Mechanical, Embedded Piping , Base Slab
Drawing 1, 2-47W478-2, Mechanical, Embedded Piping , Base Slab
Drawing 1, 2-47W852-1, Mechanical Flow Diagram, Floor and Equipment Drains
PER 02-014271-000, The Auxiliary Building Passive Sump entrance on 653 elevation is covered with plastic/herculite along with its railing
PER 02-015275-000, Determine if plastic/herculite around the passive sump entrance would increase hydraulic resistance during a design basis flood

1R12 Maintenance Effectiveness

TI-4, Rev 13, Maintenance Rule Performance Indicator Monitoring, Trending, and Reporting
SPP-6.6, Rev 6, Maintenance Rule Performance Indicator Monitoring, Trending, and Reporting
PER 99-007433-000, Unavailability for 120 VAC vital inverters exceeded MR performance criteria
PER 99-010216-000, Unavailability for CCP 1B-B exceeded MR performance criteria
PER 00-000444-000, Loss of power to 2-IV vital inverter
PER 00-003773-000, 1A MDAFW pump did not start on first attempt with manual handswitch
PER 00-004434-000, 1A MDAFW pump failed to start with handswitch
PER 02-008088-000, Rod position for core position L-11 exhibited anomalous trace

MR Self Assessments SA-ENG-00-002, dated 2/24/00
CDEF 1044, Failure of 1A MDAFW Pump to start with handswitch
CDEF 1065, Fault with 1A MDAFW Pump handswitch
CDEF 1374, Failure of 1A RHR Pump to start with handswitch
CDEF 1375, Failure of 1A RHR Pump to start with handswitch
CDEF 1401, Failure of 1B RHR Pump to start with handswitch
CDEF 1514, Failure of control rod L11 to fully insert on reactor trip
Sequoyah Maintenance Rule Third Periodic Assessment, November 2002
System 003 Quarterly System Status Reports, April 2001 to September 2002
System 062 Quarterly System Status Reports, April 2001 to September 2002
System 085 Quarterly System Status Reports, April 2001 to September 2002
System 250 Quarterly System Status Reports, April 2001 to September 2002
MR Goal Setting Plan for W-2 handswitches, Rev 0
Expert Panel minutes for 10/18/01, 12/13/01, 10/17/02, and 9/4/02

1R14 Personnel Performance During Non-routine Plant Evolutions

EA-3-8, Manual Control of AFW Flow
2-SO-3-2, Auxililary Feedwater System
EPM-4, Emergency Procedure User's Guide
SPP-2.2, Administration of Site Technical Procedures

1R16 Operator Work-Arounds

Open OWAs (since IR 02-02) - SQ02002, Cooling Tower Level Transmitter not Design for Temperature Below 32F
Focus Area Report (components identifies for repairs)
Standing Order, 02 -008 Rev 1, Racking-In 6.9 Kv Breakers
Standing Order, 02-010, Rev 1, LCO 3.3.3.5 Minimum Instrument Requirements RHR
Standing Order, 02-017, Unit 2 EHC Un-Loader Valve Cover O-Ring Leakage
Standing Order, Unit 2 Fuel Leak Recommendations
Standing Order, ERCW Discharge Canal Weir Level Switch Transmitter Inop Less Than 32F

1EP1 Exercise Evaluation

Emergency Plans, Implementing Procedures, and Exercise-Related Documents
Emergency Plan Implementing Procedure (EPIP) -1, Emergency Plan Classification Matrix
Sequoyah EPIP-2, Notification of Unusual Event
Sequoyah EPIP-3, Alert
Sequoyah EPIP-4, Site Area Emergency
Sequoyah EPIP-5, General Emergency
Central Emergency Control Center EPIP-1
Manual for Sequoyah Nuclear Plant 2002 NRC/FEMA Graded Exercise
Exercise Participant's Initial Conditions Package for 2002 NRC/FEMA Graded Exercise

1EP4 Emergency Action Level and Emergency Plan Changes

Radiological Emergency Plan, Revisions 62 (effective March 20, 2002), 64 (effective July 30, 2002), and 65 (effective August 30, 2002)

2OS1 Access Control To Radiologically Significant Areas

Control Instruction (RCI)-29, Control of RadCon Keys
RCI-28, Control of Locked High Radiation Areas
RCI-24, Control of Very High Radiation Areas
RCI-15, Establishing and Updating Radiological Signpostings
Standard Program and Processes (SPP)-5.1, Radiological Controls, Rev. 4
Standard Department Procedure (RCDP)-3, Administration of Radiation Work Permits (RWPs)
RWP-02000005, EL. 609' Unit 2 Access Room - Inspection Valve Alignment, SI-11, Laundry & Trash Pickup and Surveillance During Potential Airborne Conditions
RWP-02000027, 729' OSF - Transfer Radioactive Waste Into the Low Level Onsite Storage Facility to Include Opening/Closing Modules, Inspections and Associated Work, Rev. 0
Key Control Logsheets from 11/01/02 to 11/13/02.
Radiation Survey # 110802-15, RHR Pump Room 1B-B, 11/08/02
Radiation Survey # 110802-14, RHR Pump Room 1A-A, 11/08/02
PER 02-013257-000, Shephard Calibrator Exposure Chamber Door Found Unlocked, 10/17/02.
PER 02-009785-000, Containment Requires Posting as an Airborne Area, 08/21/02.
PER 02-006906-000, Unit 1 653' Pipe Chase Found to be Unlocked, 06/27/02.
PER 02-006531-000, Vendor did not Respond Properly to ED Alarm, 06/14/02
SQN-RP-01-002, Self-Assessment Report - Air Sampling, 01/22/01 to 02/09/01

4OA1 Performance Indicator Verification

Emergency Plans, Implementing Procedures, and Exercise-Related Documents
Emergency Plan Implementing Procedure (EPIP) -1, Emergency Plan Classification Matrix
Sequoyah EPIP-2, Notification of Unusual Event
Sequoyah EPIP-3, Alert
Sequoyah EPIP-4, Site Area Emergency
Sequoyah EPIP-5, General Emergency
Central Emergency Control Center EPIP-1
Manual for Sequoyah Nuclear Plant 2002 NRC/FEMA Graded Exercise, Revision 3, dated 9/26/2002
Exercise Participant's Initial Conditions Package for 2002 NRC/FEMA Graded Exercise
Radiological Emergency Plan, Revisions 62 (effective March 20, 2002), 64 (effective July 30, 2002), and 65 (effective August 30, 2002)
BP-242, Performance Indicator Information to NRC
SPP-3.4, Performance Indicator for NRC Reactor Oversight Process
Monthly effluent dose reports, from October 2001 to September 2002
Effluent monitor availability, from October 2001 to September 2002.
Access records for dose alarms, from October 2001 to September 2002

PER 02-004891-000, Soapy Water Discharging from Hose into Storm Drain
PER 02-003899-000, Soil Samples Around Unit 1 RWST Found to be Contaminated
PER 02-006254-000, Documenting INPO Significant Event Report (SEN)-233, Recurring Exposures Exceeding ED Setpoints
PER 02-003511-000, Unit 2 690' Annulus Door Found Improperly Locked

4OA2 Identification and Resolution of Problems

SQN-40-D053 EPM-MDE-11694, Flow Analysis of Units 1 & 2 Aux. FW Turb. Pump Condensate Sump Pump an dSG Blowdown Sample Panel Drains
SQ970558PER, The Unit 1 Turbine Driven Auxiliary Feedwater Pump room sump pumps were found running continuously
02-003224-000, During cleaning of the 1A1 Component Cooling System the suction strainers for TDAFW Pump sump pump was found fouled
02-013253-000, Unable to monitor sump performance because sump pump was running continuously
02-013981-000, Unit 1 TDAFW sump system is degraded
02-014002-000, Turbine Driven Auxiliary Feedwater Pump sump overflow check valve may not be opening to allow overflow draining of the sump
02-014055-000, The Unit 1 TDAFW Pump sump Hi-Hi level switch is neither starting the standby pump nor alarming in the MCR
02-014754-000, The design basis for the TDAFW sump is not clear
02-015231-000, Unit 1 Terry Turbine Pump room sump pump would not keep up with the in leakage to the sump and ran continuous
02-015389-000, PER SQ970558BPER concerning the Auxiliary Feedwater Terry Turbine Sump Level issues failed to identify the lack of a clear design criteria
01-000489-000, The regulated load side vent port of the 200 psi starting air regulators on the 1A Diesel Generator were all found plugged during inspection
01-007184-000, An uncontrolled blowdown of the Diesel Generator Starting Air System occurred on one of the 1B2 engine pressure control valves (PCV) during the performance of 1-SI-OPS-082-007.B on 8/14/01
01-007350-000, An uncontrolled blowdown of the Diesel Generator Starting Air System occurred on one of the 2A2 engine PCV, 2-PCV-82-223A, during the performance of 2-SI-OPS-082-007.A on 8/21/0
01-008578-000, An uncontrolled blowdown of the DG Starting Air System occurred on the 2B2 engine PCV, 0-PCV-82-263A, during the performance of 2-SI-OPS-082-007.B on 9/24/01
02-012966-000, 0-PCV-82-203A, 1B-B D/G engine #2 south PCV, blew down for approximately 10 seconds during the idle start for 1-SI-OPS-082-007.B

4OA3 Event Follow-up

NRC Event Notification (EN) 39471, 12/26 Unit 2 automatic reactor trip due to No. 3 RCP motor failure
PER 02-015494-000: Unit 2 reactor trip due to motor trip on No. 3 RCP.
Licensee Event Report (LER) 50-328/2002-002, Manual Reactor Trip Resulting from the Failure of Control Rods to Respond
NRC Event Notification No. 38928, 4-Hour Non-Emergency 10 CFR 50.72(b)(2)(iv)(B) Report of RPS Actuation (Scram)
2-AR-M4-B (A-6) Rod Control System Urgent Failure Annunciator Response Procedure