



Results:

In the area of the plant support, one violation was identified concerning an inadequate post modification test of the diesel driven fire pump after installation of a new control panel, paragraph two. The panel was installed on October 22, 1993, but failed a surveillance test on January 25, 1994. The automatic start portion of the surveillance instruction used as the post modification test was not performed.

In the area of engineering, a noncited violation was identified concerning environmental equipment qualification of electrical cables, paragraph 5. The licensee identified that four cables were not included as part of the original qualification. The cables were evaluated to be able to perform their intended safety function.

In the area of plant support, the licensee completely decontaminated the Unit 3 drywell allowing entry of workers in street clothes, paragraph five. This will benefit a number of radiological control programs.

REPORT DETAILS

1. Persons Contacted

Licensee Employees:

- O. Zeringue, Senior Vice President, Nuclear Operations
- *R. Machon, Site Vice President
- *J. Rupert, Engineering and Modifications Manager
- T. Shriver, Licensing and Quality Assurance Manager
- D. Nye, Recovery Manager
- E. Preston, Operations Manager
- *J. Maddox, Engineering Manager
- *M. Bajestani, Technical Support Manager
- A. Sorrell, Chemistry and Radiological Controls Manager
- C. Crane, Maintenance Manager
- *P. Salas, Licensing Manager
- *R. Wells, Compliance Manager
- J. Corey, Radiological Control Manager
- J. Brazell, Site Security Manager

Other licensee employees or contractors contacted included licensed reactor operators, auxiliary operators, craftsmen, technicians, and public safety officers; and quality assurance, design, and engineering personnel.

NRC Personnel:

- *C. Patterson, Senior Resident Inspector
- J. Munday, Resident Inspector
- *R. Musser, Resident Inspector
- *G. Schnebli, Resident Inspector

*Attended exit interview

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

2. Surveillance Observation (61726)

The inspectors observed and/or reviewed the performance of required SIs. The inspections included reviews of the SIs for technical adequacy and conformance to TS, verification of test instrument calibration, observations of the conduct of testing, confirmation of proper removal from service and return to service of systems, and reviews of test data. The inspectors also verified that LCOs were met, testing was accomplished by qualified personnel, and the SIs were completed within the required frequency. The following SI was reviewed during this reporting period:



In IR 94-01 an URI was opened because the DG fire pump failed to auto start during the performance of surveillance Procedure O-SI-4.11.B.1.f, Simulated Automatic and Manual Actuation of the High Pressure Fire Pump System, on January 25, 1994. The licensee initiated Problem Evaluation Report BPPER 940010 for the failure. It was determined that the fire pump controller was replaced on October 22, 1993, under DCN V 24443A. Work Order 93-01245-00 specified Procedure O-SI-4.11.B.1.f as the PMT. However, the AUTO START section of the SI was not performed, and the steps of the SI were marked as "N/A." This was done by the system engineer with the only justification from discussions with cognizant personnel being the manual start section of the SI was performed, and the controller was considered a like for like replacement.

The inspector inspected the old and new controller in the DG fire pump enclosure on March 10, 1994. The controller is the only controller for the diesel. It is several feet tall and contains numerous components inside the cabinet. The physical dimensions of the cabinet were different but the components inside looked similar with some differences. Even if the cabinet was identical it would be reasonable to expect the entire control functions to be tested. Since the AUTO START portion of the SI was not performed, this resulted in the DG fire pump not being operable from October 22, 1993, until the problem was corrected on January 28, 1994. This is a violation of TS 6.8.1.1, which requires that the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978 shall be established, implemented, and maintained. Included in Appendix A are procedures for modification and testing activities. SSP-8.3 Modification Test Program requires that modification testing shall be performed as appropriate to demonstrate conformance with the design requirements of the installed or modified component and also ascertain the effect on the overall system. Testing was not performed to demonstrate the auto start function of the DG fire pump after installation of a new control panel. This violation is identified as VIO 259, 260, 296/94-06-01, Inadequate PMT of DG Fire Pump.

The problem with the old controller was that it had been modified internally without proper documentation at some time in the past. This was not identified when the new controller was installed. It was determined that the 19'CR lock-out relay was inhibiting auto start of the diesel. It was disabled and the diesel auto started. The vendor stated that the relay was originally intended to be used as a lock-out for low suction pressure or dual pump operation. At BFNP it was being used as a redundant safety stop contact to allow shut-down of the diesel from the control room in case the auto start relay seal-in fails to release. The licensee corrected the auto start logic under DCN T28513A.

One violation was identified in the Surveillance Observation area.

3. Maintenance Observation (62703)

Plant maintenance activities were observed and/or reviewed for selected safety-related systems and components to ascertain that they were



conducted in accordance with requirements. The following items were considered during these reviews: LCOs maintained, use of approved procedures, functional testing and/or calibrations were performed prior to returning components or systems to service, QC records maintained, activities accomplished by qualified personnel, use of properly certified parts and materials, proper use of clearance procedures, and implementation of radiological controls as required.

Work documents were reviewed to determine the status of outstanding jobs and to assure that priority was assigned to safety-related equipment maintenance which might affect plant safety. The inspectors observed the following maintenance activity during this reporting period:

On March 14, 1994, during the performance of Procedure 2-SI-4.2.B-1(B), Core and Containment Cooling Systems Reactor Low Water Level Instrument Channel B Calibration, the terminal side cover threads of the rosemount transmitter were found to be galled and would not allow the cover to be removed. The instrument in question, 2-LT-003-0058B, was declared inoperable, and a 24 hour LCO was entered. The licensee determined that the transmitter would have to be replaced and therefore initiated a priority 2 work order, WO 94-03867-00. A new transmitter was obtained from stores, bench calibrated and installed in accordance with the work order. Following installation, the instrument was tested in accordance with Procedure 2-SI-4.2.B-1(B) and returned to service. The licensee is investigating the cause of the galling of the cover and plans to ensure it is not a widespread problem. The inspector will follow the licensee's action in this matter.

No violations or deviations were identified in the Maintenance Observation area.

4. Operational Safety Verification (71707)

The NRC inspectors followed the overall plant status and any significant safety matters related to plant operations. Daily discussions were held with plant management and various members of the plant operating staff. The inspectors made routine visits to the control rooms. Inspection observations included instrument readings, setpoints and recordings, status of operating systems, status and alignments of emergency standby systems, verification of onsite and offsite power supplies, emergency power sources available for automatic operation, the purpose of temporary tags on equipment controls and switches, annunciator alarm status, adherence to procedures, adherence to LCOs, nuclear instruments operability, temporary alterations in effect, daily journals and logs, stack monitor recorder traces, and control room manning. This inspection activity also included numerous informal discussions with operators and supervisors.

General plant tours were conducted. Portions of the turbine buildings, each reactor building, and general plant areas were visited. Observations included valve position and system alignment, snubber and hanger conditions, containment isolation alignments, instrument readings,



housekeeping, power supply and breaker alignments, radiation and contaminated area controls, tag controls on equipment, work activities in progress, and radiological protection controls. Informal discussions were held with selected plant personnel in their functional areas during these tours.

a. Unit Status

Unit 2 operated continuously during this period without any significant problems. At the end of the period the unit had been on-line for 288 days.

b. Secondary Containment Interlocks

On February 23, 1994, the inspector observed the performance of the post modification test of the secondary containment personnel access lock interlock system for the Unit 1/2 reactor building to turbine building doors. This test verified the proper installation and operation of the interlocks recently modified in accordance with DCN W13294. This modification was performed as a result of numerous failures of the previously existing interlock system. These problems are discussed in IRs 50-259, 260, 296/93-18, 93-32, 93-45, and 94-01.

The newly modified interlock arrangement differs from the previous system in that the door from the turbine building into the airlock is now normally locked. To gain access to or exit from the airlock through the turbine building to airlock door, a push button switch located on either side of the door will have to be depressed. This switch unlocks the turbine building door and simultaneously locks the doors from the airlock to the Unit 1 reactor building and Unit 2 reactor building. To gain access to the airlock from either of the reactor buildings, one must ensure only that the green indicating light is illuminated. The new design is an improvement in that it ensures that either the turbine building to airlock door or the reactor building to airlock doors are locked at all times.

The same modification was performed on the Unit 2/3 reactor building to turbine building airlock. The inspector observed the post modification testing for that airlock on March 11, 1994. In each case, the post modification test was performed satisfactorily. Following design closeout, both airlocks were made operable on March 18, 1994.

c. Oil Spill at the Diesel Driven Fire Pump

On February 15, 1994, during the performance of the Hydrogen Trailer Port Flow Test portion of the Annual Inspection of the Turbine Building and Service Building Automatic Fixed Nozzle System in accordance with Procedure FP-0-026-INS006, the diesel driven fire pump started automatically due to low fire system



pressure. Although the pump was designed to start on low system pressure, neither the procedure nor the personnel performing the test recognized the fact that the diesel fire pump would start during the surveillance. When the diesel fire pump started, the Unit 1 operator, who was assigned to monitor the test from the control room, assumed that the diesel start was a part of the test and therefore did not send an auxiliary operator to check the running engine. Because the fire protection personnel performing the test were not aware that the test caused the diesel fire pump to start, they also did not inspect the running engine. As a result of these factors, the engine ran unmonitored for approximately 1 hour 15 minutes until it was shut down remotely from the control room. A conscious decision by fire operations personnel was made not to inspect the engine following its shutdown.

Approximately 15 hours later, an operations auxiliary operator performing his daily rounds discovered the diesel fire pump's oil filler cap on the floor with oil spilled on the engine and floor of the diesel fire pump house. The diesel fire house is located on a pier type structure over the plants cold water channel (which is the suction source for the pump). The operator also noticed an oil sheen on the cold water channel that he assumed had leaked from the diesel fire pump house. Upon informing the control room of his discovery, senior control room personnel made offsite notifications to the State of Alabama, EPA, and the NRC. Because 3 gallons of oil were required to return the engine's crankcase to its normal full level, the licensee conservatively estimated this was the amount of oil released to the cold water channel. The licensee successfully roped off the spill with containment booms and absorbent pads and prevented oil from being pumped into the intake and the Tennessee River. Following cleanup of the engine and pump house, the engine was successfully tested and returned to service.

The licensee initiated an incident investigation (II-B-94-09) on this matter. The licensee could not positively determine what caused the oil cap to come loose under normal operating conditions. Discussions held with the engine's vendor indicated that the caps seal had most likely deteriorated over time and the seal should be replaced. Currently, operations is verifying the cap is secured in place each day and the seal has been replaced. Other corrective actions for this matter are as follows:

- A review of fire protection procedures will be performed to identify actions which might cause a second fire pump to start, identify these areas in the procedures and why responses would be required by personnel.
- All Fire Operations and Operations personnel will review the II report.



- All Fire Operations personnel will review Procedure SSP-8.1, Conduct of Testing, section 3.2, Pretest Briefing.
- Appropriate disciplinary action will be initiated for personnel involved in this matter.

During the inspectors review of this matter, an inconsistency in the application of second party verification was noted. Procedure O-SI-4.11.B.2.a, Diesel Driven Fire Pump Operability Test, paragraph 7.2, instructs personnel to check the engine oil and add or drain oil as necessary. To add oil, the filler cap must be removed and subsequently replaced. No verification of any kind is required for replacement of the oil fill cap. However, the next steps in the procedure require checking of the pumps gear oil, the diesel's air cleaner and the draining of water and sediment from the fuel oil tank. In the first two instances, a second party verification is required to ensure that the gear oil filler plug and the cup on the oil bath air cleaner are replaced. In the case of the fuel oil drain tank valves, independent verification is required to ensure that the drain valves are closed. Licensee procedure SSP-12.6, Verification Program, requires that independent or second-party verification be utilized for components in the fire protection system necessary for the system to supply extinguishing media to the fire. Without the diesel driven fire pump's oil cap properly installed, the diesel fire pump would eventually become unable to supply water as required. Therefore, the oil filler cap should be checked by a second party when removed. This matter has been discussed with licensee personnel and plans are to revise Procedure O-SI-4.11.B.2.a to include either second party or independent verification for the replacement of the oil filler cap.

No violations or deviations were identified in the Operational Safety Verification area.

5. Unit 3 Restart Activities (30702, 37828, 61726, 62703, 71707)

The inspector reviewed and observed the licensee's activities involved with the Unit 3 restart. This included reviews of procedures, post-job activities, and completed field work; observation of pre-job field work, in-progress field work, and QA/QC activities; attendance at restart craft level, progress meetings, restart program meetings, and management meetings; and periodic discussions with both TVA and contractor personnel, skilled craftsmen, supervisors, managers and executives.

a. Major Activities

Major activities worked during this period were conduit installation, conduit support, cable pulling, large bore support small bore hangers, and CRDR. The schedule is currently in the process of being revised.

b. Drywell Decontamination

During this period the licensee decontaminated the drywell permitting workers to enter in normal street clothes. This effort is commendable and will be beneficial for a number of radiological programs such as dose reduction, personnel contamination, etc.

c. Unqualified Cables

During a review of Unit 3 activities the licensee identified that four cables in the control circuits of the DG breakers were not evaluated for EQ. The cables were for the common accident signal that run between shutdown board A and B rooms through elevation 593 of the reactor building. The licensee initiated Problem Evaluation Report 940053 concerning the problem. The cable material was identified for the cables and an operability evaluation performed. It was determined that since the cable material could be identified the requirements for radiation damage and temperature ratings were met. It was concluded the cables would perform their intended safety function. The inspector questioned the licensee if the guidance in Generic Letter 88-07, Modified Enforcement Policy Relating to 10 CFR 50.49, "Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants", was followed. The licensee reviewed the letter and concluded the guidance was followed. Three of the four cables could be qualified as the procurement data was traceable. The other cables will be replaced during the next refueling outage scheduled for October 1994 under DCN W2217. SSP-6.5, Electrical Equipment Qualification (EQ) Program controls the EQ program for equipment in compliance with 10 CFR 50.49. It specifies the instructions for establishing, design, and procurement on EQ components. The inspector reviewed the licensee action and concluded this problem met the criteria for a noncited violation, NCV 260/94-06-02, EQ Qualification of Cables. This violation will not be cited because the licensee's effort in identifying and correcting the violation meet the criteria specified in Section VII.B of the Enforcement Policy.

d. System SPOC's

The purpose of the SPOC process is to provide a systematic method for evaluating items and issues which potentially affect the ability of Unit 3 systems and Unit 3 portion of common systems to perform as designed. This process determines the status of each item/issue and assures completion of those which affect system return to operation for Unit 3 restart. For each system evaluated, the SPOC process may be accomplished in two phases. Phase I SPOC addresses the Restart Test Program testing milestone if that milestone exists for the system, and establishes system status control by the Operations department. Phase II SPOC addresses System Return to Operation in preparation for the declaration of system operability. Each phase ensures that open



items/issues which potentially affect the phase are either completed, or reviewed and satisfactorily dispositioned. The SPOC process does not declare system operability. Rather, it is used to support a declaration of system operability which is made after other requirements for operability are satisfied (e.g., support systems available, performance of Surveillance Instructions, etc.).

The following system SPOC packages were reviewed to ensure they complied with SSP 12.55, Unit 3 System Pre-Operability Checklist, Revision 5. Minor deficiencies were resolved with the system engineer.

- 1.) System 034, Vacuum Priming System - Minor System SPOC, Phase II completed on February 25, 1994. The SPAE package was completed on November 17, 1993.

The purpose of the Vacuum Priming System is to provide a continuous air removal process from the CCW outlet water boxes and also provide a means for priming the suction header portion of the RCW and Greenhouse Water systems. The boundary for this evaluation consisted of the Unit 3 portion of the system which included the Unit 3 condenser inlet shutoff valve, the Greenhouse Water Pump C shutoff valve, the condenser outlet water box vent piping, and the RCW portion of the system between the shutoff valves between the RCW strainer suction header and between the shutoff valves to the RCW pump suction header. The inspectors accompanied licensee personnel on the SPOC walkdown on February 15, 1994, and agreed that there were no deficiencies of the portion of the system inspected. The SPOC and SPAE packages were also reviewed to ensure all open items were placed on a punchlist and that the inspectors concurred deferred items were acceptable for closeout of the SPOC package.

- 2.) Unit 3 Raw Service Water SPOC Walkdown

On March 7, 1994, the inspector accompanied the licensee on the Phase II SPOC walkdown on the Unit 3 portions of the RSW system. In addition to the inspector, the walkdown team was comprised of the system engineer, a senior reactor operator, an auxiliary operator, a maintenance planner, a quality assurance evaluator, and a representative from GE. The team walked down the RSW system at various locations throughout the plant. These areas included the offgas building, intake structure and the Unit 3 turbine building.

Three minor discrepancies were noted by the team and were documented in the SPOC walkdown package. These deficiencies included a leaking drain funnel at the 3C CCW pump, the handwheel for valve 3-DRV-025-0536 was broken, and that various sections of RSW piping at the intake and offgas



building had missing or damaged insulation. In addition, appropriate dispositioning documents (such as work requests/work orders) were generated for corrective action. Currently, the licensee plans to complete the phase II of the RSW SPOC by March 24, 1994.

6. Reportable Occurrences (92700)

The LERs listed below were reviewed to determine if the information provided met NRC requirements. The determinations included the verification of compliance with TS and regulatory requirements and addressed the adequacy of the event description, the corrective actions taken, the existence of potential generic problems, compliance with reporting requirements, and the relative safety significance of each event. Additional in-plant reviews and discussions with plant personnel, as appropriate, were conducted.

- a. (CLOSED) LER 259/93-02, Diesel Generator Auto-Started as a Result of Breaker Cell Switch Operation.

As a result of this event, the licensee initiated II-B-93-010, which determined the event was caused by a combination of two factors. The first factor was inadequate cautionary directions in the subject work order and procedure for maintenance activities which have the potential to initiate an ESF. The second factor was a mindset in the personnel involved to the extent that, since the 4 KV Shutdown Board C was tagged out and de-energized, cell switch actuation in the breaker compartment would not affect other equipment. To prevent recurrence of this event the licensee committed to revising the PM program to require a bus outage to perform breaker compartment maintenance that could cause an ESF actuation due to operation of the cell switch. In addition, a cautionary note regarding potential cell switch operation was added to maintenance procedures for the subject switchgear, and responsible licensee personnel were trained in the root causes and corrective actions for this event. The inspectors reviewed the II, the revised procedures and PM program, and the training records for responsible personnel. The inspectors considered the licensee's corrective actions for this event to be adequate. This LER is closed.

- b. (CLOSED) LER 260/93-03, Main Steam Safety/Relief Valves Exceeded the TS Setpoint Limit to Open as Result of Disc/Seat Bonding.

This LER was initiated due to 11 of 13 MSRVS failing the setpoint test acceptance criteria of $\pm 1\%$ during setpoint testing at Wyle Labs. The apparent cause was corrosion bonding of the valve pilot disc to seat interface resulting in an upward setpoint drift. This issue has been an on-going problem for all BWR's and is currently being investigated by the BWROG Drift Fix Development Committee of which the licensee has been an active member. To correct the immediate problem the licensee replaced all Unit 2



MSRV's with valves from Unit 3 that were previously refurbished, retested, and recertified by Wyle Labs. For the longer term corrective action the licensee is participating in the latest BWROG recommendation which is the installation of a platinum-coated pilot disc. The inspectors will continue to follow this generic concern during future testing of the MSRVS. This LER may be closed.

7. Action on Previous Inspection Findings (92701, 92702)

a. (CLOSED) DEV 260/92-41-02, Drywell Control Air Dew Point

This issue concerned the licensee's response to Generic Letter 88-14, Instrument Air Supply System Problems Affecting Safety-Related Equipment, as it pertained to the drywell control air system. The response had stated that the system was designed to provide compressed air with a dew point of 30 degrees Fahrenheit. It also stated that the MSIVs and MSRVS required an air supply with a dew point of -40 degrees F, which is much less than the system is capable of providing. The deviation also stated that the dew point required by TI-34, Monthly Control Air System Dryer Dew point Test and Purge Control, 35 degrees F, was not being maintained.

In response, the licensee submitted a supplemental response to GL 88-14, dated July 30, 1993, which stated that the drywell control air system was capable of supplying air with a dew point of 35 degrees F. It further stated that the supply air dew point requirements for the MSRVS had since been deleted by the vendor and replaced with qualitative requirements (i.e., oil free, moisture free air). The dew point requirement for the MSIVs was also revised by the vendor to indicate 35 degrees F. In addition, the licensee modified the system to include new moisture sensing elements and controllers. The inspector reviewed the completed TI-34 surveillance for the months of December, 1993, and January and February, 1994, and noted the system is performing acceptably. Based on these actions, the inspector considers this item closed.

b. (CLOSED) URI 259, 260, 296/94-01-05, DG Fire Pump Auto Start Failure

This item was upgraded to a violation in this report for an inadequate PMT. The URI is closed.

c. (OPEN) VIO 259, 260, 296/92-37-01, Failure to Verify Secondary Containment Isolation.

During the performance of Procedure 3-SI-4.2.A-10, Reactor Building and Refueling Floor Ventilation Radiation Monitor Calibration and Functional Test, on October 27, 1992, the Unit 3 reactor zone inboard and outboard exhaust dampers failed to close in response to a containment isolation test signal. This failure



was not recognized for approximately 13.5 hours. This event was identified as VIO 259, 260, 296\92-37-01, Failure to Verify Secondary Containment Isolation and LER 50-296/92003 Failure Of The Reactor Zone Isolation Dampers To Close. Investigation by the licensee determined that the most probable cause for the inboard damper failing to close was due to debris binding the damper. The failure of the outboard damper to close was due to a failed SOV.

Since that time the licensee has clarified the SI and provided training to Operations as corrective action for the failure not being identified. Corrective action for the dampers failing to close include analysis of the failed SOV by the vendor and by the licensee and periodically inspecting the ductwork for debris. The vendor stated that the cause of the SOV failure appeared to be due to chattering which could be caused by inadequate voltage or contamination. The licensee saw no evidence of contamination during its analysis and after monitoring voltage of the power supply and seeing no abnormalities, disagreed with the vendors conclusions. Following analysis of several SOVs and a review of SOV failures from other licensees, it was determined that the most probable cause for the failure was due to the lubricant gelling and resultant galling the SOV internals. The licensee replaced the affected SOV as well as others of the same model. The vendor has stated that this model SOV can be replaced with an identical SOV except that the replacement contains no lubricant. The licensee intends to replace the existing SOVs with this new model as they come available. It is expected that they will all be replaced prior to startup from the upcoming refueling outage. Following this replacement, the licensee will continue to monitor these SOVs to determine if this corrects the failures. Pending the resolution, this violation and LER will remain open.

8. Site Organization

During this period R. Machon, Plant Manager was named Site Vice President.

On March 18, 1994, it was announced that the following changes were made:

E. Preston	-	Operations Manager to Plant Manager
B. Moll	-	Operations Superintendent to Acting Operations Manager
R. G. Jones	-	Operations Supervisor to Acting Operations Superintendent
J. Maddox	-	Engineering Manager to Manager of Maintenance and Modifications
J. Rupert	-	Engineering and Modifications Manager to Engineering and Materials Manager
D. Stinson	-	Project Management to Recovery Manager
D. Nye	-	Recovery Manager to Acting Manager of Projects
Chris Crane	-	Maintenance Manager to Business and Work Performance Manager



9. Exit Interview (30703)

The inspection scope and findings were summarized on March 18, 1994, with those persons indicated in paragraph 1 above. The inspectors described the areas inspected and discussed in detail the inspection findings listed below. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspectors during this inspection. Dissenting comments were not received from the licensee.

<u>Item Number</u>	<u>Description and Reference</u>
259, 260, 296/94-06-01	VIO, Inadequate PMT of DG Fire Pump, paragraph 2.
260/94-06-02	NCV, EQ Qualification of Cables, paragraph 5.

Licensee management was informed that two LERs, one DEV, and one URI were closed.

10. Acronyms and Initialisms

BFNP	Browns Ferry Nuclear Plant
BWR	Boiling Water Reactor
BWROG	Boiling Water Reactor Owners Group
CCW	Condenser Circulating Water
CFR	Code of Federal Regulations
CRDR	Control Room Design Review
DCN	Design Change Notice
DG	Diesel Generator
EPA	Environmental Protection Agency
EQ	Environmental Qualification
ESF	Engineered Safety Feature
GE	General Electric
GL	Generic Letter
II	Incident Investigation
IR	Inspection Report
LCO	Limiting Condition for Operation
LER	Licensee Event Report
MSIV	Main Steam Isolation Valve
MSRV	Main Steam Safety Relief Valve
NCV	Noncited Violation
NRC	Nuclear Regulatory Commission
PM	Preventive Maintenance
PMT	Post Maintenance Test
QA	Quality Assurance
QC	Quality Control
RCW	Raw Cooling Water
RSW	Raw Service Water
SI	Surveillance Instruction
SOV	Solenoid Operated Valve



SPAE
SPOC
SSP
TS
URI
VIO
WO

System Plant Acceptance Evaluation
System Pre-Operability Checklist
Site Standard Practice
Technical Specification
Unresolved Item
Violation
Work Order

