UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W.
ATLANTA, GEORGIA 30323

Report No: 50-302/89-15

Licensee: Florida Power Corporation
3201 34th Street, South
St. Petersburg, FL 33733

Docket No: 50-302 License No.: DPR-72

Facility Name: Crystal River 3

Inspection Conducted: June 3 - July 7, 1989

Inspectors: S. J. Vias 7/31/89
for P. Holmes-Ray, Senior Resident Inspector Date Signed

S. J. Vias 7/31/89
for J. Tedrow, Resident Inspector Date Signed

Approved by: [signature] 8/1/89
R. Crlenjak, Section Chief Date Signed
Division of Reactor Projects

SUMMARY

Scope:

This routine inspection was conducted by two resident inspectors in the areas of plant operations, security, radiological controls, Licensee Event Reports and Nonconforming Operations Reports, facility modifications, followup of onsite events, annual emergency drill, and licensee action on previous inspection items. Numerous facility tours were conducted and facility operations observed. Some of these tours and observations were conducted on backshifts.

Results:

Two violations were identified: Failure to maintain correct battery cell electrolyte level, paragraph 2.b; Failure to adhere to plant procedures, paragraphs 2.b(6) and 4.b(2).

A non-cited licensee identified violation is discussed in paragraph 4.b(1).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*J. Anna, Supervisor Document Control
R. Arnold, Nuclear Team Instructor
*J. Brandely, Manager, Nuclear Integrated Planning
*J. Campbell, Assistant Nuclear Maintenance Superintendent
*M. Collins, Nuclear Safety & Reliability Superintendent
*G. Cowles, Senior Nuclear Results Engineer
*B. Hickle, Manager, Nuclear Plant Operations
*S. Johnson, Manager, Site Nuclear Services
*A. Kazemfar, Supervisor Radiological Support Services
*K. Lancaster, Manager, Site Nuclear Quality Assurance
*W. Marshall, Nuclear Operations Superintendent
P. McKee, Director, Nuclear Plant Operations
*W. Nielsen, Assistant Maintenance Superintendent (Acting)
*J. Roberts, Assistant Nuclear Chemistry and Radiation Protection Superintendent
*W. Rossfeld, Manager, Nuclear Compliance
*F. Sullivan, Manager, Plant System Engineer
*E. Welch, Manager, Procurement Engineer
*R. Widell, Director Nuclear Operations Site Support
*M. Williams, Nuclear Regulatory Specialist
*K. Wilson, Manager, Nuclear Licensing

Other licensee employees contacted included office, operations, engineering, maintenance, chemistry/radiation and corporate personnel.

*Attended exit interview

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

2. Review of Plant Operations (71707)

The plant began this inspection period in the process of cooling down from the hot standby (Mode 3) condition to initiate repairs to the reactor coolant pump (RCP-1A/1C/1D) mechanical seal packages. The plant reached the cold shutdown (Mode 5) condition at 12:30 A.M. on June 4, 1989. Following repairs to the pump seals, a plant heatup was commenced and the hot standby condition reached at 4:30 A.M. on June 14. On June 16 a reactor startup was performed and the reactor was taken critical at 11:16 A.M. followed by power operation (Mode 1) at 12:03 P.M. At 1:25 P.M. on June 16 a loss of offsite power occurred which resulted in a reactor trip (see paragraph 6.b of this report for details on the reactor trip). Following an investigation into the causes and completion of the corrective actions for the reactor trip, another plant startup was commenced and the reactor was taken critical at 7:57 P.M. on June 17. Power operation was resumed at 8:55 P.M. on June 17. On June 29 the reactor was shutdown to repair an emergency diesel generator and at 11:42 A.M. the hot standby condition was reached. At 8:15 P.M. on June 29 another loss of offsite power occurred due to a fault in switchyard

breakers (see paragraph 6.c for details on this event). Following restoration of offsite power, a plant cooldown was commenced on June 30 and the plant was placed in cold shutdown at 5:22 P.M. After repairs were completed to the emergency diesel generator, a reactor startup was commenced and criticality achieved at 7:22 P.M. on July 6 followed by the resumption of power operation at 8:15 P.M. The plant remained in power operation for the duration of this inspection period.

a. Shift Logs and Facility Records

The inspector reviewed records and discussed various entries with operations personnel to verify compliance with the Technical Specifications (TS) and the licensee's administrative procedures.

The following records were reviewed:

Shift Supervisor's Log; Reactor Operator's Log; Outage Shift Manager's Log; Startup Manager's Log; Equipment Out-Of-Service Log; Shift Relief Checklist; Auxiliary Building Operator's Log; Active Clearance Log; Daily Operating Surveillance Log; Short Term Instructions (STI); and Selected Chemistry/Radiation Protection Logs.

In addition to these record reviews, the inspector independently verified clearance order tagouts.

No violations or deviations were identified.

b. Facility Tours and Observations

Throughout the inspection period, facility tours were conducted to observe operations and maintenance activities in progress. Some operations and maintenance activity observations were conducted during backshifts. Also, during this inspection period, licensee meetings were attended by the inspector to observe planning and management activities.

The facility tours and observations encompassed the following areas: security perimeter fence; control room; emergency diesel generator room; auxiliary building; intermediate building; battery rooms; and, electrical switchgear rooms.

During a tour of the battery rooms on June 21, 1989, the inspector noticed that the electrolyte levels on several battery cells for the "A" and "B" Station Batteries (DPBA-1A and DPBA-1B) were slightly above the maximum level marks specified on the cells.

This observation was immediately discussed with the nuclear shift supervisor who declared the station batteries inoperable and implemented corrective action to reduce the electrolyte level in the affected cells to the proper level. From their initial investigation into this event, the licensee believes this condition had existed since

June 16 when a loss of offsite power occurred. During the loss of offsite power, the station batteries supplied emergency power to the vital busses for a brief period of time.

This event was similar to an event which occurred on February 1, 1989 (Licensee Event Report LER 89-04) when the licensee identified this same condition on the station batteries and the fossil Unit 1 and 2 batteries. The licensee's corrective action to prevent recurrence of this situation consisted of revising surveillance procedures to prevent overfilling of the battery cells. The licensee has also contacted the battery manufacturer who stated that slightly increased electrolyte levels above the maximum level mark would not adversely effect the operation or capabilities of the batteries.

Although a slightly increased electrolyte level in the battery cell does not apparently adversely affect the capabilities of the station battery, Technical Specification (TS) 3.8.2.3 requires that both station batteries be operable and specifies in surveillance requirement 4.8.2.3.2.b.3 that the electrolyte level of each connected cell be between the minimum and maximum level indication marks for the battery to be considered operable. Failure to maintain the correct cell electrolyte levels in the station batteries rendered both batteries inoperable and is considered to be a violation of TS 3.8.2.3.

Violation (302/89-15-01): Failure to maintain the correct cell electrolyte levels in the station batteries which rendered both batteries inoperable.

The inspectors also observed conditions in the following areas:

(1) Monitoring Instrumentation - The following instrumentation and/or indications were observed to verify that indicated parameters were in accordance with the TS for the current operational mode:

Equipment operating status; area atmospheric and liquid radiation monitors; electrical system lineup; reactor operating parameters; and auxiliary equipment operating parameters.

No violations or deviations were identified.

(2) Shift Staffing

The inspector verified that operating shift staffing was in accordance with TS requirements and that control room operations were being conducted in an orderly and professional manner. In addition, the inspector observed shift turnovers on various occasions to verify the continuity of plant status, operational problems, and other pertinent plant information during these turnovers.

A review of the licensee's requalification program for licensed operators was performed to ensure that operators who fail to requalify are removed from licensed duties. Procedures TDP-203,

Licensed Operator Requalification Training Program, and TDP-113, Remedial Training Programs, were reviewed. These procedures require the training supervisor to verbally notify the Operations Superintendent within 8 hours that a licensed operator has failed to requalify and that the operator be removed from licensed duties. Following this notification, the Operations Superintendent informs the individual and the Nuclear Shift Supervisor (NSS) who makes an appropriate entry into the NSS log book.

The verbal notification is subsequently followed by a written description of required remedial training which specifies limitations on work activities which the individual is allowed to perform. These limitations include the removal of the individual from the performance of licensed duties.

No violations or deviations were identified.

(3) Plant Housekeeping Conditions

Storage of material and components, and cleanliness conditions of various areas throughout the facility were observed to determine whether safety and/or fire hazards existed.

During plant tours, degraded cleanliness conditions were observed in the "B" Decay Heat Pit and the Sodium Hydroxide Tank Room. These conditions were discussed with licensee personnel who took immediate action to clean up the areas.

No violations or deviations were identified.

(4) Radiological Protection Program

Radiation protection control activities were observed to verify that these activities were in conformance with the facility policies and procedures, and in compliance with regulatory requirements. These observations included:

- Entry to and exit from contaminated areas, including step-off pad conditions and disposal of contaminated clothing;
- Area postings and controls;
- Work activity within radiation, high radiation, and contaminated areas;
- Radiation Control Area (RCA) exiting practices; and,
- Proper wearing of personnel monitoring equipment, protective clothing, and respiratory equipment.

Area postings were independently verified for accuracy by the inspector. The inspector also reviewed selected Radiation Work

Permits (RWPs) to verify that the RWP was current and that the controls were adequate.

No violations or deviations were identified.

(5) Security Control

In the course of the monthly activities, the inspector included a review of the licensee's physical security program. The performance of various shifts of the security force was observed in the conduct of daily activities to include: protected and vital area access controls; searching of personnel, packages, and vehicles; badge issuance and retrieval; escorting of visitors; patrols; and compensatory posts. In addition, the inspector observed the operational status of Closed Circuit Television (CCTV) monitors, the Intrusion Detection system in the central and secondary alarm stations, protected area lighting, protected and vital area barrier integrity, and the security organization interface with operations and maintenance.

During the loss of offsite power event which occurred on June 29, a security alert was declared. This event was reviewed by a NRC Security Specialist and is discussed in more detail in NRC Inspection Report 50-302/89-16.

(6) Fire Protection

Fire protection activities, staffing and equipment were observed to verify that fire brigade staffing was appropriate and that fire alarms, extinguishing equipment, actuating controls, fire fighting equipment, emergency equipment, and fire barriers were operable.

During a review of the Nuclear Operator (NO) logs on June 22, the inspector verified fire brigade team member qualifications utilizing the licensee's computerized qualification list dated June 15. The inspector noted that one individual, of the four listed in the NO log as fire brigade team members during June 18 through June 22, was not listed on the computerized list. This finding was discussed with licensee training personnel who confirmed that the individual's fire brigade qualification had expired May 31.

Administrative procedure AI-2205, Administration of CR-3 Fire Brigade Organization, Section 4.3 requires that the fire brigade team be composed of four qualified fire brigade team members. Failure to have four qualified fire team members on the plant's fire brigade is contrary to the requirements of procedure AI-2205 and is considered to be a violation of TS 6.8.1.f.

Violation (302/89-15-02): Failure to properly implement plant procedures as required by TS 6.8.1.

This violation is similar to a violation cited in NRC Inspection Report 50-302/88-01 (Violation 302/88-01-01 example C). Apparently the licensee's corrective action was not sufficient to prevent recurrence of this nonconformance.

(7) Radioactive Waste Controls

Selected liquid and gaseous releases were observed to verify that approved procedures were utilized, that appropriate release approvals were obtained, and that required surveys were taken.

No violations or deviations were identified.

3. Review of Maintenance (62703) and Surveillance (61726) Activities

Surveillance tests were observed by the inspector to verify that approved procedures were being used; qualified personnel were conducting the tests; tests were adequate to verify equipment operability; calibrated equipment was utilized; and TS requirements were followed.

The following tests were observed and/or data reviewed:

- SP-168, Radiation Monitoring Flow Rate Instrumentation Calibration;
- SP-317, RC System Water Inventory Balance;
- SP-321, Power Distribution Breaker Alignment and Power Availability Verification;
- SP-417, Refueling Interval Integrated Plant Response to Engineered Safeguards Actuation;
- SP-422, RC System Heatup and Cooldown Surveillance; and,
- SP-435, Valve Testing During Cold Shutdown.

In addition, the inspector observed maintenance activities to verify that correct equipment clearances were in effect; work requests and fire prevention work permits, as required, were issued and being followed; quality control personnel were available for inspection activities as required; and, TS requirements were being followed.

Maintenance was observed and work packages were reviewed for the following maintenance activities:

- Rebuild and static pressure test of reactor coolant pump mechanical seals in accordance with procedure MP-166, RC Pump Seal Package Refurbishment and Testing;

- Troubleshooting of Borated Water Storage Tank (BWST) level indicators DH-7-LI, DH-37-LI in accordance with procedures MP-531, Troubleshooting Plant Equipment, SP-111, Valve Lineup Verification for Critical Instrumentation, and SP-162, Post-Accident Monitoring Instrumentation Calibration;

- Troubleshooting and replacement of BWST level switch DH-11-LS in accordance with procedure MP-531, PM-231, Calibration of Level Switches (LS), and SP-111;

- Replacement of BWST level switch DH-19-LS in accordance with modification MAR 89-03-11-01 and procedure SP-111;

- Replacement of motor for motor operated valve MSV-55 in accordance with procedures MP-402C, Maintenance of Limitorque Valve Operators Type SMB-0 thru SMB-4, SMB-4T, SMB-5, SB-0 thru SB-4, and HBC Units, and MP-405, Installing Repairing and Terminating Control Power and Instrumentation Cables;

- Troubleshooting of vital bus transfer switch VBXS-1A in accordance with procedures MP-531, PM-130, Static Inverters, and post maintenance testing in accordance with procedure SP-455, Functional Test of Vital Bus Redundant Transformers and Static Transfer Switches;

- Troubleshooting of a failed lockout relay (86B/ESA) for the "A" Engineered Safeguards bus in accordance with procedure MP-531;

- Troubleshooting the failure of the "C" Reactor Building Cooling Fan (AHF-1C) to start in accordance with procedure MP-531;

- Removal of electrolyte from the "A" and "B" station batteries (DPBA-1A/DPBA-1B);

- Troubleshooting loss of crankcase vacuum for the "B" Emergency Diesel Generator (EDG-1B) in accordance with procedure MP-531; and,

- Replace piston, firing pressure test and run in test on EDG-1B in accordance with Colt Industries, Fairbank Morse Engine Technical Manual.

No violations or deviations were identified.

4. Review of Licensee Event Reports (92700) and Nonconforming Operations Reports (71707)

a. Licensee Event Reports (LERs) were reviewed for potential generic impact, to detect trends, and to determine whether corrective actions appeared appropriate. Events that were reported immediately were reviewed as they occurred to determine if the TS were satisfied. LERs were reviewed in accordance with the current NRC Enforcement Policy.

(1) (Closed) LER 88-13: This LER reported that the control room ventilation (HVAC) control air tubing did not meet seismic requirements. This report was previously discussed in NRC Inspection Report 50-302/88-18. The licensee has issued a supplement dated February 20, 1989. The supplemental report stated that similar problems were identified on the Decay Heat

Closed Cycle Cooling (DC), Spent Fuel Cooling (SF) and Emergency Diesel Generator (EDG) ventilation systems.

The licensee has completed modifications to the above systems to correct the identified problems. The temporary modification has been installed on the EDG room ventilation dampers (MAR T89-01-20-01) to keep these dampers open until a modification can be completed to seismically support the control air tubing (MAR 89-01-20-02).

(2) (Open) LER 88-17: This LER reported the failure to perform post maintenance testing for containment isolation check valves FWV-43 and FWV-44. This report was previously discussed in NRC Inspection Report 50-302/88-29. The licensee has written procedures SP-604, FWV-43, FWV-44 Leak Test, and SP-435, Valve Testing During Cold Shutdown, to perform this post maintenance testing but has not completed an evaluation to determine if other containment isolation check valves are being properly tested. This LER remains open pending completion of the evaluation.

(3) (Open) LER 88-19: This LER reported the misalignment of a battery charger. This report was previously discussed in NRC Inspection Report 50-302/88-31 and the licensee has issued a supplemental report dated October 31, 1988. The licensee has revised procedure CP-115, In-Plant Equipment Clearance and Switching Orders, to allow only qualified operators to hang clearances and has reviewed this event with operations personnel. The labels on the charger power supply switches have been changed to more clearly identify their function. The licensee is presently evaluating the setpoint for an alarm to alert operators when the station battery is supplying the load. This LER will remain open pending completion of the evaluation.

(4) (Open) LER 88-20: This LER reported that a safety related snubber was found inoperable. This report was previously discussed in NRC Inspection Report 50-302/88-34. The licensee has revised procedure MP-120, Maintenance of Pressure Seal Gate Globe and Swing Check Valves, to track the removal and replacement of interferences. An analysis has been performed of the affected piping which concluded that the piping would maintain its pressure and structural integrity in the case of a seismic event. Other maintenance procedures will be reviewed to detect similar deficiencies. This LER will remain open pending the review of other maintenance procedures for similar deficiencies.

(5) (Open) LER 88-22: This LER reported the inadvertent isolation of the Decay Heat Removal system. This event was previously discussed in NRC Inspection Report 50-302/88-34. Although the licensee has revised the necessary operating procedures OP-209, Plant Cooldown, OP-202, Plant Heatup, and OP-404, Decay Heat Removal System, to reflect the new isolation pressure setpoint for

this system, the following corrective action remains to be accomplished:

- A review of the automatic closure circuitry will be conducted to determine any practical methods of reducing instrument error; and,
- An evaluation of the need for an alarm to alert operators that pressure is approaching the automatic isolation setpoint.

This LER will remain open pending completion of corrective action.

b. The inspector reviewed Nonconforming Operations Reports (NCORs) to verify the following: TS are complied with, corrective actions as identified in the reports or during subsequent reviews have been accomplished or are being pursued for completion, generic items are identified and reported as required by 10 CFR Part 21, and items are reported as required by TS.

All NCORs were reviewed in accordance with the current NRC Enforcement Policy.

(1) NCOR 89-121 reported that a fire service water valve (FSV-76) was found in the incorrect closed position. This was a redundant flow path with no loss of normal system function. The licensee identified this situation during the performance of a monthly surveillance procedure (SP-367, Fire Service Valve Alignment and Operability Check) which checks the position of these valves. The licensee took immediate action to return the valve to the correct open position. This matter is considered to be a licensee identified Non-Cited Violation (NCV).

NCV (302/89-15-03): Failure to maintain a fire service water valve in the correct position as required by procedure SP-367.

(2) NCOR 89-140 reported excessive reactor coolant pump seal leakage. On June 11, 1989 during a fill and vent of the reactor coolant system, the licensee identified that the seal leakage associated with reactor coolant pump RCP-1C was approximately 1.25 gallons per minute. No seal leakage should be evident. Upon discovering this condition, the licensee suspended the plant startup and investigated the cause for this situation. From post seal installation job critiques, the licensee discovered that the maintenance procedure (MP-165, RC Pump Seal Cartridge Removal and Replacement) for performance of the reactor coolant pump seal package installation was not adhered to. Although step 7.2.24 of procedure MP-165, which requires that the adjusting cap for the seal be positioned against the pump half coupling, had been signed off as completed on June 10, the licensee's inspection revealed that this step had in actuality not been performed.

Failure to adhere to the requirements of procedure MP-165 is contrary to the requirements of TS 6.8.1.a and is considered to be a violation. This violation is considered to be another example of the violation discussed in paragraph 2.b(6) of this report.

Although this matter was identified by the licensee, it is being cited as a violation due to the self-disclosing nature of the event.

5. Design, Design Changes and Modifications (37828)

Installation of new or modified systems were reviewed to verify that the changes were reviewed and approved in accordance with 10 CFR 50.59, that the changes were performed in accordance with technically adequate and approved procedures, that subsequent testing and test results met acceptance criteria or deviations were resolved in an acceptable manner, and that appropriate drawings and facility procedures were revised as necessary. This review included selected observations of modifications and/or testing in progress.

The following modification approval records (MARs) were reviewed and/or associated testing observed:

- MAR 89-01-19-01, Evaluation and Modification to Miscellaneous Safety Related Air Handling Systems;
- MAR T89-01-20-01, Temporary Modification to EDG AH System;
- MAR 88-06-17-01, Modification to AHF-17, 18 and 19 A and B Fan Dampers, and test procedures TP-1 and TP-2;
- MAR 87-07-23-03, Control Complex Ventilation Damper Upgrade, and test procedure TP-1B;
- MAR 88-07-06-01, Gag CHV-56, 57, 58 and 59 in Position, and test procedure TP-1A; and,
- MAR 89-01-20-02, EDG HVAC Modifications.

No violations or deviations were identified.

6. Followup of Onsite Events (93702)

a. At 11:25 A.M. on June 6 the licensee declared an Unusual Event when a tornado was sited near the plant. No plant damage resulted from this event and the Unusual Event was exited at 11:45 A.M.

b. At 1:25 P.M. on June 16 a reactor trip from approximately 12% power occurred. This trip occurred from a loss of offsite power supplied to the Unit 3 startup transformer. The loss of offsite power event and reactor trip will be discussed in more detail in a separate report (NRC Inspection Report 50-302/89-17). At 1:30 P.M. the licensee implemented the emergency plan and declared an Alert due to a sustained loss of offsite power (15 minutes). Upon restoration of offsite power, the emergency plan was exited at 5:35 P.M.

c. At 3:15 A.M. on June 29 an Unusual Event was declared when a plant shutdown required by the TS was commenced to affect repairs to the "B" Emergency Diesel Generator. At 8:15 P.M., with the plant in the hot standby condition, another loss of offsite power occurred. This event occurred during a lightning strike which resulted in a fault in the 230 KV switch yard which isolated the Unit 3 startup transformer.

Plant equipment operated as designed and at approximately 8:25 P.M. the alternate source of offsite power was utilized to provide power to the "B" Engineered Safeguards busses. At 9:37 P.M. offsite power was restored to the Unit 3 startup transformer and by 10:07 P.M. all plant loads were being supplied off this transformer. The inspector arrived in the control room shortly after the event began and verified stable plant conditions and proper implementation of the licensee's emergency plan and compliance with the TS.

7. Annual Emergency Drill

On June 21, 1989, the annual emergency drill was conducted by the licensee to verify the effectiveness of the Radiological Emergency Response Plan and implementing procedures. In addition to the licensee, the participants in the drill included the State of Florida, Citrus and Levy Counties, and the NRC. The drill was observed by a number of personnel, including the NRC. Details of the drill, including the results of the critiques held on June 25, 1989 are discussed in NRC Inspection Report 50-302/89-12.

8. Licensee Action on Previously Identified Inspection Findings (92702 & 92701)

a. (Closed) Violation 302/89-01-01, Failure to adhere to TS 3.6.3.1 requiring containment isolation valves be operable.

The inspector reviewed and verified implementation of the corrective actions stated in FPC response letter dated March 14, 1989.

b. (Closed) Violation 302/89-01-02, Failure to assure that conditions adverse to quality are promptly identified and corrected.

The inspector reviewed and verified implementation of the corrective actions stated in FPC response letter dated May 10, 1989.

c. (Closed) Violation 302/89-01-03, Failure to adhere to the requirements of procedure OP-202.

The inspector reviewed and verified implementation of the corrective actions stated in FPC response letter dated May 10, 1989.

d. (Closed) IFI 302/88-31-03: Review the licensee's completion of emergency feedwater check valve (FWV-43/44) modifications and completion of procedure changes to incorporate spectacle flanges.

The licensee has completed modifications MAR 88-07-11-01/02 to install the new type of check valves and has revised procedure OP-605, Feedwater System, Valve Checklist I to incorporate the spectacle flanges. Although the licensee has not yet completely closed the modification packages, the inspector considers the majority of the modification process complete and this matter is considered closed.

9. Exit Interview (30703)

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on July 7, 1989. During this meeting, the inspector summarized the scope and findings of the inspection as they are detailed in this report with particular emphasis on the violations.

The licensee representatives acknowledged the inspector's comments and did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection.

Item Number	Description and Reference
50-302/89-15-01	Violation - Failure to maintain the correct cell electrolyte levels in the station batteries which rendered both batteries inoperable.
50-302/89-15-02	Violation - Failure to properly implement plant procedures as required by TS 6.8.1.
50-302/89-15-03	NCV - Failure to maintain a fire service water valve in the correct position as required by procedure SP-367.

10. Acronyms and Abbreviations

BWST - Borated Water Storage Tank
CCTV - Closed Circuit Television
CFR - Code of Federal Regulations
DC - Decay Heat Closed Cycle Cooling
EDG - Emergency Diesel Generators
HVAC - Control Room Ventilation
LER - Licensee Event Report
MAR - Modification Approval Record
NCOR - Nonconforming Operation Report
NCV - Non-Cited Violation
NO - Nuclear Operator
NRC - Nuclear Regulatory Commission
NSS - Nuclear Shift Supervisor
PM - Preventive Maintenance
RCA - Radiation Control Area
RWP - Radiation Work Permit

SF - Spent Fuel Cooling
SP - Surveillance Procedure
STI - Short Term Instruction
TS - Technical Specification
VIO - Violation