



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W., SUITE 2900
ATLANTA, GEORGIA 30323-0199

Report No.: 50-395/95-17

Licensee: South Carolina Electric and Gas Company
Columbia, SC 29218

Docket No.: 50-395

License No.: NPF-12

Facility Name: Virgil C. Summer Nuclear Station

Inspection Conducted: October 1 through 31, 1995

Lead Inspector:

B. R. Bonser
B. R. Bonser, Senior Resident Inspector

11/28/95
Date Signed

Inspector:

T. R. Farnholtz, Resident Inspector
S. Dembek, Project Manager, NRR

Approved by:

G. A. Belisle
G. A. Belisle, Chief
Reactor Projects Branch 5
Division of Reactor Projects

11/28/95
Date Signed

SUMMARY

Scope:

This routine resident inspection was conducted on site in the areas of plant status, plant operations including evaluation of licensee self-assessment activities, maintenance observations, surveillance observations, on-site engineering, plant support activities, and previous inspection item follow up. Licensee backshift activities were inspected on October 2, 3, 5 and 9, 1995.

Results:

Plant Operations

A violation was identified for a failure to promptly determine the cause of and correct a condition affecting the Fuel Handling Building differential pressure before allowing fuel movement (paragraph 3.2).

A plant transient occurred during monthly main turbine control valve testing. An evaluation of a similar transient during August had not been completed and corrective actions had not been fully defined (paragraph 3.3).

The actions taken to identify and monitor suspected emergency feedwater system check valve backleakage were considered appropriate (paragraph 3.4).

A management review board meeting to discuss the fuel handling building differential pressure issue was considered beneficial and served to further the understanding of the event by licensee senior management with specific actions assigned to the general managers. Some lack of preparation by the participants was observed (paragraph 3.5).

Maintenance

A non-cited violation was identified for an inadequate work procedure and the failure to follow work instructions during a modification to remove two radiation monitors from service (paragraph 4.1).

Observed maintenance activities and surveillance testing was performed in accordance with approved procedures. Good work practices were observed (paragraph 4.1 and 5).

Engineering

Procedures concerning the 10 CFR 50.59 program were found to be thorough. A non-cited violation was identified for the failure to identify all FSAR changes made pursuant to 10 CFR 50.59 that had not been previously submitted to the NRC (paragraph 6.2).

REPORT DETAILS

1. Persons Contacted

1.1 Licensee Employees

- *F. Bacon, Manager, Chemistry Services
- *K. Beale, Nuclear Operations Project Coordinator
- L. Blue, Manager, Health Physics
- *M. Browne, Manager, Design Engineering
- *S. Byrne, General Manager, Nuclear Plant Operations
- *M. Fowlkes, Manager, Nuclear Licensing & Operating Experience
- *S. Furstenberg, Manager, Maintenance Services
- *S. Hunt, Manager, Quality Systems
- *V. Kelley, Nuclear Protection Services
- *D. Lavigne, General Manager, Nuclear Safety
- *J. Nesbitt, Manager, Technical Services
- K. Nettles, General Manager, Station Support
- H. O'Quinn, Manager, Nuclear Protection Services
- M. Quinton, General Manager, Engineering Services
- G. Taylor, Vice President, Nuclear Operations
- *R. Waselus, Manager, Systems & Component Engineering
- R. White, Nuclear Coordinator, SC Public Service Authority
- *B. Williams, Manager, Operations
- *G. Williams, Associate Manager, Operations

Other licensee employees contacted included managers, supervisors, operators, engineers, technicians, mechanics, security force members, and office personnel.

1.2 NRC Personnel

- *B. Bonser, Senior Resident Inspector
- *T. Farnholtz, Resident Inspector

*Attended exit interview

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

On October 10 through 13, 1995, Mr. Steven Dembek, Project Manager, NRR, was onsite to perform a 10 CFR 50.59 inspection. On October 12 and 13, Mr. Frederick Hebdon, Project Directorate, NRR, visited the site to meet with licensee management and tour the plant.

2. Plant Status

The plant operated at full power for the entire inspection period.

3. Plant Operations (71707, 40500)

3.1 General

The inspectors conducted frequent control room tours to verify proper staffing, operator attentiveness, and adherence to procedures. The inspectors attended daily plant status meetings to maintain awareness of overall facility operations and reviewed operator logs to verify operational safety and compliance with TS. Instrumentation and safety system lineups were periodically reviewed from control room indications to assess operability. Frequent plant tours were conducted to observe equipment status and housekeeping. ONOs were reviewed to assure that potential safety concerns were properly reported and resolved.

3.2 Fuel Handling Building Ventilation

On September 24, during a tour of the control room, the resident inspectors observed that the dp alarm for the FHB was lit. Operators could not determine the cause of the alarm and notified system engineering. The FHB pressure instrumentation alarms on a building low negative dp of less than .125" WG and high negative dp of .25" WG. A purpose of the FHB exhaust system is to maintain a negative pressure in the FHB in the event of a fuel handling accident. With a negative pressure, releases in the FHB will pass through the FHB charcoal exhaust system and air supply distribution system before being discharged to the atmosphere.

The inspectors reviewed the licensee's actions in response to the FHB ventilation alarm. On October 6, an operations shift identified a potential problem with the FHB dp instrumentation and generated MWR 9504321 to correct the cause of the dp alarm. The MWR stated that the problem was suspected to be loose or broken tubing to a pressure transmitter or an out of calibration pressure switch. As a compensatory measure, Operations established a once a shift log entry to verify clearing the dp alarm. Since the FHB building alarm could not be cleared, only the MWR number was referenced on the logs. The operators failed to determine why the FHB dp alarm would not clear, and did not inform Operations supervision that the compensatory measure was not being performed once per shift as directed. On October 6, equipment was placed in the spent fuel pool and loads were carried over the pool. On October 9, Operations authorized fuel movement in the FHB after verifying FHB integrity. The verification also included a review of completed ventilation system functional tests. There was no effort made to verify acceptable FHB dp. Fuel handling activities took place in the FHB from October 9 through October 12.

On October 7, I&C technicians had measured a local dp of negative 0.04" WG in the FHB when they began initial work on the FHB MWR. From this measurement they concluded that a valid FHB dp alarm existed; however, they did not notify Operations of this result.

They also identified a discrepancy on the instrumentation calibration values. During subsequent troubleshooting of the pressure transmitters from October 9 through October 11, I&C technicians calibrated FHB pressure transmitters IPT-9688 A, B, and C. One of the existing pressure transmitters was calibrated while the other two could not be calibrated and were replaced. During the licensee's investigation, it was identified that these transmitters had never been calibrated.

On October 12, the system engineer and I&C technicians measured FHB dp at a negative .05" to .10" WG. However, since they believed the instrumentation was malfunctioning, they considered that these results were invalid. On October 15, when Operations was unable to clear the dp alarm, alternate measuring equipment was used to determine FHB pressure. The readings obtained were approximately negative .09" WG, which were close to the readings obtained on the installed equipment. The B train of the FHB ventilation system was then declared inoperable.

During subsequent troubleshooting of the FHB ventilation system, the licensee identified a problem with the backdraft dampers (XDP0235A-AH and XDP0235B-AH) for both FHB exhaust fans. It was found that with both trains of FHB exhaust fans off, the dampers went fully closed. This was contrary to system drawing D-912-131 which states, in a note, to adjust the gravity backdraft dampers to 40% open with no flow. The dampers are passive and are set-up by adjusting counterweights on the dampers. The licensee adjusted the counterweights to position the dampers to 40% open with both fans off. Both train fans were subsequently started in their normal lineup and FHB dp readings were determined to be greater than negative .125" WG.

The purpose of the backdraft dampers is to prevent backflow of air through the idle section of the FHB ventilation system after a blackout. Normally, each fan's air operated suction and discharge dampers are closed when one of the FHB ventilation system fans is off. In a blackout, the normal dampers that are interlocked with the two fans fail open. The backdraft dampers prevent the backflow of air. The 40% open requirement was to ensure adequate negative pressure in the FHB when the fans started.

The licensee concluded that the backdraft dampers had become misadjusted allowing the dampers to fully close when both exhaust fans were secured. With the backdraft dampers in this configuration, it appeared that the required dp could not be consistently obtained.

The inspectors concluded that the licensee had not taken adequate or prompt corrective action when the problem with the FHB dp was identified and subsequently allowed fuel movement. Initially the FHB dp alarm was pointed out by the inspectors on September 24 during a control room tour. No corrective action was taken to

determine the cause of the alarm until October 7. Although the alarm provided an indication that FHB pressure was too high and actual dp readings were inconsistent, Operations allowed fuel handling activities to take place on October 6, and October 9 through October 12. The dp alarm was assumed by engineering to be an instrumentation problem and no reliable alternate means to determine the adequacy of FHB dp was established. The licensee subsequently identified that FHB dp had probably been too high and one train of the FHB ventilation was declared inoperable.

The licensee's failure to promptly determine the cause of and correct this significant condition adverse to quality was a violation of 10 CFR 50 Appendix B Criterion XVI and is identified as Violation, 395/95-17-01: Failure to Promptly Correct Inadequate Differential Pressure in the Fuel Handling Building.

3.3 Control Valve Testing

During monthly main turbine control valve testing on October 28, the plant did not respond as expected. Turbine power rapidly decreased, the control rods stepped in further than normal, and the steam dumps actuated and plant power dropped about 60 MWe. This plant response was similar to that experienced on August 26 (NRC Inspection Report No. 50-395/95-15) when it was determined that the load limiter potentiometer on the turbine control panel was mispositioned prior to beginning a test.

On October 28 the test was terminated, plant management was notified and the event was discussed, and the load limiter potentiometer was adjusted before continuing the test. The licensee identified that the load limiter potentiometer is difficult to adjust and, as occurred in the previous event, the potentiometer was mispositioned prior to beginning the test. The inspectors reviewed this most recent event with the licensee and concluded their actions in response to the event were appropriate.

The inspectors reviewed the ONO reports documenting this event and the August 26 event. The inspectors identified that the investigation for the ONO documenting the August event was not complete. An ONO investigation normally includes an analysis of the event, the causes of the occurrence, and the action taken to prevent recurrence. The inspectors were concerned that the control valve test had been performed in September and October before completing the review to determine the cause(s) of the August event and any action to prevent recurrence. In response to the inspectors' questions, the licensee stated that they verbally reviewed the previous event extensively and made the operating shifts aware of the potential problems when performing the control valve test. Although the licensee had reviewed this issue, the test was performed before the evaluation of the previous event was complete and the actions taken to preclude recurrence were fully defined. Although a complete and well documented review may not

have prevented the second event, the licensee did not use the ONO reporting system to its full potential to analyze and assess this event.

3.4 Suspected Check Valve Leakage

During the inspection period, the licensee identified a condition that could indicate seat leakage past a series of check valves in the EFW system. The suspected leakage path is from the B steam generator, back through a series of three swing check valves to the EFW pumps and through the EFW pump recirculation lines to the condensate storage tank. A plant operator noted a slightly increased temperature in the EFW pump recirculation lines during a plant tour. The licensee installed surface mounted thermometers on the EFW piping to determine the path of the backleakage. By noting the temperatures, it was determined that the leakage path was as described above. The amount of leakage was determined to be small because of the low temperature differential between steam generator EFW supply lines and the lack of a noticeable increase in condensate storage tank level. To monitor this condition, the discharge temperatures and the recirculation line temperatures for each of the three EFW pumps are logged once per shift (every 12 hours). Also, MRWs were written to inspect the check valves during the upcoming refueling outage (RF-9).

The inspectors concluded that the actions taken by the licensee in this case were appropriate. The amount of leakage was considered minor and the operability of the EFW pumps was not impacted. The inspectors will continue to monitor this condition.

3.5 Management Review Board Meeting

The inspectors attended a meeting of the Management Review Board. It was convened to discuss the circumstances surrounding the FHB ventilation event described in paragraph 3.2. The meeting was chaired by the site vice-president with the general managers making up the remainder of the board. The inspectors considered the discussions to be open with the individuals most closely involved in this event present to discuss the event. The review of the documentation prior to the meeting to determine the history of maintenance and surveillance testing was not thorough and complete. As a result, some questions asked by the board members were not addressed. The inspectors concluded that the meeting enhanced the understanding of the event by senior licensee management. Specific actions were assigned to the general managers.

One violation was identified.

4. Maintenance Observations (62703)

4.1 General

Station maintenance activities for the safety-related systems and components listed below were observed to ascertain that they were conducted in accordance with approved procedures, regulatory guides, and industry codes or standards and in conformance with TS.

The following items were considered during this review: that limiting conditions for operation were met while components or systems were removed from service, approvals were obtained prior to initiating the work, activities were accomplished using approved procedures and were inspected as applicable, functional testing and/or calibrations were performed prior to returning components or systems to service, activities were accomplished by qualified personnel, parts and materials used were properly certified, and radiological and fire prevention controls were implemented. Work requests were reviewed to determine the status of outstanding jobs and to ensure that priority was assigned to safety-related equipment maintenance. The following maintenance activities were observed:

- Insulation repair in air handling unit (MWR 95M3046). The air handling unit being repaired supplies the A RHR and A containment spray pump rooms. The damaged sections of the foam insulation lining the inside of the air handling unit were removed and replaced in accordance with an approved procedure. No discrepancies were identified.
- Removal of low flow alarms for RML2A, RML2B, and RML6 (MWR 227690001). RML2A and RML2B are CCW system liquid radiation monitors. RML6 is a liquid radiation monitor for the boron recycle system. Prior to this work, the low flow annunciators for these radiation monitors were locked in alarm on the radiation monitor panel in the control room when the associated system or train (for CCW) was not in service. In an effort to minimize the number of locked in annunciators on systems in a normal configuration, a modification to remove these low flow annunciators was performed. To compensate for the lack of a low flow alarm function when these radiation monitors are put into service, the licensee added a flow verification step to the system operating procedures to ensure that a sample flow of greater than one gallon per minute is established when the associated system or train is placed in service. The technicians performing this modification were knowledgeable and performed the work with no problems identified.
- Calibration of the A main steam PORV (PMTS P0187349). The inspectors observed the calibration and setup of the

pressure control current/pressure transmitter. There were no discrepancies identified with the procedure or the work being performed.

- Several work requests associated with the troubleshooting of the FHB ventilation exhaust system were reviewed. The inspectors identified that on two of the Instrument Data Sheets for calibration of the FHB pressure transmitters, the calibration due dates for one piece of test equipment was listed as overdue. Also, two weeks after work completion, the Instrument Data Sheets had not received a post calibration review as required. The inspectors reviewed the calibration records and found that the calibration dates recorded on the data sheets were in error. The inspectors also found that there was no requirement for an immediate review of the data sheets; however, the licensee agreed that a review two weeks after the task was performed was not timely.

4.2 Inadvertent Activation of Control Room Ventilation

On October 10, while performing a modification to remove two radiation monitors from service, the control room ventilation system actuated in the emergency mode and the CCW system surge tank vent closed. The removal of the radiation monitors was being performed under MRF 22305 and MWR 223050004. A step in the MWR directed the technicians to perform steps 1 through 10 on a separate TWR. The TWR contained 13 steps with no break points or other cautions to direct the technicians to return to the MWR procedure after completing step 10. Two technicians were assigned to perform this task with one reading the steps in the MWR and the other performing the work. After completing step 10 of the TWR, the procedure reader left the work area temporarily. Contrary to licensee management expectations and normal work practices, the remaining technician continued working alone and was not aware that a return to the directions in the MWR was required upon completing TWR step 10. As a result, the technician proceeded with step 11 of the TWR without referring to the MWR which directed the technicians to install a jumper. Without the jumper installed to prevent the common return for the relay circuit from being opened when the wires specified in TWR step 11 were removed, the relays lost power and actuated the control room ventilation system in the emergency mode and closed the CCW system surge tank vent. After verifying that the noted actuations were not caused by a valid ESF signal, the removed wires were relanded to restore power to the relay circuit and the ventilation system and the tank vent valve were returned to normal operation.

The inspectors concluded that the implementation process for this MRF was weak. Instead of one implementing procedure to complete this activity, two separate documents were used. The task was made more difficult and confusing by the need to refer from one

document to the other. The lack of notes or other cautions in the TWR to direct the user back to the MWR procedure at the appropriate times created the potential for error. The inspectors also concluded that the I&C technicians had failed to follow procedure. Although the MRF implementing documents were poorly written, the directions were contained in the MRF documents. The I&C technicians, by deviating from the normal practice of performing the task as a team, failed to follow the procedure resulting in the error. Proposed corrective actions included requiring a single modification implementing procedure to be used when working on energized equipment or equipment that will remain in service during the modification.

These failures constitute a violation of minor significance and are being treated as a Non-Cited Violation, consistent with Section IV of the NRC Enforcement Policy. This item is as identified as NCV 395/95-17-02: Inadequate Procedure and Failure to Follow Work Instructions Results In Inadvertent Activation of Control Room Ventilation in the Emergency Mode.

One non-cited violation was identified.

5. Surveillance Observations (61726)

The inspectors observed surveillance activities of safety-related systems and components listed below to ascertain that these activities were conducted in accordance with license requirements. The inspectors verified that required administrative approvals were obtained prior to initiating the test, testing was accomplished by qualified personnel in accordance with an approved test procedure, test instrumentation was calibrated, and limiting conditions for operation were met. Upon completion of the test, the inspectors verified that test results conformed with TS and procedure requirements, any deficiencies identified during the testing were properly reviewed and resolved and the systems were properly returned to service. The inspectors witnessed/reviewed portions of the following test activities:

- Control room emergency filter plenum B fire detection system test (STP 128.323). The purpose of this semi-annual test was to ensure the operability of the HI and HI-HI temperature elements in the plenum which would detect a fire in this area. No discrepancies were noted.
- On October 26, the inspectors observed STP-503.003, Functional Test of SW to EFW Cross Connect Circuits, revision 5. The inspectors observed pre-test preparations, observed the test performance, and reviewed test results with the electricians and their supervisor. The test was performed without incident and control of the test was good. Personnel were familiar with the procedure and the acceptance criteria. The inspectors concluded

that the test was adequately controlled and demonstrated the operability of the SW to EFW cross connect valve.

No violations or deviations were identified.

6. On-site Engineering (37551)

6.1 General

On-site engineering activities were reviewed to determine their effectiveness in preventing, identifying and resolving safety issues, events and problems.

6.2 10 CFR 50.59 Program Review (37001)

An inspection of the licensee's 10 CFR 50.59 implementation program was conducted. The inspection involved an audit of the licensee's procedures against the requirements of 10 CFR 50.59, verification that the licensee is conducting appropriate training, and review of a sample of changes made to the facility under 10 CFR 50.59.

The inspectors found the licensee's current procedures to be very thorough. The licensee's procedures specify a two step review process. The first step requires a screening to determine if the FSAR or TS are affected by the change to the facility. If the FSAR is affected, a second step requires that a safety evaluation be performed to determine if an USQ is involved. If the TS are affected, the licensee must request and receive a license amendment from the NRC prior to implementing the change. Also, if a USQ is involved, procedure SAP-107, 10 CFR 50.59 Unreviewed Safety Question Review Process, revision 0, states that NRC approval is required prior to implementation.

The inspectors reviewed the licensee's computer based training and qualification program. The program was developed by a vendor and is periodically updated by the vendor. The program provides generic (i.e., not VCSNS specific) training. The training provides a good overview of the 10 CFR 50.59 process and provides excellent examples. A computer based examination follows the training. The licensee does not require refresher training for their 10 CFR 50.59 reviewers and does not have a formal feedback process. Since the training program is generic, site specific implementation weaknesses are not incorporated into the training program.

The inspectors selected six safety evaluations from the licensee's October 10, 1995 annual report summarizing the safety evaluations performed at VCSNS. The inspectors concluded that the packages provided adequate rationale for concluding there were no USQs. However, the inspectors noted inconsistencies in some reports. For example, in one case (BAP-13), the licensee's reviewer

concluded in the 10 CFR 50.59 screening that the change affected the FSAR. However, the safety evaluation for the change stated that the FSAR was not changed by the proposed change and did not list any affected FSAR sections. In another example (FSAR Revision Notice 93-40), the reviewer checked off that an USQ was involved while the writeup concluded there was no USQ. The inspectors concluded that there was no USQ and that the documentation form (i.e., Page 1 of Attachment II, SAP-107) used by the licensee was subject to different interpretations.

In addition to reviewing the selected sample of safety evaluations, the inspectors reviewed approximately 40 items that the licensee screened out of the 10 CFR 50.59 process. In all cases, the inspectors agreed with the licensee's conclusions.

The inspectors also selected several 10 CFR 50.59 screenings and safety evaluations and verified that the reviewers who performed them were on the licensee's list of qualified reviewers.

The inspectors reviewed the licensee's September 19, 1995 Final Safety Analysis Report (FSAR) Amendment 95-03. The regulation governing this submittal, 10 CFR 50.71(e), requires licensees to identify all FSAR changes made pursuant to 10 CFR 50.59 that have not previously been submitted to the Commission. The inspectors concluded that the September 19, 1995 FSAR amendment, contained information not previously submitted to the Commission. This failure constitutes a violation of minor significance and is being treated as a Non-Cited Violation, consistent with Section IV of the NRC Enforcement Policy. This item is identified as NCV 395/95-17-03: Failure to Identify All FSAR Changes Made Pursuant to 10 CFR 50.59 That Had Not Been Previously Submitted to the Commission. The licensee stated future FSAR amendments would identify all FSAR changes made pursuant to 10 CFR 50.59 that have not been previously submitted to the Commission.

One non-cited violation was identified.

7. Plant Support (71750)

During inspection activities and tours of the plant, the inspectors routinely observed aspects of plant support in the areas of radiological controls, physical security, and fire protection. The level of radiological protection controls applied to work activities observed was commensurate with the difficulty and risk associated with the task. Aspects of the fire protection program that were examined included transient fire loads, fire brigade readiness, and fire watch patrols. Effective implementation of the physical security program continued to be demonstrated during inspector observations of: security badge

control; search and inspection of packages, personnel, and vehicles; tours and compensatory posting of security officers; and control of protected and vital area barriers.

No violations or deviations were identified.

8. Previous Inspection Item Follow-Up (92903)

The following previous inspection item was reviewed and closed.

(Closed) IFI 395/93-24-01, Longstanding Chiller Problems.

During a previous inspection period, a condition was noted on the C chiller unit which made verifying proper oil level in the compressor difficult. Specifically, the lower oil sight glass on this chiller compressor appeared to be a very dark brown. This caused the inspectors to question whether this indicated a full oil level status or the inside face of the sight glass was discolored. An adequate oil level in the chiller as indicated by the lower sight glass is a critical parameter for chiller operation. The licensee believes the cause of the discoloration is rust formation inside the chiller which causes the oil to turn dark.

The licensee has implemented a requirement to change the oil in this compressor at least once per year. Also, a non-seismically qualified oil cleanup system, which was installed at the time of construction, is being seismically qualified. This will allow continuous filtering of the oil when the chiller is in use. Operations personnel are satisfied that they are able to determine the oil level in this machine based on experience and training. The inspectors concluded that these steps are adequate to ensure that the chiller compressor oil level can be verified to be sufficient prior to and during operation. Based on the inspectors' review, this item is closed.

No violations or deviations were identified.

9. Exit Interview

The results were summarized on November 6, 1995, with those persons identified in paragraph 1. The inspectors described the areas inspected and discussed in detail the inspection results addressed in the Summary section and those listed below.

<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
95-17-01	Open	NOV - Failure to Promptly Correct Inadequate Differential Pressure in the Fuel Handling Building (paragraph 3.2)

<u>Item Number</u>	<u>Status</u>	<u>Description and Reference</u>
95-17-02	Open/Closed	NCV - Inadequate Procedure and Failure to Follow Work Instructions Results In Inadvertent Activation of Control Room Ventilation in the Emergency Mode (paragraph 4.2)
95-17-03	Open/Closed	NCV - Failure to Identify All FSAR Changes Made Pursuant to 10 CFR 50.59 That Had Not Been Previously Submitted to the Commission (paragraph 6.2)
93-24-01	Closed	IFI - Longstanding Chiller Problems (paragraph 8)

Proprietary information is not contained in this report. Dissenting comments were not received from the licensee.

10. Acronyms

CCW	Component Cooling Water
dp	Differential Pressure
EFW	Emergency Feedwater
ESF	Engineered Safety Feature
FHB	Fuel Handling Building
FSAR	Final Safety Analysis Report
I&C	Instrumentation and Control
IFI	Inspection Follow-Up Item
MRF	Modification Request Form
MWR	Maintenance Work Request
NCV	Non-Cited Violation
NOV	Notice of Violation
NRR	Nuclear Reactor Regulation
ONO	Off Normal Occurrence
PMTS	Preventive Maintenance Task Sheet
PORV	Power Operated Relief Valve
RF	Refuel
RHR	Residual Heat Removal
SAP	Station Administrative Procedure
STP	Surveillance Test Procedure
SW	Service Water
TS	Technical Specification
TWR	Technical Work Record
USQ	Unreviewed Safety Question
VCSNS	V. C. Summer Nuclear Station
WG	Water Gauge