



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

Report No.: 50-261/92-24

Licensee: Carolina Power and Light Company
 P. O. Box 1551
 Raleigh, NC 27602

Docket No.: 50-261

License No.: DPR-23

Facility Name: H. B. Robinson Unit 2

Inspection Conducted: August 8 - September 4, 1992

Lead Inspector: *L. W. Garner* 9/16/92
 L. W. Garner, Senior Resident Inspector Date Signed

Other Inspectors: C. R. Ogde, Resident Inspector
 D. J. Roberts, Project Inspector

Approved by: *H. O. Christensen* 9/16/92
 for H. O. Christensen Date Signed
 Reactor Projects Section 1A
 Division of Reactor Projects

SUMMARY

Scope:

This routine inspection was conducted in the areas of operational safety verification, surveillance observation, maintenance observation, and verification of plant records.

Results:

An apparent violation was identified for failure to implement the cleanliness requirements of modification M-1087. Foreign material in the B safety injection (SI) pump recirculation line resulted in the B SI pump being declared inoperable on July 8. In addition, a second apparent violation was identified for failure to take proper corrective action associated with this event, in that, on August 24, the B SI pump was again declared inoperable due to foreign material. Foreign material was also discovered in the refueling water storage tank (RWST) (paragraph 3).

A non-cited violation was identified for failure to post a radiological working condition violation as required by 10 CFR 19.11(a)(4) (paragraph 3).

Operators' response to a loss of the startup transformer and subsequent reactor trip was good (paragraph 3).

An Adverse Condition Report was issued concerning operation of the B SI pump with no flow through the pump for approximately 6 minutes (paragraph 3).

Lack of adequate coordination among Technical Support groups resulted in an improper temporary flow instrumentation location specification in special procedure SP-1157 (paragraph 4).

Radiological controls associated with the RWST inspection were well planned and executed (paragraph 4).

Activities to detect record falsification consisted of a small sample (paragraph 6).

REPORT DETAILS

1. Persons Contacted

- *R. Barnett, Manager, Outages and Modifications
- C. Baucom, Senior Specialist, Regulatory Compliance
- D. Bauer, Regulatory Compliance Coordinator, Regulatory Compliance
- J. Benjamin, Shift Outage Manager, Outages and Modifications
- C. Bethea, Manager, Training
- *R. Beverage, Manager, Quality Control
- W. Biggs, Manager, Nuclear Engineering Department Site Unit
- *S. Billings, Technical Aide, Regulatory Compliance
- **R. Chambers, Plant General Manager, Robinson Nuclear Project
- *B. Clark, Manager, Maintenance
- T. Cleary, Manager - Balance of Plant Systems and Reactor Engineering, Technical Support
- D. Crook, Senior Specialist, Regulatory Compliance
- *C. Dietz, Vice President, Robinson Nuclear Project
- D. Dixon, Manager, Control and Administration
- J. Dobbs, Manager, Nuclear Assessment Department Site Unit
- J. Eaddy, Manager, Environmental and Radiation Support
- S. Farmer, Manager - Engineering Programs, Technical Support
- R. Femal, Shift Supervisor, Operations
- W. Flanagan, Manager, Operations
- W. Gainey, Manager, Plant Support
- *J. Harrison, Manager Regulatory Compliance
- B. Harward, Manager - Mechanical Systems, Technical Support
- P. Jenny, Manager, Emergency Preparedness
- D. Knight, Shift Supervisor, Operations
- D. Labelle, Project Engineer, Nuclear Assessment Department Site Unit
- E. Lee, Shift Outage Manager, Outages and Modifications
- A. McCauley, Manager - Electrical Systems, Technical Support
- R. Moore, Shift Supervisor, Operations
- D. Nelson, Shift Outage Manager, Outages and Modifications
- *A. Padgett, Manager, Environmental and Radiation Control
- M. Page, Manager, Technical Support
- D. Seagle, Shift Supervisor, Operations
- M. Scott, Manager - Support Systems, Technical Support
- *D. Stadler, Onsite Licensing Engineer, Nuclear Licensing
- W. Stover, Shift Supervisor, Operations
- G. Walters, Operating Event Followup Coordinator, Regulatory Compliance
- D. Winters, Shift Supervisor, Operations

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

*Attended exit interview on September 4, 1992.

**Attended exit interview on September 8, 1992.

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

2. Plant Status

Except for power reductions required to support surveillance testing, the unit operated at 100% power until a loss of the startup transformer initiated a transient which cumulated in a reactor trip (see paragraph 3). While in hot shutdown, reduced flow in the A and B SI pumps' recirculation lines resulted in the unit being placed in cold shutdown at 12:20 a.m., on August 26, 1992. At the end of the report period, the unit remained in cold shutdown pending implementation of a SI recovery plan to remove foreign material from the SI system.

3. Operational Safety Verification (71707)

The inspectors evaluated licensee activities to confirm that the facility was being operated safely and in conformance with regulatory requirements. These activities were confirmed by direct observation, facility tours, interviews and discussions with licensee personnel and management, verification of safety system status, and review of facility records.

To verify equipment operability and compliance with TS, the inspectors reviewed shift logs, Operations records, data sheets, instrument traces, and records of equipment malfunctions. Through work observations and discussions with Operations staff members, the inspectors verified the staff was knowledgeable of plant conditions, responded properly to alarms, adhered to procedures and applicable administrative controls, was cognizant of in-progress surveillance and maintenance activities, and was aware of inoperable equipment status. The inspectors performed channel verifications and reviewed component status and safety-related parameters to verify conformance with TS. Shift changes were routinely observed, verifying that system status continuity was maintained and that proper control room staffing existed. Access to the control room was controlled and Operations personnel carried out their assigned duties in an effective manner. Control room demeanor and communications were appropriate.

Plant tours and perimeter walkdowns were conducted to verify equipment operability, assess the general condition of plant equipment, and to verify that radiological controls, fire protection controls, physical protection controls, and equipment tagging procedures were properly implemented.

Earthquake In Charleston Area

On August 21, 1992, at 1:51 p.m., the NRC notified the licensee that an earthquake registering 4.1 on the Richter Scale had occurred at 12:32 p.m. in the Charleston, SC area. The earthquake was not felt by plant personnel nor was it detected by plant seismic monitoring equipment. Plant seismic equipment was determined to be operational. As a precautionary measure, Operations personnel reviewed the applicable AOP. Plant activities were not affected by the earthquake and no significant after shocks occurred.

Startup Transformer Loss And Reactor Trip

While operating at full power on August 22, 1992, at 10:07 a.m., the SUT was automatically isolated from the offsite distribution system. The SUT was the normal power source for emergency bus E-2 and instrument bus number 4. Upon loss of power to E-2, the B EDG started and re-energized E-2 as designed. The instrument bus loss resulted in a turbine runback and loss of control power to the FRVs. At 10:09 a.m., the resultant FW transient resulted in an A S/G high level turbine trip and subsequent reactor trip. Upon loss of the main generator, no offsite power was available. The A EDG started at this time and re-energized emergency buss E-1. Operations personnel implemented Path-1 and applicable EPP procedures to stabilize the plant in natural circulation. During the transient all safety-related equipment performed as expected.

At 10:25 a.m., in response to the loss of offsite power and in accordance with PEP procedure EAL-2, an unusual event was declared. By 10:40 a.m., initial notifications were made to the state and counties, and the senior resident inspector was subsequently notified of the event. At 11:09 a.m., the NRC was notified of the event as required by 10 CFR 50.72. Off duty licensee personnel were instructed to report to the site to augment shift staffing and assist with the recovery. The OSC was staffed and CP&L personnel not assigned to HBR, such as transmission crews, also reported to the site. The TSC was manned and activated at 12:13 p.m.. IR 92-25 addresses the actions to repair the SUT, the evolutions taken to provide temporary electrical power to selected components, and actions to re-establish offsite power. Upon restoration of the electrical system to the normal hot shutdown electrical configuration, the unusual event was terminated at 1:24 a.m., on August 23.

Initial inspection of the event involved continuous coverage by the inspectors of site activities from approximately 11:15 a.m., on August 22, to 5:45 a.m., on August 23. The inspectors observed that the operators' response to the event was good. Review of the draft OMM-010, Post Trip/Safeguards Review Report, revealed that during the transient and subsequent stabilization, safety systems performed as designed. During subsequent followup inspection activities, two specific areas were examined. The first area involved review of the effects of de-energizing instrument bus number 4. With the assistance of Technical Support personnel, the inspectors verified that the loss of this instrument bus would cause a continuous turbine runback as experienced during this event. During this inspection, it was discovered that a footnote in EDP-008, Instrument Busses, was incorrect. The footnote indicated that opening circuit breaker no. 18 will cause a reactor trip. Review of the applicable CWDs demonstrated that this circuit involved an interlock/permissive feature associated with the FW isolation circuitry and would not cause a reactor trip or a FW isolation. A procedure change request was issued to correct this footnote.

The second area reviewed involved the 10 CFR 50.54(x) concerns the emergency procedure lineup for the standby diesel during recovery activities. As part of the preliminary lineup of EPP-21, Energizing Pressurizer Heaters From Emergency Busses, electrical breakers were aligned such that either the A or B EDG could supply power to PZR heaters through their respective emergency busses. In accordance with this procedure, the A EDG was selected as the power source.

In order to provide power to the deepwell A pump an abnormal breaker alignment was established and resulted in the 10 CFR 50.54(x) report. Establishing power to the deepwell pumps was desirable in that these pumps would supply makeup through a demineralization system to the CST. At the time CST makeup was established, the CST level had decreased by approximately 20% to a level of 33% due to S/G makeup demands. FW supply to the S/Gs was necessary to support natural circulation core cooling. Though SW was available as an emergency source of makeup to the S/Gs, the use of SW in the S/Gs was not considered desirable. Review of EPP-21 indicated that only one source of emergency power to the PZR heaters was required. Since the PZR heaters were powered from the A EDG, re-alignment of breakers 52/12B and 52/15B which were associated with powering the PZR heaters from the B EDG had no effect on meeting the intent of EPP-21. Therefore the licensee's position that this breaker re-alignment constituted a deviation under 50.54(x) was conservative.

SI System Inoperability Due To Foreign Material

During the response to the startup transformer loss, a manual initiation of the SI system was performed in accordance with Emergency Operating Procedures. System pressure remained above the SI pump shutoff head and thus, both the A and B SI pumps operated for approximately 30 minutes on minimum recirculation before being secured. Since OST-151 contained a precaution which stated that a SI pump shall not exceed 30 minutes on minimum recirculation flow, plant personnel determined that it would be prudent, prior to restart, to perform the normal surveillance test to demonstrate that SI pump operation had not adversely affected the pumps. At 10:32 p.m., on August 23, 1992, OST-151, Safety Injection System Component Test, was completed on both the A and B SI pumps. Operating personnel observed that the B SI pump recirculation flow had decreased approximately 20% (38 gpm to 31.5 gpm) from July 12 to August 23. On August 24, Technical Support personnel determined that the B SI pump remained operable and that another special performance of OST-151 was not necessary.

The inspectors expressed concern to plant management that the decreased flow rate had not been adequately explained and that this could be indicative of white plastic plugging of the recirculation line as observed on July 10, 1992. The Robinson Nuclear Project Vice President volunteered to re-perform OST-151. During the subsequent OST-151 performance on August 24, no B SI pump recirculation flow was detected. The B SI pump was operated approximately 6 minutes with no flow through

the pump. The pump discharge line was too hot to hold. The B SI pump was declared inoperable at 6:26 p.m., as required by TS 3.3.1.2.. The A SI pump was subsequently tested later that evening in accordance with OST-151 as required by TS. When compared with earlier data, there was a declining trend, approximately 10% reduction, in recirculation flow. Subsequently, at 10:58 p.m., the A SI pump was also declared inoperable. The unit was placed in cold shutdown at 12:20 a.m., on August 26.

On August 25, 1992, at 12:11 a.m., disassembly of the B SI recirculation line revealed that a nickel-sized piece of white plastic material (Delrin AF, manufactured by DuPont) had blocked the recirculation line orifice inlet. This material was similar to the material which had partially blocked the B SI recirculation line in July 1992. The July 1992 event and recovery from that event is described in IR 92-21.

The RWST, a potential reservoir of the material, was inspected by a diver on August 29. Three white plastic pieces, totaling approximately 5 square inches; a 16 inch by 26 inch cloth towel, typically used in decon evolutions; and other miscellaneous debris was removed from the RWST. The inspection also revealed the presence of a small frog and paint chip type material (unidentified). At the end of the report period, preparations were in progress to vacuum the RWST.

On August 30, SP-1157, SI Pump Flow Test, was performed to verify that the B SI pump had not been adversely affected by operating the pump with no flow through the pump. The A SI pump was also tested for baseline information. This evolution involved installation of a mechanical jumper containing a throttle valve, TC well, and a strainer between the C SI pump discharge line and its suction line. This allowed a flow path to be established from the common SI pump suction header through the B (A) SI pump into the common discharge header and then back to the common SI pump suction header via the mechanical jumper. In addition, the SI pump recirculation flow path was also included in the test. During the test, the temperature rise in the main flow loop was monitored and flow, pressure, and vibration data was recorded. The testing was witnessed by the pumps' vendor representative. The test data was analyzed and the results documented in EE 92-127. The analysis, which included comparison with recent pump curves, revealed that the B SI pump performance had not been degraded and that there were no abnormalities in the A SI pump performance. Examination of the strainer after the B SI pump flow test revealed that a small amount of weld slag and a small (less than 2 inches in diameter), piece of clear plastic bag type material had been captured. No foreign material was captured in the strainer during the A SI pump flow test.

At the end of the report period, a SI System Recovery Plan was being developed to inspect and remove foreign material from safety-related components and provide assurance that any remaining foreign material would not adversely affect safety-related components. At this time, activities were in progress to open various valves in the affected systems to allow camera inspection of the piping and other components. In addition, modification M-1134, Install Permanent Strainers In SI Pump

Recirculation Lines, was being developed to install permanent strainers in the SI pump recirculation lines upstream of the orifices. On September 1, 1992, a Confirmation Of Action Letter was issued by the NRC. This letter confirmed that a detailed recovery plan would be submitted for NRC review and that a meeting to discuss results of the recovery plan and root cause of the problem would be conducted in the NRC's Atlanta office prior to the Unit entering hot shutdown.

The licensee has completed their review associated with the circumstances surrounding the introduction of the plastic material into the SI system. The exact amount of material and the mechanism by which the material was introduced into the affected systems could not be determined. However, the following information was compiled. Procurement record reviews disclosed that two 12-inch by 48-inch sheets of Delrin AF plastic had been procured. This material was used with activities associated with S/G inspections and M-1087, RHR Pumps Minimum Flow Recirculation. All the material associated with the S/G work was accounted for. The plastic material was used in the RHR system as potential purge dams for check valve RHR-782 welding activities and as check valve (RHR-782 and 783) seat covers during grinding evolutions. Thus, the probable point of entry into the safety-related systems was during these evolutions. QC cleanliness inspections, performed as part of M-1087, failed to detect the material prior to RHR system closure. It was surmised that one or more plastic pieces had entered the RHR system during RHR-782 and 783 work activities and had fallen into adjacent piping elbows where they were not visible. M-1087 required flow testing and subsequent refueling cavity draining transported the material into the RWST and the SI system. SI pump testing then moved the material into the B SI pump and piping.

M-1087 required that cleanliness be accomplished in accordance with MMM-010, Cleanliness and Flushing Requirements. Failure to adequately implement cleanliness controls to preclude introduction of Delrin plastic into the RHR system as required by M-1087 was an apparent violation (92-24-01) for failure to follow procedures. In addition, the blockage of the B SI pump recirculation line on August 24, 1992, was indicative of an apparent violation (92-24-02) for failure to take adequate corrective action during the July 1992 recovery actions. Accordingly, related URI 92-21-01 is considered closed.

Failure To Post A Radiological Working Condition Violation

On July 31, 1992, the inspector observed that violation 92-17-01 had not been posted as required by 10 CFR 19.11(a)(4). The violation involved procedural and radiological deficiencies associated with contaminated vacuum cleaner servicing. IR 92-17, as well as the Notice of Violation, were received by the licensee on July 22, and therefore, per 10 CFR 19.11(a)(e), should have been posted no later than July 24, 1992.

As a result of the inspectors' inquiries, the violation was posted on August 3, 1992. In addition, ACR 92-279 was initiated to review the violation posting determination process. However, the licensee

considered that posting was not required since the violation cited TS 6.5.1.1.1 (i.e., failure to follow procedures) as the applicable regulation. The licensee was informed that the violation involved radiological work conditions and required posting. The licensee subsequently acknowledged that posting the violation had been required. However, this NRC identified violation is not being cited because criteria specified in Section VII.B of the NRC Enforcement Policy were satisfied. This violation is identified as an NCV: Failure To Post A Radiological Work Condition Violation As Required By 10 CFR 19.11, 92-24-03.

Two apparent violations (which are under consideration for escalated enforcement) and one NCV were identified. Except as noted above, the program area was adequately implemented.

4. Monthly Surveillance Observation (61726)

The inspectors observed certain safety-related surveillance activities on systems and components to ascertain that these activities were conducted in accordance with license requirements. For the surveillance test procedures listed below, the inspectors determined that precautions and LCOs were adhered to, the required administrative approvals and tagouts were obtained prior to test initiation, testing was accomplished by qualified personnel in accordance with an approved test procedure, test instrumentation was properly calibrated, the tests were completed at the required frequency, and that the tests conformed to TS requirements. Upon test completion, the inspectors verified the recorded test data was complete, accurate, and met TS requirements; test discrepancies were properly documented and rectified; and that the systems were properly returned to service. Specifically, the inspectors witnessed/reviewed portions of the following test activities:

OST-151	Safety Injection System Component Test
OST-401	Emergency Diesels (Slow Speed Start)
SP-1157	SI Pump Flow Test
SP-1158	Refueling Water Storage Tank Inspection For Foreign Material
SP-1159	SI & CV Spray Systems Inspection For Foreign Material

The results of the SP-1157, 1158, and 1159 were discussed in paragraph 3. The inspectors verified that SP-1157 contained sufficient precautions and limitations to ensure that the A and B SI pumps and piping would not be adversely affected by the special testing. For example, during the test the pumps' suction and discharge pressures were monitored and the recirculated water temperature was limited to 170 degrees F. Immediately preceding the performance of SP-1157, Technical Support personnel determined that the ultrasonic flow instrumentation installed for measuring the flow was not in the flow path. The flow

instrumentation was moved before the test was initiated. Apparently, an internal communication problem occurred among Technical Support groups during SP-1157 development. This matter was reviewed by Technical Support supervision.

During SP-1158, the inspectors noted that radiological controls were well planned and executed. A submersible radiation probe was utilized to monitor radiation fields prior to and after items were placed in the basket which was attached to the diver's dry suit. The maximum exposure to an extremity, the diver's feet, was 88 mrem. During the RWST inspection, the diver's wet suit developed a small leak at a zipper. When the diver exited the RWST, he was considered to be potentially contaminated from his shoulders down. Frisking and a whole body count determined that the diver had not been contaminated.

No violations or deviations were identified. Based on the information obtained during the inspection, the program area was adequately implemented.

5. Monthly Maintenance Observation (62703)

The inspectors observed safety-related maintenance activities on systems and components to ascertain that these activities were conducted in accordance with TS, approved procedures, and appropriate industry codes and standards. The inspectors determined that these activities did not violate LCOs and that required redundant components were operable. The inspectors verified that required administrative, testing, radiological, and fire prevention controls were adhered to. In particular, the inspectors observed/reviewed the following maintenance activities:

PM-001	Daily Through Weekly Lubrication Procedure
WR/JO 92-AKYN1	Balancing of C Service Water Pump And Motor
WR/JO 92-AGQS1	Replace Transmitter LT-460 (Pressurizer Level)
WR/JO 92-AGQT1	Replace Transmitter LT-485 (B S/G Narrow Range Level)

During LT-485 replacement, which is located in the CV, the inspectors noted that three separate containment entries were made to accomplish the replacement and calibration of the transmitter. This was due, in part, to difficulties experienced in acquiring correct output voltage readings for the zero and span settings on the transmitter, in combination with Health Physics restrictions on stay time in the CV due to personnel heat stress concerns. After attempting to calibrate the instrument with process flow, the crew realized that, due to the existing plant conditions, the associated reference leg was not full. After the reference leg was refilled, LT-485 was successfully calibrated. The inspectors noted that the Health Physics pre-job

briefing for this and the LT-460 work activity went very well, with Health Physics personnel clearly outlining radiological conditions and restrictions for entry into the CV.

EDG Governor Oil Level

On August 5, 1992, the inspectors discovered that oil level was not visible in the A EDG governor oil sight glass. This observation was reported to maintenance personnel and the SS. A few ounces of oil was added to the governor to bring the oil level up to the low level line of the sight glass. Subsequent review by the inspectors revealed that the EDG's governor oil level had been verified to be within the desired band during performance of OST-401 on August 3, 1992. Review of lubrication procedures revealed that the EDG governor oil levels were not included as part of the daily, weekly, or monthly lubrication checks. PM-007, Emergency Diesel Generator Inspection Number 1 (Quarterly), required oil to be added to the EDG governor if the level is below the low level line in the sight glass. In addition, the normal surveillance procedures for the biweekly EDG tests required proper governor oil level verification while the EDG is operating. The checks were required to be performed at 30 minutes and 1 hour after the EDG obtained full load. However, after the last check, the procedures required the EDG to be operated for an additional 30 minutes and required no subsequent governor oil level check. Thus, verification of the as left governor oil level was not procedurally required. Also, it was noted that the inside auxiliary operator's log required EDG room and equipment checks each shift, but did not specifically require the governor oil levels to be checked. This item was discussed with the Operations and Maintenance Managers who decided that the applicable procedures would be revised to include at least daily verification of proper EDG governor oil levels. As part of the normal inspection program, the inspectors will verify that the procedures are revised as determined necessary by plant management.

No violations or deviations were identified. Based on the information obtained during the inspection, the program area was adequately implemented.

6. Verification of Plant Records (TI 2515/115)

The site QC organization has developed a draft instruction to monitor if falsification of records is occurring at the site. A prototype inspection was performed from July 27 to July 31, 1992, using the draft procedure. The assessment involved comparison of security area entry records with the inside and outside auxiliary operator logs which documented activities performed in those security areas. For the 48-hour period from July 4 through July 5, 1992, a total of 22 entries involving 7 security areas and 5 operators were examined. No inconsistencies were identified. Since the assessment was small in scope, the inspectors assessed similar data for randomly selected dates in March and June 1992. The inspectors' sample included 57 entries involving 7 security areas (2 different from those in the QC sample) and

12 operators (4 were the same as in the QC sample). Again, no inconsistencies were identified. At the end of August, an assessment involving fire watch activities was in progress.

No violations or deviations were identified. Except as noted above, the program area was adequately implemented.

7. Exit Interview (71701)

The inspection scope and findings were summarized on September 4 and 8, 1992, with those persons indicated in paragraph 1. The inspectors described the areas inspected and discussed in detail the inspection findings listed below and in the summary. Dissenting comments were not received from the licensee. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection.

<u>Item Number</u>	<u>Description/Reference Paragraph</u>
92-24-01	Apparent Violation - Failure To Implement Cleanliness Requirements, Resulting In SI Pump B Being Declared Inoperable On July 8, 1992 (paragraph 3).
92-24-02	Apparent Violation - Failure To Take Proper Corrective Actions To Restore System Cleanliness, Resulting In SI Pump B Being Declared Inoperable On August 24, 1992 (paragraph 3).
92-24-03	NCV - Failure To Post Radiological Work Condition Violation As Required By 10 CFR 19.11 (paragraph 3).

8. List of Acronyms and Initialisms

a.m.	Ante Meridiem
AOP	Abnormal Operating Procedure
ACR	Adverse Condition Report
CP&L	Carolina Power and Light
CFR	Code of Federal Regulations
CST	Condensate Storage Tank
CV	Containment Vessel
CWD	Control Wiring Diagram
DG	Diesel Generator
DS	Dedicated Shutdown
EAL	Emergency Action Level
EE	Engineering Evaluation
EDG	Emergency Diesel Generator
EDP	Electrical Distribution Procedure
EPP	End Path Procedure

F	Fahrenheit
FRV	Feedwater Regulating Valve
FW	Feedwater
gpm	Gallons Per Minute
HBR	H. B. Robinson
i.e.	that is
IR	Inspection Report
LCO	Limiting Condition for Operation
LT	Level Transmitter
M	Modification
MCC	Motor Control Center
MMM	Maintenance Management Manual
mrem	milliroentgen equivalent man
NCV	Non-cited Violation
NRC	Nuclear Regulatory Commission
OMM	Operations Management Manual
OSC	Operations Support Center
OST	Operations Surveillance Test
p.m.	Post Meridiem
PEP	Plant Emergency Procedure
PM	Preventive Maintenance
PZR	Pressurizer
QC	Quality Control
RHR	Residual Heat Removal
RWST	Refueling Water Storage Tank
S/G	Steam Generator
SI	Safety Injection
SP	Special Procedure
SS	Shift Supervisor
SUT	Startup Transformer
TC	Thermocouple
TI	Temporary Instruction
TS	Technical Specification
TSC	Technical Support Center
URI	Unresolved Item
V	Volt
WR/JO	Work Request/Job Order