



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

April 18, 2003

Carolina Power & Light Company  
ATTN: Mr. John W. Moyer  
Vice President  
H. B. Robinson Steam Electric Plant  
Unit 2  
3851 West Entrance Road  
Hartsville, SC 29550

**SUBJECT: H.B. ROBINSON STEAM ELECTRIC PLANT- NRC INTEGRATED INSPECTION  
REPORT 50-261/03-03**

Dear Mr. Moyer:

On March 22, 2003, the Nuclear Regulatory Commission (NRC) completed an inspection at your Robinson facility. The enclosed integrated inspection report documents the inspection findings, which were discussed on April 2, 2003, with Mr. Chris Burton and other members of your staff.

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

Based on the results of this inspection, no findings of significance were identified by the NRC. However, two licensee identified violations are listed in Section 4OA7 of this report which have been dispositioned as non-cited violations (NCV's) in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you contest any NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Robinson facility.

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

Sincerely,

***/RA/ (for) G. T. MacDonald***

Paul E. Fredrickson, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Docket Nos.: 50-261  
License Nos.: DPR-23

Enclosure: Inspection Report 50-261/03-03  
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

cc w/encl:

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|                 |        |            |            |            |            |                |                |
|-----------------|--------|------------|------------|------------|------------|----------------|----------------|
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| DATE            |        | 04/09/2003 | 04/09/2003 | 04/10/2003 | 04/10/2003 | April 21, 2003 | April 21, 2003 |
| E-MAIL COPY?    | YES NO | YES NO     | YES NO     | YES NO     | YES NO     | YES NO         | YES NO         |
| PUBLIC DOCUMENT | YES NO |            |            |            |            |                |                |

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-261

License Nos: DRP-23

Report No: 50-261/03-03

Licensee: Carolina Power & Light (CP&L)

Facility: H. B. Robinson Steam Electric Plant, Unit 2

Location: 3581 West Entrance Road  
Hartsville, SC 29550

Dates: December 22, 2002 - March 22, 2003

Inspectors: B. Desai, Senior Resident Inspector  
D. Jones, Resident Inspector  
R. Aiello, Senior Operator Licensing Examiner  
G. Laska, Operator Licensing Examiner

Approved by: Paul E. Fredrickson, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Enclosure

## SUMMARY OF FINDINGS

IR 05000261/2003-003; Carolina Power & Light; 12/22/2002 - 03/22/2003; H. B. Robinson Steam Electric Plant, Unit 2; routine integrated report.

The report covered a three month period of inspection by resident inspectors, and announced inspection by region based operator licensing examiners. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspector Identified and Self - Revealing Findings

No findings of significance were identified.

B. Licensee - Identified Violations

Two violations of very low significance, which were identified by the licensee, have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective action tracking numbers are listed in Section 4OA7.

## REPORT DETAILS

### Summary of Plant Status

Robinson Unit 2 operated at 100 percent power for the entire report period except for the following days. On February 15, power was reduced to approximately 55 percent to conduct scheduled turbine valve testing. The unit was returned to 100 percent power on February 16.

#### 1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

##### 1R01 Adverse Weather Protection

###### a. Inspection Scope

The inspectors reviewed local weather conditions, plant status, Technical Specifications (TS), Updated Final Safety Analysis Report (UFSAR) and Procedure OMM-21, Operation During Adverse Weather Conditions, which is applicable for adverse weather conditions. There reviews were performed to assess licensee readiness for coping with cold weather conditions. The focus of the inspection was to ensure operability of safety-related systems as well as certain non-safety-related systems that contributed to overall plant risk and had the potential for being adversely affected due to the effects of freezing during cold weather conditions. The systems reviewed were the auxiliary feedwater system, the safety injection system, and the main steam system. The inspectors periodically walked down freeze protection panels to verify that freeze protection circuits were operating and walked down the temporary heaters and enclosures that were installed at various locations to ensure protection from freezing weather conditions.

An actual observation during sub freezing weather conditions was conducted on the radwaste building fire protection system on January 24. The fire sprinkler system actuated because of freezing of the sprinkler line. The inspectors reviewed licensee response, corrective actions, and impact on safe plant operations related to the actuation. Documents reviewed are listed in the Attachment.

###### b. Findings

No findings of significance were identified.

##### 1R04 Equipment Alignment

###### a. Inspection Scope

Partial System Walkdowns: The inspectors performed four partial system walkdowns during this inspection period. On January 7, the inspectors walked down the A train of the auxiliary feedwater system (AFW) during maintenance activities on the B train of AFW. On January 27, the inspectors walked down the A and B motor driven AFW

systems while the steam driven AFW (SDAFW) pump was out-of-service (OOS) for scheduled maintenance. On February 18, the inspectors walked down portions of the B train of the component cooling water (CCW) system with the C CCW pump OOS, and on February 20, the inspectors walked down portions of the C and D Service Water (SW) pumps with the B SW pump OOS for scheduled maintenance. To evaluate the operability of the selected train or system when the redundant train or system was inoperable or OOS, the inspectors checked for correct valve and power alignments by comparing positions of valves, switches, and electrical power breakers to the procedures and drawings listed below as well as applicable chapters of the UFSAR.

- TS 3.7.4, AFW System
- TS 3.7.5, Condensate Storage Tank
- Operating Procedure (OP)-402, AFW System
- System Description (SD)-042, AFW System
- UFSAR, Section 9.2.2 CCW System
- OP 306, CCW System
- TS 3.7.6, CCW System
- SD-002, SW System
- OP-903, SW System
- TS 3.7.7, SW System
- CCW drawing 5379-376
- SW drawing G-190199
- AFW drawing G-190197

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

During the inspection period, the inspectors walked down accessible portions of the six areas described below to assess the licensee's control of transient combustible material and ignition sources, fire detection and suppression capabilities, fire barriers, and any related compensatory measures. As part of the inspection, the inspectors reviewed the licensee's Fire Hazard Analysis, UFSAR section 9.5.1A, to ascertain the requirements for fire protection design features, fire area boundaries, and combustible loading for these areas. Documents reviewed during the inspection are listed in the Attachment. The following areas were inspected:

- Residual heat removal (RHR) system heat exchanger room
- SW intake area and enclosures
- Boric acid tank (BIT) room
- Turbine lube oil deluge system
- Motor control center (MCC-18) during an ongoing fire drill
- Control rod cabinet room



The inspectors observed a routine (not annual) fire drill conducted on February 3, to assess readiness of the licensee's capability to fight fires. The fire was simulated in the area housing MCC-18. The inspectors evaluated the following attributes:

- Protective clothing/self contained breathing apparatus properly worn
- Adequacy of fire hoses
- Controlled access to the fire area by the fire brigade members
- Adequacy of fire fighting equipment
- Clarity and effectiveness of the fire brigade leader
- Adequate communications
- Effectiveness of smoke removal gear

b. Findings

No findings of significance were identified.

IR06 Flood Protection Measures

a. Inspection Scope

The inspectors reviewed the licensee's analysis of the affects of external flooding as described in the UFSAR. A walkdown of the plant was conducted following heavy rains to determine capability of the flood drains throughout the plant.

In particular, the inspectors walked down the EDG fuel storage tank and the dike surrounding the tank to determine the effects of the accumulated water following the heavy rain fall. The inspectors also discussed the frequency of draining the dike with the plant auxiliary operator. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

.1 Biennial Inspection

a. Inspection Scope

During the week of February 24, the inspectors reviewed documentation, interviewed licensee personnel, and observed the administration of simulator operating tests associated with the licensee's operator requalification program. Each of the activities performed by the inspectors was done to assess the effectiveness of the licensee in implementing requalification requirements identified in 10 CFR 55 Operators' Licenses. The evaluations were also performed to determine if the licensee effectively implemented operator requalification guidelines established in NUREG 1021, Operator Licensing Examination Standards for Power Reactors and Inspection Procedure 71111.11, Licensed Operator Requalification Program. The inspectors observed two operator crews during the performance of the operating tests. Documentation reviewed

included written examinations, Job Performance Measures (JPMs), simulator scenarios, licensee procedures, on-shift records, licensed operator qualification records, watchstanding records, simulator modification request records, and medical records. Documents reviewed during the inspection are listed in the Attachment.

Following the completion of the annual operating examination testing cycle which ended on March 6, the inspectors reviewed the overall pass/fail results of the biennial written examination, the individual JPM operating tests, and the simulator operating tests administered by the licensee during the operator licensing requalification cycle. These results were compared to the thresholds established in Manual Chapter 609 Appendix I, Operator Requalification Human Performance Significance Determination Process.

b. Findings

No findings of significance were identified.

.2 Quarterly Inspection

a. Inspection Scope

On February 11, the inspectors observed licensed operator requalification training and examination activities which included a simulator evolution. The observed scenario involved a combination of failures including turbine first stage pressure transmitter failure, load rejection, main steam line break, and a steam generator tube rupture. The inspectors assessed licensed operator performance during the evolution to verify that the crew correctly diagnosed abnormal conditions and that the appropriate emergency operating procedures were used when necessary. The inspectors observed the effectiveness of command and control demonstrated by the crew.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors assessed the effectiveness of the licensee's maintenance efforts by evaluating three conditions that occurred during the inspection period. The inspection determined the risk significance of the condition, licensee implementation of the Maintenance Rule (MR) (10 CFR 50.65) with respect to characterization of failures, the appropriateness of the associated MR a(1) or a(2) classification as well as the associated performance criteria, and the utilization of the corrective action program. Documents reviewed are listed in the Attachment. The specific conditions evaluated by the inspectors included:

- D instrument air problem to determine if a functional failure occurred
- Valve V12-11 Containment Vessel (CV) pressure relief failure to open during a demand
- Breaker failure on the radwaste heating ventilation and air conditioning (HVAC) system (breaker 52/36B)

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the licensee's risk assessments for the following plant configurations. The inspectors reviewed the licensee's implementation of 10 CFR 50.65 (a)(4) requirements during scheduled and emergent maintenance activities using Operations Management Manual OMM-048, Work Coordination and Safety Assessment. The inspectors reviewed the effectiveness of licensee actions to plan and control scheduled work to minimize overall plant risk while the emergent work items were being addressed. The inspectors reviewed the applicable plant risk profiles, work week schedules, and maintenance work requests associated with the following out of service equipment:

- Emergent work on nuclear instrument N-43 due to control circuit power failure in combination with charging pump related maintenance activities
- Motor operated valve (MOV) 350 on the chemical and volume control system (CVCS) in combination with surveillance activities on the RHR system
- Safety injection system maintenance activities
- MOV 350 maintenance activities with ongoing SDAFW pump OOS
- SW pump C and D scheduled for maintenance on same day
- Work scheduled on Unit 1 switchyard affecting Unit 2 startup transformer (offsite power supply)

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

#### 1R14 Personnel Performance During Non-Routine Plant Evolutions

##### a. Inspection Scope

On February 3, the steam flow transmitter 485 was noted to be trending low. The operators recognized the gradual trend and responded by tripping the Reactor Protection System (RPS) bistable.

For this non-routine event, the inspectors reviewed operator logs and evaluated operator performance and response to verify that the response was in accordance with approved plant procedures. The inspectors also reviewed the cause of the failure and the subsequent emergent work requested by the operators. Documents reviewed are listed in the Attachment.

##### b. Findings

No findings of significance were identified.

#### 1R15 Operability Evaluations

##### a. Inspection Scope

The inspectors selected four operability evaluations/engineering changes (ECs)/ARs affecting the risk significant mitigating systems listed below to assess as appropriate: (1) the technical adequacy and accuracy of the evaluations; (2) whether continued component or system operability was justified; and (3) whether other existing degraded conditions were considered for compensatory measures. Documents reviewed are listed in the Attachment.

- Continued operability of the control room emergency ventilation system following testing
- Failure of SW containment isolation valve V6-33 and impact on containment coolers
- SDAFW pump problems during testing and subsequent past operability evaluation
- Seismic concerns raised by inspectors regarding a personnel bridge over safety injection supply lines from the refueling water storage tank (RWST)

##### b. Findings

No findings of significance were identified.

#### 1R16 Operator Work-Arounds

##### a. Inspection Scope

The inspectors performed a cumulative review of existing operator work-arounds to determine any change from the previous review. The review also considered the effect of the work-arounds on the operators' ability to implement abnormal operating

procedures (AOPs) or emergency operating procedures (EOPs). The inspectors periodically reviewed ARs and held discussions with operators to determine if any conditions existed that should have been identified by the licensee as operator work-arounds. The inspectors reviewed actions prescribed for each work-around to determine if the functional capability of the systems and personnel in responding to an initiating event was affected, and to evaluate the effect on operators' ability to implement AOPs or EOPs. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed EC 51543R1, SDAFW Self Cooling Discharge, to verify that the design basis, licensing basis, and performance capability of the safety-related AFW system was not degraded as a result of the modification. Additionally, the inspectors reviewed the modification against the requirements of Procedure EGR-NGGC-005, Engineering Change. The inspectors also assessed the modification for any common cause failure vulnerabilities as related to the AFW system. The inspectors reviewed the associated 10 CFR 50.59 evaluation to verify that modification implementation did not result in risk significant configurations that would place the plant in an unsafe condition. The inspectors also evaluated modification implementation to verify that in-plant EOP and AOP actions, and key safety functions were not affected.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors witnessed the following seven post maintenance tests (PMT) and/or reviewed the test data to determine if the tests were adequate for the scope of maintenance and if the acceptance criteria and test results demonstrated the operational readiness of the structures, systems and components (SSCs) in accordance with the TS. Documents reviewed are listed in the Attachment. The activities were selected based on a risk assessment associated with the scheduled or emergent activity.

- OST-252-1, RHR system valve test, train A, following scheduled inspection of valve SI 860A
- OST-151-3 and OST 152-2 following inspection of valve SI 870B
- OST-401 and OST 402 following scheduled maintenance on EDG
- OST-251-2 and OST-264 following inspection of valve SI 860B
- OST-908 and 908-1 following seal replacement on the C CCW pump

- OST 101-1 following maintenance on the C charging pump
- RST-012, Calibration of Radiation Monitoring System Monitor R-14

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors witnessed the following nine surveillance tests and/or reviewed test data to verify that the surveillance test results demonstrated that the selected risk significant SSCs were capable of performing their intended safety functions. Specifically, the inspectors considered the following: requirements of the TS, UFSAR and ASME Section XI, and pre-conditioning, plant risk, appropriate acceptance criteria, adequate test equipment, procedure adherence, completeness of data, adequate test frequency, and configuration control. Documents reviewed are listed in the Attachment.

- OST-101-1, Charging pump A Test (IST)
- OST-409-1, EDG A fast speed start
- EST-145, Determination of control rod position using movable incore detector system
- OST-201-2, B AFW pump test (IST)
- OST-20, Shiftly surveillances
- OST-10, Power Range Calormetric during power operation daily
- OST-202, Steam Driven Auxiliary Feedwater System
- OST- 352-3, Valve test on CV spray system
- MST-022, Safeguards relay rack train A

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed temporary modification EC 51351, Control Rod H10 Voltage Monitoring, to determine the impact on safety functions. This review included the associated 10 CFR 50.59 screening performed for the modifications against the system design basis, UFSAR and TS requirements, as well as the configuration control of the modification to verify that any affected plant documents, such as drawings and procedures were properly controlled.

b. Findings

No findings of significance were identified.

## Cornerstone: Emergency Preparedness

### 1EP6 Drill Evaluation

#### a. Inspection Scope

The inspectors observed and evaluated the licensee's conduct of the emergency preparedness drill held on March 18. The drill scenario involved loss of off-site power, fuel fission product barrier breach, steam line break, and large break loss of coolant accident (LOCA) with other complications. The inspectors observed the scenario to determine licensee opportunities for event classification, notification, protective action recommendations, and the timeliness and accuracy associated with these activities. The inspectors observed the post drill critique, to verify the licensee's ability to assess drill performance.

#### b. Findings

No findings of significance were identified.

### 4. OTHER ACTIVITIES

#### 4OA1 Performance Indicator Verification

##### a. Inspection Scope

The inspectors sampled licensee submittals for the performance indicators (PIs) listed below to verify the accuracy of reported PI data. PI definitions and guidance contained in NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Rev. 2, were used to verify the basis in reporting for each data element.

##### Initiating Events Cornerstone

- Unplanned scram per 7000 critical hours
- Scrams with loss of normal heat removal

The inspectors reviewed operator logs, attended plant meetings, and routinely toured the plant, including the control room, to maintain awareness of plant status. The performance indicator data was verified for accuracy for the time frame of October 2002 through January 2003.

### Barrier Integrity Cornerstone

- Reactor coolant system (RCS) leakage

The inspector reviewed operator logs and system engineer trend reports for RCS leakage to determine if the RCS leakage rates were within the TS requirements as well as accurately submitted to the NRC. RCS leak rates for the time frame of October 2002 through January 2003 were reviewed.

#### b. Findings

No findings of significance were identified.

### 4OA2 Identification and Resolution of Problems

#### b. Inspection Scope

The inspectors performed an in-depth review of two ARs.

During this review, the inspectors determined whether:

- identification of the problem was complete and accurate;
- the problem was identified in a timely manner;
- the licensee properly classified and prioritized resolution;
- the licensee considered extent of condition, generic implications, common causes, and previous occurrences; and
- corrective actions were completed in a timely manner.

The ARs reviewed were:

- 82961, Significant Adverse Condition Investigation for SDAFW pump failure of quarterly surveillance test
- 77439, Unexpected power increase

#### b. Findings

No findings of significance were identified.

### 4OA6 Meetings, Including Exit

On April, 2, 2003, the resident inspectors presented the inspection results to Mr. Chris Burton and other members of his staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection.



#### 4OA7 Licensee - Identified Violations

The following findings of very low safety significance (Green) were identified by the licensee and are violations of NRC requirements which meet the criteria of Section VI.A.1 of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as NCV's.

- TS SR 3.8.1.11, requires the licensee to verify every 18 months, that each emergency diesel generator's (EDG's) automatic trips are bypassed except engine overspeed. Contrary to the above, the requirements of TS SR 3.8.1.11 were not satisfied as the surveillance for the A EDG to verify that the automatic trips are bypassed except engine overspeed were not completed within the 18 month (plus 25 percent grace period). The surveillance was due on May 2, 2002 and was not performed until July 10, 2002, exceeding the TS interval by 62 days. This was identified in the licensee's corrective action program as action request 82945. This finding is of very low safety significance because though the surveillance period was exceeded, the A EDG remained operable as confirmed during subsequent testing, and the B EDG's surveillance interval was not exceeded.
- TS 3.1.7 requires that the analog rod position indication (ARPI) system and the demand position indication system shall be operable. With one ARPI per group inoperable for one or more groups, TS 3.1.7.A.1 requires the licensee to verify the position of rods with inoperable position indicators by using movable incore detectors or TS 3.1.7.A.2 requires the licensee to reduce thermal power to less than or equal to 50 percent. As allowed by TS amendment 197, during Cycle 22, the position of Control Rod H-10 can be determined by verifying gripper coil parameters of the control rod drive mechanism not having changed state until the repair of the indication system for this rod is complete. Contrary to the above, on February 24, 2003, the requirements of TS 3.1.7.A.1 or 3.1.7.A.2 were not satisfied as the data recorder being used to verify gripper coil parameters for shutdown bank control rod H-10 had been inadvertently placed in the halt configuration, thus losing the capability to verify that the control rod drive mechanism parameters had not changed state. This was identified in the licensee's corrective action program as action request 85523. This finding is of very low safety significance because it only affects the mitigating systems cornerstone and only a single control rod was affected. Further, there is high confidence that the trip capability of control rod H-10 was not compromised.

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee personnel:**

R. Ivey , Operations Manager  
C. Church, Engineering Manager  
E. Caba, Engineering Superintendent  
D. Stoddard, Maintenance Manager  
E. Rothe, Nuclear Assurance Section Manager  
C. Burton, Director of Site Operations  
R. Steele, Outage Management Manager  
T. Cleary, Plant General Manager  
W. Farmer, Engineering Superintendent  
J. Fletcher, Regulatory Affairs Manager  
S. Weise, Training Manager  
J. Moyer, Vice President, Robinson Nuclear Plant  
S. Young, Superintendent Security  
D. Crook, Supervisor Access Authorization  
A.G. Cheatham, Radiation Protection Superintendent  
R. Howell, Supervisor, Regulatory Support  
G. Ludlum, Superintendent Operations Training  
B. Clark, Manager Training

#### **NRC personnel:**

P. Fredrickson, Branch Chief, DRP, RII

### **LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

None.

## LIST OF DOCUMENTS REVIEWED

### **Section 1R01: Adverse Weather Protection**

AP-008, Cold Weather Preparations  
 OP-925, Cold Weather Operation  
 OMM-21, Operations During Adverse Weather Conditions  
 Drawing G190196, Main Steam  
 Drawing G190197, Feedwater

### **Section 1R05: Fire Protection**

UFSAR Section 9.5.1, 9.5.1A  
 OMM-002, Fire Protection Manual  
 FP-003, Control of Transient Combustibles  
 Drawing HBR2-8255, Fire Protection

### **Section 1R06: Flood Protection Measures**

Outside Operator Logs  
 Drawing G190294D, Fuel Oil

### **Section 1R11: Licensed Operator Requalification**

Emergency Action Level Matrix  
 DSS-035, Dynamic Simulator Scenario Examination, Turbine First Stage Pressure, Transmitter Failure, Load Rejection, MSLB, S/G Tube Rupture

Operations Training Administrative/Program Procedures:

TPP-200, Licensed Operator Continuing Training Program, Rev 6  
 TPP-206, Simulator Program, Rev 14  
 TAP-403, Examination and Testing, Rev 14  
 TAP-409, Conduct of Simulator Training and Evaluation, Rev 11  
 TAP-410, NRC License Examination Security Program, Rev 8  
 TAP-411, Simulator Setup, Rev 3  
 TAP-502, Training Review Board, Rev 0  
 NGGS-TRN-0002, Performance Review and Remedial Training, Rev 1  
 PTQR Annual Examination Sample Plan 2002

Simulator Capability Criteria:

Real Time Simulator Verification, Rev 7

Simulator Transient Periodic Test Procedures:

Manual Reactor Trip Test (test 4.1, Rev 9)  
 Instrument Air Compressor Test (test 5.1.2, Rev 7)

Complete Loss of Instrument Air Test (test 5.1.1, Rev 5)  
Single RCP Trip Transient Test (test 4.5)

Simulator Full Power Stability Test number 2.01 (100 power level)  
Simulator Full Power Steady State Comparison Test, Rev 8

RNP Simulator Core Cycle Update Instructions, Rev 10 (for current reactor core cycle 22)

Open Simulator Service Requests (SSRs):

CMS No. 02-3933, dated 11/07/02, RVLIS full range level oscillation 11 hours after LOCA.

CMS No. 03-4086, dated 02/03/03, ERFIS log printouts on simulator overnight or over weekend causing nuisance/wastage due to excessive volume.

CMS NO. 03-4161, dated 02/19/03, ERFIS mux power supplies should be modeled in EPS instead of ERFIS.

Annual Requalification Simulator Scenario Examination Sets Reviewed from the Simulator Validation Data Base.

DSS-002

DSS-003

### **Section 1R12: Maintenance Rule Implementation**

ADM-NGGC-0101, Maintenance Rule Program  
RNP Maintenance Rule Database  
Maintenance Rule Reports For Instrument Air, Electrical Systems, Containment Isolation System

### **Section 1R13: Maintenance Risk Assessments and Emergent Work Evaluation**

OMM-48, Work Condition and Risk Assessment  
Plant Logs  
SD02, CVCS System  
TS3.8, Electrical Systems  
Drawing 5379-685, CVCS

### **Section 1R14: Personnel Performance During Non-Routine Plant Evolutions**

TS 3.3, Instrumentation  
AOP-025, RTGB Instrument Failure  
Drawing G-190196 Main Steam

**Section 1R15: Operability Evaluations**

EGR NGGC-0005, Engineering Change  
UFSAR Sections  
ASME, Section XI  
AR 83428  
Drawing G-190197, Feedwater  
Drawing G-190199, Service Water

**Section 1R16: Operator Work-Arounds**

OMM-001-8, Operator Work-Arounds  
Operator Logs  
OP-801, Fire Water system  
UFSAR 9.5.1, Fire Protection  
Drawing DSP-001, Alternate Shutdown Diagnostic  
SD 41, Fire Water System

**Section 1R19: Post Maintenance Testing**

PLP-033, Post Maintenance Testing (PMT) Program  
ITS 3.5.2, 3.4.6, 3.4.7, 3.4.8, 3.5.2, 3.5.3, 3.6.3, 3.9.4, 3.9.5, 5.5.8  
H.B. Robinson Inservice Testing Database  
OMM-015, Operations Surveillance Testing  
ASME, Section XI

**Section 1R22: Surveillance Testing**

TMM-004, Inservice Testing Program

**Section 4OA1: Performance Indicator Verification**

REG-NGGC-0009, NRC Performance Indicators  
Licensee NRC Performance Indicator Notebook  
Operator Logs/Key word search