

FLORIDA POWER CORPORATION  
CRYSTAL RIVER UNIT 3  
PLANT REFERENCE SIMULATOR  
FOUR YEAR SIMULATOR CERTIFICATION REPORT

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## INTRODUCTION

### PURPOSE

The information contained in this report is provided to demonstrate compliance of the Crystal River Unit 3 Simulator with the requirements of 10CFR55.45(b)(5)(ii) and 10CFR55.45(b)(5)(vi).

### EXCEPTIONS

The Crystal River Unit 3 Simulator continues to meet all of the applicable requirements of ANS/ANSI-3.5(1985), as endorsed by Regulatory Guide 1.149, with the exception of those deviations identified in this report. Each of these deviations has been evaluated by FPC; for those deviations due to such factors as the simulator control room physical layout or overriding training requirements/considerations, or which were determined to have no training impact, no further action will be taken. All other identified deviations are being tracked and corrected in accordance with applicable FPC Nuclear Operations Training Department procedures governing simulator maintenance and modifications.

In addition to these deviations, FPC is taking exception to the requirement of 3.4.1 of ANS-3.5-1985 concerning the minimum number of operational initial conditions (ICs). The justification for this exception is discussed in section 1.1.4 of this report.

The following non-applicable testing requirements are also taken as exceptions to the standard.

- o Section 3.1.2, "Plant Malfunctions", Item (12) Control rod failure including stuck rods, uncoupled rods, drifting rods, rod drops and misaligned rods.

The design of the CR-3 control rod drive system precludes drifting rods. For the CR-3 100% Performance Test List, this item has been replaced by degraded rod motion.

- o Section 3.1.2, "Plant Malfunctions", Item (25) Reactor pressure control system failure including turbine bypass failure (BWR).

This item is only required for Boiling Water Reactors.

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EXCEPTIONS (Continued)

- o Section 4.1, "Steady State Operation", Item (2)  
Principal mass and energy balances shall be satisfied:  
(b) Reactor Coolant System temperature to Steam  
Generator Pressure and (e) Mass balance of steam  
generator.

These items are not applicable to Babcock and Wilcox  
Plants with Once-Through Steam Generators (OTSGs).

- o Section 4.1, "Steady State Operation", Item (3)(f)  
Recirculation flow.

This item is only applicable to Boiling Water Reactors.

- o Appendix B, Section B2, "PWR Simulator Operability Test"

Several subsections of the section require recording  
pressurizer pressure as a critical parameter. Since  
Babcock and Wilcox Plants do not monitor this parameter,  
narrow range RCS pressure has been substituted.

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1.0 SIMULATOR INFORMATION

1.1 CHANGES LAST REPORT

1.1.1 Control Room Physical Arrangement

1. The Smart Automatic Signal Selection (SASS) modification which was implemented in the plant since the last submittal added several panels inside the non-nuclear instrumentation (NNI) cabinets. Implementation of this plant modification on the simulator required placing these panels inside the Engineered Safeguards relay cabinets, since the NNI cabinets are not included
2. The original telephone system delivered with the simulator consisted of a closed system of Bell telephones connected to the instructors' booth through an AT&T computer. A number of the telephones in the plant control room have been upgraded to a Harris phone system which is incompatible with the present equipment. The FPC telecommunications group is working with simulator maintenance and engineering personnel to upgrade our phone system to match the plant. Completion of this project is currently scheduled for November of this year.

1.1.2 Panels/Equipment

1. One of the identified deviations in the original submittal concerned the closed circuit television system for monitoring leakage on the main steam relief valves and atmospheric dump valves and the fact that at the time of the original submittal, this system had not been installed on the simulator. This system is now installed and in operation.
2. The original simulator computer platform consisted of three Encore 9780 computers, which communicated through a shared memory unit. Replacement of these units with Unix-based Silicon Graphics computers and an Ethernet Input/Output

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interface began in late 1994 and was completed in January 1995. The Encore units remain in service to drive the plant process computer (PPC) modules. The plant is currently in the process of replacing the PPC with a pc-based system. When the upgrade is completed in the plant and installed on the simulator, the Encore units will be taken out of service.

1.1.3

Plant Modifications

The initial submittal included a list of modifications installed in the plant but not implemented on the simulator. All of these modifications have been implemented within the allowable window specified in ANS/ANSI-3.5(1985)

Appendix A lists all the plant modifications which have been implemented on the simulator since the initial certification submittal.

Appendix B lists the in-service plant modifications which have not been implemented on the simulator. Three of these modifications fall outside the required implementation window:

1. MAR 90-02-03-01, Replacement of the Emergency Dose Assessment System (EDAS) with a pc-based network, is actually part of a larger plant modification involving the changeout of the Plant Process Computer with a pc-based network, which is not complete in the plant. Since the operator interface with EDAS is minimal, the delay in implementing this MAR is considered to have no training impact.
2. MAR-91-05-03-02, Hydrogen Purge System Redundancy, is currently installed on the simulator, but has not yet been tested and accepted. The delay in installation was due to problems with calibration of the associated panel instrumentation as a result of the simulator computer changeout discussed in section 1.1.2

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above. This modification has minimal training impact.

3. MAR-93-06-16-01, Gammametric Nuclear Instrumentation Channels NI 14/15, was delayed due to problems with obtaining the hardware for the simulator. These problems have been resolved and the modification will be installed by the end of the year.

**1.1.4**                    **Initial Conditions**

The initial submittal contained a list of the 10 ICs which had been established to demonstrate compliance with the Standard. Four years of training experience have demonstrated that ten permanently maintained storepoints are not required for the conduct of simulator training or testing. Unnecessary Initial Conditions limit the number of storepoints available for use in the conduct of day-to-day training, and training development. They also create an unnecessary maintenance burden. The FPC simulator is capable of storing seventy-two (72) initialization conditions. Initial Conditions 1 - 8 are maintained under configuration control as permanent storepoints for use in training. These eight Initial Conditions include a variety of plant operating conditions, fission product poison concentrations and times in core life (see Table 1.1). All pre-planned training/examination scenarios can be initiated from these eight controlled Initial Conditions or from scenario specific storepoints derived from the eight controlled Initial Conditions.

**1.1.5**                    **Instructor Station**

As part of the simulator computer platform upgrade discussed above, the Instructor Facility (I/F) has undergone an upgrade to a windows-based system. The upgraded system retains all the capabilities described in the initial submittal.

TABLE 1.1  
SIMULATOR INITIAL CONDITIONS

<u>IC#</u>	<u>CORE AGE</u>	<u>RCS TEMP</u>	<u>RCS PRESS</u>	<u>POWER LEVEL</u>	<u>XENON</u>	<u>BORON</u>	<u>DESCRIPTION</u>
1	MOL	579	2155#	100%	EQUIL	957	Full power, steady state
2	MOL	537	2155#	0%	0%	1350	Mode 3, Safety Rods out, ready for reactor startup
3	MOL	155	60#	0%	0%	1410	Mode 5
4	MOL	579	2155#	75%	2.6%	958	Power decrease from 100%, Xenon increasing
5	BOL	579	2155#	100%	EQUIL	1486	Full power, steady state
6	EOL	579	2155#	100%	EQUIL	50	Full power, steady state
7	MOL	579	2155#	19%	.026%	1347	Ready to roll turbine
8	MOL	579	2155#	45%	2.6%	957	One MFW Pump in operation, MFW Block Valves closed



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2.0 SIMULATOR TESTS

2.1 SCOPE OF TESTS

Appendix C lists, by year, all Performance Tests completed during the last four years. The following information is provided to show the correlation between the FPC Performance Tests/Test Numbers and the testing requirements identified in ANS/ANSI-3.5(1985):

- a. The tests identified in Appendix B, Section B.2.2, "Transient Performance" of the Standard are designated PTT1 through PTT10.
- b. The test identified in Appendix B, Section B.2.1, "Steady State Performance" of the Standard is designated PTS1.
- c. The test identified in Appendix A, Section A.3.1, "Computer Real Time Test" of the Standard is designated PTC1.
- d. The tests identified in Section 3.1.1, "Normal Plant Evolutions" of the Standard are designated PTN1 through PTN7 and are broken down as follows:

PTN1 includes 3.1.1(1) Plant startup - cold to hot standby; 3.1.1(2) Nuclear startup from hot standby to rated power; 3.1.1(3) Turbine startup and generator synchronization; and 3.1.1(5) Operation at Hot Standby.

PTN2 corresponds to 3.1.1(4) Reactor trip followed by recovery to rated power.

PTN3 corresponds to 3.1.1(6) Load changes.

PTN4 corresponds to 3.1.1(7) Startup, shutdown and power operations at less than full reactor coolant flow.

PTN5 corresponds to 3.1.1(8) Plant shutdown from rated power to hot standby and cooldown to cold shutdown conditions.

PTN6 corresponds to 3.1.1(9) Core performance testing.

**2.1 SCOPE OF TESTS (Continued)**

PTN7 corresponds to 3.1.1(10) Operator conducted surveillance testing on safety related equipment or systems. Additional surveillance testing is also conducted as part of normal plant evolutions such as plant heatup, cooldown and power escalation.

- e. Each type of generic malfunction identified in Section 3.1.2, "Plant Malfunctions" of the Standard is included in the Performance Test Base, with the exception of item (25) Reactor pressure control system failure including turbine bypass failure (BWR). These tests are designated PTM1A1 through PTM24B. At least one Malfunction Test per malfunction type is performed. In most cases it has been determined that more than one test should be performed to demonstrate either simulator capabilities or to replicate an actual plant transient.

**2.2 PERFORMANCE TEST SCHEDULE**

The scope of the performance testing to be conducted over the next four year cycle currently consists of the 100% Performance Test List used to conduct Initial Certification Testing. The schedule for conducting performance tests over the next four-year recertification cycle is contained in Training Department Procedure TDP-405 and the CR-3 Simulator Configuration Management System as part of the Performance Test Data Base. A copy of the schedule is included as Appendix D of this report. The schedule ensures that all tests specified in Appendix B, Section B2 of the standard will be performed annually, that approximately 25% of all the other performance tests will be tested annually, and that all performance tests will be performed at least once over the next four-year recertification cycle. Compliance with this schedule is the responsibility of the Nuclear Simulator Training Supervisor and will be tracked by the CR-3 Simulator Configuration Management System through the generation of periodic reports indicating required performance test completion dates.

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2.3

**CHANGES SINCE LAST REPORT**

A revision history page has been added to each performance test procedure to document procedure changes. Although a number of the performance tests have undergone revisions for editorial corrections, improvements to the data collection packages or to reflect such items as plant modifications, plant procedure changes, and the simulator computer changeout, there have been no changes which alter the intent of the procedures. In addition, there have been no deletions to the scope of testing identified in the original submittal.

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3.0 SIMULATOR DISCREPANCY AND UPGRADE PROGRAM

3.1 TROUBLE REPORTS

In addition to changes which affect the simulator design data base, performance anomalies/hardware problems within the existing scope of simulation are identified through simulator Trouble Reports (TRs). Once identified, correction of the problem, testing of the resolution, and documentation of the correction are conducted in accordance with applicable FPC Nuclear Operations Training Department Procedures.

There are currently two open TRs written against this year's Performance Tests:

TR-1274 was written to identify problems with the hot leg level recorder response during LOCAs (PTM1D, Pressurizer Safety Valve Failure). This TR is currently under evaluation and is scheduled to be corrected by the end of the year.

TR-1319 was written to identify problems with Plant Process Computer data points during a loss of power to plant instrumentation (PTM3C1, Loss of NNI-Y DC Power). This TR will be corrected by the end of the year.

Neither of these Trouble Reports is considered to be of sufficient training impact to constitute a performance test failure, but are included in this report for information only.

Appendix E lists all open Trouble Reports at the time of this report.

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Appendix A

Plant Modifications Implemented on the Simulator  
Since the Initial Submittal (9/27/91)

SOURCE DOCUMENTS

SOURCE DOC #	REV	TYPE	TITLE	DOC DATE	RECEIVED	STAT	IN-SERVICE DATE	IMPACT	FINAL EVAL DATE	SIMULATOR DATE	CCN
SOER 93-1	0	IND	SGTR DIAGNOSIS & MITIGATION OF RCS LEAKS & SGTR	09/20/93	09/20/93	CL	09/20/93	S	02/22/94	05/13/94	940134
NPSE92-0214	0	OTH	PRESSURIZER HEATER FAILURES	04/20/92	05/14/92	CL	04/20/92	S	05/14/92	07/07/92	920169
MAIL-0004	0	OTH	ATWS-DSS SETPOINT CHANGES	07/13/95	07/13/95	CL	07/06/95	S	07/19/95	09/01/95	950134
MAIL-0003	0	OTH	EFIC PRESS INITIATE AND DELTA-P BISTABLE SETPOINTS	06/29/95	06/29/95	CL	06/16/95	S	07/19/95	09/01/95	950133
MAIL-0002	0	OTH	RB HIGH HIGH PRESS SWITCHES	06/28/95	06/28/95	CL	06/27/95	S	07/19/95	09/01/95	950136
MAIL-0001	0	OTH	ESAS SETPOINTS	06/14/95	06/14/95	CL	06/14/95	S	07/19/95	09/01/95	950135
BAW-2158	1	OTH	CYCLE 9 RELOAD REPORT	07/03/92	07/14/92	CL	07/03/92	S	07/28/92	06/15/93	920239
94050901	8	0	MAR PRESSURIZER HEAT GROUP 4 TO 8 SWAP	/ /	06/06/94	CL	06/01/94	S	07/12/94	03/02/95	940127
94031701	8	0	MAR REVISE COMPRESSOR SETPOINTS	/ /	06/06/94	CL	06/16/94	S	07/12/94	03/02/95	940124
94030801	8	0	MAR TRANSFER SYNCHRONIZER REPLACEMENT P.L.C.	/ /	06/06/94	CL	06/15/94	S	07/14/94	03/02/95	940128
94010201	8	0	MAR REPLACEMENT OF GROUND FAULT & BUS DIFFERENTIAL RELAY	/ /	04/04/94	CL	05/11/94	HS	07/12/94	07/20/95	940126
93110201	8	0	MAR REVISE OPERATION OF RC-15-MS	/ /	12/07/93	CL	05/31/94	HS	12/16/93	03/03/95	930287
93100601	8	0	MAR IADR-2 IMPROVEMENTS ** MINOR MAR **	/ /	11/08/93	CL	05/02/94	S	12/15/93	03/03/95	930283
93090501	8	0	MAR INCREASE LEVEL SWITCH SETPOINTS LOT 3A/3B	/ /	12/07/93	CL	05/31/94	S	12/16/93	03/02/95	930288
93080301	8	0	MAR REPLACEMENT OF SCHE 1A & 1B	/ /	02/10/94	CL	06/15/94	S	03/21/94	07/22/94	940051
93062501	8	0	MAR AHF-2A/2B INLET MODIFICATIONS ** MINOR MAR **	/ /	08/13/93	CL	06/21/94	S	09/27/93	03/03/95	930209
93060801	8	0	MAR SETPOINT CHANGE TO GW-15/23-PC	/ /	07/08/93	CL	01/26/94	S	08/17/93	04/15/94	930165
93060601A	5	0	MAR SETPT.CHNGE.TO MUT OVER PRESS,LOW BWST LVL.,MUV-49	/ /	08/13/93	CL	07/29/93	S	09/27/93	12/20/93	930203
93052001	8	0	MAR REVISE SETPOINTS FOR SUMP LEVEL SWITCHES *MINOR M	/ /	08/13/93	CL	03/24/94	S	12/17/93	03/03/95	930293
93051101	8	0	MAR REVISE MFWI LOGIC	/ /	09/08/93	CL	10/27/94	S	09/27/93	03/03/95	930200
93051001	8	0	MAR ADDITION OF WD-222-LS	/ /	07/08/93	CL	08/25/94	S	08/17/93	03/02/95	930168
93040401	8	0	MAR CORE FLOOD TANK LEVEL SETPOINT CHANGE	/ /	05/07/93	CL	05/20/93	S	07/07/93	09/20/93	930145
93040301	8	0	MAR GWP-2A/2B OVERLOADS	/ /	05/07/93	CL	07/28/93	S	07/07/93	05/11/94	930146
93021201	8	0	MAR AHF-51 FANS FLOW REVERSAL "DOC ONLY" MINOR MAR	/ /	04/07/93	CL	03/19/93	S	05/06/93	02/15/94	930105
93021101	8	0	MAR CORE FLOOD TANK PRESS. ALARM SETPOINT CHANGE *MINO	/ /	04/07/93	CL	09/02/93	S	05/06/93	10/08/93	930100
93020201	8	0	MAR REACTOR BUILDING AVERAGE TEMP. ALARM SETPOINT CHAN	/ /	04/07/93	CL	07/02/93	S	05/06/93	09/24/93	930103
92102501	8	0	MAR DHP AMP ALARMS	/ /	08/13/93	CL	05/09/94	HS	09/27/93	03/03/95	930206
92092101	8	0	MAR EFW TANK SETPOINTS	/ /	11/12/92	CL	11/20/92	S	12/03/92	06/02/93	920377
92072501	8	0	MAR REVISE RCP UPPER STAGE TEMPT. ALARM SETPOINT	/ /	08/12/92	CL	09/17/92	S	08/31/92	11/30/92	920284
92071701	8	0	MAR WD-203-PS2 SETPOINT CHANGE ** MINOR MAR **	/ /	09/09/92	CL	12/01/92	S	10/12/92	12/09/92	920327
92070601	8	0	MAR PAX LINE FOR SIMULATOR	/ /	08/12/92	CL	09/10/92	H	10/13/92	11/23/92	920337
92060401	8	0	MAR RE-RATING OF MAKE-UP PUMP MOTORS	/ /	12/07/93	CL	10/13/94	S	03/28/94	05/12/95	940057
92060201	8	0	MAR 480 VOLT MCC CONTROL CIRCUIT DEGRADED VOLTAGE	/ /	07/07/92	CL	08/26/93	S	07/28/92	07/27/94	920241
92051201	8	0	MAR REVISE RCP TEMPERATURE INTERLOCK SETPOINT	/ /	06/23/92	CL	07/01/92	HS	06/24/92	09/18/92	920196
92050901	8	0	MAR REPLACE E/P TRANSDUCERS WITH I/P TRANSDUCERS	/ /	06/23/92	CL	04/14/93	S	06/24/92	02/15/94	920197

09/18/95

## SOURCE DOCUMENTS

SOURCE DOC #	REV	TYPE	TITLE	DOC DATE	RECEIVED	STAT	IN-SERVICE	FINAL EVAL	SIMULATOR	CON		
							DATE	IMPACT	DATE		DATE	
92041801	8	0	MAR	WDP-6A/6B IMPELLER MODIFICATION	/ /	01/12/93	CL	02/05/93	S	02/04/93	01/21/94	930034
92040801	8	0	MAR	REPLACE CFV-15	/ /	05/21/92	CL	07/03/92	S	10/13/92	10/15/92	920338
92040206	5	0	MAR	DHV-7 AND 8 MOTOR OPERATOR MODIFICATION	/ /	02/09/93	CL	02/09/94	S	03/30/93	03/02/95	930056
92040204	4	0	MAR	UPGRADE EFV-32 & EFV-33	/ /	06/11/92	CL	07/02/92	S	06/22/92	09/18/92	920193
92040203	8	0	MAR	UPGRADE ASV-5 & ASV-204	/ /	06/08/92	CL	07/02/92	S	06/22/92	09/18/92	920192
92040201	8	0	MAR	REPLACE EFV-11 AND 14	/ /	05/28/92	CL	07/03/92	S	06/04/92	09/18/92	920244
92021601	8	0	MAR	SUMP LEVEL ANNUNCIATORS	/ /	04/07/93	CL	07/15/93	HS	05/06/93	10/22/93	930102
92012301	8	0	MAR	4.16KV/6.9KV PLANT RELAY & BREAKER SETTING CORRECT	/ /	03/25/92	CL	07/04/92	S	03/26/92	05/14/93	920121
92010101	8	0	MAR	DISCONNECTION OF POWER FEEDERS TO WATER TREATMENT	/ /	04/28/92	CL	04/09/93	S	07/07/93	07/14/94	930139
91120401	8	0	MAR	MAIN FW VALVE ISOLATION TIMING SEQUENCE CHANGE	/ /	03/06/92	CL	07/02/92	S	03/26/92	08/07/92	920118
91101301	8	0	MAR	RELAY SETTING CHANGES FOR RCP & CWP MOTORS	/ /	11/26/91	CL	05/01/92	S	12/26/91	08/11/92	910451
91100301	8	0	MAR	TSAT MONITORS ALARM INTERLOCK	/ /	10/25/91	CL	11/25/91	S	12/11/91	06/23/92	910429
91083101	8	0	MAR	NNI TIME DELAY RELAY (MUV-49)	/ /	08/13/93	CL	04/23/94	S	09/27/93	03/02/95	930205
91083001	8	0	MAR	CD-48-PC SETPOINT CHANGE *** MINOR MAR ***	/ /	06/07/93	CL	08/26/93	S	07/08/93	12/01/93	930170
91081901	8	0	MAR	FW BOOSTER PUMP IMPELLER REDESIGN "DOCUMENTATION	/ /	04/06/92	CL	10/08/92	S	07/28/92	06/02/93	920243
91070901	8	0	MAR	SFP-1A/1B TRIP SETPOINT CHANGE	/ /	08/07/91	CL	08/02/91	S	12/26/91	04/03/92	910452
91053501	8	0	MAR	DCV-24 AND 23 INTERNALS REMOVAL	/ /	01/02/92	CL	12/15/92	S	01/28/92	09/24/93	920043
91053101	8	0	MAR	BACKUP POWER SUPPLY FOR MUV-16 (MU-15-FIC)	/ /	02/19/92	CL	06/30/92	S	02/28/92	08/07/92	920068
91050701	8	0	MAR	CRD COOLING WATER INTERLOCK	/ /	03/06/92	CL	07/03/92	S	03/26/92	09/18/92	920119
91050101	8	0	MAR	CRDM SERVICE STRUCTURE TEMPERATURE MONITORING	/ /	10/18/91	CL	07/13/92	S	10/23/91	06/02/93	910385
91032305	8	0	MAR	BEST, NEW SLUR SETPOINT	/ /	04/07/93	CL	04/19/93	S	05/06/93	01/14/94	930101
91032301	8	0	MAR	BACKUP E. S. TRANSFORMER DESIGN	/ /	01/12/93	CL	04/19/93	HS	02/04/93	10/08/93	930033
91031501	8	0	MAR	ICS INTEGRAL EXTERNAL RESISTOR REMOVAL	/ /	03/06/92	CL	10/12/92	S	04/09/92	04/14/92	920127
91030401	5	0	MAR	CD-67-LT REMOVAL	/ /	04/06/92	CL	05/04/93	HS	04/27/92	02/15/94	920153
91011308	8	0	MAR	R.B. MAINTENANCE SUPPORT BUILDING - I&C	/ /	09/08/93	CL	02/22/94	HS	09/27/93	03/03/95	930199
90120404	8	0	MAR	REPLACEMENT OF 4160/480 VOLT TRANSFORMER, MTSW-3C	/ /	10/18/91	CL	05/08/92	S	01/28/92	05/06/93	920047
90111101	8	0	MAR	REPOWERING COMPUTER & ANNUNCIATOR EQUIPMENT	/ /	04/04/91	CL	03/18/92	S	05/14/91	08/07/92	910197
90111001	8	0	MAR	NNI AND RCITS-C MODIFICATIONS	/ /	04/04/91	CL	07/03/92	S	05/14/91	09/22/92	910196
90110901	8	0	MAR	HIGH PRESSURE AUX. PRESSURIZER SPRAY	/ /	08/07/91	CL	11/27/91	S	08/20/91	08/07/92	910292
90090801	8	0	MAR	TRIP BLOCK SWITCH FOR ES BREAKER 3321	/ /	10/18/91	CL	07/01/92	S	10/23/91	12/09/92	910383
90090601	8	0	MAR	RCP SEAL TEMPERATURE ALARM & RECORDING	/ /	02/06/91	CL	05/30/91	HS	02/18/91	09/18/92	910024
90080202	8	0	MAR	REPLACE AB SUMP PUMP	/ /	12/12/91	CL	07/22/94	S	12/16/91	03/02/95	910440
90080201	8	0	MAR	REPLACE RB SUMP PUMPS	/ /	10/25/91	CL	07/01/92	S	12/11/91	06/15/93	910428
90080101	8	0	MAR	AHF-1A,1B,1C BEARING TEMPERATURE RECORDER	/ /	07/10/91	CL	02/05/92	HS	10/23/91	07/24/92	910294
90070901	8	0	MAR	ROLL WIRE FOR TURBINE DIFF EXPANSION PICK-UPS	/ /	09/25/90	CL	05/17/94	HS	02/18/91	03/03/95	910023

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## SOURCE DOCUMENTS

SOURCE DOC #	REV	TYPE	TITLE	DOC DATE	RECEIVED	STAT	IN-SERVICE DATE	IMPACT	FINAL EVAL DATE	SIMULATOR DATE	CCN	
90070501	8	0	MAR	DHV-3 ACIS TROUBLE ALARM	/ /	08/08/90	CL	10/14/91	S	10/09/92	10/15/92	920326
90070301	8	0	MAR	S80 NITROGEN BACKUP FOR ADV'S	/ /	01/20/92	CL	07/04/92	S	01/28/92	06/15/93	920044
90050901A	8	0	MAR	TGF-AX-3-3-1 REWIRE	/ /	09/26/91	CL	05/29/92	S	10/23/91	09/22/92	910378
90050102	8	0	MAR	FIRE DAMPER OPERABILITY (ELECTRICAL)	/ /	09/26/91	CL	10/28/91	HS	10/23/91	03/14/92	910382
90040901	8	0	MAR	DECAY HEAT SYSTEM PRESSURE UPGRADE	/ /	05/04/90	CL	07/14/92	S	08/17/90	06/29/93	900059
90032002	8	0	MAR	RC - 132 - PT SETPOINT CHANGE	/ /	07/10/91	CL	06/30/92	HS	08/22/91	09/18/92	910299
90032001	8	0	MAR	ACIS INSTRUMENTATION	/ /	04/23/90	CL	05/03/90	HS	08/17/90	07/15/92	900001
90010701	8	0	MAR	AHF-20 A/B SLOW SPEED INTERLOCK MOD	/ /	02/06/91	CL	11/18/91	S	02/20/91	04/03/92	910035
89081105	8	0	MAR	OFF SITE POWER TRANSFORMER #9 CHANGE OUT	/ /	06/07/91	CL	11/25/91	HS	07/15/91	08/05/92	910246
89081103	8	0	MAR	NEW OFF SITE POWER - CONTROL ROOM MODIFICATIONS	/ /	02/17/90	CL	03/01/90	HS	11/28/90	01/10/92	900148
89080701	8	0	MAR	CI WATER TEMP SETPOINT CHANGE	/ /	12/31/89	CL	10/09/91	S	03/12/90	04/03/92	900150
89061901	8	0	MAR	OTSG FULL RANGE LEVEL CALIBRATION RANGE	/ /	11/09/89	CL	03/26/90	HS	12/08/89	11/10/91	900152
88111101	8	0	MAR	BREAKER 1692 CHC RELAY CHANGE OUT	/ /	12/10/89	CL	04/19/90	HS	08/23/90	11/12/91	900049
88110501	8	0	MAR	PRESSURIZER HEATER POWER SUPPLY MOD	/ /	09/20/89	CL	11/01/89	HS	10/11/89	09/02/92	900157
88102001	8	0	MAR	NON 1-E BATTERY INSTALLATION	/ /	03/04/91	CL	03/19/92	HS	05/14/91	09/18/92	910199
88080101	8	0	MAR	REACTOR BUILDING FAN AHF-1C CONTROL POWER SELECTIO	/ /	03/30/89	CL	08/09/89	HS	05/18/89	10/11/91	900159
88070503	5	0	MAR	ADDITIONAL AUX. FEEDWATER PUMP FWP-7 ELECTRICAL/I&	/ /	10/25/91	CL	03/25/93	HS	12/11/91	09/18/92	910425
88070502	8	0	MAR	AUXILIARY FEEDWATER PUMP FWP-7 POWER SUPPLY	/ /	07/10/91	CL	03/25/93	HS	10/23/91	07/28/92	910295
88052505	4	0	MAR	SW ISOLATION TO RC PUMPS	/ /	02/10/92	CL	/ /	HS	02/28/92	03/12/93	920067
88052401	8	0	MAR	DHP/EFP ES START MODIFICATION	/ /	11/11/89	CL	01/16/90	HS	08/23/90	04/24/92	900085
88051501	8	0	MAR	EDG CUMULATIVE TIMERS INSTALLATION	/ /	02/06/89	CL	07/03/89	HS	08/23/90	11/01/91	900070
88050401	8	0	MAR	EDG-3B EMERGENCY DIESEL GEN. LOAD SHED-HEAT TRACIN	/ /	12/19/88	CL	07/10/89	HS	03/02/89	11/22/91	900160
88041101	8	0	MAR	EDG SYNCH CK. RELAYS	/ /	12/14/88	CL	08/09/90	HS	01/04/89	11/15/91	900161
88041001	8	0	MAR	TB-304-PS REPLACEMENT/SETPOINT CHANGE	/ /	04/28/90	CL	01/29/92	S	09/10/90	04/03/92	900080
88040501	8	0	MAR	CD-100-LT & CD-101-LT INSTALLATION CONVERSION	/ /	03/16/89	CL	02/12/90	HS	08/22/90	07/17/92	900067
88030501	8	0	MAR	SYSTEM TUNING OF EFW CONTROL VALVE SIGNALS	/ /	07/28/89	CL	03/26/90	S	08/22/89	11/05/91	900163
88011201	8	0	MAR	EMERGENCY DIESEL GENERATOR UPGRADE	/ /	05/14/89	CL	03/20/90	HS	08/23/90	11/15/91	900040
87101901A	8	0	MAR	EDG CUMULATIVE TIMERS INSTALLATION	/ /	02/15/89	CL	06/13/90	HS	08/22/90	11/01/91	900088
87100901A	8	0	MAR	ASV-5/204 POWER SEPARATION	/ /	03/20/92	CL	07/01/92	S	03/26/92	07/17/92	920116
87100301A	8	0	MAR	EDG-A LOAD SHEDDING HEAT TRACING	/ /	02/15/89	CL	09/09/89	HS	08/23/90	11/22/91	900063
87091303	8	0	MAR	REPLACEMENT RCP SEAL INSTRUMENTATION	/ /	07/16/89	CL	09/14/89	HS	08/22/90	09/22/92	900068
87072803	8	0	MAR	REACTOR VESSEL LEVEL INDICATION/GENERIC LTR 88-17	/ /	08/23/89	CL	10/23/89	H	08/22/90	10/01/91	900073
87072802	8	0	MAR	REACTOR VESSEL LEVEL INDICATION - MCB/ALARMS	/ /	10/23/88	CL	01/17/89	HS	08/23/90	09/02/92	900021
87072801	8	0	MAR	REACTOR VESSEL LEVEL INDICATION - NITROGEN SUPPLY	/ /	01/27/89	CL	06/19/90	S	06/02/92	11/30/92	920189
87072701	8	0	MAR	BTU LIMITS UPGRADE	/ /	02/21/91	CL	05/19/88	S	02/21/91	01/09/92	910043



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## SOURCE DOCUMENTS

SOURCE DOC #	REV	TYPE	TITLE	DOC DATE	RECEIVED	STAT	IN-SERVICE	FINAL EVAL	SIMULATOR	CCN		
							DATE	IMPACT	DATE		DATE	
87072602	8	0	MAR	SPDS HED'S FIRMWARE MODIFICATIONS (EPROM REVS)	/ /	04/23/89	CL	04/30/90	S	05/23/89	02/20/92	900164
87072601	8	0	MAR	SPDS MODIFICATIONS (ADD RECALL PARAMETERS)	/ /	06/10/89	CL	08/30/89	S	08/23/90	02/20/92	900012
87072303	8	0	MAR	CONTROL COMPLEX DAMPER UPGRADE	/ /	06/23/88	CL	03/03/89	S	08/23/90	10/10/91	900032
87070801	8	0	MAR	E.S. MATRIXES BYPASS STATUS LAMPS	/ /	06/28/88	CL	06/25/92	S	08/24/90	04/27/93	900037
87070601	8	0	MAR	BUILDING SPRAY PUMP TESTING CIRCUIT	/ /	02/20/91	CL	11/03/89	HS	02/20/91	04/24/92	910032
87040601	8	0	MAR	EFIC-VECTOR MODULE LOGIC CHANGE	/ /	04/25/88	CL	06/16/90	S	06/02/88	11/06/91	900006
87032501	8	0	MAR	DECOMMISSION RCP SP SWITCHES	/ /	06/24/88	CL	12/01/88	S	01/29/90	07/07/92	900031
87031601		7	FCN	INTERMEDIATE BLDG. MONITORING	/ /	02/06/91	CL	02/03/93	S	02/18/91	12/16/93	910021
87031601	8	0	MAR	INTERMEDIATE BUILDING MONITORING	/ /	09/23/89	CL	02/03/93	HS	11/01/89	12/16/93	900086
87023012	8	0	MAR	ADDITION OF AN HVV CHECK VALVE	/ /	10/18/91	CL	06/22/92	S	12/26/91	09/08/92	910449
87023011	8	0	MAR	REDUNDANT CONTROL FOR SEAL DRAIN RETURN POT ON MFW	/ /	03/25/92	CL	06/13/92	S	03/26/92	07/17/92	920117
87023010	8	0	MAR	REDUNDANT CONTROL FOR TDT-1	/ /	03/06/92	CL	06/12/92	S	03/26/92	07/17/92	920115
87023009	8	0	MAR	REPOWERING OF MFWP AUXILIARY OIL PUMPS FWP-4A AND	/ /	01/28/92	CL	06/27/92	S	02/28/92	07/17/92	920070
87023008	8	0	MAR	DEAERATOR LEVEL CONTROL MODIFICATION	/ /	01/02/92	CL	07/23/92	S	01/28/92	09/22/92	920041
87023007	8	0	MAR	HOTWELL/CONDENSATE STORAGE TANK LEVEL CONTROL MODI	/ /	01/02/92	CL	10/14/93	HS	01/28/92	08/05/94	920040
87023006	8	0	MAR	REVISE VOLTAGE TRANSFER RELAY SETTINGS	/ /	03/06/92	CL	05/17/92	S	03/26/92	08/05/92	920120
87023005	8	0	MAR	ADD. OF PRESS. ACCUMULATORS TO FWTB 1A/1B CONTROL	/ /	01/28/92	CL	07/01/92	S	02/28/92	07/17/92	920071
87011902	8	0	MAR	RB DEPRESSURIZATION THROTTLE VALVE	/ /	11/21/88	CL	06/07/89	S	08/23/90	08/07/92	900062
87011901	8	0	MAR	RB DEPRESSURIZATION	/ /	12/05/88	CL	06/07/89	HS	08/23/90	04/24/92	900076
87011301	8	0	MAR	CRD BREAKER UV SENSOR SETPOINT CHANGE	/ /	09/20/89	CL	10/20/88	S	01/29/90	07/29/92	900051
87010812		3	FCN	ADDS RELAY SETTINGS SHEETS FOR CWP-1A	/ /	04/08/93	CL	/ /	S	05/06/93	09/03/93	930099
87010812	4	0	MAR	CWP MOTOR SPEED CHANGE	/ /	03/10/93	CL	/ /	S	03/30/93	09/03/93	930059
87010801	8	0	MAR	CONDENSER RETUBING	/ /	02/19/92	CL	09/07/92	S	02/28/92	09/03/93	920066
86121003	8	0	MAR	ES ACTUATION SIGNAL SEAL IN FOR BSV3 & BSV4	/ /	06/24/88	CL	01/18/89	S	01/25/90	07/17/92	900036
86120204	5	0	MAR	SW TEMPERATURE CONTROL WITH RW RECIRCULATION - ELE	/ /	10/08/92	CL	03/29/94	HS	10/15/92	03/03/95	920342
86100901	8	0	MAR	LOW TEMP OVERPRESSURIZATION PROTECTION ALARM ADDIT	/ /	02/20/91	CL	12/12/88	S	02/20/91	10/02/91	910036
86062103	8	0	MAR	MAIN GENERATOR UPGRADE MONITORING INSTRUMENTATION	/ /	11/04/89	CL	10/24/90	HS	12/08/89	03/02/92	900066
86062102	8	0	MAR	MAIN GENERATOR STATOR REPLACEMENT	/ /	12/23/88	CL	10/24/90	S	08/24/90	04/27/92	900082
86050904	8	0	MAR	MODIFICATION OF MAIN FEEDWATER PUMP TRIP CIRCUITRY	/ /	12/03/91	CL	07/01/92	S	12/26/91	09/23/92	920049
86050901	8	0	MAR	DEAERATOR STORAGE TANK LEVEL CONTROL	/ /	10/25/91	CL	06/30/92	S	12/11/91	09/22/92	910430
86050811	8	0	MAR	REMOVAL OF ICS OTSG OVERPRESSURE PROTECTION	/ /	10/28/91	CL	06/12/92	S	12/11/91	07/31/92	910426
86050809	8	0	MAR	ADDITION OF SIGNAL LIMITERS TO NNI/ICS	/ /	10/25/91	CL	06/22/92	S	12/26/91	08/07/92	910450
86050808A	8	0	MAR	DELETION OF STARTUP FW FLOW CORRECTION FROM ICS	/ /	01/02/92	CL	06/30/92	S	01/28/92	07/17/92	920042
86050807	8	0	MAR	NNI ALARM STATUS MODIFICATION	/ /	02/22/89	CL	05/09/90	S	09/10/90	10/09/91	900034
86050805	8	0	MAR	BACKUP CONTROLS FOR PRESS. LEVEL & CONDENSATE FLOW	/ /	07/08/89	CL	09/14/89	S	08/22/89	10/04/91	900077

09/18/95

## SOURCE DOCUMENTS

SOURCE DOC #	REV	TYPE	TITLE	DOC DATE	RECEIVED	STAT	IN-SERVICE DATE	IMPACT	FINAL EVAL DATE	SIMULATOR DATE	CCN
86050804	8	0 MAR	NEUTRON FLUX SIGNALS TO SASS	/ /	04/10/89	CL	06/30/92	HS	05/23/89	05/29/92	900016
86050802	8	0 MAR	NNI/ICS REMOVAL OF UNUSED INOPERABLE HARDWARE	/ /	02/09/89	CL	04/14/93	HS	08/22/90	04/28/92	900007
86050801	5	0 MAR	SMART AUTOMATIC SIGNAL SELECTION	/ /	10/08/89	CL	07/10/92	HS	11/01/89	08/07/92	900008
86030406	8	0 MAR	UNDervOLTAGE SETPOINT CHG/ISOLATION TRANSFORMER	/ /	05/15/91	CL	01/08/88	S	01/28/92	07/07/92	920046
86020301	11	FCN	NEW ALERT AND DANGER SETPOINTS	/ /	03/21/88	CL	03/22/88	S	06/02/88	09/18/92	900123
85090501	8	0 MAR	RW PUMP FLUSH WATER	/ /	05/15/91	CL	01/26/88	S	07/15/91	08/05/92	910244
84081018	8	0 MAR	DCRDR POST RF6 CLEAN-UP	/ /	10/13/89	CL	11/27/91	HS	11/01/89	07/07/92	900093
84081004	26	FCN	REWIRE RCS T-HOT INDICATION	/ /	12/11/91	CL	02/01/88	H	12/11/91	04/10/92	910424
84081004	23	FCN	DRAWING CORRECTIONS	/ /	12/11/91	CL	02/01/88	H	12/11/91	08/14/92	910423
84081004	13	FCN	CORRECT INSTRUMENT DATA SHEETS	/ /	12/11/91	CL	02/01/88	H	12/11/91	08/14/92	910422
84081004	12	FCN	CHANGE METER SCALE FOR RC-1-L12	/ /	12/11/91	CL	02/01/88	H	12/11/91	06/26/92	910421
84081003	4	FCN	R.G. 1.97 UPGRADE	/ /	02/19/91	CL	10/05/88	S	02/19/91	10/01/91	910031
84081002	11	FCN	CHANGE R.I.P. METER SEALES	/ /	02/19/91	CL	02/27/89	H	02/19/91	06/30/92	910028
84081001	22	FCN	ANNUNCIATOR MODIFICATIONS	/ /	12/31/89	CL	10/15/92	H	01/22/90	02/28/92	900143
84081001	20	FCN	ANNUN MODIFICATION	/ /	03/30/89	CL	10/15/92	HS	04/24/89	06/17/92	900131
84081001	18	FCN	EVENTS RECORDER ALARM BUZZER	/ /	07/18/88	CL	10/15/92	HS	08/09/88	12/06/91	900146
84060702	8	0 MAR	ATWS CABLE TERMINATION & CABINET WIRING	/ /	06/22/89	CL	03/26/90	HS	08/02/89	07/29/92	900015
83070401	8	0 MAR	GENERATOR BUS VOLTAGE TELEMETRY & METERING UPGRADE	/ /	01/27/90	CL	02/12/90	HS	04/12/90	10/01/91	900048
83041901	2	FCN	ADDITION OF LESS THAN 22% FLUX RELAY	/ /	02/25/91	CL	01/12/89	S	02/25/91	10/01/91	910052
82050324	8	0 MAR	HIGH PRESSURE INJECTION (HPI) FLOW INDICATION UPGR	/ /	09/26/91	CL	06/30/92	S	10/23/91	08/14/92	910377
82050320	8	0 MAR	REG 1.97 HIGH PRESSURE UPGRADE	/ /	03/09/90	CL	03/23/90	HS	11/28/90	10/14/91	900149
82050317	8	0 MAR	R.G. 1.97 - PRESSURIZER HEATER STATUS INDICATION	/ /	04/13/89	CL	08/15/90	HS	05/23/89	10/08/91	900004
82050316	8	0 MAR	MAIN STEAM RELIEF VALVE POSITION INDICATION	/ /	01/16/89	CL	02/08/89	HS	09/10/90	01/04/93	900039
82050301	15	FCN	REVISE DATA SHEETS	/ /	02/12/91	CL	01/11/89	S	02/12/91	10/02/91	910018
80121403	8	0 MAR	MSR TUBE BUNDLE INSTRUMENTATION INSTALL.	/ /	09/15/88	CL	05/08/89	S	09/10/90	02/22/93	900045
78061200A	6	FCN	AS BUILD EXISTING INSTALLATION (TO CLOSE MAR)	/ /	04/08/93	CL	10/22/93	S	05/07/93	07/15/94	930106
47-1200453-00	0	OTH	TUNING THE INTEGRATED CONTROL SYSTEM	08/21/90	11/20/91	CL	08/21/90	S	11/20/91	01/09/92	910415

THE TOTAL NUMBER OF RECORDS FOR THIS REPORT IS: 167

END OF REPORT

FLORIDA POWER CORPORATION  
CRYSTAL RIVER UNIT 3  
FOUR YEAR SIMULATOR  
CERTIFICATION REPORT

Appendix B

Plant Modifications Requiring  
Implementation on the Simulator

SOURCE DOCUMENTS

SOURCE DOC #	REV	TYPE	TITLE	RECEIVED	STAT	IN-SERVICE DATE	IMPACT	FINAL EVAL DATE	CCN	SM / HW ASSIGNEE	FINAL EVAL FLOAT DAYS	SIM INSTALL FLOAT DAYS
90020301	8	0	MAR	REPLACEMENT OF EDAS WITH PC NETWORK	12/03/91	OP	09/08/93	S	12/26/91	920048 JLO/WGG	----	-375
91050302	8	0	MAR	HYDROGEN PURGE REDUNDANCY RESTORATION - ELEC/I&C	10/08/93	OF	04/19/94	HS	12/15/93	930280 THD/WDG	----	-152
93061601	4	0	MAR	MODIFY GAMMAMETRIC NUCLEAR INST. CHANNELS NI 14/15	01/10/94	OP	06/15/94	HS	06/21/94	940050 JLO/WDG	----	-89
94070701	5	0	MAR	CORE FLOOD TANK LEVEL ALARM SETPOINT CHANGE	10/17/94	OP	10/17/94	S	02/28/95	950023 /	----	163
91032307	8	0	MAR	BACKUP ES TRANSFORMER (BEST) DELUGE SYSTEM	03/01/95	OP	12/13/93	HS	03/01/95	950027 /WDG	----	164
87080101	8	0	TMR	TEMP. MANUAL CONTROLS FOR AHD-37	03/03/95	OP	10/20/94	S	03/03/95	950040 /	----	166
92012302	4	0	MAR	480 V PLANT RELAY AND BREAKER SETTING CORRECTION	05/21/92	OP	03/20/95	S	07/28/92	920240 /	----	183
88040301	5	0	MAR	WD PRESSURE TRANSMITTER UPGRADES	/ /		12/07/94		/ /	/	80	445

THE TOTAL NUMBER OF RECORDS FOR THIS REPORT IS: 8

NUMBER OF SOURCE DOCUMENTS WHERE THE SIMULATOR INSTALLATION FLOAT IS:

>= 200 but < 300 DAYS = 0  
 >= 100 but < 200 DAYS = 4  
 >= 50 but < 100 DAYS = 0  
 < 50 DAYS = 3

END OF REPORT

FLORIDA POWER CORPORATION  
CRYSTAL RIVER UNIT 3  
FOUR YEAR SIMULATOR  
CERTIFICATION REPORT

Appendix C

Completed Performance Tests 1992-1995

## 1992 Performance Tests

PTN1	PLANT STARTUP - MODE 5 TO FULL POWER
PTN7	SURVEILLANCE TESTING
PTS1	STEADY STATE PERFORMANCE TEST
PTC1	COMPUTER REAL TIME TEST
PTT1	REACTOR TRIP
PTT2	TOTAL LOSS OF FEEDWATER
PTT3	SIMULTANEOUS CLOSURE OF ALL MSIVS
PTT4	LOSS OF OFFSITE POWER FROM FULL POWER
PTT5	REACTOR COOLANT PUMP TRIP
PTT6	MAIN TURBINE TRIP
PTT7	MAXIMUM RATE POWER RAMP
PTT8	LARGE BREAK LOCA (DBA)
PTT9	MAIN STEAM LINE BREAK INSIDE CONTAINMENT
PTT10	PORV FAILURE WITH HPI INOPERABLE
PTM1A1	STEAM GENERATOR TUBE LEAK
PTM2	LOSS OF INSTRUMENT AIR
PTM3C2	LOSS OF NNI-Y 120 VDC
PTM3F	LOSS OF 480 VAC ES BUS A
PTM4C	REACTOR COOLANT PUMP SEAL FAILURE
PTM4D	REACTOR COOLANT PUMP LOCKED ROTOR
PTM6B	LOSS OF CIRCULATING WATER
PTM8A	LOSS OF NSCCC
PTM9B	LOSS OF BOTH MAIN FEEDWATER PUMPS
PTM11A	LOSS OF RPS +15V CABINET POWER SUPPLY
PTM12C	DEGRADED ROD MOTION
PTM16	MAIN GENERATOR TRIP
PTM17D	ATMOSPHERIC DUMP VALVE FAILURE
PTM17F	CONTINUOUS ROD WITHDRAWAL
PTM17G	DILUTION ACCIDENT
PTM18C	LETDOWN ISOLATION VALVE FAILURE
PTM20A	MAIN STEAM LINE BREAK OUTSIDE CONTAINMENT
PTM21B	INTERMEDIATE RANGE CHANNEL FAILURE
PTM22C	MAIN FW FLOW TRANSMITTER FAILURE
PTM22G	MAIN FW TEMPERATURE TRANSMITTER FAILURE
PTM23A	MS ISOLATION ACTUATION FAILURE
PTM23E	EFIC AUTO ACTUATION FAILURE

1993 Performance Tests

PTN2 REACTOR TRIP AND RECOVERY TO FULL POWER  
PTN6 CORE PERFORMANCE TESTING  
PTS1 STEADY STATE PERFORMANCE TEST  
PTC1 COMPUTER REAL TIME TEST  
PTT1 REACTOR TRIP  
PTT2 TOTAL LOSS OF FEEDWATER  
PTT3 SIMULTANEOUS CLOSURE OF ALL MSIVS  
PTT4 LOSS OF OFFSITE POWER FROM FULL POWER  
PTT5 REACTOR COOLANT PUMP TRIP  
PTT6 MAIN TURBINE TRIP  
PTT7 MAXIMUM RATE POWER RAMP  
PTT8 LARGE BREAK LOCA (DBA)  
PTT9 MAIN STEAM LINE BREAK INSIDE CONTAINMENT  
PTT10 PORV FAILURE WITH HPI INOPERABLE  
PTM1A2 STEAM GENERATOR TUBE RUPTURE  
PTM1B LETDOWN LEAK DOWNSTREAM OF MUV-49  
PTM3A LOSS OF OFFSITE POWER (LOW DECAY HEAT)  
PTM3D1 LOSS OF ICS DC POWER  
PTM3G LOSS OF DC DISTRIBUTION  
PTM5A LOSS OF CONDENSER VACUUM  
PTM6C LOSS OF DECAY HEAT RAW WATER  
PTM8B LOSS OF SSCC  
PTM9C OTSG OVERFILL  
PTM11B FAILURE OF ES CABINET POWER SUPPLY  
PTM12D DROPPED CONTROL ROD  
PTM17A CONTROL ROD OUT INHIBIT FAILURE  
PTM17E TURBINE BYPASS VALVE FAILURE  
PTM18D PRESSURIZER HEATER CONTROLLER FAILURE  
PTM20B MAIN FEED LINE BREAK INSIDE CONTAINMENT  
PTM21C SOURCE RANGE CHANNEL FAILURE  
PTM22D OTSG OP RANGE LEVEL TRANSMITTER FAILURE  
PTM22H FAILURE OF ICS TO TRANSFER TO TRACK  
PTM23B MFW ISOLATION ACTUATION FAILURE  
PTM24A ATWS (NO OPERATOR INTERVENTION)

1994 Performance Tests

PTN3 LOAD CHANGES AT POWER  
PTN5 PLANT SHUTDOWN AND COOLDOWN  
PTS1 STEADY STATE PERFORMANCE TEST  
PTC1 COMPUTER REAL TIME TEST  
PTT1 REACTOR TRIP  
PTT2 TOTAL LOSS OF FEEDWATER  
PTT3 SIMULTANEOUS CLOSURE OF ALL MSIVS  
PTT4 LOSS OF OFFSITE POWER FROM FULL POWER  
PTT5 REACTOR COOLANT PUMP TRIP  
PTT6 MAIN TURBINE TRIP  
PTT7 MAXIMUM RATE POWER RAMP  
PTT8 LARGE BREAK LOCA (DBA)  
PTT9 MAIN STEAM LINE BREAK INSIDE CONTAINMENT  
PTT10 POKV FAILURE WITH HPI INOPERABLE  
PTM1C1 REPRESSURIZING SMALL BREAK LOCA  
PTM1C2 SMALL BREAK LOCA  
PTM3B1 LOSS OF EMERGENCY OFFSITE SOURCE  
PTM3B2 LOSS OF EMERGENCY OFFSITE SOURCE/EDG FAILURE  
PTM3D2 LOSS OF ICS AC POWER  
PTM18E PRESSURIZER SPRAY VALVE FAILURE  
PTM20C MAIN FEED LINE BREAK OUTSIDE CONTAINMENT  
PTM22A RCS THOT TRANSMITTER FAILURE  
PTM22E ICS RUNBACK FAILURE  
PTM22I REACTOR DEMAND SIGNAL FAILURE  
PTM23C ES CHANNEL FAILURE TO ACTUATE HPI  
PTM24B ATWS (OPERATOR INTERVENTION)



## 1995 Performance Tests

PTN4	3 RCP STARTUP/SHUTDOWN/POWER OPERATIONS
PTS1	STEADY STATE PERFORMANCE TEST
PTC1	COMPUTER REAL TIME TEST
PTT1	REACTOR TRIP
PTT2	TOTAL LOSS OF FEEDWATER
PTT3	SIMULTANEOUS CLOSURE OF ALL MSIVS
PTT4	LOSS OF OFFSITE POWER FROM FULL POWER
PTT5	REACTOR COOLANT PUMP TRIP
PTT6	MAIN TURBINE TRIP
PTT7	MAXIMUM RATE POWER RAMP
PTT8	LARGE BREAK LOCA (DBA)
PTT9	MAIN STEAM LINE BREAK INSIDE CONTAINMENT
PTT10	PORV FAILURE WITH HPI INOPERABLE
PTM1C3	SMALL BREAK LOCA/HPI INOPERABLE
PTM1D	PRESSURIZER SAFETY VALVE FAILURE
PTM3C1	LOSS OF NNI-Y $\pm 24$ VDC
PTM3E	LOSS OF VITAL BUS
PTM4B	LOSS OF 2 RCPS
PTM6A	LOSS OF NUCLEAR SERVICES RAW WATER
PTM7	LOSS OF DECAY HEAT REMOVAL
PTM9A	MAIN FEEDWATER PUMP TRIP AND RUNBACK
PTM10	TOTAL LOSS OF FEEDWATER
PTM12B	UNCOUPLED ROD
PTM14A	HIGH RCS ACTIVITY
PTM14B	WASTE GAS DECAY TANK LEAK
PTM17C	FAILURE OF THE MAIN TURBINE TO TRIP
PTM18B	PRESSURIZER LEVEL CONTROL VALVE FAILURE
PTM18F	RCS NR PRESSURE TRANSMITTER FAILURE
PTM21A	POWER RANGE CHANNEL FAILURE
PTM22B	RCS TCOLD TRANSMITTER FAILURE
PTM22F	ICS HEADER PRESSURE BIAS FAILURE
PTM22J	SELECTED TAVE FAILURE
PTM23D	ES CHANNEL FAILURE TO ACTUATE RBI&C

FLORIDA POWER CORPORATION  
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Appendix D

Performance Test Schedule 1996-2000

1996-1999  
SIMULATOR PERFORMANCE TEST SCHEDULE

TEST NUMBER	TEST TITLE	1996	1997	1998	1999
PTN1	PLANT STARTUP - MODE 5 TO FULL POWER	X			
PTN2	REACTOR TRIP AND RECOVERY TO FULL POWER		X		
PTN3	LOAD CHANGES AT POWER			X	
PTN4	3 RCP STARTUP/SHUTDOWN/POWER OPERATIONS				X
PTN5	PLANT SHUTDOWN AND COOLDOWN			X	
PTN6	CORE PERFORMANCE TESTING		X		
PTN7	SURVEILLANCE TESTING	X			
PTS1	STEADY STATE PERFORMANCE TEST	X	X	X	X
PTC1	COMPUTER REAL TIME TEST	X	X	X	X
PTT1	REACTOR TRIP	X	X	X	X
PTT2	TOTAL LOSS OF FEEDWATER	X	X	X	X
PTT3	SIMULTANEOUS CLOSURE OF ALL MSIVS	X	X	X	X
PTT4	LOSS OF OFFSITE POWER FROM FULL POWER	X	X	X	X
PTT5	REACTOR COOLANT PUMP TRIP	X	X	X	X
PTT6	MAIN TURBINE TRIP	X	X	X	X
PTT7	MAXIMUM RATE POWER RAMP	X	X	X	X
PTT8	LARGE BREAK LOCA (DBA)	X	X	X	X
PTT9	MAIN STEAM LINE BREAK INSIDE CONTAINMENT	X	X	X	X
PTT10	PORV FAILURE WITH HPI INOPERABLE	X	X	X	X
PTM1A1	STEAM GENERATOR TUBE LEAK	X			
PTM1A2	STEAM GENERATOR TUBE RUPTURE		X		
PTM1B	LETDOWN LEAK DOWNSTREAM OF MUV-49		X		
PTM1C1	REPRESSURIZING SMALL BREAK LOCA			X	
PTM1C2	SMALL BREAK LOCA			X	
PTM1C3	SMALL BREAK LOCA/HPI INOPERABLE				X
PTM1D	PRESSURIZER SAFETY VALVE FAILURE				X
PTM2	LOSS OF INSTRUMENT AIR	X			
PTM3A	LOSS OF OFFSITE POWER (LOW DECAY HEAT)		X		
PTM3B1	LOSS OF EMERGENCY OFFSITE SOURCE			X	
PTM3B2	LOSS OF EMERGENCY OFFSITE SOURCE/EDG FAILURE			X	
PTM3C1	LOSS OF NNI-Y +24 VDC				X
PTM3C2	LOSS OF NNI-Y 120 VDC	X			
PTM3D1	LOSS OF ICS DC POWER		X		
PTM3D2	LOSS OF ICS AC POWER			X	
PTM3E	LOSS OF VITAL BUS				X
PTM3F	LOSS OF 480 VAC ES BUS A	X			
PTM3G	LOSS OF DC DISTRIBUTION		X		

1996-1999  
SIMULATOR PERFORMANCE TEST SCHEDULE

TEST NUMBER	TEST TITLE	1996	1997	1998	1999
PTM4A	REACTOR COOLANT PUMP SHAFT SHEAR			X	
PTM4B	LOSS OF 2 RCPS				X
PTM4C	REACTOR COOLANT PUMP SEAL FAILURE	X			
PTM4D	REACTOR COOLANT PUMP LOCKED ROTOR	X			
PTM5A	LOSS OF CONDENSER VACUUM		X		
PTM5B	LOSS OF CONDENSER LEVEL CONTROL			X	
PTM6A	LOSS OF NUCLEAR SERVICES RAW WATER				X
PTM6B	LOSS OF CIRCULATING WATER	X			
PTM6C	LOSS OF DECAY HEAT RAW WATER		X		
PTM6D	PARTIAL LOSS OF CIRCULATING WATER			X	
PTM7	LOSS OF DECAY HEAT REMOVAL				X
PTM8A	LOSS OF NSCCC	X			
PTM8B	LOSS OF SSCCC		X		
PTM8C	LOSS OF DHCCC			X	
PTM9A	MAIN FEEDWATER PUMP TRIP AND RUNBACK				X
PTM9B	LOSS OF BOTH MAIN FEEDWATER PUMPS	X			
PTM9C	OTSG OVERFILL		X		
PTM9D	LOSS OF BOTH CONDENSATE PUMPS			X	
PTM10	TOTAL LOSS OF FEEDWATER				X
PTM11A	LOSS OF RPS +15V CABINET POWER SUPPLY	X			
PTM11B	FAILURE OF ES CABINET POWER SUPPLY		X		
PTM12A	MECHANICALLY STUCK ROD			X	
PTM12B	UNCOUPLED ROD				X
PTM12C	DEGRADED ROD MOTION	X			
PTM12D	DROPPED CONTROL ROD		X		
PTM13	INABILITY TO DRIVE CONTROL RODS			X	
PTM14A	HIGH RCS ACTIVITY				X
PTM14B	WASTE GAS DECAY TANK LEAK				X
PTM16	MAIN GENERATOR TRIP	X			
PTM17A	CONTROL ROD OUT INHIBIT FAILURE		X		
PTM17B	CONTROL ROD GROUP COMMAND ENABLE FAILURE			X	
PTM17C	FAILURE OF THE MAIN TURBINE TO TRIP				X
PTM17D	ATMOSPHERIC DUMP VALVE FAILURE	X			
PTM17E	TURBINE BYPASS VALVE FAILURE		X		
PTM17F	CONTINUOUS ROD WITHDRAWAL	X			
PTM17G	DILUTION ACCIDENT	X			
PTM18A	MAKEUP PUMP TRIP			X	

1996-1999  
SIMULATOR PERFORMANCE TEST SCHEDULE

TEST NUMBER	TEST TITLE	1996	1997	1998	1999
PTM18B	PRESSURIZER LEVEL CONTROL VALVE FAILURE				X
PTM18C	LETDOWN ISOLATION VALVE FAILURE	X			
PTM18D	PRESSURIZER HEATER CONTROLLER FAILURE		X		
PTM18E	PRESSURIZER SPRAY VALVE FAILURE			X	
PTM18F	RCS NR PRESSURE TRANSMITTER FAILURE				X
PTM20A	MAIN STEAM LINE BREAK OUTSIDE CONTAINMENT	X			
PTM20B	MAIN FEED LINE BREAK INSIDE CONTAINMENT		X		
PTM20C	MAIN FEED LINE BREAK OUTSIDE CONTAINMENT			X	
PTM21A	POWER RANGE CHANNEL FAILURE				X
PTM21B	INTERMEDIATE RANGE CHANNEL FAILURE	X			
PTM21C	SOURCE RANGE CHANNEL FAILURE		X		
PTM22A	RCS THOT TRANSMITTER FAILURE			X	
PTM22B	RCS TCOLD TRANSMITTER FAILURE				X
PTM22C	MAIN FW FLOW TRANSMITTER FAILURE	X			
PTM22D	OTSG OP RANGE LEVEL TRANSMITTER FAILURE		X		
PTM22E	ICS RUNBACK FAILURE			X	
PTM22F	ICS HEADER PRESSURE BIAS FAILURE				X
PTM22G	MAIN FW TEMPERATURE TRANSMITTER FAILURE	X			
PTM22H	FAILURE OF ICS TO TRANSFER TO TRACK		X		
PTM22I	REACTOR DEMAND SIGNAL FAILURE			X	
PTM22J	SELECTED TAVE FAILURE				X
PTM23A	MS ISOLATION ACTUATION FAILURE	X			
PTM23B	MFW ISOLATION ACTUATION FAILURE		X		
PTM23C	ES CHANNEL FAILURE TO ACTUATE HPI			X	
PTM23D	ES CHANNEL FAILURE TO ACTUATE RBI&C				X
PTM23E	EFIC AUTO ACTUATION FAILURE	X			
PTM24A	ATWS (NO OPERATOR INTERVENTION)		X		
PTM24B	ATWS (OPERATOR INTERVENTION)			X	

FLORIDA POWER CORPORATION  
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Appendix E

Open Simulator Trouble Reports

TROUBLE REPORTS

NUMBER	DATE	ORIGINATOR	STAT	PROBLEM	IMPACT	PRIORITY	RELATED	CDN
							DOCUMENTATION	
01353	09/13/95	ROSE, P. L.	OP	DISPLAYED DP FOR DP1-142 SHOWS 0.0 EVEN W/ SWP-2A RUNNING	S	C		950189
01349	09/08/95	ROSE, P. L.	OP	MANY CDB DESCRIPTIONS FOR WASTE GAS NODAL VARS ARE WRONG	S	C		950188
01348	09/07/95	ROSE, P. L.	OP	DURING LATE ICC TEST, RX POWER STARTED UP (>> 100%)	S	B		950187
01346	09/06/95	R. GRUMBIR	OF	RPS SUBSYSTEM TRIP STATUS WHEN IN MANUAL BYPASS	S	B		950186
01345	09/06/95	BILL GENTRY	OP	SOUTH MCR CAMERA INOP - BLANK SCREEN	H	C		950184
01344	09/06/95	BILL GENTRY	OP	COMPUTER UPS IN OVERCURRENT ALARM	H	A		950183
01343	09/05/95	ROSE, P. L.	OP	HP DESKJET 1200C/PS PRINTER IS ALWAYS JAMMING "CHECK PAPER"	H	A		950180
01342	09/05/95	DON SMITH	OP	LOCKOUT 86/UTPY WILL NOT TRIP	H	B		950185
01341	09/14/95	R. GRUMBIR	OF	IOS PAGE ABORTS ON INERTIAL FLOW DISPLAYS CLOSE TO ZERO	S	A		950190
01340	09/01/95	ROSE, P. L.	OP	DURING EARLY 0.11 LOCA, TSAT MONITORS SHOWED EXCESS SUPERHT	S	B		950178
01339	08/30/95	J. ANDREWS	OP	86 TURB/1 LOCKOUT DIFFICULT TO RESET	H	B		950181
01338	08/30/95	J. ANDREWS	OP	EDG B "EXC VOLT ADJ SELECT" SW NO CONTACT IN "CONT RM" POS.	H	C		950182
01337	08/30/95	ARBUTHNOT, C.	OP	DURING SHUTDOWN TO MODE 4, PLANT COOLED DOWN AFTER DHP TRIP	S	B		950177
01332	08/28/95	O'BRIAN, J.	OF	UPDATE LOCKOUT DRIVER FOR TRANSPARENT OPERATION	S	B		950172
01329	08/29/95	R. GRUMBIR	OF	LEAK FLOWS FROM WTT-1 SHOULD NOT GO TO TB SUMP	S	C		950175
01328	08/24/95	ROSE, P. L.	OP	FW LINE BREAK ABORTS APPROX 2-5% OF TIME	S	C		950169
01327	08/23/95	D. DEMONTFORT	OP	PROBLEMS WITH THE ICS RATE LIMITER VS RATE OF MWE CHANGE	S	B		950173
01324	08/22/95	D. DEMONTFORT	OP	TSA PROBLEMS ON BSV-3 & DC-5-PI	S	C		950168
01321	08/15/95	DEMONTFORT, D.	OP	INTAKE SCREEN CLOGGING FACTOR IS NOT FUNCTIONAL	S	C		950179
01320	08/16/95	ROSE, P. L.	OP	DID NOT GET CORE SUPERHEAT DURING ICC SCENARIO	S	A		950165
01319	08/16/95	C. ARBUTHNOT	OP	PPC POINT PROBLEMS WITH LOSS OF NNI-Y DC (PTM3C1)	S	B		950164
01317	08/10/95	SMITH, D.	OF	CORRECT VIBRATION PROCESS INPUT ARRAY TO SWITCH HANDLER	S	B		950157
01312	08/01/95	SMITH, D.	OP	SPDS DIGITAL READOUT FOR SPDS PZR LFVEL NOT CLAMPED @ 320"	S	B		950161
01311	08/01/95	GRUMBIR, R.	OP	FAILED CAV-126 & CAV-2 WITH CAHE-1 LEAK CAUSE OUT OF SCOPE	S	C		950162
01310	07/31/95	LINTON, L.	OP	ADD NEW LABELS FOR RMG, RMA, RML (UNITS OF MR/HR OR CPM)	S	C		950147
01309	07/31/95	O'BRIAN, J.	OP	SIMULATOR HANGS WITH SPDS MUX-A COMPUTER SHUT DOWN	S	B		950146
01307	07/28/95	C. ARBUTHNOT	OP	RW PAGE DCHE TOUCH AREAS DO NOT ACCESS HX CLOGGING	S	C		950149
01303	08/07/95	ARBUTHNOT, C.	OP	PTM7 LOSS OF DH REMOVAL, RCS DIDN'T HEAT UP ENOUGH	S	B		950156
01301	07/26/95	C. ARBUTHNOT	OP	WDP-1A/B CONTROL SWITCH PROBLEMS	S	B		950151
01300	07/26/95	ARBUTHNOT, C.	OF	WHEN STARTING A DC LIFT OIL PUMP FOR RCP-1C ->ALARM MISMATCH	S	C		950154
01298	07/27/95	ROSE, P. L.	OP	EPSILON TEST ALGORITHM IN RCS MATRIX SOLUTION IS INCORRECT	S	C		950143
01297	07/14/95	DEMONTFORT, D.	OP	MM-14-MI 33 WIND DIRECTION READS 500 WHEN SYLIZ PAGE IS 270	S	C		950137
01293	07/07/95	GENTRY, B.	OP	REVISE VBDP-4, 6, 3, & 4 INDICATOR PANEL SYL PANEL	S	C		950139
01290	07/07/95	SPRINGER, J.	OF	FEED & BLEED PERMIT PROBLEMS WITH GP-5 AND GP-6 LIMITS	S	B		950130

TROUBLE REPORTS

NUMBER	DATE	ORIGINATOR	STAT	PROBLEM	IMPACT	PRIORITY	RELATED	CCN
							DOCUMENTATION	
01289	07/26/95	GENTRY, B.	OP	SYL PAGES 865-868 VBDP IND PANEL NEED UPDATE FOR NEW MIMICS	S	C		950140
01286	06/23/95	GENTRY, B.	OP	BOTH LEFT SIDE RC DUMPSTER COUNTER INOPERATIVE	H	B		950141
01279	07/14/95	C. ARBUTHNOT	OP	TURBINE EHC GV & TV TEST DO NOT WORK CORRECTLY.	S	B		950153
01278	06/14/95	ROSE, P. L.	OP	VARIOUS SCHEMATICS PAGES REDRAWN IN THE NEW FORMAT	S	C		950112
01277	06/14/95	ROSE, P. L.	OP	IOS SCHEMATICS PAGES LIBRARY UPDATES	S	C		950111
01274	06/06/95	SMITH, D.	OP	HL LEVEL RECORDERS DO NOT RESPOND CORRECTLY TO PTM1D VOIDING	S	B		950117
01269	05/24/95	GENTRY, B.	OP	A10A2AC199-CB9 GRI BREAKER CONSTANTLY TRIPS	H	C		950115
01267	05/22/95	ARBUTHNOT, C.	OP	CALIBRATE RC-1-LIR1 & RC-1-LIR3 TO READ ABOUT THE SAME	H	C		950104
01264	05/16/95	ROSE, P. L.	OP	INCORE TEMPS SWING BETWEEN 200-700 DEGF DURING 0.1 LOCA	S	A		950102
01257	05/10/95	DEMONTFORT, D.	OP	TURBINE SHOULD SYNC AT 1804 SETTER PER LATEST PLANT DATA	S	C		950107
01256	05/10/95	GENTRY, B.	OP	RESOLVE ES TEST SWITCH PROB & RWP-2A LABEL ERROR	H	B		950095
01251	05/15/95	R. GRUMBIR	OP	ADD IA & SA LOAD FLOW RATES TO PAGE 655	S	C		950101
01244	04/11/95	DEMONTFORT, D.	OF	EMERG FILTERS AH-4A/B DIFF PRESS SHOULD READ 0 W/ NO 18 FANS	S	C		950071
01238	04/11/95	GENTRY, B.	OP	TRACOR WESTRONIC RECORDERS NEED PULSE INP., NOT STEADY STATE	HS	B		950074
01236	04/20/95	LINTON, L.	OP	NI-5,6,7, & 8 ARE 0-120% (AT PLANT THEY ARE 0-125%)	H	C		950090
01232	04/07/95	SMITH, D.	OF	RM-007-RR RECORDER FOR MS LINE RAD MONITOR BROKE	H	C		950083
01225	03/24/95	SMITH, D.	OP	RC-5B-T14 NEEDS RESCALING (RIP PANEL ABOVE ES PANEL)	H	C		950082
01218	03/27/95	LINTON, L.	OP	LABELING OF FWH-6A/B SWAPPED ON PAGE 638, VALVES/PIPES OK	S	C		950084
01213	03/17/95	D. DEMONTFORT	OP	SEQ/SEQ OVERRIDE PROBLEMS WITH CRD SYSTEM	S	C		950049
01205	03/03/95	D. DEMONTFORT	OF	PASSWORD PROTECTION TO RESTORE IC 61-70 NOT PRESENT	S	C		950044
01195	03/01/95	GENTRY, B.	OP	MOVE COLOR PRINTER TO I/F BOOTH & INSTALL INTERFACE CARD	H	C		950033
01191	02/21/95	SMITH, JW	OP	RCP SEAL TEMP TOO HIGH/FAST ON LOSS OF ES BUS PER PLANT INP	S	C		950035
01190	02/20/95	DEMONTFORT, D.	OP	CRD ROD 7-3 "REED SW CHATTER FAILURE" DOES NOT WORK	S	C		950036
01176	01/05/95	DEMONTFORT, D.	OF	DH FLOW OSCILLATIONS - SCENARIO DESCRIBED IN DETAIL ON TR	S	C		950021
01173	12/15/94	R. GRUMBIR	OP	PERFORM COMPUTER UPGRADE TO SGI	S	B		940228
01164	01/11/95	DEMONTFORT, D.	OP	BATCH CONTROLLER PWR LIGHT OUT (LOOKS LIKE BAD BULB)	H	C		950020
01162	11/19/94	SMITH, ARBUTHNOT	OF	MISC FPSS RADIATION ANOMALIES WHEN RUN FOR A LONG TIME	S	B		940223
01152	11/08/94	SMITH, D.	OP	VERIFY FIDELITY OF RCP OIL COOLER LEAKS AND TUNE	S	C		940216
01121	09/22/94	ROSE, P.	OP	LOGIC PROB WITH CONTROL LIGHTS DURING AUX POWER TRANSFER	S	C		940190
01101	08/15/94	O'BRIAN, J.	OP	ADD NEW SET OF PPC POINTS, W SERIES, TO GLOBAL22	S	C		940145
01100	08/15/94	O'BRIAN, J.	OP	ADD PPC POINT X401 (N2JPX401) TO GLOBAL22	S	C		940144
01098	09/06/94	GRUMBIR, R.	OP	POST LOCA W/ SECURED MUPS & LOW LOW BWST, NEG RCP SEAL PRESS	S	C		940191
01093	08/11/94	R. GRUMBIR	OP	THE EHC-TPC (THROTTLE PRESSURE CONTROL) LIMIT DOES NOT WORK	S	C		940155
01092	08/10/94	SMITH, D.	OP	I/F PAGE 668 - ISO VLV MSV-51 SHOULD BE MSV-486 (NOT 488)	S	C		940172



09/18/95

## UNCLOSED TROUBLE REPORTS

## TROUBLE REPORTS

NUMBER	DATE	ORIGINATOR	STAT	PROBLEM	IMPACT	PRIORITY	RELATED	CCN
							DOCUMENTATION	
01091	08/09/94	ARBUTHNOT, C.	OP	COMP. PTS R702,3 CYCLE (RC FLOW A/B TOTAL)	S	C		940169
01077	07/27/94	D. SMITH	OP	EHC GV SPEED CONTROL PROTECTION UNDER TV SPEED CONTROL	S	B		940134
01076	07/25/94	ROSE, P. L.	OP	MODULE HC DOCUMENTATION UPDATE	S	C		940131
01075	07/25/94	ROSE, P. L.	OP	FW OSCIL @ 60% FP WHEN DIAMOND & RX DEMAND PUT IN MANUAL	S	B		940130
01074	07/22/94	DEMONTFORT, D.	OP	PHASE BUS COOLER OUTLET TEMP LOW (PIHXTO) - PAGE 651	S	C		940137
01044	06/06/94	O'BRIAN, J.	OP	RV UPPER HEAD DELTA PRESSURE NEGATIVE AT FPSS	S	C		940098
00995	02/24/94	ROSE, P. L.	OP	ACTUAL PZR LEVEL IS 10 IN HIGHER THAN INSTR LEVEL	S	C		940035
00966	01/14/94	DEMONTFORT, D.	OP	ICS TRACK ALARM WON'T CLEAR FAST W/ ALL ICS STATIONS IN AUTO	S	B		940012
00957	12/28/93	DEMONTFORT, D.	OP	CORRECT MISC I/F PAGE PROBLEMS	S	C		940020
00954	12/15/93	DEMONTFORT, D.	OP	ADD SAV-30, SAV-31 & IAV-27 VIA REMOTE FUNTIONS (PAGE 655)	S	C		930295
00937	11/11/93	DEMONTFORT, D.	OP	OTSG OPERATING LEVEL STAYS < 100% ON A RUNAWAY MFWP	S	B		930262
00910	09/27/93	GENTRY, B.	OP	REMOVE POWER FAIL FLAG I/O POINTS FROM LAMP CHECK UTILITY	S	C		930230
00874	09/10/93	DEMONTFORT, D.	OP	DURING ICC, CLADDING TEMP RISE SHOULD >> TEMP INCORE	S	C		930191
00872	09/01/93	DEMONTFORT, D.	OP	IF DH DROP OPENED THRU DHV-42/43, RB SUMP PRESS IS UNCHANGED	S	C		930189
00870	09/01/93	SPRINGER, J.	OP	ADD NEW LABELS FOR WATERBOX INLET AND OUTLET	S	C		930177
00853	07/29/93	J. O'BRIAN	OP	DOCUMENTATION UPDATE FOR PRIMARY SUPPORT MODULES	S	C		930151
00832	06/18/93	B. GENTRY	OP	CP1 WILL NOT DISPLAY PANEL PROMPT AFTER BOOTING	H	B		930121
00819	06/02/93	ARBUTHNOT, C.	OP	TRANSPORT OF RADIATION THRU RCV-8/9/10 SEEMS LOW.	S	B		930125
00805	05/06/93	LINTON, L.	OP	TR FOR DOCUMENTATION UPGRADES TO VARIOUS FEEDWATER MODULES	S	B		930092
00760	02/22/93	LINTON, L.	OP	UNREALISTIC RCS PRESS INCREASE 7.5 MINUTES INTO 0.1 CL LOCA.	S	B		930040
00754	03/02/93	SMITH, DONALD	OP	ABORT WHEN PZR GOES SOLID DURING .006 CL DIS LOCA	S	B		930053
00727	01/25/93	LINTON, L.	OP	CLEAN UP SIMULATION AND NODAL DIAGRAMS (GLOBAL)	S	C		930031
00725	01/08/93	HOLMES, M.	OP	PPC ALARM MONITOR DISPLAYS SOME POINTS AS * OR ?	S	C		930009
00713	12/11/92	J. O'BRIAN	OP	TR FOR TRACKING PPC DISCREPANCIES	S	C		920385
00696	11/16/92	D. DEMONTFORT	OP	RCS DRAINDOWN - DHP CAVITATION PROBLEMS PUMPS NITROGEN	S	C		920369
00695	11/16/92	D. DEMONTFORT	OP	PROBLEMS WITH RX VESSEL VENT, N2 CONNECTIONS, ADTN'L VENTS	S	C		920370
00694	11/16/92	D. DEMONTFORT	OP	RC-201-LT1 DID NOT MATCH RCS COLLAPSED LEVEL DURING DRAINING	S	C		920371
00666	10/12/92	D. SMITH	OP	VOLT/HERTZ L/O TRIPS INSTANTLY SHOULD TAKE 12 SEC	S	B		920343
00573	07/21/92	DEMONTFORT, D.	OP	ADD 3 MAN VLVS TO SW (REQUIRES KB RENODALIZATION)	S	C		920229
00448	02/25/92	DEMONTFORT, D.	OP	EXTRA FORM FEED EXISTS ON LARGE PPC PRINTOUTS	S	C	CAE SPR 7034	920096
00433	02/17/92	D. SMITH	OP	PPC CENTER CONSOLE SCREEN MISSING ALARMS.	S	B		920361
00424	02/10/92	BROWNE, M.	OP	INSUFFICIENT (AO & DO) SPARES ON PANEL A6	HS	C		920052
00326	11/01/91	GRUMBIR, R.	OP	I/F PAGES 725 THRU 728 NEED UPDATED PER EFIC LABEL CHANGES	S	C		910399
00162	05/30/91	ARBUTHNOT, C.	OP	WHEN TEST CRDS, LARGE DELTA BETWEEN INCORE & EXCORE IMBAL.	S	B	CAE SPR 7025	910210

UNCLOSED TROUBLE REPORTS

TROUBLE REPORTS

NUMBER	DATE	ORIGINATOR	STAT	PROBLEM	IMPACT	PRIORITY	RELATED DOCUMENTATION	COB
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THE TOTAL NUMBER OF RECORDS FOR THIS REPORT IS: 102

END OF REPORT