DOCUMENT REVISION DISTRIBUTION SHEET - UNIT II
OFF NORMAL & EMERGENCY OPER. PROCEDURE

DOCUMENT TITLE Excessive Reactor Coolant System Activity

DOCUMENT FILE NUMBER 2-0120032

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				Training	

Please advise if you have NO need for this new procedure

PROCESSED BY: [illegible] DATE

2

FIGURE 5

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE UNIT NO. 2
EMERGENCY/OFF-NORMAL PROCEDURE NO. 2-0120032
REVISION 0

1. TITLE: EXCESSIVE REACTOR COOLANT SYSTEM ACTIVITY

2. PREPARED BY: M. G. ALTERMATT DECEMBER 1, 1983

3. SUBCOMMITTE REVIEW BY: (including Content List)

D. A. SAGER (For FPL PNE) DECEMBER 2, 1983

4. REVIEWED BY FACILITY REVIEW GROUP 12-12 1983

5. APPROVED BY C. M. Wethy PLANT MANAGER 1-5- 1984

2

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE UNIT NO. 2
EMERGENCY/OFF-NORMAL PROCEDURE 2-0120032
REVISION 0

1.0 TITLE:

EXCESSIVE REACTOR COOLANT SYSTEM ACTIVITY

2.0 REVIEW AND APPROVAL:

Reviewed by Facility Review Group 12-12 1983

Approved by [signature] Plant Manager 1-5- 1984

Revision __ Reviewed by F R G _____ 19__

Approved by _____ Plant Manager _____ 19__

3.0 PURPOSE AND DISCUSSION:

3.1 This procedure provides instructions for the action to be taken in the event reactor coolant activity becomes excessive.

3.2 A crud burst, failed fuel element, or demineralizer resin exhaustion may cause reactor coolant activity to increase. An increase to levels requiring the reactor to be shut down, however, can only be caused by the activity release associated with significant fuel element failure.

4.0 SYMPTOMS:

4.1 An increase in the fission product inventory as indicated by an increase in one or more of the following radiochemical analyses:

1. Iodine 131, 133 values.
2. Gross beta-gamma.
3. Tritium.
4. Reactor coolant gamma spectrum.

ST. LUCIE UNIT NO. 2
EMERGENCY/OFF-NORMAL PROCEDURE NO. 2-0120032, REVISION 0
EXCESSIVE REACTOR COOLANT SYSTEM ACTIVITY

2

5.0 INSTRUCTIONS:

5.1 Immediate Automatic Action:

None

5.2 Immediate Operator Action:

None

5.3 Subsequent Action:

1. Increase the letdown flow rate to maximum.

2. Place at least one mixed bed demineralizer in service.

3. Survey the VCT for any significant increases of radiation levels.

4. Notify Operations Supervisor and Chemistry Supervisor and arrange additional personnel as necessary.

5. Determine RCS gross activity as soon as possible after verification of alarm.

6. If reactor coolant activity is significantly greater than the previous week's average:

   A. Perform a radiochemical analysis of the reactor coolant to determine the cause of the increase in activity.

   B. Check inservice mixed bed demineralizer decontamination factor D/F. If exhausted, shift to standby demineralizer.

7. If it is determined that the increase in reactor coolant activity has been caused by a fuel element failure:

   A. Perform the $100/\overline{E}$ computation to determine the Technical Specification limits for reactor coolant activity, based on the current inventory of nuclides present in the reactor coolant.

   B. Ensure dose equivalent Iodine is < 1.0 uci/gram.

   C. Increase the frequency of reactor coolant sampling as specified by the Chemistry Department Supervisor.

8. If reactor coolant activity approaches the Technical Specification limits, perform the following:

   A. Reduce power as required by Figure 3.4-1 in Technical Specifications.

   B. Increase the reactor coolant sampling frequency as necessary, based on the rate of change of reactor coolant activity.

ST. LUCIE UNIT NO. 2
EMERGENCY/OFF-NORMAL PROCEDURE NO. 2-0120032, REVISION 0
EXCESSIVE REACTOR COOLANT SYSTEM ACTIVITY

2

5.0 INSTRUCTIONS: (continued)

5.3 (continued)

9. Implement the Emergency Plan as necessary in accordance with EPIP 3100021E, "Duties and Responsibilities of the Emergency Coordinator".

10. Continue sampling as necessary to determine reactor coolant activity trends.

11. Health Physics personnel conduct radiation surveys in the auxiliary building and post areas as necessary.

12. Continue purification as required.

13. Periodically check the inservice mixed bed demineralizer for resin exhaustion by calculating a decontamination factor.

ST. LUCIE UNIT NO. 2
EMERGENCY/OFF-NORMAL PROCEDURE NO. 2-0120032, REVISION 0
EXCESSIVE REACTOR COOLANT SYSTEM ACTIVITY

2

6.0 REFERENCES:

6.1 St. Lucie Plant Technical Specifications.

6.2 St. Lucie Unit 2 FSAR.

7.0 RECORDS, REPORTS & NOTIFICATIONS:

7.1 Entry in Plant Log.

7.2 Nuclear Plant Supervisor shall ensure that an evaluation is made to determine if a Licensee Event Report is required.

DOCUMENT REVISION DISTRIBUTION SHEET - UNIT II
OFF NORMAL & EMERGENCY OPER. PROCEDURE

DOCUMENT TITLE PRESSURIZER PRESSURE & LEVEL -OFF-NORMAL (OPER'T.

DOCUMENT FILE NUMBER 2-0120035

DOCUMENT REVISION NUMBER 4

DOCUMENT DISTRIBUTED ON 12-15-83
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FLORIDA POWER & LIGHT COMPANY
ST. LUCIE UNIT 2
OFF-NORMAL OPERATING PROCEDURE NO. 2-0120035
REVISION 4

1.0 TITLE:

PRESSURIZER PRESSURE AND LEVEL-OFF-NORMAL OPERATION

2.0 REVIEW AND APPROVAL:

Reviewed by Facility Review Group March 1 1983

Approved by J. H. Barrow (for) Plant Manager March 1 1983

Revision 4 Reviewed by FRG 12/2 1983

Approved by J. H. Barrow Plant Manager 12-13 1983

3.0 PURPOSE:

This procedure provides instructions for operator action in the event of malfunction of the Pressurizer pressure and level control systems, or a pressure transient caused by inadvertant operation of the auxiliary spray valves. /R4

4.0 SYMPTOMS:

4.1 Pressurizer High-Low Pressure alarm, Channel X or Y.

4.2 Pressurizer High-Low Level alarm, Channels X or Y.

4.3 Pressurizer Low-Low Level alarm, Channels X or Y.

4.4 Pressurizer Proportional Heaters Low Level trip.

4.5 Pressurizer Back-up Heaters Low Level Trip Control Switch isolated.

4.6 Safety or Relief Valve(s) open alarm.

ST. LUCIE UNIT 2
OFF-NORMAL OPERATING PROCEDURE NO. 2-0120035, REVISION 4
PRESSURIZER PRESSURE AND LEVEL-OFF-NORMAL OPERATION

2

5.0 INSTRUCTIONS:

5.1 Immediate Automatic Actions:

5.1.1 Abnormal Pressurizer Pressure Condition.

1. Pressurizer safety valves open at 2500 psia.
2. High pressure reactor trip and power operated relief valves open at 2370 psia. /R4
3. High pressure alarm actuates at 2340 psia and a back-up signal will de-energize all pressurizer heaters. /R4
4. Proportional heaters cycle from minimum output at 25 psi above setpoint to maximum output at 25 psi below setpoint.
5. Spray valves cycle from full closed at 25 psi above setpoint to full open 75 psi above setpoint.
6. Back-up heaters energize at <2200 psia and de-energize at >2220 psia. /R4
7. Low pressure alarm actuates at 2100 psia.
8. TM/LP reactor trip initiates at 1887 psia minimum pressure.
9. SIAS initiates at 1708 psia.

5.1.2 Abnormal Pressurizer Level Condition.

1. All Pressurizer heaters de-energize at 27% indicated level, and respective Pressurizer Heater Transformer feeder breaker opens.
2. Low level alarm actuates and a backup signal to start the back-up Charging Pump is received at 5% below RRS setpoint. /R4

NOTE
Only one back-up Charging Pump is in the level control system.

3. The back-up Charging Pump receives a signal to start at 3% below RRS setpoint, decreasing.
4. The back-up Charging Pump receives a signal to stop at 1% below RRS setpoint, increasing, and letdown flow decreases to minimum (29 gpm). /R4

ST. LUCIE UNIT 2
OFF-NORMAL OPERATING PROCEDURE NO. 2-0120035, REVISION 4
PRESSURIZER PRESSURE AND LEVEL-OFF-NORMAL OPERATION

2

5.0 INSTRUCTIONS: (Cont.)

5.1 (Cont.)

5.1.1 (Cont.)

5. All back-up heaters energize and a back-up stop signal to the back-up Charging Pump is received at 4% above RRS setpoint. /R4

6. Maximum letdown is 128 gpm at 9% above RRS setpoint.

7. High level alarm actuates at 10% above RRS setpoint.

5.2 Immediate Operator Actions:

5.2.1 Abnormal Pressurizer Pressure.

1. Ensure Pressurizer spray, and Proportional and Back-up heaters are operating properly in automatic. If not, shift spray valve controller to MANUAL and energize or de-energize heaters, whichever is applicable.

2. Ensure Power Operated Relief Valves are closed. If open, isolate by closing V-1476 and/or V-1477 (PORV block valves). Refer to OP 2-0120036, "Pressurizer Relief/Safety Valve-Off-Normal Operation". /R4

3. Ensure SE-02-03 and SE-02-04 (Auxiliary spray valves) are closed. If open, attempt to close using key switch. If still open, stop all Charging Pumps and isolate letdown. Refer to OP 2-0210030, "Charging and Letdown Off-Normal Operation".

4. Ensure pressure anomaly is not caused by a large rate of change of T_{ave}.

CAUTION

DURING BLACKOUT CONDITIONS WITH THE DIESEL GENERATOR SUPPLYING POWER, THE CONTROL BISTABLES FOR THE BACK-UP HEATERS ARE NOT ENERGIZED AND MUST BE BYPASSED.

THEREFORE, IN A BLACKOUT, THE CONTROL SWITCHES ON RTGB-203 MUST BE RESET AND THE KEY SWITCH SELECTED TO PRESSURE OVERRIDE TO REGAIN HEATER CONTROL. NOTE, HOWEVER, THIS WILL ONLY ENERGIZE B1 AND B4 BANKS OF BACK-UP HEATERS.

NOTE

If SIAS has occurred, Pressurizer heaters cannot be re-energized as above until SIAS has been reset.

ST. LUCIE UNIT 2
OFF-NORMAL OPERATING PROCEDURE NO. 2-0120035, REVISION 4
PRESSURIZER PRESSURE AND LEVEL-OFF-NORMAL OPERATION

2

5.0 INSTRUCTIONS: (Cont.)

5.2 (Cont.)

5.2.2 Abnormal Pressurizer Level.

1. Ensure selected RRS channel is operating properly. If not, shift to operable channel.

2. Ensure the back-up Charging Pump starts and letdown flow is decreasing, or the back-up Charging Pump stops and letdown flow is increasing, whichever is applicable.

3. Ensure level anomaly is not caused by a large rate of change in T_{ave}.

5.3 Subsequent Actions:

5.3.1 Check that Pressurizer Safety Valves are not leaking or have not actuated by observing downstream header temperature indication and Quench Tank indications. /R4

5.3.2 Ensure AOV-2515, AOV-2516, and AOV-2522 (Letdown Isol) are open.

5.3.3 Ensure SE-02-01 and SE-02-02 (Charging Isol) are open.

5.3.4 Ensure LCV-2110P and LCV-2110Q (Pressurizer Level Control) are operating properly.

5.3.5 Ensure PCV-2201P and PCV-2201Q (Letdown Pressure Control) are operating properly.

5.3.6 Manually start the third Charging Pump, if conditions require.

5.3.7 Ensure Letdown Valve Limiter Bypass switch is in the NORMAL position.

ST. LUCIE UNIT 2
OFF-NORMAL OPERATING PROCEDURE NO. 2-0120035, REVISION 4
PRESSURIZER PRESSURE AND LEVEL-OFF-NORMAL OPERATION

2

5.0 INSTRUCTIONS: (Cont.)

5.3 (Cont.)

5.3.8 Compare letdown flow, charging flow, Charging Pump header pressure, and VCT level for indications of leaks or lifting relief valves in the CVCS system. Refer to OP 2-0120035, "Charging and Letdown-Off-Normal Operation". /R4

5.3.9 Ensure that Power Operated Relief Valve (V-1474 and 1475) hand switches are in the proper mode for existing plant conditions.

NOTE

(1) Switch in NORMAL RANGE:

RCS Temperature >320°F
RCS Pressure >490 psia

(2) Switch in LTOP:

RCS Temperature <280°F
RCS Pressure <460 psia.

5.3.10 If Pressurizer level decrease cannot be immediately explained, refer to OP 2-0120035, "Excessive Reactor Coolant System Leakage".

5.3.11 With <27% level on Channel X, the 'A' Pressurizer Heater Transformer feeder breaker trips and the 'B' side 480V breakers trip. With <27% level on Channel Y, the 'B' Pressurizer Tranformer feeder breaker trips and the 'A' side 480V breakers trip. The key operated override switch placed in the LEVEL OVERRIDE position will reset the 480V breakers.

(1) With Channel 'X' selected, and if Channel 'X' fails low, all heaters trip. The operator must then select Channel Y and LEVEL OVERRIDE to get power to the 'B' side heaters (i.e., P2, B4, B5, and B6).

(2) With Channel 'X' selected, and if Channel 'Y' fails low, all heaters trip. The operator must then select LEVEL OVERRIDE to get power to the 'A' side heaters (i.e., P1, B1, B2, B3).

/R4

ST. LUCIE UNIT 2
OFF-NORMAL OPERATING PROCEDURE NO. 2-0120035, REVISION 4
PRESSURIZER PRESSURE AND LEVEL-OFF-NORMAL OPERATION

6.0 REFERENCES:

6.1 St. Lucie Unit 2 FSAR.

6.2 C-E Setpoint Guidelines.

6.3 F.P.L. Training Lesson Outline #91.

7.0 RECORDS REQUIRED:

7.1 Normal log entries.

7.2 Applicable chart recorders.

7.3 If pressure transient was caused by inadvertant auxiliary spray valve actuation, document transient per AP 2-0010134, "Component Cyclic and Transient Limits Records".

DOCUMENT REVISION DISTRIBUTION SHEET - UNIT II
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DOCUMENT TITLE Oil Spill Emergencies

DOCUMENT FILE NUMBER 2-2100030

DOCUMENT REVISION NUMBER 0

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FLORIDA POWER & LIGHT COMPANY
ST. LUCIE UNIT NO. 2
OFF-NORMAL PROCEDURE NUMBER 2-2100030
REVISION 0

1. TITLE: Oil Spill Emergencies

2. PREPARED BY: Hugh Johnson 19__

3. SUBCOMMITTEE REVIEW BY: (Including content list)
C L Burton for FPL PNE 19__

4. REVIEWED BY FACILITY REVIEW GROUP: August 9, 1983

5. APPROVED BY: J H Barrow PLANT MANAGER 12-19 1983

6. REVISION__ REVIEWED BY F R G: 19__

7. APPROVED BY: PLANT MANAGER 19__

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FLORIDA POWER & LIGHT COMPANY
ST. LUCIE UNIT NO. 2
OFF-NORMAL PROCEDURE NUMBER 2-2100030
REVISION 0

1.0 Title:

Oil Spill Emergencies

2.0 Review and Approval:

Reviewed by Facility Review Group AUG 9 1983

Approved by J H Barrow For Plant Manager 12-19 1983

Revision ___ Reviewed by F R G _____ 19___

Approved by _____ Plant Manager _____ 19___

3.0 Scope:

3.1 Purpose:

This procedure provides instructions to be followed in the event of any amount of oil spilling into the intake or discharge canal, a potential for oil spilled on the ground reaching the intake or discharge canal, or any oil spill of an estimated quantity of 1000 gallons or more.

3.2 Discussion:

Foreseeable spill events which could result in oil reaching a navigable waterway are guarded against by containment facilities provided in the plant design; i.e., catchment pits under storage tanks and transformers. In addition, storage facilities are checked periodically for signs of deterioration or leakage.

4.0 Precautions:

Oil spills or signs of storage facilities deterioration must be reported promptly to insure proper containment and cleanup actions are implemented.

Should a spill occur, no dispersants or surface collecting agents (Shell Oil Herder) are to be used without Coast Guard approval.

5.0 Responsibilities:

5.1 The Chemistry Supervisor is the SPCC Plant Coordinator and shall complete the Oil Spill Log with all available information.

5.2 Those personnel who would be involved with the cleanup of a spill should be familiar with this procedure and the SPCC plan.

6.0 References:

6.1 The St. Lucie Plant Spill Prevention Control and Countermeasures Plan.

7.0 Records:

7.1 Oil Spill Log (copy attached)

ST. LUCIE UNIT NO. 2
OFF-NORMAL PROCEDURE NUMBER 2-2100030, REVISION 0
OIL SPILL EMERGENCIES

8.0 Instructions:

8.1 Oil Spills

8.1.1 When an individual discovers an oil spill which he can stop or contain, he shall do so and then notify the Nuclear Plant Supervisor.

8.1.2 An individual discovering an oil spill which he cannot stop or contain shall notify the Nuclear Plant Supervisor and give the following information:

A. Location of spill

B. Source of spill

C. Approximate volume of spill and area affected

8.1.3 The Nuclear Plant Supervisor shall evaluate the available information and if the volume spilled has reached or could exceed 1000 gallons, or if any oil could conceivably reach the intake or discharge canal, he shall announce that an oil spill emergency exists.

8.1.4 The Maintenance Supervisor or the Duty Maintenance Supervisor during off-normal working hours shall be notified of the spill and shall assign containment and cleanup responsibilities to available personnel. Materials available in Stores for cleanup are:

	EQUIPMENT	QUANTITY	STORAGE LOCATION	APPLICATION
A.	Fiber Peri	50 Bags	Stores	Dry absorbent for use on water surface
B.	Oil Worm		Stores	Combination physical barrier and absorbent to be used on the water surface.
C.	3/8" 3M Pads		Stores	Hand-held wipes for cleanup of small areas or equipment
D.	3/16" 3M Pads		Stores	Same as 8.1.4 (C)
E.	Sorb Oil Mats		Stores	To be laid over puddles of oil on the ground
F.	Water Wiper		Stores	Water surface oil absorber. Single piece unrolls and extends across path of oil
G.	Shell Oil Herder Note: Can only be used with Coast Guard approval.		Stores	This chemical uses a surface expanding property to "herd" oil into smaller surface area; then it can be absorbed.
H.	Pirelli Boom		Unit 1 Intake Laydown Area	Physical barrier only. (for water use) No absorption characteristics
I.	Ky-Dry Oil Absorbent		Stores/Oil Storage House	Granular ground absorbent
J.	B & B Oil Degreaser		Stores/Oil Storage House	Equipment cleaning solvent

2

ST. LUCIE UNIT NO. 2
OFF-NORMAL PROCEDURE NUMBER 2-2100030, REVISION 0
OIL SPILL EMERGENCIES

8.0 Instructions: (continued)

8.1 (continued)

8.1.5 The Nuclear Plant Supervisor shall notify the Duty Call Supervisor who in turn will notify:

A. Plant Manager

B. Chemistry Supervisor

C. Manager of Nuclear Energy (C. O. Woody)

D. Duty Officer, National Response Center - U.S. Coast Guard (toll free) 800-424-8802

E. Florida Marine Patrol
633-3408 (Night) 235-6951

F. FPL Oil Spill Coordinator
Environmental Affairs Oil Spill Coordinator
863-3643

G. Department of Natural Resources
Environmental Protection Agency
Atlanta, Georgia
404-526-5727

H. Courtesy Call - U.S. Coast Guard, Ft. Pierce
Captain of the Port
464-6100

If the spill is of a magnitude to affect any public facility or adjacent private property, the FPL Eastern Division Manager should be notified.

8.1.6 To prevent oil from reaching the intake or discharge canals, all available methods of containment will be used. The Duty Maintenance Supervisor and Emergency Coordinator shall jointly determine which materials and methods will be employed.

8.2 PCB Spills (Polychlorinated Biphenyls)

NOTE: PCB is a cooling fluid used in smaller transformers, such as our 4160V to 480V transformers. For the purpose of this procedure only spills of 1/2 gallons or greater are addressed.

8.2.1 PCB spills shall be reported upon discovery.

8.2.2 The Nuclear Plant Supervisor shall notify the people and organizations listed in Section 8.1.5 of this procedure.

8.2.3 The Duty Maintenance Supervisor shall assign PCB cleanup responsibilities.

NOTE: The same materials which are used for oil spills can be used in the cleanup of PCB spills.

2

ST. LUCIE UNIT NO. 2
OFF-NORMAL PROCEDURE NUMBER 2-2100030, REVISION 0
OIL SPILL EMERGENCIES

FLORIDA POWER & LIGHT COMPANY

Date: ___/___/___ Time of Spill _____ AM PM

Location of Spill: _____

Type of Oil _____ Amount _____

Cause of Spill _____

_____

Description of Incident, including estimation of environmental impact:

_____

_____

_____

Actions taken to control and clean up spill _____

_____

_____

_____

Actions taken to prevent recurrence _____

_____

_____

_____

Notification:

Duty Officer, National Response Center, Washington, D.C.

U.S. Coast Guard: ___/___/___ (Date) _____ (Time)

Station _____

Party Taking Report _____

Florida Marine Patrol: ___/___/___ (Date) _____ (Time)

Station _____

Party Taking Report _____

Other Remarks: _____

_____

_____

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DOCUMENT REVISION DISTRIBUTION SHEET - UNIT II
OFF NORMAL & EMERGENCY OPER. PROCEDURE

DOCUMENT TITLE BRON CONCENTRATION CONTROL OFF NOR.

DOCUMENT FILE NUMBER 2-0250031

DOCUMENT REVISION NUMBER 2

25/31

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FLORIDA POWER & LIGHT COMPANY
ST. LUCIE UNIT NO. 2
OFF-NORMAL PROCEDURE NUMBER 2-0250031
REVISION 2

1.0 TITLE:

BORON CONCENTRATION CONTROL OFF-NORMAL

2.0 APPROVAL:

Reviewed by Facility Review Group February 9, 1982

Approved by C. M. Wethy Plant Manager February 15, 1982

Revision 2 Reviewed by F R G 12/2 1983

Approved by J. H. Barrow Plant Manager 12/13 1983

3.0 PURPOSE AND DISCUSSION:

This procedure provides instructions to control Reactor Coolant System (RCS) boron concentration and maintain Volume Control Tank (VCT) level when there is a malfunction of the Boron Concentration Control System.

A sudden drop in the VCT level could be caused by a leak in the Charging and Letdown portion of the Chemical and Volume Control System (CVCS), or large change in RCS volume due to RCS leakage or rapid RCS temperature change.

4.0 SYMPTOMS:

Any one of the following symptoms may indicate a failure in the Boron Concentration Control System:

4.1 VCT Low Level alarm (setpoint 35%). (M3)

4.2 VCT Low-Low Level alarm (setpoint 5%) (M11)

4.3 Boric Acid High-Low Flow alarm (flow deviates from setpoint $\pm$ 10 gpm). (N40)

4.4 Demineralized Makeup Water High-Low Flow alarm (flow deviates from setpoint $\pm$ 10 gpm). (M26)

4.5 Unexplained increase in count rate or nuclear power when reactor is shutdown.

4.6 Unexplained reactor coolant temperature change.

4.7 Control Element Assembly (CEA) insertion while the CEDS is in the AUTOMATIC mode while raising VCT level by blending.

ST. LUCIE UNIT NO. 2
OFF-NORMAL PROCEDURE NUMBER 2-0250031, REVISION 2
BORON CONCENTRATION CONTROL OFF-NORMAL

2

5.0 INSTRUCTIONS:

5.1 IMMEDIATE AUTOMATIC ACTION:

1. At a VCT level of 5% (decreasing), MV-2504 (RWT to Charging Pumps) opens and MV-2501 (VCT outlet) closes.

2. Charging pumps trip on low suction pressure of 10 PSIA.

5.2 IMMEDIATE OPERATOR ACTIONS:

FOR ABNORMALLY LOW VCT LEVEL (<42%)

1. Check shut V-2500 (VCT Divert Valve). /R2

2. Initiate or verify adequate make-up flow to the VCT.

3. Analyze all available indications to determine the exact status of both the plant and the CVCS system, then take appropriate subsequant operator action.

5.3 SUBSEQUENT OPERATOR ACTIONS:

1. For an uncontrolled, rapidly decreasing VCT level where CVCS or Boron Control System leakage is indicated:

   A. Isolate letdown by closing LCV-2110 O and P (Letdown Level Control Valves) and 2V-2515, 2V-2516, and 2V-2522, (Letdown Isolation Valves).

   B. Isolate charging by taking charging pumps to the "STOP" position.

   C. Isolate the VCT by closing MV-2501 (VCT Outlet).

   D. Maintain the plant in a steady state condition while locating and isolating the leak.

   E. Locally inspect the CVCS and Boron Control Systems to determine source of leakage, and isolate if possible.

   F. Attempt to refill the VCT using a blended make-up flow.

NOTE
If the VCT has been emptied, ensure the charging pumps are vented before use due to possible gas binding from gas build-up in the pumps and lines. After refilling, ensure VCT level instrumentation reference legs are refilled.

/R2

ST. LUCIE UNIT NO. 2
OFF-NORMAL PROCEDURE NUMBER 2-0250031, REVISION 2
BOREN CONCENTRATION CONTROL OFF-NORMAL

5.0 INSTRUCTIONS: (continued)

5.3 SUBSEQUENT OPERATOR ACTIONS: (continued)

1. (continued)

G. If charging is necessary to perform boration functions, or to restore and/or maintain pressurizer level:

1. If reactor is shut down: Ensure MV-2504 (RWT to charging suction) is open, and cycle ON/OFF charging pumps as needed.

2. If reactor is critical: Close and rack out MV-2504, and carefully provide desired blended ratio make-up to the charging pump suction through MV-2525 at a flow rate equal to charging flow.

2. If the VCT level falls below 42%, verification of the AUTOMATIC mode can be done as follows:

A. Verify that FCV-2210Y (Boric Acid Flow Control Valve) and FCV-2210X (Reactor Make-up Water Flow Control Valve) are in the AUTO position. Turn each to the OPEN-RESET position, then back to AUTO.

B. Verify the 2A or 2B BAM pump is in the AUTO position.

C. Verify that the Boric Acid Flow Controller (FRC-2210Y, and Water Flow Controller (FRC-2210X), are in the AUTO mode, with flow setpoints set above zero at the proper blend ratio setpoints.

D. Verify the Make-up Water select switch is in the AUTO position.

E. Place the control switch for AOV-2512 (Blend to VCT) to RESET and then back to AUTO.

F. Verify Boric Acid and Water flow on recorders FR-2210Y and FR2210X.

G. If proper flow rates cannot be gained or maintained, utilize manual control per Section 5.3 3.

3. If the VCT is not being made up to automatically, or if manual make-up is desired, a blended make-up of the VCT can be completed as follows:

A. Determine the reactor coolant boron concentration from the most recent boron analysis, or calculated concentration compared with Boronometer (if analysis following a concentration adjustment is unavailable).

ST. LUCIE UNIT NO. 2
OFF-NORMAL PROCEDURE NUMBER 2-0250031, REVISION 2
BORON CONCENTRATION CONTROL OFF-NORMAL

2

5.0 INSTRUCTIONS: (continued)

5.3 SUBSEQUENT OPERATOR ACTION: (continued)

2. (continued)

B. Obtain Boric Acid Blend ratio using present RCS Boron Concentration and the blend ratio curve contained in the plant curves, or figure ratio using the below listed formula.

$$\frac{\text{(BAMT Concentration PPM)} - \text{(RCS Concentration PPM)}}{\text{(RCS Concentration PPM)}} = \text{BLEND RATIO}$$

This will yield the number of gallons of primary water to mix per gallon of boric acid from the BAM tank.

C. If time permits, figure amount of blended make-up volume to be added to the VCT by the below formula:

[(Desired VCT Level %) - (Present VCT Level%)] X 33.8 GAL/% = TOTAL MAKEUP VOLUME

D. Add the Boric Acid and water to the VCT simultaneously using flow rates determined by blend ratio, or add the calculated quantities using batching method with manual flow control and use of acid and water flow totalizers.

E. Place the make-up mode select switch to MANUAL position.

F. Ensure both the Boric Acid and Reactor Make-up Water Flow Controllers are in MANUAL, with zero output.

G. Place the Boric Acid Flow Control Valve (FCV-2210Y), and the Reactor Make-up Water Flow Control Valve (FCV-2210X) control switches to the "AUTO" position.

H. Start a Boric Acid Make-up Pump.

I. Open 2V-2512 (VCT Blend Valve).

J. Open Boric Acid and Water Flow Control Valves by varying controller outputs to achieve desired flow rates as determined in Step 2.

K. Blend up the VCT to normal level.

L. When the calculated quantities of acid and water have been added, or normal level has been achieved. Stop the blend to the VCT.

M. Ensure Boric Acid pumps are stopped, and control switches returned to "AUTO", ensure the 2V-2512 is closed.

ST. LUCIE UNIT NO. 2
OFF-NORMAL PROCEDURE NUMBER 2-0250031, REVISION 2
BORON CONCENTRATION CONTROL OFF-NORMAL

2

5.0 INSTRUCTIONS: (continued)

5.3 SUBSEQUENT OPERATOR ACTIONS: (continued)

4. For failure of the entire Boron Concentration Control System, maintain VCT level and proceed as follows:

   A. Station an operator in the VCT valve gallery at the blending tee, and an operator at the boric acid station.

   B. Establish and maintain constant communications with the operator at the boric acid station.

   C. Start 2A or 2B BAM pump.

   D. Have operator at blending tee open 2V-2512 (VCT Blend Valve).

   E. Instruct operator at boric acid station to position 2V 2180 (Manual Dilute Valve), in 2A charging pump room (RMW to charging pump suction), and the manual borate valve 2V 2647 (FCV-2210Y bypass valve) at the BAM station, to establish water and acid flow rates in accordance with proper blend ratio using latest RCS boron analysis compared to boronometer.

   F. If flow indications malfunction, instruct the operator to open 2V 2180 and 2V 2647 one quarter handwheel turn, and stand by.

      Observe Tave, CEA position, and the Boronometer while instructing the operator to position V-2180 and V-2647 as required to maintain stable conditions.

   G. Verify CEA position, Tave and the Boronometer frequently.

ST. LUCIE UNIT NO. 2
OFF-NORMAL PROCEDURE NUMBER 2-0250031, REVISION 2
BORON CONCENTRATION CONTROL OFF-NORMAL

2

6.0 REFERENCES:

6.1 CE P&ID, E-19367-210-120, Chemical and Volume Control System.

6.2 CE P&ID E-19367-210-121, Chemical and Volume Control System.

6.3 EP 2-0120042, "Loss of Reactor Coolant".

7.0 RECORDS, REPORTS & NOTIFICTION:

7.1 Normal log entries.

DOCUMENT REVISION DISTRIBUTION SHEET - UNIT II
OFF NORMAL & EMERGENCY OPER. PROCEDURE

DOCUMENT TITLE SECONDARY CHEMISTRY - OFF NORMAL ~~CONDENSER TUBE LEAK~~

DOCUMENT FILE NUMBER 2-06100 30

DOCUMENT REVISION NUMBER 1

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2

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE UNIT 2
OFF-NORMAL OPERATING PROCEDURE NO. 2-0610030
REVISION 1

1.0 TITLE:

SECONDARY CHEMISTRY - OFF NORMAL /R1

2.0 REVIEW AND APPROVAL:

Reviewed by Facility Review Group July 16, 1982

Approved by J. H. Barrow (for) Plant Manager July 21, 1982

Revision 1 Reviewed by FRG 12-12 1983

Approved by J H Barrow for Plant Manager 12-19 1983

3.0 PURPOSE AND DISCUSSION:

3.1 This procedure provides instructions to be followed when contaminated water inleakage occurs into the secondary system.

3.2 Condenser cooling water contains and contaminated makeup sources may contain solids and solid producing hardness salts. The development and implementation of the leak-isolation procedure is essential in safeguarding the chemical and physical integrity of the Steam Generators (S/G).

3.3 A major chemistry concern in operating S/G's is minimizing the input of cooling water contaminants, especially chloride (Cl^-), to the Steam Generators. These can concentrate to aggressive levels causing adverse chemistry conditions, particulary corrosion of carbon steel support plates, leading to denting of S/G tubes and damage to the support plates. Aggressive levels can occur in relatively short periods of time during sea water inleakage because of the large concentrating capability of the S/G's.

3.4 For example, at 100% power a 2 gpm condenser tube leak will give a solids input of approximately .6 lbs/min into S/G's, a condensate cation conductivity of approximately 12 micro mho/cm, and a S/G conductivity of 100 micro mho/cm approximately 20 minutes.

/R1

ST. LUCIE UNIT 2
OFF-NORMAL OPERATING PROCEDURE NO. 2-0610030, REV. 1
SECONDARY CHEMISTRY - OFF NORMAL

2

4.0 SYMPTOMS:

4.1 Increase in Cation conductivity in the condensate header.

4.2 2A S/G specific conductivity increasing.

4.3 2B S/G cation conductivity increasing.

4.4 Hot well quadrant cation conductivity increasing or alarming.

4.5 Increase in any of the following S/G or condensate or feedwater system periodic samples:

Conductivity
Suspended solids/crud
Chloride
Sodium

4.6 Increase in Dissolved Oxygen reading.

4.7 Abnormal grab sample results.

4.8 Increase in sodium level.

/R1

ST. LUCIE UNIT 2
OFF-NORMAL OPERATING PROCEDURE NO. 2-0610030, REV. 1
SECONDARY CHEMISTRY - OFF NORMAL

2

5.0 INSTRUCTIONS:

5.1 Immediate Automatic Actions:

1. Condensate cation alarm and/or hotwell quadrant cation alarm.

5.2 Immediate Operation Actions:

None

5.3 Subsequent Actions.

1. Establish blowdown on both Steam Generators at maximum rate to the discharge canal. Avoid directing blowdown through filtration trains to prevent rapid depletion of resins and chloride contamination of Monitor Storage Tanks (MST).

2. Notify Chemistry Department that inleakage exists and to help locate source so corrective actions can be exercised.

3. Classify severity of inleakage and take required action if one or more of the following conditions exist in either Steam Generator as follows:

MAJOR INLEAKAGE
Cation Conductivity > 7 micro mho/cm
Sodium > 500 ppb
ACTION REQUIRED
Shutdown to HOT STAMDBY within four (4) hours and cleanup water chemistry until normal values# are obtained and leak is repaired.

MINOR INLEAKAGE
Cation Conductivity > 2 micro mho/cm
Sodium > 100 ppb
Chloride > 100 ppb
ACTION REQUIRED
Reduce power to ≤ 30% and establish normal values# within one hundred (100) hours or proceed to MAJOR LEAK action requirements.

MINUSCULE INLEAKAGE
Cation Conductivity > 0.8 micro mho/cm
Sodium > 20 ppb
Chloride > 20 ppb
Silica > 300 ppb
ACTION REQUIRED
Establish normal values# within one (1) week or proceed to MINOR LEAK action requirements.

#Chemistry Department will establish normal values.

/R1

ST. LUCIE UNIT 2
OFF-NORMAL OPERATING PROCEDURE NO. 2-0610030, REV. 1
SECONDARY CHEMISTRY - OFF NORMAL

2

5.0 INSTRUCTIONS: (continued)

5.3 (continued)

4. Take appropriate actions required after sample results have been analyzed or if conductivity recorder indications exceed action level requirements.

5. Manually override LCV-12-5 (Condensate reject valve) and close. Isolate reject regulating valve by closing one or more manual isolation valves. Monitor hotwell level closely.

6. Establish location and source of inleakage using all available instrumentation. Sources of contamination could be from locations other than Main Condenser waterboxes such as:

   A. Main Condenser hotwell drains.
   B. Condensate Storage Tank (CST).
   C. Monitor Stoarge Tank (MST).
   D. Condensate Recovery Tank.
   E. Condenser Tubesheet Pressurization System.
   F. Idle Condensate Pump started after extended standby status.

7. Isolate inleakage when found and use redundant equipment or alternate means to provide plant support for equipment removed from service.

8. If inleakage is one or more Main Condenser waterboxes perform the following:

   A. Reduce power as appropriate for removal of affected waterboxes.

   B. Close affected waterbox; condenser side (shell side) air ejector suction isolation valve.

CAUTION
FAILURE TO CLOSE AIR EJECTOR SUCTION ISOLATION VALVE PRIOR TO STOPPING CIRCULATING WATER PUMP WILL RESULT IN LOSS OF VACUUM AND A PROBABLE TURBINE TRIP DUE TO UNCONDENSED WATER VAPOR STAURATING AIR EJECTOR.

   C. Stop affected water Circulating Water Pump per OP #2-0620020 "Circulating Water system Normal Operation". Use the "pull to drain" quick drain feature if desired to rapidly drain waterbox.

CAUTION
IF "PULL TO DRAIN" FEATURE IS USED, PULL TRIP AND CLOSE FUSES PRIOR TO RETURNING CONTROL SWITCH BACK TO NORMAL OR 2ND CWP ASSOCIATED WITH COMMON DISCHARGE HEADER WILL TRIP.

   Notify Maintenance Department to prepare for waterbox entry and tube plugging.

/R1

ST. LUCIE UNIT 2
OFF-NORMAL OPERATING PROCEDURE NO. 2-0610030, REV. 1
SECONDARY CHEMISTRY - OFF NORMAL

2

5.0 INSTRUCTIONS: (continued)

5.3 (continued)

9. Monitor S/G and condensate conductivity for a decreasing trend to ensure probable inleakage source has been isolated.

10. Decrease contamination by drain and fill and/or feed and bleed methods.

11. Declassify leak category as water chemistry improves and reduce action requirements appropriately.

12. Continue to obtain chemistry sample results and return to full power as soon as practical.

/R1

6.0 REFERENCES:

6.1 C.E. Chemistry Manual, CENPD-28.

6.2 Duolite Ion Exchange Manual.

6.3 Chemistry Procedure C-83.

6.4 EPRI Guidelines.

6.5 FPL Nuclear Chem. Spec. Manual.

7.0 RECORDS REQUIRED:

7.1 Normal log entries.

/R1

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1-0010123	36	Admin. Control of Valves, Locks and Switches
1-0010125	56	Schedule of Periodic Tests, Checks and Calibrations
1-0010130	4	Administrative Control of Backfit Activities
1-1800023	0	Fire Fighting Strategies

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1-C-09B	2	Tank Sampling
1-C-26	1	Determination of Sodium Hydroxide WT %
1-C-57	5	Maintaining Refueling Water Tank Limits
1-C-60	4	Maintaining Safety Injection Tank Limits
1-C-62	9	Process Monitoring System Operation
1-C-63	6	Calibration of the Condenser Air Ejection Process Monitor
1-C-64	7	Calibration of the Liquid Waste Discharge Radiation Monitor
1-C-65	6	Calibration of the Gaseous Radwaste Monitor
1-C-66	9	Tech. Spec. Calibration of the Plant Vent, Fuel Building Exhaust, ECCS, and Steam Dump Monitors
1-C-67	7	Calibration of the Containment Process Monitor
1-C-68	5	Calibration of the CCW Radiation Monitors
1-C-69	6	Calibration of the S/G Blowdown Monitor Systems
1-C-73a	0	Secondary Chemical Additions System Operation
1-C-75	1	Operation of the Letdown Process Monitor
1-C-78	4	Calibration of the Chemistry Department Portable Air Monitor - NMC
1-C-80	7	Determination of Hydrogen Gas in Containment
1-C-82	4	Periodic Maintenance & Calibration of Control Room Cl. Det.

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CHEMISTRY PROCEDURES INDEX

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1-C-112	0	Operation & Calibration of the Milton Roy Accident Sampling System

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1-M-0006	9	Inspection of Hydraulic & Mechanical Seismic Restraints
1-M-0007	4	Functional Testing of Hydraulic Seismic Restraints (Snubbers)
1-M-0012	4	CCW Pump Disassembly and Reassembly
1-M-0013	3	High Pressure Safety Injection Pump - Disassembly and Reassembly
1-M-0014	4	Low Pressure Safety Injection Pump - Disassembly and Reassembly
1-M-0015	9	Rx Vessel Maintenance - Sequence of Operations
1-M-0026	1	Reactor CEDM Vent Ball Replacement
1-M-0031	1	Intake Cooling Water Pump Disassembly, Repair and Reassembly
1-M-0033	3	Pressurizer Heater Replacement
1-M-0601	5	Radioactive Filter Cartridge Replacement
1-M-0706	2	Reactor Vessel Internals Inspection Procedure
* 1-M-0800	0	Hydrostatic Test Following Repair of Safety Injection Line I-SI-228
* 1-M-0919	2	CEA Guide Tube Sleeving for Fuel Assemblies

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1-HP-11	3	Portal Monitor Operation Check
1-HP-13R	0	Operation & Calibration of the Eberline PING 1A
1-HP-39	5	Calibration of the Control Room Outside Air Intake Monitors
1-HP-45	3	Operation & Use of Container Products Corp. Model 100 Compactor
1-HP-104	0	Use of the Nuclear Bartlett Model 300 Freon Decontamination Unit

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1-0540050	2	Periodic Calibration of Steam Header Pressure Monitors on Hot Shutdown Control Panel (HSCP)
1-0540051	2	Periodic Calibration of Reactor Coolant System Pressure Level and Temperature Monitors on Hot Shutdown Control Panel (HSCP)
1-1120070	4	Hi Range Rad. Monitor Calibration
1-1200053	2	Steam Generator Level Instrumentation Surveillance on Hot Shutdown Control Panel
1-1200054	0	Overpressure Mitigation System Setpoint Verification
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1-1210050	2	Wide Range Nuclear Instrumentation Channels Periodic Test
1-1210052	1	Wide Range NI Proportional Counter High Voltage Determination
1-1220050	10	Linear Power Range Safety Channels Quarterly Test
1-1220051	5	Linear Power Range Control Channel Quarterly Calibration
1-1220052	7	Linear Power Range Safety & Contr. Channel Monthly Cal.
1-1240061	1	Installation & Removal of Movable Incore System
1-1240063	1	Wide Range Detector Disassembly & Reassembly

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1-1400053	3	RPS-Response Time Testing
1-1400060	1	Torque Check on Through Bolts for Process Flanges on F.P. D/P Transmitters
1-1400061	1	Static Pressure Alignment for Fisher Porter Electronic D/P Transmitters
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1-1400064	21	Installed Plant Instrumentation Calibration
1-1400152	5	Seismic Instr. Calibrations
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1-1400154	4	Reactor Coolant Leakage Detection System Calibration
1-1400155	8	Channel Cal-TMLP-Refueling
1-1400158	5	Reactor Protection System Local Power Density Refueling Channel Calibration
1-1400159	5	Power Ratio Calculator, Refueling Calibration
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1-1400162	5	Protection Systems Transmitter Response Time Test
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1-1400167	3	ARMS/CIS Response Time Test
1-1400170	0	PORV & SV Position Indicator Channel Calibration
1-1630060	1	Ref. & Fuel Transf. Machines Dillion Load System
1-2000054	1	Periodic Calibration of Hydrogen Recombiner Temperature Instrumentation
1-3400023	1	Polar Crane Weight Indication Calibration
1-3400025	1	JIB Crane Weight Indication Calibration
*1-3400028	2	E-Field Calibration and Quarterly Functional Test Procedure

* Safeguards

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1-0210161	3	1B Charging Pump Maintenance
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1-0960061	5	BOP 125 V DC System Periodic Test and Maintenance
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1-0030140	27	Blackout Operation
1-0030141	10	Control Room Inaccessibility
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1-0120031	8	Excessive Reactor Coolant System Leakage
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1-1300031	3	Airlocks - Off-Normal Operation
1-1560030	2	Primary Water System - Off-Normal Operation
1-1600030	3	Accidents Involving New or Spent Fuel
1-1900030	3	Auxiliary Building and Control Building Ventilation Off-Normal Operation
1-2000030	2	Loss of One Reactor Cavity Cooling Fans or Reactor Support Fans
1-2100030	0	Oil Spill Emergencies

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OPERATIONAL PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
1-0010133	6	Reactor Engineering Power Ascension Program
1-0030120	16	Prestart Check-Off List
1-0030121	29	Reactor Plant Heatup - Cold to Hot Standby
1-0030122	22	Reactor Startup
1-0030123	8	Reactor Operating Guidelines During Steady State and Scheduled Load Changes
1-0030124	20	Turbine Start-Up Zero to Full Load
1-0030125	11	Turbine Shutdown Full Load to Zero Load
1-0030126	9	Estimated Critical Conditions and Inverse Count Rate Ratio
1-0030127	27	Reactor Plant Cooldown - Hot Standby to Cold Shutdown
1-0030128	5	Reactor Shutdown
1-0030150	19	Secondary Plant Operating Checks & Tests
1-0030151	14	Remote Shutdown Monitoring Instrumentation Periodic Channel Check and Selector Switch Position Verification
1-0030221	6	Initial Criticality Following Refueling
1-0030222	3	EOL Post Trip Recovery
1-0110020	5	CEDM MG Set Operation
1-0110022	7	Coupling and Uncoupling of CEA Extension Shafts
1-0110050	10	Control Element Assembly Periodic Exercise

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PROCEDURE #	REV.	TITLE
1-0110052	6	Zero Power Physics Tests after Reload
1-0110054	9	Periodic Rod Drop Time Test
1-0110055	9	Surveillance Requirements for Shutdown Margin, Modes 1 & 2, Critical
1-0110055A	3	Shutdown Margin Suspension During Zero Power Physics Testing
1-0110056	14	Surveillance Requirements for Shutdown Margin, Modes 2, 3, 4 & 5, subcritical
1-0110057	12	Periodic Surveillance of DNB Margin
1-0110059	5	Suspension of Group Height, Insertion and Power Distribution Limit Requirements
1-0120020	29	Filling and Venting the RCS
1-0120021	11	Draining the Reactor Coolant System
1-0120022	6	Leak Test Following RCS Opening
1-0120023	9	Reactor Coolant Pump Normal Operation
1-0120024	1	Pressurizer Steam Space Venting
1-0120025	4	Quench Tank Operation
1-0120027	5	Steam Generator Wet Lay-Up
1-0120051	6	RCS Flow Determination by Calorimetric Procedure
1-0120461	1	S/G Secondary Cold Hydro, $\leq$805 PSIG
1-0210020	18	Charging and Letdown-Normal Operation

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PROCEDURE #	REV.	TITLE
1-0210021	4	VCT - H_2 & N_2 Concentration Control
1-0220020	3	H_2 System Normal Operation
1-0230020	8	N_2 System Normal Operation
1-0250020	19	Boron Concentration Control Normal Operation
1-0250021	5	Boric Acid Batching & Transferring
1-0310020	14	CCW - Normal Operation
1-0330020	4	TCW System - Normal Operation
1-0350020	7	Fuel Pool Cooling & Purification System Normal Operation
1-0400050	8	Periodic Integrated Test of the Engineered Safety Features
1-0410020	19	HPSI/LPSI - Normal Operation
1-0410021	20	Safety Injection Tank - Normal Operation
1-0410050	16	HPSI/LPSI Periodic Test
1-0410052	3	Check Valve Back Leakage
1-0410166	3	LPSI/HPSI/SDC System Flush
1-0420020	15	Containment Spray Initial Valve Alignment
1-0420050	17	CS-Periodic Test, Pump & Valve Operability
1-0420052	2	NaOH System - Eductor Flow Test

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OPERATIONAL PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
1-0510020	11	Oxygenated Waste System
1-0510021	1	Waste Concentrator - Operation
1-0510022	21	Controlled Liquid Release to the Circulating Water Discharge
1-0520020	11	Radioactive Resin Replacement
1-0520021	7	Solid Waste Baler Operation
1-0530020	5	Waste Gas System Operation
1-0530021	26	Controlled Gaseous Batch Release to Atmosphere
1-0540020	6	Boron Recovery System Lineup
1-0540021	4	Boric Acid Concentrator Operation
1-0610020	1	Operation of the Cathodic Protection System
1-0610029	4	Condenser Air Removal System Operations
1-0620020	8	Circulating Water System Normal Operation
1-0640020	13	ICW System Operation
1-0700020	11	Cond. & Feedwater System Ops. - Normal Operation
1-0700021	8	Heater Drains & Vent System Alignment
1-0700022	11	Aux. Feedwater Normal Ops.
1-0700023	2	Feedwater Heaters-Placing in or Removing From Service

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OPERATIONAL PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
1-0700024	3	Condensate Recovery Sys. Ops.
1-0700025	1	Feedwater Recirculation Line Filter Operation
1-0700050	14	Aux. Feedwater Periodic Test
1-0810020	5	Main Steam System Initial Valve Alignment
1-0810050	5	Main Steam Isolation Valve Periodic Test
1-0810051	1	Steam Dump & Bypass System Functional Test
1-0820020	4	Auxiliary Steam System - Placing in Service
1-0830020	9	Blowdown System Operation
1-0840020	3	Auxiliary Boiler Operation
1-0910021	2	Backfeed Thru Main Transformers
1-0910051	4	Main Transformer Periodic Test
1-0910052	2	Auxiliary Transformer Periodic Test
1-0950020	4	Boric Acid Heat Tracing System Op.
1-0960020	9	125V DC System Normal Operation
1-0960022	4	BOP 125V DC System Normal Op.
1-0970020	2	Operation of the 120V Inst. AC System (Class 1E)
1-0970021	5	120V Vital AC System Operation (Non Class 1E)

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OPERATIONAL PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
1-0970022	0	Operation of the OSPDS Inverters
1-1010020	4	Inst. Air System Operation
1-1010021	7	Containment Inst. Air System Normal Operation
1-1010022	3	Inst. Air System Initial Valve Alignment
1-1010023	0	MSIV Instrument Air Check Valve Leak Test
1-1020020	3	Station Air System Operation
1-1020022	2	Operation and Calibration of MSA-704 Co Monitor
1-1110020	5	Process Monitoring System Operation
1-1110021	0	High Range Noble Gas Effluent Monitor Sys. Operation
1-1120020	2	Area Radiation Monitoring System (ARMS) Operation
1-1120050	8	Area Radiation Monitoring System (ARMS) Periodic Test
1-1120060	4	Area Radiation Monitoring System Cal. of
1-1130021	2	Reactor Internals Vibration Monitoring Sys. Op. Instructions
1-1150020	0	Qualified Safety Parameter Display System Operation
1-1200051	9	Nuclear & DeltaT Power Calibration
1-1210051	7	Wide Range Nuclear Instrumentation Channels Functional Test
1-1300020	3	Containment Building Access Hatches Operation

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PROCEDURE #	REV.	TITLE
1-1300050	4	Containment Building Integrated Leak Rate Test
1-1300051	5	Local Leak Rate Tests
1-1300053	2	Airlock Automatic Leak Tester Funct. Test
1-1300054	3	RAB Fluid Systems Periodic Leak Test
1-1400020	3	Sequence of Events Recorder Operation
1-1400057	9	Reactor Regulating System Functional Test
1-1400059	10	Reactor Protection System - Periodic Logic Matrix Test
1-1560020	7	Primary Water System
1-1600022	10	Unit No. 1 Refueling Operation
1-1600023	13	Refueling Sequencing Guidelines
1-1600024	11	Filling & Draining the Refueling Canal & Cavity
1-1600025	0	FHB Vent Sys. Periodic Test
1-1610020	9	Receipt & Handling of New Fuel
1-1630021	2	New Fuel Elevator Operation
1-1630022	10	Spent Fuel Handling Machine Operation
1-1630023	6	Fuel Transfer System Operation
1-1630024	17	Refueling Machine Operation

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OPERATIONAL PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
1-1630025	2	CEA Change Fixture Operation
1-1630027	4	Dry-Sipping of Irridated Fuel Assemblies
1-1630028	4	New Fuel Handling Crane Operation
1-1710020	5	Primary Sample System Valve Alignment
1-1720020	2	Gas Analyzer Operation
1-1730020	2	Secondary Sample System Valve Alignment
1-1900020	3	Reactor Aux. and Control Room Vent System Operation
1-1900050	5	Control Room Pressure Periodic Test
1-2000020	2	Containment Cooling System Operation
1-2000021	1	Containment Radioactivity Removal System Operation
1-2000023	2	Hydrogen Purge System Operation
1-2000024	5	Shield Bldg. Ventilation System Operation
1-2000053	3	H_2 Recombiner
1-2100020	2	Turbine Seal Oil System Operation
1-2100021	7	Generator Gas System Operation
1-2100022	2	Turbine Oil System Operation
1-2100023	2	Gen. Air Leakage Rate Drop Test

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OPERATIONAL PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
1-2200020	6	Emergency Diesel Generator Standby Lineup
1-2200050	26	Emergency Diesel Periodic Test
1-3200020	14	Primary System Manual Calorimetric
1-3200050	6	Calculation and Adjustment of Fixed Incore Detector Alarm Setpoints
1-3200051	12	At Power Determ. of Mod. -Temp. Coeff. & Power Coeff.
1-3200053	10	Surveillance Requirements for Azmuthal Power Tilt (T_q)
1-3200054	7	Surveillance of Total Radial Peaking Factor (F_r^T)
1-3200058	3	Surveillance Requirements for Total Planar Radial Peaking Factor (T_{Fxy})
1-3200059	4	Forced Xenon Oscillation Test

UNIT 1 PREOPERATIONAL TEST PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
0010180	4	Power Ascension Sequencing Document (See Back Shelf - Completed 2 Boxes)
0010192	2	Reactor Coolant System, Pump Flow and Coastdown App. 1
0010193	0	Appendix 11 - Turbine Generator Air Flow test
0010195	0	Load Cycle Test
0110081	2	CEDM/CEA Measurement - App. 4 (See Back Shelf - Completed 4 Boxes)
0110081-B	0	CEDM/CEA 44 Lower Gripper Check
0110082	1	CEA Position Indication and Alarm System Calibration and Functional Test
0110083	1	Reactivity Computer Checkout
0110085	3	CEA Group Clibration
0110086	3	Simulated CEA Ejection, Hot Zero Power
0110087	0	Simulated CEA Ejection Test
0110088	2	Static CEA Drop Test 50% Power
0110089	3	Dynamic CEA Insertion Test 50% Power
0110090	1	10% Load Reduction - Turbine Runback
0110092	1	CEDM Temperature Measurements
0110096	2	CEA Symmetry Check/Dropped CEA Worth
0110097	0	Zero Power Physics Tests After Reload (See Back Shelf - Completed)

UNIT 1 PREOPERATIONAL TEST PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
0120081	1	Partial Loss of Flow Test
0120086	0	Reactor Coolant Gas Vent System Preoperational Test
0120122	0	Reactor Coolant System Hydrotesting
0120084	3	Total Loss of Flow/Natural Circulation Test
0360080	1	Emergency Ultimate Heat Sink Functional Test
0420082	0	The Sodium Hydroxide Injection System Preop Test
0700070	0	Condensate Polisher Backwash Treatment System Preoperational Test
0700080A	1	Steam Generator Feedwater Hammer Test
0700080B	2	Steam Generator Feedwater Hammer Test
0700082	0	Heater Vents and Drains Functional Test
0700089	0	Condensate Pump 1C Initial Run
0700090	0	Sodium Ion Analyzer-System Functional Test
0830081	0	Rotating Equipment Start-Up and Initial Run
0830082	0	Blowdown Filter Removal Verification
0830083	0	Steam Generator Blowdown Demineralization System Functional Test
0830084	0	Initial Operation of the SGBTF 120/208 V AC Electrical System
0830085	0	Air Blower Preoperational Test

UNIT 1 PREOPERATIONAL TEST PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
0830086	0	Steam Generator Open and Closed Blowdown Cooling System Functional Test
0830087	0	Initial Operation of the SGBTF 480V Motor Control Center (MCC) 1B9
0830088	0	Initial Operation of the 125 V DC System for Steam Generator Blowdown Treatment Facility
0830089	0	Spent Resin and Sluice Water Pre-Op
0830090	0	Process Blowdown System Functional Test
0830091	0	Equipment and Detergent Drain System Test
0830093	1	SGBTF Heating Ventilation and Air Conditioning (HVAC)
0830094	0	Blowdown Facility Hot Functional Test
0830095	1	Air Balancing Procedure
0830096	0	BVMS Functional Test
0830097	0	LERMS Functional Test
0830098	0	Fuel Building Effluent Monitor Functional test
0910081	1	20% Power Trip and Auxiliary to Start-Up Transformer Auto Transfer Test
0910085	0	Main Generator Excitation System Initial Operation
1110088	0	Fuel Building Exhaust Monitor Functional Test
* 1110090	0	Component Cooling Water Radiation Monitors A & B Functional Test
1110092	0	High Range Effluent Monitors Functional Test

UNIT 1 PREOPERATIONAL TEST PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
1120081	0	Post LOCA Radiation Monitoring Preoperational Functional Test
1130080	0	Loose Parts Monitoring System
1130081	0	Internals Vibration Monitoring System Functional Test
1200081	0	Incore Instrumentation Measurements -- Post Core Hot Functional App. 5
1210082	2	Neutron Response of Plant Wide Range Nuclear Channels
1210083	0	Recalibration of Nuclear and Delta T Power for T_{Cold} at 100% Power
1220080	1	Nuclear Instrumentation Power Range Linear Channels, Initial Alignment and Calibration
1240080	0	Incore Instrumentation Prooperational Test
1240083	0	Movable Incore Detector Drive System Preoperational Test
1-1240086	0	Qualified Safety Parameter Display System Functional Test
1400081	3	DDPS - RPS - ESF RTGB Instrument Correlation - Post Core App. 6
1400084	2	Automatic Control System Checkout, Steam Generator Level Control, CEA Refueling System Automatic Turbine Control & Load Swing Test
1400093	2	Generator Trip with Shutdown Outside Control Room
1400094	0	Technical Support Center-Data-Acquisition System Preoperation Functional Test
1-1400096	0	Safety Assessment System Hardware Component Verification
1610080	1	Preoperational Test Procedure of Tools & Equipment for Fuel Reconstitution

UNIT 1 PREOPERATIONAL TEST PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
2000092	0	Shield Building Ventilation System (SBVS) Heaters Functional Test
2000093	0	Containment Hydrogen Samplings A & B Functional Test
2100082	1	NSSS Acceptance Run
1-2100085	0	Preoperational Test of the Turbine Oil Centrifuge
2100087	0	Turbine Overspeed Trip Test
2100089	2	Generator Trip
2100090	2	Turbine Trip Test
2100091	4	Loss of Off-Site Power
* 2200080A	1	Automatic Starting & Sequencing of 1A Diesel Generators
3200080	0	Power Range and Control Subchannel Calibration
3200081	3	Nuclear Design Check Test (See Back Shelf for Completed)
3200083	1	Minimum Shutdown Margin Verification
3200084	1	Measurement of Power Defect and Xenon Worth After Shutdown
3200086	2	Initial Criticality
3200087	0	Forced Xenon Oscillation Test
3300081	1	Radiation Shielding Evaluation
3400081	0	Chemical and Radio Chemical Analysis 20, 50, 80, 100% Power.

UNIT 1 PREOPERATIONAL TEST PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
* 3400088	0	Security System FPS Preoperational and Functional Test
* 3400089	0	Security System Microwave Preoperational and Functional Test
* 3400090	0	Security System Fixed CCTV Preoperational and Functional Test
* 3400091	0	Security System E-Field Preoperational and Functional Test
* 2200080A		Distributed to Master Only
* 1110090		Distributed to Master Only
* 3400088		Safeguard
* 3400089		Safeguard
* 3400090		Safeguard
* 3400091		Security System E-Field Preoperational and Functional Test

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ADMINISTRATIVE PROCEDURE INDEX

Applicable to both Units 1 and 2

JAN 0 6 1984

PROCEDURE #	REV.	TITLE
0004021	6	Preliminary and Conditional Acceptance of Systems by FPL Nuclear Energy Dept.
0005720	11	Licensed Operator Requalification Program
0005721	4	Hot License Operator Training Program
0005722	5	Shift Technical Advisor and Technical Staff Training Program
0005723	7	Shift Technical Advisor and Technical Staff Requalification Program
0005724	2	Operating Experience Feedback
0005725	4	Duties and Responsibilities of the S.T.A.
0005727	2	O.C. Department Training Program
0005728	2	R. E. Department Training Program
0005729	3	Fire Protection Training, Qualification & Requal.
0005730	2	I & C Department Training Procedure
0005731	3	Electrical Maintenance Training Program
0005732	2	Outage Management Training Program
0005734	1	Emergency First Aid and Personnel Decontamination Team Training, Qualification and Requalification.
0005735	1	PSL Training Dept. Training Program

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ADMINISTRATIVE PROCEDURE INDEX

PROCEDURE #	REV.	TITLE
0005737	1	Health Physics Department Training Program
0005738	2	Security Department Training Procedure
0005739	0	Administrative Department Training Procedure
0005740	1	Non-Licensed Operator Training Qualification and Requalification
0010119	5	Overtime Limitations for Licensed Operators
0010120	22	Duties and Responsibilities of Operators on Shift
0010121	1	Recall of Off-Duty Personnel
0010124	10	Control and Use of Jumpers and Disconnected Leads in Safety Related Systems
0010127	9	Reactor Engineering Schedule of Periodic Tests and Reports
0010128	2	Plant Work Performed by Outside Groups
0010132	4	ASME Code Testing of Pumps and Valves
0010134	1	Component Cycles and Transients
0010135	1	Caution Tag Clearance Procedure
0010136	3	Blue Tag Clearance Procedure
0010137	2	Guidelines for Control Room Labeling
0010138	1	Plant Maintenance Support Equipment Clearance

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ADMINISTRATIVE PROCEDURE INDEX

JAN 0 6 1984

PROCEDURE #	REV.	TITLE
0010139	0	Fire Protection Schedule of Periodic Tests and Reports
0010430	7	Maintenance on Nuclear Safety Related or Seismic Class I - Systems
0010431	4	Preventive Maint. Program
0010432	23	Plant Work Orders
0010433	14	Special Nuclear Material Control Records and Reports
0010434	14	Maintenance Dept. Safety Guidelines
0010435	2	Mech. Maint. Department Training Program
0010437	14	Schedule of Mechanical Maintenance Surveillance Requirements
0010438	3	Control of Heavy Load Lifts
0010439	0	Physical Inventory of Spent and New Fuel Storage Areas - Non-Refueling
0010520	11	Facility Review Group
0010721	6	NRC Required Non-Routine Notifications and Reports
0520025	1	Process Control Program
1800022	5	Fire Protection Program
3300120	4	St. Lucie Plant ALARA Program

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CHEMISTRY PROCEDURES INDEX

Applicable to both Units 1 and 2

PROCEDURE #	REV.	TITLE
C-01	10	Schedule for Periodic Test
C-02	7	Schedule for Test Calibrations
C-04	2	Filing & Record Storage
C-05	7	Diesel Fuel Oil Inventory, Receiving Shipments and Periodic Sampling
C-06	3	Control of Radioactive Calibration Sources
C-07	6	Compositing Samples for Weekly, Monthly & Quarterly Composites (Liquids)
C-08	5	Reporting Chemistry Data to Operations
C-09a	3	Primary and Secondary Grab Sample
C-10	5	Determination of PH (Meter)
C-11	3	Determination of Conductivity
C-12	6	Determination of Chlorides - Mercuric Nitrate Method (.05 - 10 ppm)
C-13	5	Determination of Fluorides
C-14	3	Determination of Suspended Solids
C-16a	7	Determination of Hydrazine - (Range 0-80 ppB)
C-16b	6	Determination of Hydrazine (Range 0-0.5 ppM)
C-17	8	Determination of Ammonia
C-18	4	Determination of Total Hardness

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CHEMISTRY PROCEDURES INDEX

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PROCEDURE #	REV.	TITLE
C-18b	4	Determination of Total Hardness (.2-20 ppM)
C-19	3	Determination of Dissolved Oxygen - (Chemetric)
C-21	6	Determination Of Dissolved Silica (.01-2 ppM)
C-22	4	Determination of Chromates (Colorimetric)
C-23	4	Determination of Turbidity (HACH Method)
C-25	2	Operation of Mettler Balance
C-27	2	Brine & Acid Cleaning Procedure at WTP
C-31	5	Operation of the IL-251 and IL-257 Atomic Absorption Units
C-35	4	Determination of Boron (NaOH normalities 1.0 & .2)
C-37	5	Determination of Gases (N_2, O_2, H_2)
C-38	2	Calibration of Flow Measuring Devices
C-42	5	Chemical Separation of Strontium, Yttrium, Iron and Barium
C-44	4	Determination of Gross B2 & Tritium w/LS7500 Liquid Scintillation Counter
C-46	6	Determination of Gross Alpha Radioactivity
C-47	3	Determination of the Average Beta & Gamma Energy (E) of the Reactor Coolant
C-48a	3	Operation of ND6685 Computer Based Counting System
C-49	4	Maintaining Auxiliary Boiler Chemistry

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CHEMISTRY PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
C-50	5	Maintaining Steam Generator Chemistry
C-51	7	Maintaining Condensate & Feed System Chemistry
C-52	6	Maintaining Turbine Cooling Water Chemistry and SG BTCW Chemistry
C-53	3	Maintaining Diesel Cooling Water Chemistry (Inhibitor)
C-54	2	Maintaining Water Treatment Plant Chemistry
C-55	8	Maintaining Reactor Coolant System Chemistry
C-56	5	Maintaining Component Cooling Water Chemistry
C-58	5	Maintaining Primary Water Storage Tank Limits
C-59	4	Maintaining Boric Acid Make-Up Tank Limits
C-61	3	Maintaining Fuel Pool Chemistry
C-70	14	Processing Aerated Liquid Wastes
C-71	5	Processing Boric Acid
C-72	19	Processing Gaseous Wastes
C-74	3	Particulate & Iodine Filter Testing
C-77	4	Correlation of Process Monitor Readings to Specific Activity
C-81a	3	High Activity in Rx. Coolant System
C-81b	5	High Activity in Component Cooling Water

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CHEMISTRY PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
C-81c	5	High Activity in a Steam Generator
C-83	4	Condenser Tube Leak
C-84	6	Monitoring Boron Concentration During Refueling
C-90a	1	Calibration of SGBTF Radiation Monitor System Liquid
C-90b	2	Calibration of SGBTF Radiation Monitoring Systems - Ventilation
C-91	6	Training of Chemistry Department Personnel
C-110	2	Collecting Initial Set of Post Accident Samples and Guidelines for Establishing Post Accident Water and Gas Inventory Control
C-111	1	Establishing Remote Analysis Laboratory Counting Laboratory and Counting Procedures for Accident Samples
C-115	0	Kinematic Viscosity Test, Diesel #2 Fuel Oil
C-116	0	Water and Sediment Test, Diesel #2 Fuel Oil
C-117	0	Specific Gravity (API) Diesel #2 Fuel Oil
C-200	3	Offsite Dose Calculation Manual (ODCM)

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EMERGENCY PLAN IMPLEMENTING PROCEDURE INDEX

Applicable to both Units 1 and 2

JAN 06 1984

PROCEDURE #	REV.	TITLE
3100021E	14	Duties & Responsibilities of Emergency Coordinator
3100022E	14	Classification of Emergencies
3100023E	24	On-Site Emergency Organization and Roster
3100024E	11	Natural Emergencies
3100025E	8	Fire Emergencies
3100026E	9	Criteria For and Conduct of Evacuations
3100027E	6	Re-Entry
3100029E	6	Duties of an Individual Who Discovers an Emergency
3100032E	5	Onsite Support Centers
3100033E	7	Off Site Dose Calculations
3100034E	4	Maintaining Emergency Preparedness-Radiological E-Plan Training
3100035E	2	Off-Site Radiological Monitoring & Dose Assessment
3100050E	6	Maintaining Emergency Preparedness - Emergency Exercises, Drills, Test, and Evaluations
_____	__	_____
_____	__	_____
_____	__	_____

ST. LUCIE PLANT
ENVIRONMENTAL TEST PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
EV-01	3	Schedule for Periodic Testing
1-EV-02	1	Sampling Methods
1-EV-03	0	Environmental Monitoring Calibrations
EV-11	2	Determination of Ph (Meter)
EV-12	2	Determination of Conductivity
1-EV-14A	2	Determination of Amperometric Free Available and Total Residual Chlorine
EV-14B	0	Determination of Amperometric Free Available and Total Residual Chlorine
EV-15	2	Determination of Turbidity (Hellige Method)
1-EV-16a	2	Determination of Dissolved Oxygen (Meter)
1-EV-16b	2	Dissolved Oxygen (Winkler)
EV-17	0	Determination of Total Copper and Total Iron Using Atomic Absorption Unit (Direct Aspiration)
1-EV-18	1	Determination of Total Suspended Solids
EV-19	1	Determination of Oil & Grease
1-EV-21	1	Determination of Circulating Water Flow
1-EV-22	1	Operation of Mettler Balance
1-EV-23	0	Biochemical O_2 Demand
1-EV-24	0	Chemical O_2 Demand

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ENVIRONMENTAL TEST PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
1-EV-25	0	N_2 Kjeldahl (Total)
1-EV-25a	0	Total N_2 (Cadminum Reduction)
1-EV-26	0	Fecal Coliform Membrane Filter Test
1-EV-27	0	Sample Collection
1-EV-28	0	Settleable Solids (Aeration Compartment)
1-EV-29	0	Total Phosphate Procedure (Persulfate-Ascorbic Acid)
1-EV-30	0	Fish Kill Procedure

ST. LUCIE PLANT
GENERAL MAINTENANCE PROCEDURE INDEX

Applicable to both Units 1 and 2

PROCEDURE #	REV.	TITLE
M-0003	4	Lubrication
M-0004	6	Torque Wrench Tester Operation
M-0005	3	Freeze Seal Application
M-0008	7	Reactor Coolant Pump Seal Removal
M-0009	7	RCP Seal Installation
M-0010	5	Reactor Coolant Pump Seal Cartridge Assembly Flow Test
M-0011	5	RCP Seal Rebuilding
M-0016	4	Mechanical Snubber Thermal Exp.
M-0017	10	Pressurizer Safety Valve Maintenance
M-0018	9	Mechanical Maintenance Safety Related Preventive Maintenance Program
M-0020	1	Lifting of the Spent Fuel Pool Gate
M-0021	2	Lifting PZR Missile Shield
M-0022	1	Handling Spent Fuel Casks
M-0023	2	Lifting of the ISI Tool
M-0027	2	Welding Job Control List
M-0028	2	Welding Electrodes & Filler Metal Control (Procedure FORMERLY WP-FMC)
M-0029	3	Steam Generator Maintenance

ST. LUCIE PLANT
GENERAL MAINTENANCE PROCEDURE INDEX

JAN 0 6 1984

PROCEDURE #	REV.	TITLE
M-0030	0	Goulds Pumps, Removal, Repair and Replacement
M-0034	3	Pressurizer Manway Removal and Replacement
M-0039	0	Threaded Fasteners of Closure Connections on Reactor Cooling Pressure Boundaries
M-0042	1	Use of M&TE on Nuclear Safety Related Equipment by Mechanical Maintenance
M-0311	3	Equipment Access Hatch Removal and Replacement
M-0403	6	Welding Manual
M-0705	4	Main Steam Safety Valve Maintenance

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ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURES INDEX

Applicable to both Units 1 and 2

PROCEDURE #	REV.	TITLE
HP-1	18	Radiation Work Permits (Also 3300022)
HP-2	0	FP&L Health Physics Manual
HP-4	16	Scheduling of Health Physics Activities
HP-6	6	Step-Off Pads
HP-10A	1	Use and Maintenance of the Eberline MS-3 Mini Scaler
HP-10C	7	Calibration and Operation of the ND-100 Multi-Channel Analyzer
HP-11A	0	Set-up, Adjustment and Calibration of National Nuclear Corporation Gamma-10 Portal Monitor
HP-13A	6	Operation of Portable Survey Instruments
HP-13B	4	RM-14, RM-17 and Ludlum 177 Operation Check
HP-13C	6	Calibration of Portable Radiation Survey Instruments
HP-13D	5	Calibration of Emerline PNR-4 Portable Neutron REM Counter
HP-13E	2	Use & Maintenance of the Eberline AC-3 Scintillation Alpha Detector
HP-13F	1	Calibration & Operation of the Eberline Model AMS-2 and AMS-3 Monitoring Operation
HP-13G	3	Calibration & Response Check of the RM-16
HP-13K	3	Calibration of the Eberline E-520 and Ludlum Model 5 Geiger Counter
HP-13L	2	Calibration & Operation of Eberline RO-2 & RO-2A Portable Ion Chambers

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
HP-13M	2	Calibration Check of the Containment High Range Radiation Monitors
HP-13N	1	Calibration & Operation of the Eberline RASCAL (PRS-1 and PRS-2)
HP-13P	1	Calibration of Eberline PRM-6 Pulse Rate Meter
HP-13T	0	Calibration and Operation of the Ludlum Model 2220 Portable Scaler Ratemeter Using a 2" X 2" NaI Scintillation Detector
HP-14A	2	Use of the Eberline MP-1 Mini Pulser
HP-14B	2	Recertification of Calibrated Rod & Disc Radiation Sources
HP-14C	2	Use & Recertification of J.L. Shephard & Assoc. Mark IV Mod. A Series E TLD Irradiator
HP-14D	2	Recertification of Eberline Multiple Source Calibration Model 1000 (MSGC-1000 and MSGC-1000B)
HP-14E	3	Use of the Eberline Multiple Source Gamma Calibrator-Model 1000 (MSGC-1000) and Model MSGC-1000B
HP-14F	6	Calibration of Portable Air Samplers
HP-14G	1	Recertification of the J. L. Shepherd Model 423 Dosimeter Calibrator (JLS 423 DC)
HP-20	6	Radiation & Contamination Surveys
HP-22	9	Air Sampling
HP-30	11	Personnel Monitoring (Also 3300024)
HP-31	5	Calibration and Operation of the En-Vivo Bioassay System
HP-32	6	Source and Drift Check Pocket Dosimetry

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
HP-33	6	Pocket Dosimeters
HP-34	4	Estimated Beta Skin Dose From Noble Gases
HP-35	4	Bioassay Program
HP-36	1	MPC-HR Estimation from Invivo Bioassay Data
HP-40	24	Shipment and Receipt of Radioactive Material
HP-41	4	Movement of Material & Equipment
HP-42	3	Storage of Radioactive Waste
HP-43	3	Leak Testing & Inventory of Radioactive Sealed Sources
HP-44	5	Calibration of the NMC Portable Air Monitor NMC Model AM 331F.
HP-46	1	Calibration and Use of the Daboco/Nomonox Air Purifiers Model: PBS-601MS and PBS-803MS
HP-50	4	Protective Clothing Requirements (See also OP 3300023)
HP-55	4	Portable Shielding (Also 3300027)
HP-56	0	Instructions for Radiography
HP-60	8	Respiratory Protection Manual (Also 3300021)
HP-61	3	Selection & Use of Respiratory Protection Equipment
HP-62	5	Inspection, Maintenance & Q.A. of Respiratory Protection Equipment
HP-63	2	Maximum Permissible Concentration Hour Accountability

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
HP-65	2	Cleaning, Disinfection, Decontamination, Inspection & Storage of Respiratory Protection Equipment
HP-66	4	Respirator Fitting
HP-67	3	Respiratory Protection Training
HP-70	4	Personnel Decontamination Procedure (See Also OP-3800026)
HP-71	4	Decontamination of Tools, Equipment and Areas
HP-72	1	Determination of Dose to Skin From Fixed Skin Contamination
HP-90	10 //	Emergency Equipment
HP-101	2	Identification and Reporting of Radiation Incidents
HP-102	1	Calibration & Operation of Ludlum Dual Channel Analyzer Model 2218
HP-103	2	Operation of the Electro-Sonic Decontamination System
HP-200	1	H.P. Emergency Organization
HP-201	0	Emergency Personnel Exposure Control
HP-202	6	Off Site Environmental Monitoring during Emergencies
HP-203	2	Personnel Access Control During Emergencies
HP-204	1	In-Plant Radiation & Contamination Surveys During Emergencies
HP-205	1	Emergency In-Plant Air Sampling
HP-206	1	Analysis of Emergency Air Samples

ST. LUCIE PLANT
HEALTH PHYSICS OPERATING PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
HP-207	1	Monitoring Evacuated Personnel During Emergencies
HP-208	1	Emergency Personnel Decontamination During Emergencies

ST. LUCIE PLANT
I & C DEPARTMENT PROCEDURES INDEX

Applicable to both Units 1 and 2

PROCEDURE #	REV.	TITLE
0110067	0	Repair of Insulation Jacket of CEDM and RSPT Cables
1200052	3	Incore Instrumentation Channel Calibration
1200060	3	Fission Chamber Accept. Test
1200062	3	Uncomp. Ion Chamb. Accept. Test
1240060	6	Installation, Removal and Testing of Fixed Incore Detectors
1240062	2	Movable Incore Fission Chamber Accept. Test
1240064	2	Excore Neutron Detectors Removal and Replacement
1400055	8	Env. Data Acquisition Semi-Annual Cal.
1400062	3	RRS System Calibration Procedure
1400065	6	Maint. and Calibration of Plant Inst. & Control Equip.
1400067	20	Calibration of I & C Dept. M & TE
1400151	6	Seismic Instr. Functional Check
1400156	8	Channel Cal-Variable High Power-Quarterly
1400165	6	Reactivity Computer Funct. Test
1400168	1	RPS Core Protection Calculator Power Supply Check
1400169	1	PORV & Safety Valve Position Indicator Channel Check
1800051	8	Semi-Annual Testing of the Fire Detectors

ST. LUCIE PLANT
I & C DEPARTMENT PROCEDURES INDEX

JAN 0 6 1984

PROCEDURE #	REV.	TITLE
1800055	0	Smoke Detector Cleaning and Inspection
* 3400020	6	Security System FPS Quarterly Functional Test (Safeguard Material)
* 3400021	7	Quarterly Testing of Alarmed Doors and Gates (Safeguard Material)
3400024	0	Weekly Maintenance of Security Entrance Scan
* 3400026	0	Security System Fixed CCTV Semi-Annual Functional Test
* 3400027	3	Security System Microwave Quarterly Functional Test

* Safeguards

LETTER OF INSTRUCTION PROCEDURE INDEX

JAN 0 6 1984

For Unit 1, Unit 2 and Plant Procedures

PROCEDURE #	REV.	TITLE
		CHEMISTRY DEPARTMENT
2-CC-01	0	Flushing and Hydrostatic Test Water for Stainless Steel Reactor and Auxiliary Systems
2-CC-02	0	Chemistry During Systems Flushing, Hydrostatic Testing and Wet Layup
2-CC-03	0	Systems Layup During Construction Phase
2-CC-04	1	Determination of Minimum Recirculation Times for Representative Sampling
2-CC-05	0	Initiation/Maintenance of Layup in Feed, Condensate, and Heater Drain System During Pre-Startup Phase
2-CC-06	0	Initiation/Maintenance of Water Chemistry in Steam Generators During Hydrostatic Testing and Subsequent Layup
2-CC-07	0	Chemistry Control of Stainless Steel Rx Auxiliary System During Fill, Flush, and Layup Prior to Normal Operation
2-CC-08	0	Initiation/Maintenance of Chemistry Control During RCS Hydrostatic Testing
CC-10	0	CST Venting to Atmosphere

LETTER OF INSTRUCTION PROCEDURE INDEX

JAN 0 6 1984

PROCEDURE #	REV.	TITLE
		ELECTRICAL DEPARTMENT
E-1	0	Identification of Plant Electrical Equipment by Breaker Number
E-2	0	Use of General Electrical Installation Notes
E-3	0	Installation and Repair of Electric Heat Tracing
E-4	0	Use of Cable Termination and Splicing
E-5	0	Electrical Conduit and Box Supports
		BACKFIT ELECTRICAL STARTUP DEPARTMENT
BF/ESU-1	0	Electrical Test Equipment Calibration Procedure for Backfit Testing Operations
		ESU DEPARTMENT
ESU-2	0	Electrical Startup Test Phase Documentation
ESU-11	0	Departmental Training - Electrical Startup
		I & C DEPARTMENT
C-4	1	Instructions for Completion of "Instrument Record" Form #2220
		ICSU DEPARTMENT
ICSU-1	2	Training Program for the Startup Department I & C Section

LETTER OF INSTRUCTION PROCEDURE INDEX

JAN 06 1984

PROCEDURE #	REV.	TITLE
		HP DEPARTMENT
2-HP-3	0	Radiological Controls Associated with Receipt and Storage of New Reactor Fuel for Unit 2
HP-4	1	Use of LNSI 3-55 Liner Shield for Thermal Shield Transfer
HP-5	1	Use of Precision Metal Services Cask for Tri-Nuclear Filter Transfer to CNS 8-120 Shipping Cask
		KNH
KNH-2 CANCELLED	0	Unit #1 Access Control
		MAINTENANCE DEPARTMENT
CSPB-1	0	Temporary Relocation of 4GS from the Permanent Refueling Laydown Area and Returning
		OPERATIONS DEPARTMENT
0-1	2	Caution Tags
0-2	4	Blue Tag Clearance Procedure
0-3	28	Personnel Authorized to Hold Clearances
0-4	0	Request for Plant Clearances from Systems Operations
0-6	2	Jurisdiction of Systems During Startup
0-8	0	Electrical Firefighting Policy for St. Lucie Plant
0-10	0	Preparation for Shipment of Clean New Fuel Bundles
0-11	1	Tavg Coastdown at End of Life
0-12	0	Guidelines for Unit Shutdown and Cooldown

LETTER OF INSTRUCTION PROCEDURE INDEX

JAN 0 6 1984

PROCEDURE #	REV.	TITLE
		MSU DEPARTMENT
MSU-1	0	Mechanical Startup Training Program
2-MSU-2	0	Mechanical Startup Measuring and Test Equipment
MSU-4	0	Piping Vibration Visual Training
		STARTUP DEPARTMENT
SU/PS-1	0	Startup Planning and Scheduling Training Program
SU-10	0	Startup Backfit Program
2-SU-12	1	Preoperational Test Review Group
SU-14	1	DOC Management for Startup Department
SU-15	0	Utilization of Reactor Operating and Testing Experience in the Development of Startup Test Procedures
SU-16	0	Startup Engineer Duties and Responsibilities
SU-17	0	Administrative Guidelines
SU-18	1	Documenting Deficiencies and Corrective Action During Startup
		TECH STAFF
T-14	0	Activation of the Technical Support Center (TSC) During Construction Period
T15	0	Moisture Separator/Reheater 2C Performance Test

LETTER OF INSTRUCTION PROCEDURE INDEX

PROCEDURE #	REV.	TITLE
		SECURITY DEPARTMENT
S-1	0	Protection of Safeguards Information

ST. LUCIE PLANT
MAINTENANCE PROCEDURES INDEX

Applicable to both Units 1 and 2

PROCEDURE #	REV.	TITLE
0610069	1	Procedure for Taking Reference Cell Readings for Cathodic Protection
0920062	1	Grounding or Testing of High Voltage (4.16 or 6.9KV) Motors
0920063	0	Safety Requirement for Grounding of High Voltage (4.16 or 6.9KV) Switchgear Busses for Maintenance
0920064	1	Cable and Bus Hi-Pot Instructions
0940061	0	Maintenance of Low Voltage Breakers and Overload Devices
0940062	1	The Preventive Maintenance & Overhaul of Motors
0940063	0	Motor Operated Valve Setup Procedure
0950060	3	Boric Acid Heat Tracing System Periodic Test
0950061	1	Installation of Service Air Flexible Conduit
0959060	3	General Repair Requirements for Electric Motors and Generators
0959063	3	Deluge System Periodic Testing
2000051	1	Shield Building Ventilation System (SBVS) 18 Month Heater Performance Test
2000056	0	18 Month Maintenance and Electrical Department Testing of Hydrogen Recombiners
2100064	0	Generator Grounding and Testing
3400022	0	Polar Crane Inspection

ST. LUCIE PLANT
OFF-NORMAL/EMERGENCY OPERATING PROCEDURES INDEX

Applicable to Units 1 and 2

PROCEDURE #	REV.	TITLE
1220030	4	Linear Power Range Channel Malfunction
3000030	0	Severe Weather Preparations

OFF-SITE EMERGENCY ORGANIZATION PROCEDURES INDEX

JAN 0 6 1984

PROCEDURE #	REV.	DATED	TITLE
1101	1	12/30/82	Duties of the Emergency Control Officer, Off-Site Emergency Organization
1102	0	12/30/82	Duties of the Recovery Manager, Off-Site Emergency Organization
1103	0	12/30/82	Duties of the Emergency Information Manager, Off-Site Emergency Organization
1104	0	12/30/82	Duties of the Emergency Security Manager, Off-Site Emergency Organization
1105	0	12/30/82	Duties of the Emergency Technical Manager, Off-Site Emergency Organization
1106	0	12/30/82	Duties of the Governmental Affairs Manager, Off-Site Emergency Organization
1107	0	12/30/82	Duties and Responsibilities of the Emergency Plan Administrator
1201	0	12/30/82	Activation and Use of the Emergency News Center (St. Lucie)
1202	0	01/03/83	Activation and Use of the Interim Emergency Operations Facility (St. Lucie)
1301	3	12/15/83	Emergency Roster - Off-Site Emergency Organization

ST. LUCIE PLANT
OPERATIONAL PROCEDURES INDEX

Applicable to both Units 1 and 2

PROCEDURE #	REV.	TITLE
0010122	20	In-Plant Equipment Clearance Orders
0010126	3	Containment and Shield Building Access Control
0010129	5	Equipment Out-Of-Service - Class I
0030119	0	Post Trip Review
0030129	5	Reactor Trip Records
0120026	10	Reactivity - Deviation From Design
0230021	2	Liquid Nitrogen Dewar Operation
0360050	5	Emergency Cooling Water Canal -Periodic Test
0420051	3	CS - Spray Nozzle Air Flow Test
0520023	0	Dewatering Radioactive Bead Resins
0610021	3	Main Condenser Hydrostatic Test
0630022	0	Hypochlorite System Operation
0910020	5	Removal & Restoration of SU Transformer
0910050	2	Startup Transformer Periodic Test
1120051	0	Periodic Calibration & Test SGBTF ARMS
1170020	0	Demineralized Water System - Normal Operation

ST. LUCIE PLANT
OPERATIONAL PROCEDURES INDEX

JAN 0 6 1984

PROCEDURE #	REV.	TITLE
1200022	6	Periodic Surveillance of Incore Detection System
1200023	6	Calculation of Internal Axial Shape Index (ASI_I)
1300052	14	Airlock Periodic Leak Testing
1400051	17	Meteorological Data System Daily Channel Check
1400054	7	Reactor Protection System - Loss of Turbine-Hydraulic Fluid Pressure Low
1400058	9	Seismic Instrumentation Periodic Check
1530020	7	Domestic Water System - Normal Operation
1540020	6	Water Plant Operations
1540021	6	Water Plant Regeneration
1540060	2	Water Plant Resin Replacement
1550020	4	Vacuum Degasifier Operation
1600060	1	Source Handling and Installation
1800020	7	Fire Protection System Operation
1800021	5	Fire Detection System Operating Procedure
1800050	13	Fire System Periodic Test
1800053	9	Fire Protection System Annual and 18 Month Tests
3200021	5	Axial Shape Index Control

ST. LUCIE PLANT
OPERATIONAL PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
3200052	9	Monitoring Linear Heat Rate
3200057	4	Power Distribution Comparison with Design

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ST. LUCIE PLANT
PREOPERATIONAL PROCEDURES INDEX

Applicable to Both Units 1 and 2

PROCEDURE #	REV.	TITLE
0700071	0	Condensate Polisher Functional Test
0700099	1	Condensate Polisher Initial Test

QUALITY INSTRUCTIONS INDEX

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For Unit 1, Unit 2 and Plant Procedures

PROCEDURE #	REV.	TITLE
QI 1-PR/PSL-1	9	Plant Organization
QI 1-PR/PSL-2	7	Operations Organization
QI 1-PR/PSL-3	6	Instructions for Maintenance Organization
QI 1-PR/PSL-4	5	Startup Organization Unit 2
QI 1-PR/PSL-5	1	Technical Staff Organization
QI 1-PR/PSL-7	4	Quality Control Organization
QI 1-PR/PSL-8	0	Administrative Organization
QI 2-PR/PSL-1	5	Quality Assurance program
QI 2-PR/PSL-2	10	Indoctrination and Training of St. Lucie Plant Personnel
QI 3-PR/PSL-1	10	Design Control (After Fuel Loading)
QI 4-PR/PSL-1	4	Procurement Document Control
QI 4-PR/PSL-2	1	Procurement Document Review
QI 5-PR/PSL-1	25	Preparation, Revision, Review/Approval of Procedures
QI 5-PR/PSL-2	0	Writers Guide for Emergency Operating Procedures
QI 6-PR/PSL-1	7	Document Control
QI 7-PR/PSL-1	6	Control of Purchased Material, Equipment and Services

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QUALITY INSTRUCTIONS INDEX

PROCEDURE #	REV.	TITLE
QI 7-PR/PSL-2	10	Receiving Inspection
QI 8-PR/PSL-1	5	Identification Control of Materials, Parts and Components
QI 9-PR/PSL-1	2	Special Process Control
QI 9-PR/PSL-2	9	Control of Non-Destructive Examination
QI 9-PR/PSL-3	2	Welding Control
QI 10-PR/PSL-1	7	Quality Control Inspection
QI 10-PR/PSL-3	2	Inspection Instruction for Class 1, 2 and 3 Piping and Components
QI 10-PR/PSL-4	14	Plant Inservice Inspection
QI 10-PR/PSL-5	3	Technical Specification Surveillance Inspection of Reactor Building
QI 11-PR/PSL-1	6	Test Control
QI 11-PR/PSL-2	9	Mechanical Test Control
QI 11-PR/PSL-3	8	Electrical Test Control
QI 11-PR/PSL-4	10	Instrumentation & Control Test Control
QI 11-PR/PSL-5	2	Mechanical Start-Up Test Control
QI 12-PR/PSL-1	10	Calibration of Measuring and Testing Equipment
QI 12-PR/PSL-2	7	Calibration of Instrument & Control Department Measuring and Test Equipment
QI 12-PR/PSL-3	8	Electrical Measuring and Test Equipment

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QUALITY INSTRUCTIONS INDEX

PROCEDURE #	REV.	TITLE
QI 12-PR/PSL-4	7	Instructions for Mechanical Maintenance Measuring and Test Equipment
QI 12-PR/PSL-5	2	Chemistry Measuring and Testing Equipment
QI 12-PR/PSL-6	7	Health Physics Measuring and Test Equipment
QI 12-PR/PSL-7	3	Calibration of Installed Plant Instrumentation and Control Equipment
QI 13-PR/PSL-1	7	Handling, Storage and Shipping
QI 13-PR/PSL-2	5	Cleanliness Control Methods
QI 14-PR/PSL-1	8	Inspection, Test and Operating Status
QI 15-PR/PSL-1	4	Nonconforming Materials, Parts & Components
QI 15-PR/PSL-2	10	Discrepancy Correction and Modifications During Construction and Testing
QI 16-PR/PSL-1	13	Corrective Action
QI 17-PR/PSL-1	5	Quality Assurance Records
QI 18-PR/PSL-2	9	Quality Control Surveillances
QI 18-PR/PSL-3	3	Quality Control Monitoring
_____	__	_____
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SECURITY PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
* 0006022	9	Security Force
* 0006023	12	Personnel & Material Control
0006024	4	Employee Security Orientation Program
* 0006025	7	Lock & Key System
* 0006027	14	Safeguards Contingency Plan Implementing Procedures
0006122	4	Site Evacuation - Vehicle Traffic Control
0006123	5	Owner Controlled Area Evacuation
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* Need to be stamped - **SAFEGUARDS** - Also send out in double envelopes

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ST. LUCIE UNIT 2
ADMINISTRATIVE PROCEDURE INDEX

PROCEDURE #	REV.	TITLE
2-0010123	5	Administrative Control of Valves, Locks and Switches
2-0010125	8	Schedule of Periodic Tests, Checks and Calibrations
2-1800023	0	Fire Fighting Strategies

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ST. LUCIE UNIT 2
CHEMISTRY PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
* 2-1730020	1	Secondary Sample System Valve Alignment (See OPS)*
2-C-09B	1	Tank Sampling
2-C-32	0	Operation of the IL643 Auto Cal Flame Photometer
2-C-57	1	Maintaining Refueling Water Tank Limits
2-C-60	1	Maintaining Safety Injection Tank Limits
2-C-62A	1	General Atomic Particulate, Iodine and Gas Process Monitor Operation
2-C-62B	1	General Atomic Single Stage Gaseous (S.S.G.) Process Monitor Operation
2-C-62C	1	General Atomic Single Stage Liquid (SSL) Process Monitor Operation
2-C-62D	1	General Atomic Wide Range Gas (WRGM) Process Monitor Operation
2-C-62F	0	Remote Operation of the General Atomic Process Monitor System
2-C-66A	1	Technical Specification Calibration of the General Atomic Gas, Liquid and and Steam Line Process Monitors
2-C-66B	1	Calibration of the General Atomic Gas, Liquid and Steam Line Process Monitors (Non Tech. Specs)
2-C-73A	0	Secondary Chemical Additions System Operation
2-C-80	1	Determination of Hydrogen Gas in Containment
2-C-113	1	Operation of the CE Post Accident Sampling System (PASS)
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ST. LUCIE UNIT 2
GENERAL MAINTENANCE PROCEDURE INDEX

PROCEDURE #	REV.	TITLE
2-M-0019	1	St. Lucie Unit 2 Rotating Equipment Initial Alignment Guidelines
2-M-0024	2	Component Cooling Water Pump - Disassembly and Reassembly
2-M-0025	0	HPSI Pump Disassembly & Reassembly
2-M-0032	1	Pressurizer Heater Replacement
2-M-0035	2	Intake Cooling Water Pump Disassembly, Repair and Reassembly
2-M-0036	1	Reactor Vessel Maintenance - Sequence of Operations
2-M-0037	1	Power Operated Relief Valve Maintenance
2-M-0038	0	Radioactive Filter Cartridge Replacement
2-M-0041	1	Charging Pump Maintenance
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ST. LUCIE UNIT 2
I & C PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
2-0110051	0	Analog Display System Calibration
2-0120050	0	Reactor Protection System RCS Low Flow Trip Setpoint Determination
2-0210050	0	Boronometer Channel Calibration
2-0540050	0	Periodic Calibration of Steam Header Pressure Monitors or HSCP
2-0540051	0	Remote Plant Instrumentation Calibration
2-0700051	1	Auxiliary Feedwater Actuation System - Monthly Functional Test
2-1130050	0	Loose Parts Monitoring System Functional Test
2-1200054	2	Low Temperature Overpressure Protection Setpoint Verification
2-1200055	0	Functional Calibration of the Automatic Isolation of the Shutdown Cooling System from the Reactor Coolant System
2-1200061	0	BF_3 Proportional Counter Acceptance Test
2-1210052	0	BF_3 Plateau Curve Determination
2-1220050	3	Safety Channel Quarterly Calibration
2-1220051	0	Startup and Control Channel Quarterly Calibration
2-1220052	2	Linear Power Range Safety and Control Channel Monthly Calibration
2-1240061	0	Installation and Removal of the Movable Incore System
2-1400050	4	Reactor Protection System - Monthly Functional Test
2-1400052	4	Engineered Safeguards Actuation System Channel Functional Test

ST. LUCIE UNIT 2
I & C PROCEDURES INDEX

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PROCEDURE #	REV.	TITLE
2-1400063	1	Sequence of Events Recorder Program Loading
2-1400064	1	Installed Plant Instrumentation Calibration
2-1400153	1	Reactor Protection System - Engineered Safeguards System Loop Instrumentation Calibration
2-1400154	0	Reactor Coolant Leakage Detection System Calibration
2-1400155	1	Channel Calibration - Thermal Margin/Low Pressure Refueling
2-1400158	1	Reactor Protection System Local Power Density Refueling Channel Calibration
2-1400159	0	Power Ratio Calculator, Refueling Calibration
2-1400160	2	Channel Calibration - Delta T Power - Quarterly
2-1400162	0	RPS and Safeguard Response Time Test
2-1400162A	0	Reactor Protection System - RTD Time Response Test Data Collection
2-1400163	0	Reactor Protection System - Power Ratio Periodic Test
2-1400164	2	RPS-Refueling Calibration - Trip Bypass Logic Operability
2-1400166	1	Engineered Safeguards Actuation System - ATI Alignment Check
2-1400170	0	PORV and Safety Valve Position Indicator Channel Calibration
2-1400171	0	Reactor Cavity and Containment Level System Calibration
2-1400172	2	Safety Injection Tank Level and Pressure Monthly Functional Test
2-2000054	0	Periodic Calibration of Hydrogen Recombiner Temperature Instrumentation
2-3400023	0	Polar Crane Weight Indication Calibration

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ST. LUCIE UNIT 2
MAINTENANCE PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
2-0110060	15	Periodic Maintenance of Control Element Assembly (CEA) Drive Equipment and Switchgear
2-0910053	0	12 Month Test of Automatic Load Sequence Relays
2-0960060	3	125V DC System Periodic Maintenance and Tests
2-0960061	0	BOP 125 V DC System Periodic Test and Maintenance
2-0960062	2	Safety Battery 2A Emergency Load Profile Test
2-0960063	0	Safety Battery 2B Emergency Load Profile Test
2-0960064	0	Replacement of Type "PTK" Selector Switches, Manufactured by Micro-Switch
2-0970060	3	Periodic Maintenance of Instrument AC
2-2200062	0	2A Emergency Diesel Electrical Inspection
2-2200063	0	2B Emergency Diesel Electrical Inspection
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ST. LUCIE UNIT 2
OFF-NORMAL/EMERGENCY OPERATING PROCEDURES INDEX

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PROCEDURE #	REV.	TITLE
2-0030130	4	Reactor Trip/Turbine Trip
2-0030131	2	Plant Annunciator Summary - Unit 2
2-0030132	4	Anticipated Transient Without Scram (ATWS)
2-0030133	0	Local Annunciator Summary
2-0030140	5	Blackout Operation
2-0030141	7	Control Room Inaccessibility
2-0030143	3	Total Loss of AC Power
2-0110030	3	CEA Off-Normal Operation and Realignment
2-0120031	0	Excessive Reactor Coolant System Leakage
2-0120032	0	Excessive Reactor Coolant System Activity
2-0120034	0	Reactor Coolant Pump Off-Normal Operation
2-0120035	4	Pressurizer Pressure and Level - Off-Normal Operation
2-0120036	2	Pressurizer Relief/Safety Valve - Off-Normal Operation
2-0120037	3	Reactor Coolant Gas Vent System Off-Normal Operation
2-0120038	0	Out of Limit Steam Generator Chemistry Parameters
2-0120040	3	Natural Circulation/Cooldown
2-0120041	3	Steam Generator Tube Rupture (SGTR)
2-0120042	7	Loss of Coolant Accident (LOCA)

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OFF-NORMAL/EMERGENCY OPERATING PROCEDURES INDEX

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PROCEDURE #	REV.	TITLE
2-0120043	2	Inadequate Core Cooling (ICC)
2-0210030	1	Charging and Letdown - Off-Normal Operation
2-0250030	2	Emergency Boration
2-0250031	2	Boron Concentration Control Off-Normal
2-0310030	2	Component Cooling Water Off-Normal Operation
2-0310031	2	CCW Excessive Activity
2-0330030	0	Turbine Cooling Water System Off-Normal Operation
2-0350030	0	Fuel Pool Cooling System - Off-Normal Operation
2-0360030	1	Operational Requirements for Emergency Cooling Water Canal
2-0410030	2	HPSI - Off-Normal Operation
2-0440030	1	SDC/LPSI - Off-Normal Operation
2-0510030	0	Uncontrolled Release of Radioactive Liquids
2-0530030	1	Waste Gas System - Off-Normal Operation
2-0530031	0	Uncontrolled Release of Radioactive Gas
2-0610030	1	Secondary Chemistry - Off-Normal
2-0610031	0	Loss of Condenser Vacuum
2-0620030	0	Circulating Water System - High Delta T and High Discharge Temperature

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PROCEDURE #	REV.	TITLE
2-0640030	1	ICW System - Off-Normal Operation
2-0700040	5	Loss of Feedwater or S/G Level
2-0810040	2	Main Steam Line Break
2-0910030	0	Startup Transformer Off-Normal Operation
2-0910031	0	Main Transformer Off-Normal Operation
2-0910032	0	Auxiliary Transformer Off-Normal Operation
2-0950030	1	Boric Acid Heat Tracing System Off-Normal Operation
2-0960030	2	DC Ground Isolation
2-0970030	0	120V Instrument AC System (Class 1E) Off-Normal Operation
2-0970031	0	Loss of SUPS-Non-Safety Vital AC or Fire and Security Inverters
2-1010030	1	Loss of Instrument Air
2-1110030	0	Off-Normal Operation of the Letdown Monitor
2-1110031	0	Off-Normal Operation of the Condenser Air Ejector Monitor
2-1110032	0	Off-Normal Operation of the Liquid Waste Process Monitor
2-1110033	0	Off-Normal Operation of the Gaseous Waste Monitor
2-1110034	0	Off-Normal Operation of the Plant Vent Process Monitor
2-1110035	0	Off-Normal Operation of the Containment Process Monitor

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OFF-NORMAL/EMERGENCY OPERATING PROCEDURES INDEX

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PROCEDURE #	REV.	TITLE
2-1110036	0	Off-Normal Operation of the Component Cooling Water Process Monitors A & B
2-1110037	0	Off-Normal Operation of the Steam Generator Blowdown Process
2-1110038	0	Off-Normal Operation of the Fuel Building Effluent Monitor (FBEM)
2-1120030	0	Off-Normal Operation of the Area Radiation Monitoring System
2-1300030	1	Loss of Containment Integrity - Off-Normal Operation
2-1300031	0	Air Locks Off-Normal Operation
2-1560030	1	Primary Water System Off-Normal
2-1600030	1	Accidents Involving New or Spent Fuel
2-1900030	2	Auxiliary Building and Control Room Ventilation Off-Normal Operation
2-2000030	0	Loss of Reactor Cavity Cooling Fans or Reactor Support Cooling Fans
2-2100030	0	Oil Spill Emergencies

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OPERATIONAL PROCEDURES INDEX

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PROCEDURE #	REV.	TITLE
2-0030120	8	Prestart Check-off List
2-0030121	8	Reactor Plant Heat-Up-Cold to Hot Standby
2-0030122	3	Reactor Startup
2-0030123	2	Reactor Operator Guidelines During Steady State and Scheduled Load Changes
2-0030124	5	Turbine Startup Zero to Full Load
2-0030125	1	Turbine Shutdown Full Load to Zero Load
2-0030126	1	Estimated Critical Conditions and Inverse Count Rate Ratio
2-0030127	6	Reactor Plant Cooldown - Hot Standby to Cold Shutdown
2-0030128	1	Reactor Shutdown
2-0030150	2	Secondary Plant Operating Checks and Tests
2-0030151	3	Remote Shutdown Monitoring Instrumentation Periodic Channel Check and Selector Switch Position Verification
2-0030222	1	EOL Post-Trip Recovery
2-0110020	5	CEDM MG Set Operation
2-0110022	1	Coupling and Uncoupling of CEA Extension Shafts
2-0110050	4	Control Element Assembly Periodic Exercise
2-0110054	0	Periodic Rod Drop Time Test and CEA Position Functional Test
2-0110055	2	Surveillance Requirements for Shutdown Margin Modes 1 and 2 (Critical)

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PROCEDURE #	REV.	TITLE
2-0110055A	2	Shutdown Margin Suspension During Zero Power Physics Testing
2-0110056	3	Surveillance Requirements for Shutdown Margin Modes 2, 3, 4, 5 Sub-Critical
2-0110057	3/4	Periodic Surveillance of DNB Margin
2-0110059	1	Suspension of Group Height, Insertion and Power Dist. Limit Requirements
2-0120020	6	Filling & Venting the RCS
2-0120021	4	Draining the Reactor Coolant System
2-0120022	1	Leak Test Following RCS Opening
2-0120023	3	Reactor Coolaing Pump Normal Operation
2-0120024	2	Pressurizer Steam Space Venting
2-0120025	2	Quench Tank Operation
2-0120027	1	Steam Generator Wet Lay-Up
2-0120028	0	Demonstration of Xenon Dampening
2-0120051	1	RCS Flow Determination by Calorimetric
2-0120461	0	Steam Generator Secondary Cold Hydro, $\leq$805 psig
2-0210020	6	Charging and Letdown - Normal Operation
2-0210021	0	VCT-Hydrogen & Nitrogen Concentration Control
2-0220020	2	Hydrogen System Normal Operation

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PROCEDURE #	REV.	TITLE
2-0230020	2	Nitrogen System Normal Operation
2-0250020	5	Boron Concentration Control - Normal Operation
2-0250021	2	Boric Acid Batching and Transferring
2-0310020	6	Component Cooling Water - Normal Operation
2-0330020	2	Turbine Cooling Water System Normal Operation
2-0350020	0	Fuel Pool Cooling and Purification System - Normal Operation
2-0400053	12	Engineered Safeguards Relay Test
2-0410020	5	HPSI/LPSI Normal Operation
2-0410021	3	Safety Injection Tank, Normal Operation
2-0410050	4	HPSI/LPSI Periodic Test
2-0410052	1	Check Valve Back Leakage
2-0420020	3	Containment Spray Initial Valve Alignment
2-0420050	6	Containment Spray and Iodine Removal System - Periodic Test, Pump and Valve Operability
2-0510020	1	Oxygenated Waste System
2-0510021	0	Waste Concentrator Operation
2-0510022	1	Controlled Liquid Release to the Circulating Water Discharge
2-0520020	1	Radioactive Resin Replacement

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OPERATIONAL PROCEDURES INDEX

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PROCEDURE #	REV.	TITLE
2-0520021	0	Solid Waste Baler Operation
2-0520022	0	Drumming Station Operation for Drumming of Concentrator Bottoms
2-0530020	3	Waste Gas System Operation
2-0530021	2	Controlled Gaseous Batch Release to Atmosphere
2-0540020	4	Boron Recovery System Lineup
2-0540021	1	Boric Acid Concentrator Operation
2-0610020	0	Operation of the Cathodic Protection System
2-0610029	1	Condenser Air Removal System Operations
2-0620020	4	Circulating Water System Normal Operation
2-0640020	3	ICW System Operation
2-0700020	1	Condensate Feedwater System - Normal Operation
2-0700021	2	Heater Drain and Vent System Alignment
2-0700022	6	Auxiliary Feedwater - Normal Operation
2-0700023	0	Feedwater Heaters - Placing In or Removing From Service
2-0700024	1	Condensate Recovery System Operation
2-0700025	1	Feedwater Recirculation Line Filter Operation
2-0700050	4	Auxiliary Feedwater Periodic Test

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PROCEDURE #	REV.	TITLE
2-0810020	2	Main Steam System Initial Valve Alignment
2-0810021	0	Steam System Cross Connect Operation - St. Lucie Unit 1 Supplying St. Lucie Unit 2
2-0810050	2	Main Steam Feedwater Isolation Valves Periodic Test
2-0810051	1	Steam Dump and Bypass System Functional Test
2-0820020	3	Auxiliary Steam System - Placing in Service
2-0830020	0	Blowdown System Operation
2-0910021	0	Backfeed 2A and 2B Main Auxiliary Transformers from Midway Line #3
2-0910051	0	Main Transformer Periodic Test
2-0910052	1	Auxiliary Transformer Periodic Test
2-0950020	0	Boric Acid Heat Tracing System Operation
2-0960020	3	125V DC Class 1E Power System Normal Operation
2-0960022	1	BOP 125V DC Ssytem Normal Operation
2-0970020	3	Operation of the 120V Instrument AC System (Class 1E)
2-0970021	1	120 Volts Vital AC System Operation
2-0970022	0	Operation of the OSPDS Inverter
2-0970023	0	Operation of the Security and Fire Protection Inverter
2-1010020	3	Instrument Air System Operation

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PROCEDURE #	REV.	TITLE
2-1010022	2	Instrument Air System - Initial Valve Alignment
2-1020020	1	Station Air System Operation
2-1110020	0	Process Monitoring System Operation
2-1110021	0	General Atomic Wide Range Gas (WRGM) Process Monitor Operation
2-1120020	0	Remote Operation of the General Atomic Radiation Monitoring System
2-1120050	2	Functional Testing of the Unit 2 Area Radiation Monitoring System
2-1120060	1	Calibration of the PSL-2 Area Radiation Monitoring System
2-1200051	1	Nuclear and Delta T Power Calibration
2-1210020	0	Startup Nuc. Inst. Channels Functional Test
2-1210030	1	Wide Range Nuclear Instrumentation Channel Malfunction
2-1210051	0	Wide Range Nuclear Instrumentation Channels Functional Test
2-1300020	1	Containment Building Access Hatches - Operation
2-1300051	0	Local Leak Rate Testing
2-1300054	1	RAB Fluid Systems Periodic Leak Test
2-1300055	0	Purge Valve Leak Rate Test
2-1400020	0	Sequence of Events Recorder Operation
2-1400057	4	Reactor Regulating System Functional Test

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PROCEDURE #	REV.	TITLE
2-1400059	4	Reactor Protection System - Periodic Logic Matrix Test
2-1560020	2	Primary Water System
2-1600023	2	Refueling Sequencing Guidelines
2-1600024	1	Filling and Draining the Refueling Canal and Cavity
2-1600025	0	Fuel Handling Building Ventilation System - Periodic Test
2-1610020	4	Receipt and Handling of New Fuel
2-1630021	1	New Fuel Elevator Operation
2-1630022	1	Spent Fuel Handling Machine Operation
2-1630023	0	Fuel Transfer System Operation
2-1630024	1	Refueling Machine Operation
2-1630025	0	CEA Change Fixture Operation
2-1630027	0	Dry Sipping of Irradiated Fuel Assemblies
2-1630028	3	New Fuel Handling Crane Operation
2-1710020	2	Primary Sample System Valve Alignment
2-1720020	3	Gas Analyzer Operation
2-1730020		See Chemistry
2-1800057	1	Surveillance of Fire Protection Sprinkler System for RAB and Diesel Generator Building

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PROCEDURE #	REV.	TITLE
2-1900020	1	Reactor Auxiliary and Control Room Ventilation System Operation
2-1900050	2	Control Room Pressure Periodic Test
2-2000020	1	Containment Cooling System Operation
2-2000023	2	Continuous Containment/Hydrogen Purge System Operation
2-2000024	1	Shield Building Ventilation Operation
2-2000053	1	Hydrogen Recombiner
2-2100020	2	Turbine Seal Oil System Operation
2-2100021	1	Generator Gas System Operation
2-2100022	3	Turbine Lube Oil System Operation
2-2100023	0	Generator Air Leakage Rate Drop Test
2-2200020	4	Emergency Diesel Generator Standby Lineup
2-2200050	3	Emergency Diesel Periodic Test
2-3200020	2	Primary System Manual Colorimetric
2-3200050	0	Calculation and Adjustment of Fixed Incore Detection Alarm Setpoints
2-3200051	1	At Power Determination of Moderator Temperature Coefficient and Power Coefficient
2-3200053	1	Surveillance Requirements for Azimuthal Power Tilt (Tq)
2-3200054	2	Surveillance Requirement for Total Integrated Radial Peaking Factor (F_r^T)

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PROCEDURE #	REV.	TITLE
2-3200058	1	Surveillance Requirements for Total Planar Radial Peaking Factor (F_{xy}^{T})
2-3200059	1	Forced Xenon Oscillation Test

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PROCEDURE #	REV.	TITLE
2-0010080	1	Calibration and Functional Testing of Installed Instrumentation and Control Equipment
2-0010180	1	Power Ascention Sequencing Document
2-0010181	0	Pre-Core Hot Functional Sequencing Document
2-0010184	0	Reactor Coolant System Component Expansion Measurement
2-0010185	0	Piping Thermal Expansion and Restraints
2-0010187	0	Reactor Cavity Sump Leak Detector Test
2-0010188	0	Sump Pump Preoperational Test
2-0010189	0	Reactor Coolant System Component Expansion Measurement - Post Core
2-0010190	0	Post Core Hot Functional Sequencing Document
2-0010191	1	Reactor Coolant System Heat Loss Measurement
2-0010192	1	Reactor Coolant System (RCS) Coastdown and Flow Measurement
2-0010193	0	Generator Ventilation System Verification
2-0010194	0	Piping Thermal Expansion and Restraint Post Core
2-0010196	1	Piping Vibration Monitoring
2-0010197	0	Pump and Valve Baseline Data
2-0010198	0	Baseline Leak Check of System Outside Containment Processing Primary Coolant
2-0010199	0	Operability Qualification of Valves

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PREOPERATIONAL TEST PROCEDURES INDEX

PROCEDURE #	REV.	TITLE
2-0030180	0	Annunciator-Preoperational Functional Test
2-0030190	0	Remote Cold Shutdown Demonstration
2-0030221	1	Unit 2 Initial Criticality
2-0110052	1	Unit 2 Zero Power Physics Test
2-0110081	0	CEDM Rod Drop Test
2-0110082	0	CEA Position Indication & Alarm System Preoperational Functional Test
2-0110084	0	CEDM MG Set Functional Test
2-0110090	0	10% Load Reduction - Turbine Runback
2-0110092	1	CEDM Coil Temperature Measurement
2-0110093	1	CEDM Coil and Cable Resistance Measurements
2-0110095	0	CEDM Pre-Core Functional Test
2-0120035	0	Reactor Coolant Pump Motors - Initial Run
2-0120080	1	Hydrostatic Pressure Test of the Reactor Coolant System & High Pressure Portions of Associated Systems
2-0120082	0	RCS Cooldown From 300°F
2-0120083	0	RCS Flow Measurement
2-0120084A	0	Natural Circulation Training (Pre-Critical)
2-0120086	0	Reactor Coolant Gas Vent System Preop Test

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PROCEDURE #	REV.	TITLE
2-0120087	1	Quench Tank Preoperational Test
2-0120088	0	Pressurizer Relief Isolation Valves V-1476 and V-1477 Functional Test
2-0120089	0	Pressurizer Safety Valve st, System Valve Numbers C1200, V1201, V1202
2-0120090	2	Feedwater, Steam Generator Secondary & Mainsteam Cold Hydro
2-0120091	0	Main Steam Safety Valve Test, System Valve Numbers 21-SR 201 through 21-SR 8216
2-0120093	2	Reactor Coolant System Leakage Monitoring Test
2-0120094	0	Reactor Coolant Pump Initial Run
2-0120095	0	Narrow Range Instrumentation Calibration Check
2-0120096	0	Pressurizer Control Functional Test
2-0120097	0	Pressurizer Spray and Control - Post Core
2-0120098	1	Low Temperature Over-Pressure Protection (LTOP) Functional Test
2-0210080	1	Charging System Preoperational Test
2-0210081	1	CVCS Functional Test
2-0210082	1	Boronometer Preoperational & Functional Test
2-0220080	0	Gas Systems Supply Test Includes N_2 & H_2
2-0250081	0	Boric Acid Make-Up System Functional Test
2-0250082	0	Boric Acid Make-Up Pump, Initial Pump Run

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PROCEDURE #	REV.	TITLE
2-0250083	0	Boron and Boron Dilution Test
2-0250084	0	Verification and Monitoring of Boron Concentration Prior to and During Initial Core Loading
2-0310080	0	Component Cooling Water Functional Test & Flow Balance
2-0310081	0	Component Cooling Water Pumps Initial Run
2-0330080	1	Turbine Cooling Water System Functional Test
2-0350080	0	Fuel Pool Cooling & Purification System Functional Test
2-0400080	0	Integrated Test of Engineered Safety Features
2-0410080	0	High Pressure Safety Injection Pump Full Verification and Flow Distribution Test
2-0410082	1	Safety Injection Tank Dump Test
2-0410083	1	Safety Injection Check Valve Hot Flow Verification
2-0410084	1	High Pressure Safety Injection System-Initial Pump Run
2-0420080	0	Containment Spray Full Flow Test
2-0420081	0	Containment Spray Initial Pump Run
2-0420082	1	Iodine Removal System Preoperational and Functional Test
2-0420083	0	LPSI Pump Isolation Valves V3432 and V3444 Functional Test
2-0430080	1	Refueling Water System Preoperational and Functional Test
2-0440080	1	Low Pressure Safety Injection Pump Initial Run

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PROCEDURE #	REV.	TITLE
2-0440081	1	Low Pressure Safety Injection Test Through the Shut-Down Cooling Heat Exchange
2-0440082	0	Retest of Safeguards Pump Miniflow Recirc Solenoid Valves
2-0510080	0	Liquid Waste System Preoperational Test
2-0510081	0	Waste Concentrator 2A Functional Test
2-0510082	2	Laundry Drain Pumps 2A & 2B Initial Run
2-0510083	1	Equipment and Chemical Drain System Functional
2-0510084	0	Waste Condensate Pumps 2A & 2B Initial Run
2-0520080	0	Waste Compactor Functional Test
2-0520081	0	Spent Resin Functional Test
2-0530080	2	Waste Management System Functional Test - Gaseous Waste System
2-0540080	1	Boron Recovry System Function Test
2-0540081	0	Boric Acid Concentrators 2A, 2B System Functional Test
2-0610081	0	Water Box Air Removal and Condenser Air Evacuation and Leak Test
2-0610082	0	Condenser Pit & Yard Sump Pump Functional Test
2-0610083	1	Condenser Water Box Cathodic Protection Initial Operation Test
2-0610084	1	Intake Structure Cathodic Protection Initial Operation Test
2-0620080	0	Circulation Water System Preoperational Test

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PROCEDURE #	REV.	TITLE
2-0620081	0	Intake Structure Apparatus
2-0630080	0	Hypochlorite System Functional Test
2-0630085	1	St. Lucie Circulating Water Canal Test
2-0640080	2	Intake Cooling Water Preoperational Test
2-0700080	0	Feedwater System Test
2-0700081	1	Auxiliary Feedwater Functional Test
2-0700082	1	Heater Drain Pump Initial Run
2-0700083	1	Condensate Transfer System Preoperational and Functional Test
2-0700084	1	Condensate Recovery System Preoperational Test
2-0700085	0	Secondary Chemical Feed System Functional Test
2-0700086	0	Feedwater Regulating System
2-0700087	0	Heater Drain System Functional Test
2-0700088	1	Condensate Pump Initial Run
2-0700091	0	Auxiliary Feedwater Pumps 2A & 2B Initial Run
2-0700092	2	Condensate System Functional Test
2-0700093	0	2C Auxiliary Feedwater Pump Turbine Driver Oil System Flush
2-0700094	0	Auxiliary Feedwater Pump 2C Initial Run

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PROCEDURE #	REV.	TITLE
2-0700095	0	Auxiliary Feedwater System Endurance Test
2-0700096	0	Auxiliary Feedwater Actuation System (AFAS) Cabinet Test
2-0700097	0	Auxiliary Feedwater Pump 2C and Atmospheric Steam Dump Manual Operation Functional Test
2-0700098	0	AFAS Initial Response Time Test
2-0760080	1	Digital Data Processor Preoperational Functional Test
2-0810081	0	Steam Bypass Control System (SBCS) Cabinet Preop Functional Test
2-0810082	0	Main Steam Isolation Valve Test
2-0810083	0	Atmospheric Steam Dump and Turbine Bypass System Hot Functional Test
2-0810084	0	Chemical Cleaning Procedure for the Secondary Cycle
2-0830080	0	Steam Generator Blowdown Functional Test
2-0830086	0	Steam Generator Blowdown Cooling System Functional Test
2-0910082	0	Initial Operation of the 4.16 KV Switchgear
2-0910083	4	480V AC Load Center & Motor Control Center Initial Operation
2-0910084	0	Initial Operation of the 6.9 KV Switchgear
2-0910085	1	Main Generator Excitation System Initial Operation
2-0910086	1	Start-Up Transformer 2A & 2A4 and 2B4 Preoperational Testing
2-0910087	0	Start-Up Transformer 2B - Preoperational Test

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PROCEDURE #	REV.	TITLE
2-0910088	0	480V AC Pressurizer Load Centers and 480V AC Pressurizer Power Panels
2-0910089	0	*2A and 2B Main Auxiliary Transformers Backfeed From Line #3
2-0950080	0	Boric Acid Heat Tracing Functional Test (Chem. Volume Control System)
2-0950081	1	Station Grounding System
2-0950082	1	120/208 V AC Class 1E Electrical Sys. Functional Test
2-0950083	2	120/208 V AC Non-Class Electrical System Functional Test
2-0950084	0	120/208 V AC Normal Emergency Lighting System Functional Test & Lighting Survey
2-0950085	0	Boric Acid Heat Tracing Functional Test (Waste Management)
2-0950086	0	120/208 V AC Lighting System Functional Test & Lighting Survey
2-0960080	3	Initial Operation of the Class 1E 125 VDC Power System
2-0960081	2	Battery Test Discharge
2-0960082	0	BOP Battery Test Discharge
2-0960083	1	Safety Battery Emergency Load Profile Test
2-0960084	0	125V DC Bus 2 C Initial Operation
2-0960085	1	125V DC Emergency Lighting Functional Test and Light Survey
2-0960086	0	2AA, 2BB, 2B and 2AB Battery Charge Load Test
2-0970080	1	Instrument AC System Initial Operation

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PROCEDURE #	REV.	TITLE
2-0970081	0	Vital AC System Initial Operation
* 2-0970082	0	AC Security System
2-0970083	0	480 VAC Security Lighting System Functional Test and Lighting Survey
2-0980080	0	Communications System Functional Test
2-0980081	1	Communications (On and Offsite) Preoperational and Functional Test
2-1010080	1	Instrument Air System Preoperational and Functional Test
2-1010081	0	Loss of Instrument Air to Safety Related Valves
2-1010083	0	Air Compressor Alternate Cooling System
2-1020080	0	Station Air System Preoperational Test
2-1110080	0	Gas and Liquid Radiation Monitors Preoperational and Functional Test
2-1110082	0	Wide Range Gas Monitor (WRGM) Preoperational Functional Test
2-1110083	0	Integrated Radiation Monitoring System Preoperational Test
2-1110092	0	Particulate/Iodine/Gas (P.I.G.) Preoperation Functional Test
2-1120080	0	Area Radiation Monitors Preoperational and Functional Test
2-1130080	1	Loose Parts Monitoring System Functional Test
2-1130082	0	Loose Parts Monitoring System Baseline Data and Trigger Calibration

* Need to stamp SAFEGUARDS. Also send out in double envelope.

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PROCEDURE #	REV.	TITLE
2-1200081	1	Incore Instrumentation Measurements
2-1210080	0	Startup/Control Channel Instrumentation
2-1210082	0	Neutron Response of Temporary Fuel Loading Channels and Plant Startup Nuclear Channels
2-1220080	1	Safety Channel Nuclear Instrumentation
2-1240080	1	Incore Instrumentation Preoperational Test
2-1240083	0	Moveable Incore Detector Drive Preoperational Test
2-1240084	0	Digital Data Processor Controlled Moveable Incore Detector Drive System Functional Test
2-1240086	0	Qualified Safety Parameter Display System Functional Test
2-1300080	0	Integrated Leak Rate Test (ILRT)
2-1300082	0	Local Leak Rate Test
2-1300084	0	Shield Building Leak Rate Test
2-1400080	1	Reactor Protection System Preop Test
2-1400082	1	Reactor Regulating System Preoperational and Functional Test
2-1400084	1	Automatic Control Systems Checkout Steam Generator Level Control CEA Regulating System, Automatic Turbine Control and Load Swing (ESEC) Test
2-1400085	0	Digital Electro-Hydraulic Controller (DEHC) Checkout
2-1400086	0	Sequence of Events Recorder (SER) Preoperational Function Test

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PROCEDURE #	REV.	TITLE
2-1400088	2	Engineered Safeguards Panel Test
2-1400090	1	Digital Data Processor Inst. Correlation Test
2-1400093	0	Reactor Trip With Shutdown Outside The Control Room
2-1400162	0	Reactor Protection and Engineered Safeguards Systems Response Time Testing
2-1400162A	0	Reactor Protection System - RTD Time Response Test
2-1530080	1	Preoperational Test of the Domestic Water System
2-1560080	1	Preoperational Test of the Primary Water System
2-1560081	0	Initial Run of Primary Water Pumps
2-1560082	2	Demineralized Water System Preoperational Test
2-1560083	0	Primary Water System Vacuum Deaerator Preoperational Test
2-1600021	2	Unit 2 Initial Core Loading
2-1600080	0	Fuel Handling Building Vent System
2-1630080	1	Refueling Machine Indexing
2-1630081	1	Refueling Machine Preop Test
2-1630082	0	CEA Change Fixture Preoperational Test
2-1630083	0	Preop Test of the Spent Fuel Handling Machine
2-1630085	0	Preoperational Test of the Spent Fuel Handling Machine

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PROCEDURE #	REV.	TITLE
2-1630086	0	New Fuel Elevator
2-1630087	0	Test of the New Fuel Handling Crane and Storage Racks
2-1710080	3	Primary Sample Initial Operation
2-1720080	1	Gas Analyzer Sampling System Functional Test
2-1730080	0	Secondary Sampling System Preoperational Test
2-1740080	1	Post Accident Sampling System (PASS) Functional Test
2-1800080	1	Fire Water System Test
2-1800080A	0	Fire Water System Test of Dry Storage Warehouse
2-1800081	1	Fire Detection System Preoperational and Functional Test
2-1900080	0	Auxiliary Building Ventilation System Functional Test
2-1900081	1	Control Room Ventilation System Initial Start-up and Functional Test
2-1900082	0	RAB Miscellaneous Ventilation Systems
2-1900083	0	Control Room Leak Rate Test
2-1900084	0	HVAC Systems Temperature Capability Survey At 50% Power, 100% Power & Shutdown Cooling
2-2000080	0	Containment Purge & Vacuum Relief Systems Preop Test HVAC System Temp. Capability Survey at 50% Power; 100% Power & Shutdown Cooling
2-2000081	0	Containment Ventilation System Functional Test
2-2000082	0	Shield Building Ventilation System (SBVS) Functional Test

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PROCEDURE #	REV.	TITLE
2-2000083	0	Hydrogen Recombiner Functional Test
2-2000084	0	Continuous Containment/Hydrogen Purge System Functional Test
2-2000085	1	Initial Fan Operation and HVAC Balancing
2-2000086	0	Reactor Vessel Ventilation System Functional Test
2-2000088	0	Containment Hydrogen Sampling System Functional Test
2-2000089	0	In-Place Testing of HEPA Filters, Charcoal Adsorbers, Frames and Racks
2-2000090	0	Auxiliary Building Leak Test
2-2100080	0	Turbine Control Initial Test
2-2100081	1	St. Lucie Unit 2 Generator Gas Tightness Test
2-2100082	2	NSSS and Turbine Generator Acceptance Run
2-2100083	0	Preoperational Test of the Turbine Lube Oil Purification System
2-2100084	1	Turbine Gland Steam Sealing System
2-2100085	0	Turbine Lube Oil Flush
2-2100086	1	Initial Turbine Roll
2-2100087	1	Turbine Overspeed Trip Test
2-2100088	0	Electro-Hydraulic (Control Oil System)
2-2100089	0	Generator Trip at 100% Power

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PROCEDURE #	REV.	TITLE
2-2100091	0	Loss of Off-Site Power
2-2200080	0	2A Diesel Gen. and Auxiliary Systems Preoperational Test
2-2200081	0	Automatic Starting and Sequencing of 2A Diesel Generator for Cold Hydro
2-2200082	1	Initial Operation of the 2A Diesel Generator Air Start System
2-2200083	0	2B Diesel Generator and Auxiliary System Preoperational Test
2-2200084	0	Automatic Starting and Sequencing of 2B
2-2200085	1	Initial Operation of the 2B Diesel Generator Air Start System
2-2200086	1	Diesel Oil Transfer System Functional Test
2-2200087	0	No. 1A Diesel Generator Supply Power for the Safety Related Loads on No. 2 Units 4.16KV Bus 2A-3 - No. 2A Diesel Generator Supply Power for the Safety Related Loads on No. 1 Units 4.16KV Bus 1A-3
2-2200088	1	No. 1 Diesel Generator Supplying Power for the Safety Related Loads on No. 2 Units 4.16KV Bus 2B-3 - No. 2B Diesel Generator Supply Power for the Safety Related Loads on No. 1 Units 4.16KV Bus 1B3
2-3200089	0	RCS Delta T Power Determination
2-3300081	1	Radiation Shielding Evaluation
2-3400081	0	Chemical and Radio Chemical Analysis 200°F, 532°F, Startup Mode, 20, 50, 80 & 100% Power
2-3400083	0	Hot Functional Chemistry Control
2-3400085	0	Preoperational Test of the Polar Crane

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PROCEDURE #	REV.	TITLE
* 2-3400086A	1	Security System Microwave Preoperational and Functional Test
* 2-3400086b	0	Security System Preoperational and Functional Test
* 2-3400086C	0	Security System Fixed CCTV Preoperational and Functional Test
* 2-3400086F	0	Security System Alarmed Doors Preoperational and Functional Test
* 2-3400086G	0	Security System Supervised Device Input Preoperational and Functional Test
* 2-3400086H	0	Security System Integrated Perimeter Preoperational Test
2-3400088	0	Preoperational Test of Miscellaneous Lifting Equipment

* Need to stamp SAFEGUARDS. Also send out in double envelope.