ATTACHMENT #1

EMERGENCY PROCEDURE
1-0030142, REV. (DRAFT)
AS

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE UNIT 1
EMERGENCY OPERATING PROCEDURE 1-0030142
REVISION (DRAFT)

ALTERNATE SHUTDOWN
AS

TOTAL NO. OF PAGES 9

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE UNIT 1
EMERGENCY OPERATING PROCEDURE 1-0030142, REVISION (DRAFT)
ALTERNATE SHUTDOWN

1.0 SCOPE:

This procedure provides instructions for placing the plant in a safe condition when operations cannot safely be conducted from the Control Room due to a fire in the Control Room and/or Cable Spreading Room.

2.0 SYMPTOMS:

Conditions exist such that operations cannot be safely conducted from the Control Room due to a fire.

3.0 AUTOMATIC ACTIONS:

None

4.0 IMMEDIATE OPERATOR ACTION:

	ACTION		NOTES
4.1	Manually trip the Reactor, Turbine, and Reactor Coolant Pumps prior to leaving the Control Room, if possible.	4.1	Push buttons and control switches on RTGB-101, 103 and 104.
4.2	Announce evacuation of the Control Room over the P.A. system.		
4.3	Implement the Emergency Plan, as necessary, in accordance with EPIP 3100021E, "Duties and Responsibilities of the Emergency Coordinator".		
4.4	Evacuate all personnel from the Control Room.		

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5.0 SUBSEQUENT ACTIONS:

CHECK

5.1 Man and take control of stations as follows:

1. Reactor Control Operator "A" - Hot Shutdown Panel.

A. Establish communications on the Sound Power Phone System. ____

B. Monitor available plant parameters on the Hot Shutdown Panel. ____

> NOTE
>
> If the fire is in the Cable Spreading Room, control of the reactor and other plant components must be done utilizing only "B" train components.

C. Start motor or steam-driven AFW Pumps and feed the S/Gs as required. ____

> CAUTION
>
> Slowly open AFW valves to S/Gs to prevent decreasing Pressurizer level due to excessive cooldown.

D. Control Pressurizer pressure and level by manual control of Pressurizer heaters, auxiliary spray valves, and letdown valves. ____

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5.0 SUBSEQUENT ACTIONS: (continued)

5.1 (continued) CHECK

2. Assistant Nuclear Plant Supervisor - Electrical Equipment Room, Reactor Auxiliary Building - 43" Elevation.

A. Open or check open Reactor Trip Breakers TCB-1 through 8, if possible. ____

B. Place isolation switches in the ISOLATE position on the following switchgear in the order listed:

> NOTE
>
> Isolation switch lists are posted on respective switchgear cabinets throughout plant.

480V Bus 1A3 Pressurizer heaters # ____
480V Bus 1B3 Pressurizer heaters # ____
480V L.C. 1A2 ____
4160V Bus 1A3 ____
480V MCC 1A5 ____
480V MCC 1A6 ____
480V L.C. 1B2 ____
4160V Bus 1B3 ____
480V MCC 1B6 ____
480V MCC 1B5 ____
480V MCC 1AB ____
Isolation Panel 1AB ____
Isolation Panel 1A ____
Isolation Panel 1B ____
Evacuation Alarm Isolate Panel ____

C. Assist Reactor Control Operator "A" in monitoring unit parameters from the Hot Shutdown Panel. ____

Only if accessible (due to location of fire).

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5.0 SUBSEQUENT ACTIONS: (continued)

5.1 (continued)

CHECK

3. Reactor Control Operator "B" - Turbine Operating Level.

A. Locally trip or verify the Turbine has tripped. ____

B. Verify Turbine Stop Valves and Control Valves are shut. If not, initiate Turbine Trip from Turbine front standard. ____

C. Proceed to Turbine Building Switchgear Room and establish communications on the Sound Powered Phone circuit. ____

D. Place isolation switches in the ISOLATE position for bus feeder breakers as follows:

> NOTE
>
> Isolation switch lists are posted on respective switchgear cabinets.

4160V Swgr. 1A2 ____
4160V Swgr. 1B2 ____
6900V Swgr. 1A1 ____
6900V Swgr. 1B1 ____

E. Stop 1A and 1B Main Feedwater Pumps, 1A and 1B Heater Drain Pumps and one Condensate Pump by opening their respective breakers. ____

> CAUTION
>
> Ensure that one Condensate Pump remains in service if off-site power available.

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5.0 SUBSEQUENT ACTIONS: (continued)

5.1 (continued) CHECK

4. Nuclear Operator - Reactor Auxiliary Building.

A. Place isolate switches in ISOLATE/LOCAL position on the following switchgear:

> NOTE
>
> Isolation switch lists are posted on respective switchgear cabinets.

4160V Swgr. 1AB ____

480V Load Center 1AB ____

B. Proceed to the Diesel Generator Building and place isolation switches on 1A and 1B Diesel Control Panels in ISOLATE position. ____

> NOTE
>
> Isolation switch lists are posted on respective switchgear cabinets.

C. Proceed to the Charging Pump area and establish communications on the Sound Powered Phone circuit. ____

5. Watch Engineer

A. Muster the Fire Team comprised of at least five (5) individuals from the following classifications: ____

Watch Engineer

Nuclear Turbine Operator (Unit 1)

Nuclear Turbine Operator (Unit 2)

Associate Nuclear Plant Operator (ANPO)

Radiation Protection Man (RPM)

B. Proceed to fight the fire in accordance with plant procedures and fire fighting strategies. ____

5.2 Maintain Pressurizer level at approximately 33% indicated level.

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5.0 SUBSEQUENT ACTIONS: (continued)

CHECK

5.3 Maintain Pressurizer pressure at approximately 2100 psia by use of auxiliary sprays. ____

> NOTE
>
> If Pressurizer auxiliary spray actuates with Pressurizer/spray line temperature $\Delta T > 200^{\circ}F$, record as per AP 0010134.

5.4 Verify natural circulation cooling of RCS by maintaining RCS temperature at or below 532°F (1A cold leg temperature) by use of Atmospheric Steam Dumps, if operable. ____

5.5 When conditions have stabilized after the plant trip, maintain or slowly increase S/G levels by operation of the AFW Pumps and discharge valves to the S/Gs. ____

> CAUTION
>
> If decreasing RCS temperature and/or Pressurizer level occurs, consider decreasing AFW flow to the S/Gs.

5.6 Isolate S/G blowdown by manually closing isolation valves at the Closed Blowdown Heat Exchangers. ____

5.7 When Turbine speed decreases to "0" RPM, verify that the Turning Gear Oil Pump and the turning gear are in operation. ____

5.8 When conditions permit, reoccupy the Control Room. Return isolation switches to NORMAL for switches and controls that are operational and maintain the Unit at Hot Standby until a complete evaluation has been made. ____

5.9 If control cannot be restored to the Control Room, make preparations to place the Unit in a Cold Shutdown condition by utilizing OP 1-0030127, "Reactor Plant Cooldown - Hot Standby to Cold Shutdown," as a guide and substituting local manual operations where required. ____

> NOTE
>
> Prior to depressurization below 1600 psia, a manual blocking of all equipment associated with SIAS must be accomplished to prevent SIAS actuation.

ST. LUCIE UNIT 1
EMERGENCY OPERATING PROCEDURE 1-0030142, REVISION (DRAFT)
ALTERNATE SHUTDOWN

6.0 PURPOSE AND DISCUSSION:

This procedure provides instructions for placing the plant in a safe condition when operations cannot safely be conducted from the Control Room due to a fire in the Control Room and/or Cable Spreading Room. The Reactor, Turbine, and Reactor Coolant Pumps are manually tripped prior to leaving the Control Room, if possible, or locally from the Reactor Trip Switchgear, Turbine front standard, and 6.9KV Switchgear. A heat sink is provided by automatic steam dump to the Condenser and/or to atmosphere. Level is maintained in the S/Gs by manual control of auxiliary feedwater valves with flow furnished by the AFW Pumps. Pressurizer level and pressure are maintained by manual control of Pressurizer heaters, auxiliary spray valves, and letdown valves, and are monitored at the Hot Shutdown Panel.

Isolation switches located in the Reactor Auxiliary Building Electrical Equipment Room, Turbine Building Switchgear Room, Diesel Generator Rooms, and Reactor Auxiliary Building are manually selected to the ISOLATE position to prevent inadvertant operation of vital equipment due to possible electrical malfunction in the unattended Control Room.

A copy of this procedure will be posted at each manned operating station required for plant shutdown from outside the Control Room. A listing of isolation switches will be posted on each of the following panels, MCCs, and distribution buses.

1. Load Centers 1A2, 1B2, 1A5, 1B5, 1AB, 1A6, 1B6
2. Isolation Panels 1A, 1B, 1AB
3. MCC 1A5, 1A6, 1B5, 1B6
4. 4160V Buses 1A3, 1B3, 1AB
5. 4160V Buses 1A2, 1B2
6. 6900V Buses 1A1, 1B1
7. Diesel Generator 1A and 1B Control Panels

The Nuclear Plant Supervisor will utilize additional personnel as available to assist in required subsequent actions.

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EMERGENCY OPERATING PROCEDURE 1-0030142, REVISION (DRAFT)
ALTERNATE SHUTDOWN

7.0 REFERENCES:

7.1 EOP 1-0030141, "Control Room Inaccessibility".

7.2 St. Lucie Unit 1 Technical Specifications.

7.3 10 CFR 50, Appendix R.

8.0 RECORDS:

8.1 A completed, initialed copy of this procedure shall be retained in the plant files.

9.0 REVIEW AND APPROVAL:

Reviewed by Facility Review Group September 27 19 83

Approved by _____ Plant Manager _____ 19 ___

Revision ____ Reviewed by FRG _____ 19 ___

Approved by _____ Plant Manager _____ 19 ___

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TABLE 1

ISOLATION SWITCHES AVAILABLE FOR ALTERNATE SHUTDOWN
ST LUCIE UNIT NO 1

PANEL OR POWER CENTER	PLANT LOCATION	FIRE ZONE	SWITCH DESIGNATION	COMPONENT
Isolation Panel 1A	A-Swgr Room	60	SS/189-1	Auxiliary Spray Valve
			SS/158	Letdown & Spray Valves Control
			SS-3/603	SG 1A Press & Level Indication
			SS-1/603	SG 1A Atm Steam Dump Control
			SS-1/380	SG 1A Level (Wide Range)
			SS/130	Pressurizer level & Press Ind
			SS-1/157	Letdown Isolation Valve
				V-1402, PORV
				I-SE-02-01, Charging Line Iso
Isolation Panel 1B	B-Swgr Room	56	SS/189-2	Auxiliary Spray Valve
			SS-2/157	Letdown Stop Valve
			SS-4/604	SG 1B Press & Level Indication
			SS-2/603	SG 1B Atm Steam Dump Control
			SS-2/380	SG 1B Level (Wide Range)
				Pressurizer Level & Press Ind
				V-1404, PORV
Isolation Panel 1AB	Cable Spread Room	57	SS/631	AFW Pump 1C Turbine Ind
			SS/632	AFW Pump 1C Stop Valve
Isolation Panel	Communications Room	73		Fire Alarm/Site Evac - Control
				Control Room PA
				Code Call
DG 1A Control Panel	DG Building 1A	6		Voltage Control
				Frequency Control
				Start Circuit
DG 1B Control Panel	DG Building 1B	7		Voltage Control
				Frequency Control
				Start Circuit
MCC 1A5	A-Swgr Room	60		V-2514, BAMP to Chrgr Pumps
				MV-14-6, Fan Cooler CCW Inlet
				MV-4-8, Fan Cooler CCW Outlet
				MV-09-9, AFW Pump 1A Discharge
				MV-09-13, AFW Cross Tie

TABLE 1

ISOLATION SWITCHES AVAILABLE FOR ALTERNATE SHUTDOWN (Cont'd)
ST LUCIE UNIT NO 1

PANEL OR POWER CENTER	PLANT LOCATION	FIRE ZONE	SWITCH DESIGNATION	COMPONENT
MCC 1B5	B-Swgr Room	56		V-2508, BAMT 1B Gravity Feed V-2509, BAMT 1A Gravity Feed MV-14-5, Fan Cooler CCW Inlet MV-14-7, Fan Cooler CCW Outlet MV-09-10, AFW Pump 1B Discharge MV-09-14, AFW Cross Tie V-2504, RWT to Charging Pumps V-1405, PORV Block
MCCC 1A6	A-Swgr Room	60		BAMP 1A BAMP 1B HVA-3A, Control Room AC HVA-6A, Shield Building Exh HVE-13A, Cont Room Booster
MCC 1B6	B-Swgr Room	56		HVA-3B, Cont Room AC HVE-6B, Shield Building Exh HVE-13B, Cont Room Booster
MCC-1AB	Cable Spread Room	57		HVA-3C, Cont Room AC MV-09-11, AFW pump 1C Discharge MV-09-12, AFW Pump 1C Discharge MV-08-13, AFW Pump Turb Supply MV-08-14, AFW Pump Turb Supply MV-14-1, CCW Discharge MV-14-2, CCW Discharge MV-14-3, CCW Discharge MV-14-4, CCW Discharge
480V Swgr 1A2	A-Swgr Room	60		SS Transformer 1A2 Bus Tie to 480 V 1AB Air Recirc Fan HVS 1A Air Recirc Fan HVS 1B Charging Pump 1A

TABLE 1

ISOLATION SWITCHES AVAILABLE FOR ALTERNATE SHUTDOWN (Cont'd)
ST LUCIE UNIT NO 1

PANEL OR POWER CENTER	PLANT LOCATION	FIRE ZONE	SWITCH DESIGNATION	COMPONENT
480 V Swgr 1B2	B-Swgr Room	56		SS Transformer 1B2
				Bus Tie to 480 V 1AB
				Air Recirc Fan 1C
				Air Recirc Fan 1D
				Charging Pump 1B
480 V Swgr 1AB	AB-Swgr Room	47		Bus Tie to 480 V Swgr 1A2
				Bus Tie to 480 V Swgr 1B2
				Charging Pump 1C
480 V Bus 1A3	Cable Spread Room	57		Heater Bank P-1
				Heater Bank B-1
				Heater Bank B-2
				Heater Bank B-3
480 V Bus 1B3	Cable Spread Room	57		Heater Bank P-2
				Heater Bank B-4
				Heater Bank B-5
				Heater Bank B-6
4.16 kV Bus 1A3	A-Swgr Room	60		A HPSI Pump
				A LPSI Pump
				A Cont Spray Pump
				Feed to Press Htr Trans 1A
				A Comp Cooling Wtr Pump
				A Intake Cooling Wtr Pump
				Feed to 4.16 kV Swgr 1AB
				Feed From 4.16 kV Bus 1A2
				Feed to 4.16 kV Sta Ser Trans 1A2
				Feed from Emerg Diesel A
				A Auxiliary Feedwater Pump

TABLE 1

ISOLATION SWITCHES AVAILABLE FOR ALTERNATE SHUTDOWN (Cont'd)
ST LUCIE UNIT NO 1

PANEL OR POWER CENTER	PLANT LOCATION	FIRE ZONE	SWITCH DESIGNATION	COMPONENT
4.16 kV Bus 1B3	B-Swgr Room	56		B HPSI Pump B LPSI Pump B Cont Spray Pump Feed to Press Htr Trans 1B B Comp Cooling Wtr Pump B Intake Cooling Wtr Pump Feed to 4.16 kV Swgr 1AB Feed from 4.16 kV Bus 1B2 Feed to 4.16 kV Sta Ser Trans 1B2 Feed from Emerg Diesel B B Auxiliary Feedwater Pump
4.16 kV Bus 1AB	AB-Swgr Room	47		C HPSI Pump C Comp Cooling Wtr Pump C Intake Cooling Wtr Pump Feed from 4.16 kV Bus 1A3 Feed from 4.16 kV Bus 1B3
4.16 kV Bus 1A2	Turbine Building	21		Feed to 4.16 kV Sta Ser Trans 1A1 Feed from SU Trans 1A Feed to 4.16 kV Swgr 1A3
4.16 kV Bus 1B2	Turbine Building	22		Feed to 4.16 kV Sta Ser Trans 1B1 Feed from SU Trans 1B Feed to 4.16 kV Swgr 1B3
6.9 kV Bus 1A1	Turbine Building	21		Feed from SU Trans 1A
6.9 kV Bus 1B1	Turbine Building	22		Feed from SU Trans 1B

FLORIDA POWER & LIGHT COMPANY
ST LUCIE PLANT - UNIT NO. 1
ALTERNATIVE SHUTDOWN

e) Attachment 1 outlines the basic steps required to bring the plant to cold shutdown from outside the Control Room. This procedure has been developed to instruct plant operators in the specific tasks required to effect safe shutdown.

f) The manpower available to perform safe shutdown functions as well as fight fires is described in Attachment 1.

g) Tests will be performed periodically ~~to verify that equipment operates from the Control Room when transfer switches are in the normal position and that the equipment cannot be operated from the Hot Shutdown Panel; and that the equipment cannot operate from the Control Room but will operate from the Hot Shutdown Panel when transfer switches are in the isolation~~ position.

h) Technical Specifications will be prepared to cover all new isolation/ transfer switches added for alternative shutdown.

i) Only existing components and systems will be employed for alternative shutdown. As such, verification of system capabilities is not required. Circuitry modifications will be consistent with existing design criteria.

j) No credit is taken for repair of damaged cold shutdown equipment.