

FACILITY NAME: St. Lucie

Section 12

REPORT NUMBER: 2008-301

FINAL ADMINISTRATIVE JPMS

CONTENTS:

- Final ADMIN JPMS
 - 'As given' with changes made during administration annotated

Location of Electronic Files:

Submitted By: RJCFE

Verified By: Katz

**ST LUCIE
NRC LICENSE EXAMINATION
JOB PERFORMANCE MEASURE**

JPM A-1 ADM

**Identify Correct Refueling Machine Positioning During
In-Core Fuel Shuffle**

CANDIDATE

EXAMINER

Determine Fuel Preconditioning Guidelines and Classification of Reactivity Event

Examinee:

SAFETY FUNCTION NONE	ADMIN. TOPIC Conduct of Operations	TESTING ENVIRONMENT Classroom / Simulator	K/A # 2.1.42 (3.4)
POSITION SRO	FAULTED (Y/N) Y	VALIDATED TIME 15	TIME CRITICAL (Y/N) N

STANDARD:

Determine Refueling Machine coordinates for in-core fuel movement.

REFERENCES:

- 3200090 Refueling Operation
- 1-NOP-67.04 Refueling Machine Operation

INITIATING CUE:

STEP 1) Unit 1 is in Mode 6 performing an in-core fuel shuffle.

- Using the below data determine if the Refueling Machine positioning (Mast, Bridge and Trolley) is correct PRIOR to grappling on to element T41 from core location D-7.
- THEN determine if the Refueling Machine positioning is correct (Mast, Bridge and Trolley) to lower element T41 into core location V-3 (Refueling Machine Camera is in use).

Step #	Mast Orientation	Fuel ID	Insert ID	From Location	Current Bridge Digital Readout	Current Trolley Digital Readout	Current Hoist Digital Readout
1	90	T41	57	D-7	659.14	683.80	

Step #	Mast Orientation	Fuel ID	Insert ID	To Location	Current Bridge Digital Readout	Current Trolley Digital Readout	Current Hoist Digital Readout
1	90	T41	57	V-3	740.63	651.21	

STEP 2)

- Using the below data determine if the Refueling Machine positioning (Mast, Bridge and Trolley) is correct PRIOR to grappling on to element S-20 from core location E-3.
- THEN determine if the Refueling Machine positioning (Mast, Bridge and Trolley) is correct to lower element S-20 into core location T-17 (Refueling Machine Camera is in use).

Step #	Mast Orientation	Fuel ID	Insert ID	From Location	Current Bridge Digital Readout	Current Trolley Digital Readout	Current Hoist Digital Readout
2	180	S-20	-----	E-3	667.21	651.19	

Step #	Mast Orientation	Fuel ID	Insert ID	T0 Location	Current Bridge Digital Readout	Current Trolley Digital Readout	Current Hoist Digital Readout
2	180	S-20	-----	T-17	732.60	732.91	

START TIME	END TIME	DURATION (minutes)
OPERATOR PERFORMANCE AS EVALUATED TO STANDARD (circle one) <div style="display: flex; justify-content: space-around;"> SATISFACTORY UNSATISFACTORY </div>		

EXAMINER SIGNATURE: _____ DATE: _____

EXAMINER (print): _____

* indicates a "critical" step			
#	STEP	STANDARD	S/U
*1.	STEP 1) Refers to Figure 1 of 3200090 Refueling Operation or Figure 1 of 1-NOP-67.04. Determines mast orientation needs to be 270° OR 180° PRIOR to latching on to fuel element T41 to move from D-7 to V-3	Directs Refueling Machine mast rotated to 270 OR 180 PRIOR to latching on to element T41.	
*2.	Refers to Appendix G of 1-NOP-67.04 'Refueling Machine Operation' to determine correct Bridge and Trolley coordinates. Coordinates must be within ±0.05" of Appendix G prior to lowering Refueling Machine hoist.	Determines Appendix G coordinates: D-7 Bridge 659.11 Trolley 683.78 V-3 Bridge 740.69 Trolley 651.19	
*3.	Identifies Bridge and Trolley must be within ±0.05" of Appendix G prior to lowering Refueling Machine hoist.	Actual coordinates: D-7 Bridge 659.14 Trolley 683.80 V-3 Bridge 740.63 Trolley 651.21 Determines location V-3 Bridge coordinates NOT within ±0.05". Directs Refueling Machine operator to align Bridge to within ±0.05 of 740.69.	
*4.	STEP 2) Refers to Appendix G of 1-NOP-67.04 'Refueling Machine Operation' to determine correct Bridge and Trolley coordinates. Coordinates must be within ±0.05" of Appendix G prior to lowering Refueling Machine hoist.	Determines Appendix G coordinates: E-3 Bridge 667.24 Trolley 651.19 T-17 Bridge 732.63 Trolley 732.94	

* indicates a "critical" step			
#	STEP	STANDARD	S/U
*5.	Identifies Bridge and Trolley must be within ± 0.05 " of Appendix G prior to lowering Refueling Machine hoist.	Actual coordinates: E-3 Bridge 667.21 Trolley 651.19 T-17 Bridge 732.60 Trolley 732.91 Determines Mast location correct. Determines actual coordinates within ± 0.05 ". Permission to granted to move from core location E-3 to core location T-17.	
END TIME: _____			

INITIATING CUE:

STEP 1) Unit 1 is in Mode 6 performing an in-core fuel shuffle.

- Using the below data determine if the Refueling Machine positioning (Mast, Bridge and Trolley) is correct PRIOR to grappling on to element T41 from core location D-7.
- THEN determine if the Refueling Machine positioning is correct (Mast, Bridge and Trolley) to lower element T41 into core location V-3 (Refueling Machine Camera is in use).

Step #	Mast Orientation	Fuel ID	Insert ID	From Location	Current Bridge Digital Readout	Current Trolley Digital Readout	Current Hoist Digital Readout
1	90	T41	57	D-7	659.14	683.80	

Step #	Mast Orientation	Fuel ID	Insert ID	To Location	Current Bridge Digital Readout	Current Trolley Digital Readout	Current Hoist Digital Readout
1	90	T41	57	V-3	740.63	651.21	

INITIATING CUE (continued):

STEP 2)

- Using the below data determine if the Refueling Machine positioning (Mast, Bridge and Trolley) is correct PRIOR to grappling on to element S-20 from core location E-3.
- THEN determine if the Refueling Machine positioning (Mast, Bridge and Trolley) is correct to lower element S-20 into core location T-17 (Refueling Machine Camera is in use).

Step #	Mast Orientation	Fuel ID	Insert ID	From Location	Current Bridge Digital Readout	Current Trolley Digital Readout	Current Hoist Digital Readout
2	180	S-20	-----	E-3	667.21	651.19	

Step #	Mast Orientation	Fuel ID	Insert ID	T0 Location	Current Bridge Digital Readout	Current Trolley Digital Readout	Current Hoist Digital Readout
2	180	S-20	-----	T-17	732.60	732.91	

**ST LUCIE
NRC LICENSE EXAMINATION
JOB PERFORMANCE MEASURE**

JPM A2 ADM

**Determine Shutdown Margin Criteria
(SRO)**

CANDIDATE

EXAMINER

Perform Shutdown Margin Verification Surveillance

Examinee:

SAFETY FUNCTION NONE	ADMIN. TOPIC Equipment Control	TESTING ENVIRONMENT Classroom / Simulator	K/A # 2.1.7 (4.7)
POSITION SRO	FAULTED (Y/N) N	VALIDATED TIME 20	TIME CRITICAL (Y/N) N

STANDARD:

Direction to borate due to not meeting SDM requirements

REFERENCES:

- Unit 2 Plant Physics Curves
- 2-NOP-100.04, "Surveillance Requirements for Shutdown Margin; Modes 2,3,4, and 5 (Subcritical)"

INITIATING CUE:

Unit 2 was at 100% power for 100 days, 1143 EFP. An automatic reactor / turbine trip just occurred. CEA 56 did not drop and is at 132" withdrawn. Current RCS temperature is 532°F, RCS C_b is 1062 ppm, and current time is 1500. You are directed to verify shutdown margin for the current plant conditions.

EXAMINERS NOTE: This SDM calculation was conducted using 1143 EFP, cycle 17. Plant curves, Figure B.3 dated 3/4/08, Fig. B.4, B.5, B.6, B.8 dated 2/26/08, B.7 1/10/08. Ensure the same revisions given to the applicants for performance of this JPM.

START TIME	END TIME	DURATION (minutes)
OPERATOR PERFORMANCE AS EVALUATED TO STANDARD (circle one)		
SATISFACTORY		UNSATISFACTORY

EXAMINER SIGNATURE: _____

DATE:

EXAMINER (print):

* indicates a "critical" step			
#	STEP	STANDARD	S/U
*Step 5A	Xenon worth	-2563 PCM ± 3.0 PCM	
*Step 5B	Reactivity Deviation	+152 PCM ± 1.0 PCM	
*Step 5C	Stuck CEA	+1148 ±0.0 PCM	
*Step 5D, 6A	Total Reactivity	-1263 ± 2 PCM	
*Step 6B	Boron worth	+8.14 ± 0.0 PCM	
*Step 6C	Equivalent Boron worth in PPM	-155 ±1.0 PCM	
*Step 6D	Shutdown Boron Concentration	+1239 ± 5.0 PPM	
*Step 6E	Required Boron Concentration	+1084 ±5.0 PPM	
Step 7A	Present Boron Concentration	+1062	
	NOT Meeting shutdown margin		
	* Determines SDM not met for current plant conditions	Direct Emergency Boration >40 gpm of >1720 ppm. (T.S. 3.1.1.1)	
END TIME: _____			

INITIATING CUE:

Unit 2 was at 100% power for 100 days, 1143 EFPD. An automatic reactor / turbine trip just occurred. CEA 56 did not drop and is at 132" withdrawn. Current RCS temperature is 532°F, RCS C_b is 1062 ppm, and current time is 1500. You are directed to verify shutdown margin for the current plant conditions.

REGION II
ST. LUCIE NUCLEAR PLANT
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JPM

Develop ECO for 2B LPSI Pump and Determine
Associated Technical Specifications - UNIT 2

A-3

CANDIDATE _____

EXAMINER _____

**REGION II
ST LUCIE NUCLEAR PLANT
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JPM**

Develop ECO for 2B LPSI pump

KA Statement: Ability to obtain and interpret station electrical and mechanical drawings.

KA #: 2.2.41 (3.5 / 3.9)

References:

P&ID 2998-G-078 SH 130B
P&ID 2998-G-078 SH 131
P&ID 2998-G-078 SH 105A
ADM-09.08 Operations In-Plant Equipment Clearance Orders
2-ADM-03.01A Unit 2 Power Distribution Breaker List
2-ADM-03.01C Unit 2 Power Distribution Breaker List MCC
Operations Policy OPS-406 Clearance Database Conventions

Candidate: _____ **Time Start** _____
Name

Time Finish _____

Performance Rating: Sat _____ Unsat _____

Validation Time 25 minutes

Examiner: _____ **Signature:** _____

Comments

**REGION II
ST LUCIE NUCLEAR PLANT
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JPM**

Develop ECO for 2B LPSI pump

Directions to the candidate for Administrative JPMS:

I will explain the initial conditions and state the task to be performed. You will be allowed to use any reference normally available in the Control Room to complete the task. Ensure you indicate to me when you finish your assigned task by returning the material needed for the task that I provided to you.

Initial Conditions

Unit 2 is at 100% power. The 2B LPSI pump has developed a shaft seal leak. The pump seal requires replacement. No other equipment is out of service

Initiating Cue

On the attached matrix, develop an ECO for the 2B LPSI Pump that would facilitate replacing the pump shaft seal. Identify any applicable Technical Specifications associated with removing the 2B LPSI pump from service.

Component	Name	Position	Tag (type)
2B LPSI Control Room Pump Switch	2-CS-252	Off	Info Tag
*Breaker 2-20406	2B LPSI Pump	Racked Out Plus	Danger
Breaker 2-20406	Trip Fuse	Removed	N/A
Breaker 2-20406	Close Fuse	Removed	N/A
*V3207	2B LPSI Pump Discharge Valve	Closed Plus	Danger
*V3432	2B LPSI Pump Suction Valve	Do Not Operate	Danger
*Breaker 2-42114	MCC breaker for V3432	Off Plus	Danger
*V3205	2B LPSI Pump Recirc Valve	Closed Plus	Danger
*V3665	SDC Isolation Valve	Do Not Operate	Danger
*Breaker 2-42027	MCC Breaker for V3665	Off Plus	Danger
*V3539	SDC Warmup	Do Not Operate	Danger
*Breaker 2-42131	MCC Breaker for V3539	Off Plus	Danger
*V03001	From Purif. Ion Exchanger	Closed Plus	Danger
*V3502	Isol. Valve for LPSI disc. Sample	Closed Plus	Danger
NOTE: The following drains and vent may be opened and tagged but only ONE VENT and ONE DRAIN is needed to be opened to meet the critical step. #As per Ops Policy 406, 'Vents and Drains do not require a danger tag. It is preferred, but not required'.			
V3856	Drain	Open	#Danger
V3921	Vent	Open	#Danger
V3855	Drain	Open	#Danger
V3890	Drain	Open	#Danger
V3845	Vent	Open	#Danger
V3845	Vent	Open	#Danger
V3674	Vent	Open	#Danger
V3672	Vent	Open	#Danger
V3673	Drain	Open	#Danger

***Technical Specification:**

3.5.2 Action a.1 Restore within 7 Days or HSB next 6 hours HSD the following 6 hours

*Critical Step

(TO BE RETURNED TO THE EXAMINER UPON COMPLETION OF ANSWER)

Initial Conditions

Unit 2 is at 100% power. The 2B LPSI pump has developed a shaft seal leak. The pump seal requires replacement. No other equipment is out of service

Initiating Cue

On the attached matrix, develop an ECO for the 2B LPSI Pump that would facilitate replacing the pump shaft seal. Identify any applicable Technical Specifications associated with removing the 2B LPSI pump from service.

**ST LUCIE
NRC LICENSE EXAMINATION
JOB PERFORMANCE MEASURE**

JPM A4 ADM

Use a Survey Map To Determine Radiological Hazards

CANDIDATE

EXAMINER

Use a Survey map to determine radiological hazards

Examinee:

SAFETY FUNCTION NONE	ADMIN. TOPIC Radiation Control	TESTING ENVIRONMENT Classroom / Simulator	K/A # K/A 2.3.14 (3.4/3.8)
POSITION RO/SRO	FAULTED (Y/N) N	VALIDATED TIME 10	TIME CRITICAL (Y/N) N

STANDARD:

Correctly determines radiological hazards in each Charging Pump room.

REFERENCES:

- Completed HPS-207 Charging Pumps Survey Map
- HPP-20 Area Radiation and Contamination Surveys

INITIATING CUE:

Using the Survey map determine the radiological hazards in each Charging pump room.

START TIME	END TIME	DURATION (minutes)
OPERATOR PERFORMANCE AS EVALUATED TO STANDARD (circle one)		
SATISFACTORY		UNSATISFACTORY

EXAMINER SIGNATURE: _____

DATE:

EXAMINER (print):

INITIATING CUE: Using the Survey map, determine the radiological postings in each Charging pump room.

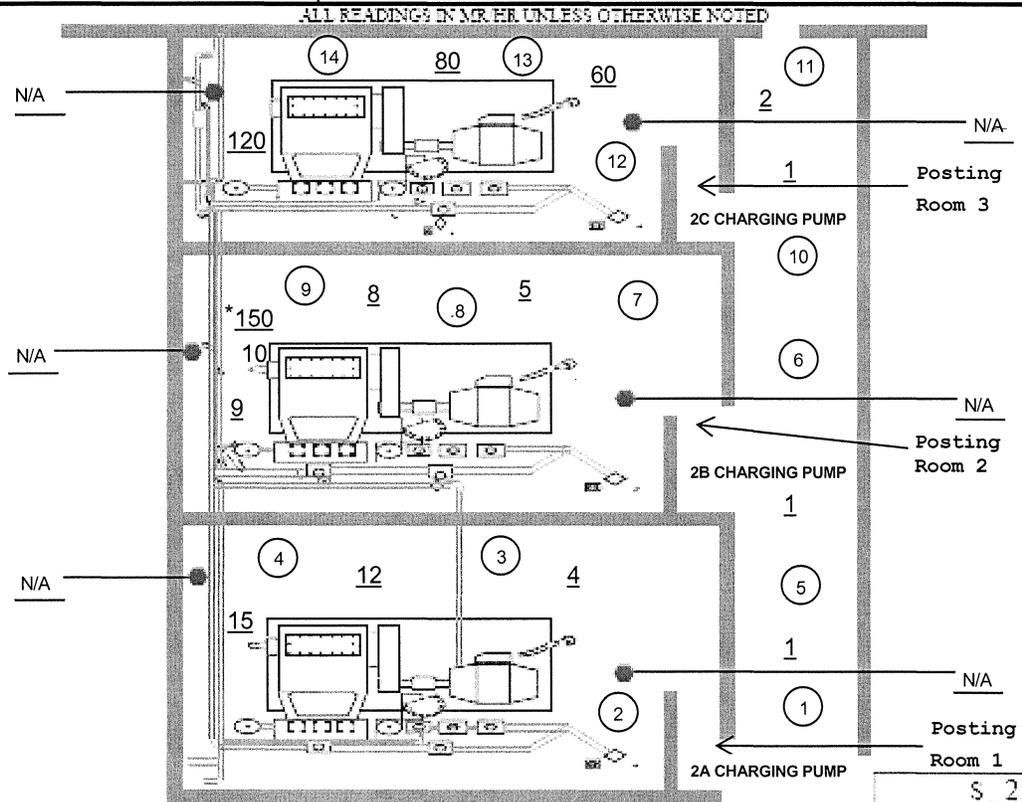
FLORIDA POWER & LIGHT - PSL

HPS - 207

LOCATION: CHARGING PUMPS - EL. -5 FT		(G) GRAVE DANGER - VERY HIGH RAD AREA	(C) CONTAMINATED AREA
DATE: 7/21/08		(L) LOCKED HIGH RAD AREA	(P) HOT PARTICLE AREA
TIME: 0700		(H) HIGH RAD AREA	(S) SPECIFIC RWP REQUIRED
RPT (PRINT): B. Bora		(R) RADIATION AREA	(B) H.P. COVERAGE REQUIRED
RPT SIGNATURE: <i>Bob Bora</i>		(M) RADIOACTIVE MATERIAL	
RWP #: 2504		(A) AIRBORNE RADIOACTIVITY AREA	β MDA = 25.78 dpm
		(D) HIGHLY CONTAMINATED AREA	α MDA = 17.32 dpm
INSTRUMENT TYPE / # R020/3603	INSTRUMENT TYPE / # XLB Tenn / 2	Massline	
INSTRUMENT TYPE / # L-177/21829	INSTRUMENT TYPE / # N/A	No	dpm / Hot Part.
SMEARS IN DPM / 100 CM ²		probe area	Y/N
1 <1K / <MDA	6 <1K / <MDA	11 <1K / <MDA	16 N/A / N/A
2 <1K / <MDA	7 <1K / <MDA	12 <1K / <MDA	17 N/A / N/A
3 2K / <MDA	8 <1K / <MDA	13 2K / <MDA	18 N/A / N/A
4 3K / <MDA	9 <1K / <MDA	14 3K / <MDA	19 N/A / N/A
5 <1K / <MDA	10 <1K / <MDA	15 <1K / <MDA	20 N/A / N/A
		21 N/A / N/A	26 N/A / N/A
		22 N/A / N/A	27 N/A / N/A
		23 N/A / N/A	28 N/A / N/A
		24 N/A / N/A	29 N/A / N/A
		25 N/A / N/A	30 N/A / N/A

LEGEND:
 * = General Area Dose Rates
 x = Contact Dose Rate
 ○ = Smear Location
 △ = Neutron Dose Rate (mrem/Hr DDE)
 □ = Beta Radiation in mRad/Hr
 --- = Radiation / Contaminated Boundary

Reviewed By:
 C. Jones
 Print Name
 Charles Jones
 Signature
 7/21/08
 Date



REMARKS: Exposure Received Completing Survey: 2 mrem.

S 2 OPS

DATE _____
 DOCT HPS
 DOCN HPS-207
 SYS HP
 COMP _____
 ITM _____

ST. LUCIE NUCLEAR PLANT
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JPM

DETERMINE PROTECTIVE ACTION
RECOMMENDATIONS

A-5

CANDIDATE _____

EXAMINER _____

**ST LUCIE NUCLEAR PLANT
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JPM**

DETERMINE PROTECTIVE ACTION RECOMMENDATIONS

KA Statement: Knowledge of emergency plan protective action recommendations.

KA #: 2.4.44 (2.1 / 4.0)

References: EPIP-08 Off-Site Notifications and Protective Action Recommendations

Candidate: _____ Time Start _____
Name
Time Finish _____

Performance Rating: Sat _____ Unsat _____

Validation Time 15 minutes

Examiner: _____ **Signature:** _____

Comments

**ST LUCIE NUCLEAR PLANT
INITIAL LICENSE EXAMINATION
ADMINISTRATIVE JPM**

DETERMINE PROTECTIVE ACTION RECOMMENDATIONS

Directions to the candidate for Administrative JPMS:

I will explain the initial conditions and state the task to be performed. You will be allowed to use any reference needed to complete the task. Ensure you indicate to me when you finish your assigned task by returning the material needed for the task that I provided to you.

Initial Conditions

Unit 1 is in a refueling outage. RCS level was at 34' and lowering to mid-loop to install SG Nozzle Dams. Time to boil had been calculated to be 31 minutes. The equipment hatch is open. Subsequently a Station Blackout occurred. All efforts to restore AC power have been unsuccessful. All efforts to get water in the RCS have been unsuccessful. The equipment hatch crew could not get the hatch closed due to a malfunction of the closing device.

At time 0020, the containment has been evacuated and the Emergency Coordinator has declared a General Emergency due to uncover of the fuel.

At time 0235 Initial manual off-site dose reports have come in and are as follows (only TEDE values are available at this time; CDE values are to be determined later):

1 mile: 4900 mrem

2 miles: 3000 mrem

5 miles: 1100 mrem

Wind direction is from 56°

Initiating Cue

The Shift Manager has directed you to make Protective Action Recommendations for the next State of Florida Notification Form update.

THIS IS A TIME CRITICAL JPM

START TIME: _____

<p>Attachment 2 of EPIP-08; "Off-Site Notifications and Protective Action Recommendations"</p> <p><u>STEP 1:</u> 2. Par Flowchart A. PARs Based on Plant Conditions 1. Begin in the upper left hand corner of the chart by answering the General Emergency (GE) question.</p> <p><u>STANDARD:</u> DETERMINE that a General Emergency exists.</p> <p><u>COMMENTS:</u></p>	<p>CRITICAL STEP</p> <p>_____ SAT</p> <p>_____ UNSAT</p>
<p><u>STEP 2:</u> 2. Par Flowchart (cont.) A. PARs Based on Plant Conditions (cont.) 2. Correctly answer the questions until you reach one of the boxes that provide PAR information based on plant conditions.</p> <p><u>STANDARD:</u> DETERMINE that Actual or Projected Severe Core Damage does exist.</p> <p><u>COMMENTS:</u> Core uncoverly has occurred as described in the cue sheet.</p>	<p>CRITICAL STEP</p> <p>_____ SAT</p> <p>_____ UNSAT</p>
<p><u>STEP 3:</u> 2. Par Flowchart (cont.) A. PARs Based on Plant Conditions (cont.) 3. If there is no release, then go to the PAR Worksheet and fill in the PARs based on plant conditions. The sectors affected can be determined by referring to number 8, Weather Data in Attachment 1A, Directions for completing the Florida Nuclear Emergency Notification Form.</p> <p><u>STANDARD:</u> DETERMINE that a release has occurred.</p> <p><u>COMMENTS:</u> Offsite dose values from the cue sheet confirm a release.</p>	<p>_____ SAT</p> <p>_____ UNSAT</p>

<p><u>STEP 4:</u> 2. Par Flowchart (cont.) A. PARs Based on Plant Conditions (cont.) 4. If a release is involved, then go to Section B, PARs Based on Off-site Dose.</p> <p><u>STANDARD:</u> DETERMINE that Section B needs to be addressed.</p> <p><u>COMMENTS:</u></p>	<p>_____ SAT</p> <p>_____ UNSAT</p>
<p><u>STEP 5:</u> 2. Par Flowchart (cont.) B. PARs Based on Off-Site Dose 1. PARs are based on the Total Effective Dose Equivalent (TEDE or total dose) and/or the Committed Dose Equivalent (CDE, thyroid dose). Do NOT use dose rate values. 2. If using the Class A Model, then in Forecast Mode, print the State Notification Form Summary for computer generated PARs.</p> <p><u>STANDARD:</u> DETERMINE from the cue sheet data that the Class A Model is not to be used.</p> <p><u>COMMENTS:</u> Manual PAR determination will be used.</p>	<p>_____ SAT</p> <p>_____ UNSAT</p>
<p><u>STEP 6:</u> 2. Par Flowchart (cont.) B. PARs Based on Off-Site Dose (cont.) 3. If dose calcs were performed manually using EPIP-09, Off-site Dose Calculations, then calculate TEDE and CDE in accordance with the procedure. a. Compare the TEDE dose at 1 mile with the values on the Flowchart. Enter the chart at the appropriate dose level.</p> <p><u>STANDARD:</u> DETERMINE that the TEDE dose at 1 mile is 4900 mrem. ENTER the chart at the TEDE 1000-4999 mrem dose level.</p> <p><u>COMMENTS:</u></p>	<p>_____ SAT</p> <p>_____ UNSAT</p>

<p><u>STEP 7:</u> 2. Par Flowchart (cont.) B. PARs Based on Off-Site Dose(cont.) 3. If dose calcs were performed manually using EPIP-09, Off-site Dose Calculations, then calculate TEDE and CDE in accordance with the procedure. (cont.). b. From the selected dose level, move to the right on the chart to the first column, 0-2 miles. The PAR provided corresponds to the calculated TEDE at 1 mile.</p> <p><u>STANDARD:</u> Under the 0-2 Miles column, <u>DETERMINE</u> that 'Evacuate All' is the correct classification.</p> <p><u>COMMENTS:</u></p>	<p>_____ SAT</p> <p>_____ UNSAT</p>
<p><u>STEP 8:</u> 2. Par Flowchart (cont.) B. PARs Based on Off-Site Dose(cont.) 3. If dose calcs were performed manually using EPIP-09, Off-site Dose Calculations, then calculate TEDE and CDE in accordance with the procedure. (cont.). c. Enter the PAR in the 0-2 miles block on the TEDE DOSE table below the PAR Flowchart. The sectors affected can be determined by referring to number 8, Weather Data, in Attachment 1A, Directions for Completing the Florida Nuclear Plant Emergency Notification Form.</p> <p><u>STANDARD:</u> <u>ENTER</u> 'ALL' under the Evacuate column, NONE under Shelter and No Action sectors on the 0-2 Miles row in the TEDE DOSE table.</p> <p><u>COMMENTS:</u></p>	<p>_____ SAT</p> <p>_____ UNSAT</p>

<p><u>STEP 9:</u></p>	<p>2. Par Flowchart (cont.) B. PARs Based on Off-Site Dose(cont.) 3. If dose calcs were performed manually using EPIP-09, Off-site Dose Calculations, then calculate TEDE and CDE in accordance with the procedure. (cont.). d. Continue to determine the corresponding PAR at 2-5 miles using the calculated 2 mile TEDE, at 5-10 miles using the calculated 5 mile TEDE and the 10 miles plus (To Be Determined (TBD) distance) using the calculated 10 mile TEDE, as necessary.</p>	<p>CRITICAL STEP</p> <p>_____ SAT</p> <p>_____ UNSAT</p>
<p><u>STANDARD:</u></p>	<p><u>DETERMINE</u> from the cue sheet that the 2 mile TEDE dose is 3000 mrem and <u>ENTER</u> the TEDE DOSE column at the TEDE 1000-4999 mrem dose level. Under the 2-5 Miles column, <u>DETERMINE</u> that 'Evacuate Sectors Affected and Shelter All Remaining' is the correct classification. <u>DETERMINE</u> from Attachment 1A that the affected sectors are 'KLMN' (this is the critical part of this step).</p> <p><u>DETERMINE</u> from the cue sheet that the 5 mile TEDE dose is 1100 mrem and <u>ENTER</u> the TEDE DOSE column at the TEDE 1000-4999 mrem dose level. Under the 5-10 Miles column, <u>DETERMINE</u> that 'Evacuate Sectors Affected and Shelter All Remaining' is the correct classification. <u>DETERMINE</u> from Attachment 1A that the affected sectors are 'KLMN' (this is the critical part of this step).</p>	
<p><u>COMMENTS:</u></p>		

<p><u>STEP 10:</u> 2. Par Flowchart (cont.) B. PARs Based on Off-Site Dose(cont.) 3. If dose calcs were performed manually using EPIP-09, Off-site Dose Calculations, then calculate TEDE and CDE in accordance with the procedure. (cont.). e. Enter the PAR information in the appropriate blocks of the TEDE DOSE table.</p> <p><u>STANDARD:</u> ENTER the PAR information as per the attached Answer Key sheet in the TEDE DOSE table.</p> <p><u>COMMENTS:</u></p>	<p>_____ SAT</p> <p>_____ UNSAT</p>
<p><u>STEP 11:</u> 2. Par Flowchart (cont.) B. PARs Based on Off-Site Dose(cont.) 3. If dose calcs were performed manually using EPIP-09, Off-site Dose Calculations, then calculate TEDE and CDE in accordance with the procedure. (cont.). f. Follow the same methodology for determining PARs corresponding to the calculated CDE values beginning with the calculated value at 1 mile. g. Enter each of the determined PARs in the CDE (Thyroid) DOSE table below the PAR Flowchart.</p> <p><u>STANDARD:</u> DETERMINE from the cue sheet that CDE dose values will be determined later.</p> <p><u>COMMENTS:</u></p>	<p>_____ SAT</p> <p>_____ UNSAT</p>

<p><u>STEP 12:</u> 2. Par Flowchart (cont.) C. Instructions for the PAR Worksheet 1. Fill in the time/date and emergency class.</p> <p><u>STANDARD:</u> ENTER the present time and date and mark the 'GE' box on the PAR Worksheet.</p> <p><u>COMMENTS:</u> The PAR Worksheet is page 5 of 5 of Attachment 2.</p>	<p>_____ SAT</p> <p>_____ UNSAT</p>
<p><u>STEP 13:</u> 2. Par Flowchart (cont.) C. Instructions for the PAR Worksheet (cont.) 2. In Part A, determine the most conservative PARs by comparing the PARs based on plant conditions against those based on off-site dose. 3. Enter the most conservative PARs in the table in Part B, Protective Actions Recommended by FPL. Use the words, NONE, ALL, ALL REMAINING or list the individual affected sectors by letter.</p> <p><u>STANDARD:</u> DETERMINE that the PARs based on off-site dose is the most limiting. The Off-Site Dose block is marked in Part A.</p> <p> ENTER the PAR information in the table in Part B as per the attached Answer Key sheet.</p> <p><u>COMMENTS:</u></p>	<p>CRITICAL STEP</p> <p>_____ SAT</p> <p>_____ UNSAT</p>

<p><u>STEP (done):</u> 2. Par Flowchart (cont.) C. Instructions for the PAR Worksheet (cont.) 4. Obtain review and approval</p> <p><u>STANDARD:</u></p> <p>EXAMINER'S CUE: THIS JPM IS COMPLETE.</p> <p><u>COMMENTS:</u></p> <p style="text-align: center;">END OF TASK</p>	<p>_____ SAT</p> <p>_____ UNSAT</p>
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*STOP TIME: _____

*Critical Step: Must be ≤15 minutes from start time

TEDE

Use the following in this table:
NONE, ALL REMAINING or fill
 in the Letters of the sectors affected

MILES	EVACUATE	SHELTER	NO ACTION
0-2	ALL	NONE	NONE
2-5	K, L, M, N	All Remaining	NONE
5-10	K, L, M, N	All Remaining	NONE
>10			

Time / Date _____ / _____

Emergency Class __ SAE GE

PAR Comparison

After comparing the possible recommendations from the PAR's flowchart, the most conservative PAR's are based on: (check one)

PLANT CONDITIONS OFF-SITE DOSE

Protective Actions Recommended by FPL:

Use the following in this table: **NONE, ALL REMAINING** or fill in the Letters of the sectors affected

	EVACUATE	SHELTER	NO ACTION
0-2 Miles	ALL	NONE	NONE
2-5 Miles	K, L, M, N	All Remaining	NONE
5-10 Miles	K, L, M, N	All Remaining	NONE
10-TBD Miles*			

* If necessary, add to State Notification Form

**CANDIDATE COPY
(TO BE RETURNED TO THE EXAMINER UPON COMPLETION OF ANSWER)**

Initial Conditions

Unit 1 is in a refueling outage. RCS level was at 34' and lowering to mid-loop to install SG Nozzle Dams. Time to boil had been calculated to be 31 minutes. The equipment hatch is open. Subsequently a Station Blackout occurred. All efforts to restore AC power have been unsuccessful. All efforts to get water in the RCS have been unsuccessful. The equipment hatch crew could not get the hatch closed due to a malfunction of the closing device.

At time 0020, the containment has been evacuated and the Emergency Coordinator has declared a General Emergency due to uncover of the fuel.

At time 0235 Initial manual off-site dose reports have come in and are as follows (only TEDE values are available at this time; CDE values are to be determined later):

1 mile: 4900 mrem

2 miles: 3000 mrem

5 miles: 1100 mrem

Wind direction is from 56°.

Initiating Cue

The Shift Manager has directed you to make Protective Action Recommendations for the next State of Florida Notification Form update.

THIS IS A TIME CRITICAL JPM