



Florida Power & Light Company, 6501 South Ocean Drive, Jensen Beach, FL 34957

October 29, 2002

L-2002-215  
10 CFR 50 Appendix E

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555

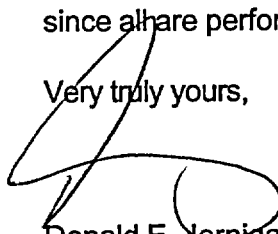
Re: St. Lucie Units 1 and 2  
Docket Nos. 50-335 and 50-389  
Emergency Plan Implementing Procedure

In accordance with 10 CFR 50 Appendix E, enclosed is a copy of a revised procedure that implements the St. Lucie Plant Radiological Emergency Plan.

<u>Number</u>	<u>Title</u>	<u>Revision</u>	<u>Implementation Date</u>
COP-06.11	Establishing Remote Laboratory For Analyses Of Accident Samples	0B	October 18, 2002

COP-06.11 was revised to remove references and steps that refer to manual boron titration since all are performed with auto titration only.

Very truly yours,

  
Donald E. Jernigan  
Vice President  
St. Lucie Plant

DEJ/tlt

Enclosure

A045

**FPL**

# ST. LUCIE PLANT

## CHEMISTRY OPERATING PROCEDURE

SAFETY RELATED

Procedure No.

**COP-06.11**

Current Revision No.

**0B**

Effective Date

**10/18/02**

Title:

## ESTABLISHING REMOTE LABORATORY FOR ANALYSES OF ACCIDENT SAMPLES

Responsible Department: **CHEMISTRY**

CONTROL

**818**

COPY

**REVISION SUMMARY:**

**REVISION 0B** – Removed references and steps that refer to manual titrations. They are all performed with auto titration only. (Dale Majewski, 10/16/02)

**REVISION 0A** – Replaced references to C-46 with COP-01.07. Replaced reference to C-46 with COP-01.07 on page 10 of 12. FRG reviewed this minor correction on 01/11/00. The PGM's name was added to cover page. The cover page and page 10 were reissued. (David Valentine, 12/03/99)

**REVISION 0** – *Previously issued as C-111.* This procedure provides instruction for the Operational Support Center (OSC) Chemistry Supervisor to establish remote laboratories at the location(s) specified by the Technical Support Center (TSC) Chemistry Supervisor. (Russ Cox, 05/27/99)

Revision	FRG Review Date	Approved By	Approval Date	S__OPS
<u>0</u>	<u>05/27/99</u>	<u>R. G. West</u> Plant General Manager	<u>05/27/99</u>	DATE
				DOCT
				DOCN
				SYS
				COM
				ITM
				PROCEDURE
				COP-06 11
				COMPLETED
				0B

Revision	FRG Review Date	Approved By	Approval Date
<u>0B</u>	<u>01/11/00</u>	<u>R. G. West</u> Plant General Manager	<u>01/11/00</u>
		<u>Eric Katzman</u>	<u>12/03/99</u>
		<u>Designated Approver</u> <u>G.A. Bird</u>	<u>10/16/02</u>
		<u>Designated Approver</u> (Minor Correction)	

REVISION NO : 0B	PROCEDURE TITLE: ESTABLISHING REMOTE LABORATORY FOR ANALYSES OF ACCIDENT SAMPLES ST. LUCIE PLANT	PAGE 2 of 12
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**1.0 PURPOSE**

**1.1** This procedure provides instruction for the Operational Support Center (OSC) Chemistry Supervisor to establish remote laboratories at the location(s) specified by the Technical Support Center (TSC) Chemistry Supervisor.

**1.2** To identify the minimum analyses equipment required for initial Accident Conditions.

**2.0 REFERENCES**

**NOTE**

One or more of the following symbols may be used in this procedure:

§ Indicates a Regulatory commitment made by Technical Specifications, Condition of License, Audit, LER, Bulletin, Operating Experience, License Renewal, etc. and shall NOT be revised without Facility Review Group review and Plant General Manager approval.

¶ Indicates a management directive, vendor recommendation, plant practice or other non-regulatory commitment that should NOT be revised without consultation with the plant staff.

Ψ Indicates a step that requires a sign off on an attachment.

**2.1 Plant Procedures**

- EPIP-05, Activation and Operation of the Operational Support Center
- ADM-17.09, Invoking 10 CFR 50.54 (X)
- COP-06.06, Guidelines for Collecting Post Accident Samples
- COP-07.15, Determination of Boron Using the Mettler Titrator
- COP-65.01, Ortec Multichannel Analyzers
- COP-01.04, Determination of Gross Beta Gamma and Tritium with LS6500 Liquid Scintillation Counter
- COP-01.07, Determination of Gross Alpha Radioactivity

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**3.0 PREREQUISITES**

**3.1** Power from 110 volt AC outlets available.

**4.0 PRECAUTIONS / LIMITATIONS**

**4.1** Standard Health Physics precautions shall be observed while handling all Accident samples.

**4.2** ADM-17.09, Invoking 10 CFR 50.54(X), addresses the suspension of some Technical Specifications Surveillances when the Reactor Coolant System (RCS) is declared Out of Service. ADM-17.09 should be reviewed if the RCS is declared out of service as a result of accident conditions.

**4.3** P-10 Gas is FLAMMABLE and under high pressure in the bottle.

**5.0 RECORDS REQUIRED**

**5.1** As per routine requirements of the applicable procedures regulating the systems and sampling, etc., as per Chemistry LIMs data base computer, records for Accident Sample Inventory and Tracking as per Results Templates P1\_PAS\_INV for Unit 1, and P2\_PAS\_INV for Unit 2, or shall be maintained in the plant files in accordance with QI-17-PSL-1, Quality Assurance Records.

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## 6.0 INSTRUCTIONS

Date/Time    Initials

### 6.1 The OSC Chemistry Supervisor shall establish the operation of Remote Laboratories as follows:

1. The OSC Chemistry Supervisor shall contact the TSC Chemistry Supervisor to assess the location of the Remote Lab(s) based on the affected Reactor Unit and safe location to locate the lab(s).

Check the appropriate choices:

Accident affected Reactor is \_\_\_\_\_ Unit 1

OR \_\_\_\_\_ Unit 2

Boron analysis Remote Lab is:

\_\_\_\_\_ Unit 1 Hot Lab

\_\_\_\_\_ Unit 2 Hot Lab

\_\_\_\_\_ Unit 1 Cold Lab

\_\_\_\_\_ Other Location: \_\_\_\_\_ / \_\_\_\_\_

pha analysis Remote Lab is:

\_\_\_\_\_ Unit 1 Hot Lab

\_\_\_\_\_ Unit 2 Hot Lab

\_\_\_\_\_ Unit 1 Cold Lab

\_\_\_\_\_ Other Location: \_\_\_\_\_ / \_\_\_\_\_

2. As soon as possible, the OSC Chemistry Supervisor shall assess and/or direct that the following minimum analyses equipment is set up in the designated Remote Lab(s), and ENTER the location of the test stand(s).

One Boron Analysis Stand per Step 6.2 is  
OPERABLE at location: \_\_\_\_\_ / \_\_\_\_\_

One pha multi-channel analyzer per Step 6.3 is  
OPERABLE at location: \_\_\_\_\_ / \_\_\_\_\_

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		<u>Date/Time</u>	<u>Initials</u>
6.1	The OSC Chemistry Supervisor shall establish the operation of the Remote Laboratories as follows: (continued)		
3.	As accident time and manpower conditions permit, the OSC Chemistry Supervisor shall assess and/or direct that the following equipment / processes are set up in the designated Remote Lab(s).		
	One Tritium Analysis System per Step 6.4 is OPERABLE at location: _____	____/____	_____
	One Alpha Analysis System per Step 6.5 is OPERABLE at location: _____	____/____	_____
	A second pha Detector and 92X spectrum master in the Remote Lab per Step 6.3 if the Chemistry Counting Room cannot be used as a Remote Lab.	____/____	_____
	One Sample Prescreening Process per Step 6.6	____/____	_____
	Implement Accident Sample Inventory and Results Documentation Process for records required per Step 5.1	____/____	_____

END OF SECTION 6.1

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**6.2 Set Up Boron Analysis Stand(s)**

Date/Time    Initials

1. ENSURE that a copy of COP-07.15, Determination of Boron Using the Mettler Titrator, is available for the Remote Lab location.

\_\_\_\_/\_\_\_\_    \_\_\_\_

2. ENSURE test stand equipment, standard and reagents are available in the Remote Lab per the applicable procedure above.

\_\_\_\_/\_\_\_\_    \_\_\_\_

3. ENSURE a QC Boron Calibration Check is performed on the instrument test stand prior to use.

\_\_\_\_/\_\_\_\_    \_\_\_\_

**END OF SECTION 6.2**

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- |     |   | <u>Date/Time</u> | <u>Initials</u> |
|-----|---|------------------|-----------------|
| 6.3 | Set Up Gamma Pulse Height Analyzer(pha) System  |                  |                 |
| 1.  | ENSURE that a pha system is available in the Remote Lab(s) consisting of:<br><br>PC Computer "HOBBS", one 92X Spectrum Master, and Detector #1 and/or Detector #2.<br><br>OR<br><br>PC Computer "CALVIN", one 92X Spectrum Master, and Detector #3.   | ____/____        | _____           |
| 2.  | ENSURE that a copy of COP-65.01, Ortec Multichannel Analyzers, is available in the Remote Lab for the pha system(s).  | ____/____        | _____           |
| 3.  | <u>If</u> the pha system(s) were moved from the Unit 1 Chemistry Counting Room <u>or</u> the Power to them was interrupted, <u>Then</u> VERIFY that the High Voltage Power Supply to the Detector(s) has been restored to the values displayed on the front panel of each Detector's 92X interface box. | ____/____        | _____           |
| 4.  | ENSURE that a Quality Control Check Source is available <u>and</u> that an Activity Check is performed on the Detector(s) that are present, prior to use.   | ____/____        | _____           |

END OF SECTION 6.3

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#### 6.4 Set Up Tritium Analysis System

Date/Time   Initials

1. ENSURE that a Beckman LS 6500 Scintillator is available in a Remote Lab.
2. ENSURE that a copy of COP-01.04, Determination of Gross Beta Gamma and Tritium with LS6500 Liquid Scintillation Counter is available in the Remote Lab.
3. ENSURE that Quality Control Check Source(s) are available and that an Activity Check is performed on the User Program(s) for Tritium and/or 1 ml. Gross prior to use.

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\_\_\_\_/\_\_\_\_   \_\_\_\_

\_\_\_\_/\_\_\_\_   \_\_\_\_

END OF SECTION 6.4

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### 6.5 Set Up Alpha Analysis System

Date/Time    Initials

1. ENSURE that one Alpha Counter and counting assembly is available in a Remote Lab.
2. ENSURE that a copy of COP-01.07, Determination of Gross Alpha Radioactivity, is available in the Remote Lab.

\_\_\_\_/\_\_\_\_    \_\_\_\_

\_\_\_\_/\_\_\_\_    \_\_\_\_

**CAUTION**  
P-10 gas is FLAMMABLE.

3. ENSURE that a P-10 gas bottle is available to supply the instrument at the Remote Lab location.
4. If a P-10 bottle and temporary tubing have to be set up in a Remote Lab (other than the Chemistry Unit 1 Counting Room), Then the bottle connections and instrument tubing connections should be checked for gas leaks.
5. ENSURE that a Quality Control Check Source is available and that an Activity Check is performed prior to use.

\_\_\_\_/\_\_\_\_    \_\_\_\_

\_\_\_\_/\_\_\_\_    \_\_\_\_

\_\_\_\_/\_\_\_\_    \_\_\_\_

END OF SECTION 6.5

/ROA

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**6.6 Set Up Sample Prescreening Process in Remote Lab**

Date/Time   Initials

1. OBTAIN a Health Physics General Area Survey Meter for the Remote Lab. If available, Then the survey meter should have OPEN and CLOSED window capability.
2. VERIFY that the Survey Meter is calibrated per the affixed calibration sticker.
3. CHECK the Survey Meter's Battery Check is satisfactory.
4. The Survey Meter should be used to measure contact readings on accident samples prior to counting.
5. For long-term accident recovery, Figure 1 should be filled out to provide guidance for the maximum sample radiation reading(s) that can be tolerated for counting without sample pretreatment (dilution).

\_\_\_\_/\_\_\_\_

\_\_\_\_/\_\_\_\_

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**END OF SECTION 6.6**

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**FIGURE 1**  
**MAXIMUM ALLOWABLE RADIATION READING ON SAMPLE FOR AVOIDING  
EXCESSIVE ANALYSIS DEAD TIME**

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<b>For GAMMA Analysis Without Pre-Dilution</b>			
<b>Sample TYPE and Container</b>	<b>Analysis System</b>	<b>HP Survey Meter Maximum Allowable Contact Reading</b>	<b>Specify Engineering Units</b>
Gas in ~30 cc glass sphere	pha on Shelf #1		
Gas in 1250 cc mari beaker	pha on Face		
Liquid in 16 ml vial geometry	pha on Shelf #1		
Liquid in 4000 ml mari beaker	pha on Face		
Iodine in TEDA II cartridge	pha on Shelf #1 (flip counted)		
Particulate Filter in Whirlpak on Shelf # 0 (zero) on Detector 1 (or 2)	pha on Shelf #0 (zero)		
Particulate Filter in Whirlpak on Shelf #1 on Detector 3	pha on Shelf #1		
Evaporated Liquid in planchet	pha on appropriate shelf		

<b>For Alpha and Tritium Analysis Without Pre-Dilution</b>			
<b>Sample TYPE and Container</b>	<b>Analysis System</b>	<b>HP Survey Meter Maximum Allowable Contact Reading: Specify Open Window (OW) or Closed Window (CW)</b>	<b>Specify Engineering Units</b>
Tritium in Liquid Sample	Beckman LS6500		
Tritium in Gas Sparger Sample	Beckman LS6500		
Alpha in Evaporated Liquid Sample In Planchet	Alpha Counting System		
Alpha Filter Sample in Planchet	Alpha Counting System		