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U S Nuclear Regulatory Commission  
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Washington, DC 20555

**PRAIRIE ISLAND NUCLEAR GENERATING PLANT  
DOCKETS 50-282 AND 50-306  
LICENSE NOS. DPR-42 AND DPR-60  
PRAIRIE ISLAND EMERGENCY PLAN IMPLEMENTING PROCEDURES**

Furnished with this letter are the recent changes to the Prairie Island Nuclear Generating Plant Emergency Plan Implementing Procedures F3 and the EOF Emergency Plan Implementing Procedures F8. This submittal includes the following documents:

**INDEX:**

Emergency Plan Implementing Procedures TOC  
EOF Emergency Plan Implementing Procedures TOC

**REVISIONS**

F3-14.2	Operations Emergency Surveys	Rev. 10
F8-4	Emergency Support and Logistics	Rev. 5

**ADDITIONS:**

None

**DELETIONS:**

None

**TEMPORARY CHANGE DELETIONS:**

None

**INSTRUCTIONS:**

Instructions for updating the manual are included.

Also included in this package is a procedure tab for "F3-17.1" which was previously issued.

A045

This letter contains no new commitments and no revisions to existing commitments.

As per 10 CFR 50.4, two copies have also been provided to the NRC Region III Office and one to the NRC Resident Inspector. If you have any questions, please contact Mel Agen at 651-388-1121 Extension 7210.



Joseph M. Solymossy  
Site Vice President, Prairie Island Nuclear Generating Plant

CC Steve Orth, USNRC, Region III (2 copies)  
NRC Resident Inspector- Prairie Island Nuclear Generating Plant  
(w/o attachment)

Attachment



PRAIRIE ISLAND NUCLEAR  
GENERATING PLANT


Title:  
EOF Emerg Plan Implementing Procedures TOC

Effective Date : 09/25/03

NOTE: This set may contain a partial distribution  
of this Document Type. Please refer to the CHAMPS  
Module for specific Copy Holder Contents.

Approved By: *Joyce Chitty/mg*  
BPS Supt

Document #	Title	Rev
F8-1	EMERGENCY OPERATIONS FACILITY ORGANIZATION	7
F8-2	RESPONSIBILITIES DURING AN ALERT, SITE AREA OR GENERAL EMERGENCY IN THE EOF	7
F8-3	ACTIVATION & OPERATION OF THE EOF	5
F8-4	EMERGENCY SUPPORT & LOGISTICS	5
F8-5	OFFSITE DOSE ASSESSMENT & PROTECTIVE ACTION RECOMMENDATIONS	8
F8-6	RADIOLOGICAL MONITORING & CONTROL AT THE EOF	6
F8-8	OFFSITE AGENCY LIAISON ACTIVITIES	4
F8-9	EVENT TERMINATION OR TRANSITION TO RECOVERY	7
F8-10	RECORD KEEPING IN THE EOF	2
F8-11	TRANSFER TO THE BACKUP EOF	5
F8-12	EMERGENCY REMP	3

	<b>EMERGENCY SUPPORT AND LOGISTICS</b>	NUMBER: <b>F8-4</b>
		REV: <b>5</b>

<i>REFERENCE USE</i>
<ul style="list-style-type: none"><li>• <i>Procedure segments may be performed from memory.</i></li><li>• <i>Use the procedure to verify segments are complete.</i></li><li>• <i>Mark off steps within segment before continuing.</i></li><li>• <i>Procedure should be available at the work location.</i></li></ul>

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	<b>EMERGENCY SUPPORT AND LOGISTICS</b>	NUMBER: <b>F8-4</b>
		REV: <b>5</b>

## 1.0 PURPOSE

The purpose of this procedure is to provide guidance for implementing various emergency support and logistic activities that may be needed to support the plant's emergency response or support operation of the EOF. Emergency support and logistic activities include: coordinating services of nuclear consultants and vendors, emergency processing of purchase orders and providing logistics support for extended EOF operation.

## 2.0 APPLICABILITY

This procedure applies to the Emergency Manager, Technical Support Supervisor, EOF Coordinator, EOF Coordinator Assistant or anyone in the EOF that may need to coordinate activities related to emergency support or logistics.

## 3.0 PRECAUTIONS

NONE

## 4.0 RESPONSIBILITIES

- 4.1 The Emergency Manager is responsible to ensure that the EOF is providing the plant the necessary support and coordination of offsite vendor, consultant or contractor services in support of the emergency.
- 4.2 The Technical Support Supervisor is responsible to ensure appropriate and necessary technical support actions are provided according to this procedure.
- 4.3 The EOF Coordinator is responsible to ensure that the necessary emergency support actions related to the effective operation of the EOF are completed according to this procedure.
- 4.4 The EOF Coordinator Assistant is responsible to assist the EOF Coordinator as necessary.

## 5.0 PREREQUISITES

An Alert, Site Area or General Emergency has been declared at Prairie Island Nuclear Generating Plant.

<b>F8</b>	<b>EMERGENCY SUPPORT AND LOGISTICS</b>	NUMBER:	<b>F8-4</b>
		REV:	<b>5</b>

## 6.0 PROCEDURE

### 6.1 Coordinating Services of Nuclear Consultants and Vendors

<b>NOTE:</b>	<p>The plant notifies Westinghouse Electric Corporation (<u>W</u>) and INPO of the emergency event as part of the initial notification for an Alert, Site Area or General Emergency. The plant does not provide periodic updates to these organizations.</p>
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#### 6.1.1 Emergency Manager

- A. Review the need to update W of the emergency condition and direct the Technical Support Supervisor to update W, as necessary.
- B. If site assistance from W is required, direct the Technical Support Supervisor to request that W send a site response team to the EOF.
- C. Direct Technical Support Group to provide update information to INPO as necessary.
- D. Determine the need for additional assistance from any other vendor, consultant or contractor and direct the Technical Support Supervisor or the EOF Coordinator, as appropriate, to initiate the procurement of the necessary services. See Table 1 for a list of vendors, consultants and contractors to consider.

#### 6.1.2 Technical Support Supervisor

- A. Refer to Table 1 for a list of vendors, consultants and contractors when considering the need for possible assistance.
- B. Provide emergency status updates to W as directed by the Emergency Manager.
- C. If necessary, identify equipment or assistance that is desired from the vendor.
- D. If directed by the Emergency Manager, request that the vendor send a site response team to the EOF.

**F8****EMERGENCY SUPPORT AND LOGISTICS**

NUMBER:

**F8-4**

REV:

**5**

- E. The procurement of equipment or services should be coordinated with PI Materials and Procurement Services group. See Section 6.3 for more guidance on emergency processing of purchase orders.
- F. If vendor assistance will be required for more than three days, initiate procedures to procure long-term services in accordance with section 6.3.
- G. Ensure that appropriate contacts are established to facilitate the timely ordering of equipment or services.
- H. Ensure all logistics information concerning requests for services or purchases are logged on PINGP 1042.

**6.1.3 EOF Coordinator**

- A. Refer to Table 1 for a list of vendors, consultants or contractors when considering the need for assistance in support of EOF operation.
- B. Contact the plant's Communication System Specialist for assistance with EOF Communication System modification or repairs.
- C. If possible, use the normal local food supply vendors for continued EOF operation. If widespread contamination exists offsite, consult with the RPSS before ordering the delivery of food to the EOF.
- D. When the Emergency Manager approves the request for goods or services, direct the EOF Coordinator Assistant or an administrative staff person to notify the vendor and order the goods or services.
- E. Ensure that appropriate contacts are established to facilitate the timely ordering of goods or services.
- F. Ensure all logistics information concerning requests for goods or services are logged on PINGP 1042.

**6.2 Vendor and Consultant Services**

- 6.2.1 A partial list of vendors, consultants, and contractors are listed in Table 1. Additional vendors, consultants, and contractors are known by Site Materials Engineering personnel and site engineers.
- 6.2.2 Telephone numbers for the listed organizations are located in the Nuclear Emergency Preparedness Telephone Directory.



<b>F8</b>	<b>EMERGENCY SUPPORT AND LOGISTICS</b>	NUMBER:	<b>F8-4</b>
		REV:	<b>5</b>

- 6.2.3 Ensure all logistics information concerning requests for services or purchases are logged on PINGP 1042.
- 6.2.4 When requesting equipment or services, contact the organization and describe plant conditions.
- 6.2.5 The vendor will control the contacting of applicable organizations within his own company to supply whatever assistance is required.

### 6.3 Emergency Processing of Purchase Orders

- 6.3.1 When the need for equipment and/or services are realized, the Site Materials Engineering group should be requested to assist in the procurement of the equipment and/or services.
- 6.3.2 The Technical Support Supervisor (or EOF Coordinator, as appropriate) should ensure that one individual is assigned to be responsible for the processing of the purchase order.
- 6.3.3 Maintain a list of all arrangements for services or equipment that are obtained or being negotiated. All logistics information concerning requests for services or purchases should be logged on PINGP 1042.
- 6.3.4 When assigned to process a purchase request for the Technical Support Supervisor (or EOF Coordinator), the responsible individual should review the following guidance:
  - A. Determine the applicable sources to supply the equipment or service requested.
  - B. Contact the vendor or supplier and order the equipment or service.
  - C. If it is necessary to obtain a purchase order for the vendor or supplier before they will provide their service or work, the Materials Engineering group will provide a purchase order number.
  - D. As time permits, fill out a purchase requisition.
  - E. Assist in making arrangements for production and shipment with the vendor, as applicable.
  - F. Assist in coordinating delivery and transportation schedules.
  - G. Provide feedback concerning the projected deliveries, or other information concerning the assigned purchase order, to the Technical Support Supervisor (or EOF Coordinator, as appropriate).

<b>F8</b>	<b>EMERGENCY SUPPORT AND LOGISTICS</b>	NUMBER: <b>F8-4</b>
		REV: <b>5</b>

**Table 1 Vendor And Consultant Services**

- Telephone numbers for these organizations are located in the Nuclear Emergency Preparedness Telephone Directory.
- Ensure all logistics information concerning requests for services or purchases are logged on PINGP 1042.
- When requesting equipment or services, contact the organization and describe plant conditions.
- The vendor will control the contacting of applicable organizations within his own company to supply whatever assistance is required.

**PRAIRIE ISLAND'S NSSS**

**NSSS - Westinghouse Electric Corporation**

- A. The plant's Shift Emergency Communicator only notifies W of the initial emergency classification of an Alert, Site Area or General Emergency.
- B. Be prepared to discuss as many facts as are available at the time of the follow-up call and identify a cognizant individual in your group to provide continuing updates to W.
- C. PINGP/NMC has a letter of agreement for receiving necessary emergency support from W.

**GENERAL SUPPORT SERVICES AND VENDORS**

**1. Emergency Response Coordination Assistance - INPO**

- A. The plant's Shift Emergency Communicator only notifies INPO of the initial emergency classification of an Alert, Site Area or General Emergency. The Technical Staff provides periodic updates to INPO, as necessary.
- B. Be prepared to discuss as many facts as are available at the time of the follow-up call.
- C. INPO has access to many supplier's and contracting firm's emergency contact telephone numbers.
- D. INPO may provide additional technical assistance as requested.
- E. The INPO Resources Manual has additional nuclear emergency support information.
- F. PINGP/NMC has a letter of agreement for receiving necessary emergency support from INPO.

<b>F8</b>	<b>EMERGENCY SUPPORT AND LOGISTICS</b>	NUMBER:	<b>F8-4</b>
		REV:	<b>5</b>

**Table 1 Vendor and Consultant Services**

2. Radio Repair - Folsom Communications, Inc.

Folsom Communications, Inc. provides radio repair services.

3. Emergency Siren Repair - Nelson Radio Communications

Nelson Radio Communication provides periodic maintenance and repair to the emergency sirens.

4. Helicopter Service - Imperial International Inc.

A. Imperial International Inc.  
Fleming Field  
South St. Paul, MN

B. Imperial International Inc. may provide immediate transportation via helicopter.

C. This organization flies only Bell Jet Rangers that carry five (5) passengers.

5. Radiological Protection Services

A. Before contacting these contractors, contact the REC to assess the total need for radiological services.

B. Radiological monitoring and decontamination services may be provided by:

Bartlett Nuclear Inc.  
P.O. Box 1800  
Plymouth Industrial Park  
Plymouth, MA 02360

C. Additional GMR-I Canisters provided by:

MSA  
Mine Safety Appliances Co.  
121 Gamma Drive  
Pittsburgh, PA 15238-2937

<b>F8</b>	<b>EMERGENCY SUPPORT AND LOGISTICS</b>	NUMBER: <b>F8-4</b>
		REV: <b>5</b>

**Table 1 Vendor And Consultant Services****6. Emergency Radiological Laboratory Facilities and Assistance**

A. The following vendors have personnel and laboratory facilities available for emergency response:

- 1) Environmental, Inc.  
Midwest Laboratory  
700 Landwehr Road  
Northbrook, IL 60062

Midwest Labs has 24 hour lab service. Contact Bronia Grob.

- 2) Scientech, Inc  
910 Clopper Rd  
Gaithersburg, MD 20878

Scientech, Inc has 24 hour lab service.

- 3) ICN Dosimetry Service  
ICN Plaza  
3300 Hyland Ave.  
Costa Mesa, CA 92626

Contact: Hamy Hoang

B. Before contacting these contractors, contact the REC to assess the total need for radiological services.



<b>PRAIRIE ISLAND NUCLEAR GENERATING PLANT</b>	<b>Title:</b> Emergency Plan Implementing Procedures TOC  Effective Date : 09/18/03 NOTE: This set may contain a partial distribution of this Document Type. Please refer to the CHAMPS Module for specific Copy Holder Contents.
Approved By: <i>Jay Chitty /mg</i> BPS Supt	

Document #	Title	Rev
F3-1	ONSITE EMERGENCY ORGANIZATION	19
F3-2	CLASSIFICATIONS OF EMERGENCIES	32
F3-3	RESPONSIBILITIES DURING A NOTIFICATION OF UNUSUAL EVENT	18
F3-4	RESPONSIBILITIES DURING AN ALERT, SITE AREA, OR GENERAL EMERGENCY	28
F3-5	EMERGENCY NOTIFICATIONS	22
F3-5.1	SWITCHBOARD OPERATOR DUTIES	8
F3-5.2	RESPONSE TO FALSE SIREN ACTIVATION	10
F3-5.3	RESPONSE TO RAILROAD GRADE CROSSING BLOCKAGE	8
F3-6	ACTIVATION & OPERATION OF TECHNICAL SUPPORT CENTER	17
F3-7	ACTIVATION & OPERATION OF OPERATIONAL SUPPORT CENTER (OSC)	16
F3-8	RECOMMENDATIONS FOR OFFSITE PROTECTIVE ACTIONS	20
F3-8.1	RECOMMENDATIONS FOR OFFSITE PROTECTIVE ACTIONS FOR THE ON SHIFT EMERGENCY DIRECTOR /SHIFT MANAGER	13
F3-9	EMERGENCY EVACUATION	18
F3-10	PERSONNEL ACCOUNTABILITY	19
F3-11	SEARCH & RESCUE	8
F3-12	EMERGENCY EXPOSURE CONTROL	14
F3-13	OFFSITE DOSE CALCULATION	15
F3-13.3	MANUAL DOSE CALCULATIONS	11
F3-13.4	MIDAS METEOROLOGICAL DATA DISPLAY	7
F3-13.5	ALTERNATE METEOROLOGICAL DATA	5

Document #	Title	Rev
F3-13.6	WEATHER FORECASTING INFORMATION	12
F3-14.1	ONSITE RADIOLOGICAL MONITORING	11
F3-14.2	OPERATIONS EMERGENCY SURVEYS	10
F3-15	RESPONSIBILITIES OF THE RADIATION SURVEY TEAMS DURING A RADIOACTIVE AIRBORNE RELEASE	22
F3-16	RESPONSIBILITIES OF THE RADIATION SURVEY TEAMS DURING A RADIOACTIVE LIQUID RELEASE	17
F3-17	CORE DAMAGE ASSESSMENT	11
F3-17.1	CORE DAMAGE DETERMINATION	0
F3-18	THYROID IODINE BLOCKING AGENT (POTASSIUM IODIDE)	10
F3-19	PERSONNEL & EQUIPMENT MONITORING & DECONTAMINATION	8
F3-20	DETERMINATION OF RADIOACTIVE RELEASE CONCENTRATIONS	18
F3-20.1	DETERMINATION OF STEAM LINE DOSE RATES	9
F3-20.2	DETERMINATION OF SHIELD BUILDING VENT STACK DOSE RATES	9
F3-21	ESTABLISHMENT OF A SECONDARY ACCESS CONTROL POINT	10
F3-22	PRAIRIE ISLAND RADIATION PROTECTION GROUP RESPONSE TO A MONTICELLO EMERGENCY	17
F3-23	EMERGENCY SAMPLING	19
F3-23.1	EMERGENCY HOTCELL PROCEDURE	13
F3-24	RECORD KEEPING DURING AN EMERGENCY	7
F3-25	REENTRY	8
F3-26.1	OPERATION OF THE ERCS DISPLAY	7
F3-26.2	RADIATION MONITOR DATA ON ERCS	7
F3-26.3	ERDS - NRC DATA LINK	1
F3-29	EMERGENCY SECURITY PROCEDURES	18

PRAIRIE ISLAND NUCLEAR  
GENERATING PLANT

Title : Emergency Plan Implementing  
Effective Date : 09/18/03

Procedures TOC

Document #	Title	Rev
F3-30	TRANSITION TO RECOVERY	6
F3-31	RESPONSE TO SECURITY RELATED THREATS	8
F3-32	REVIEW OF EMERGENCY PREPAREDNESS DURING OR AFTER NATURAL DISASTER EVENTS	2



<b>F3</b>	<b>OPERATIONS EMERGENCY SURVEYS</b>	NUMBER:
		<b>F3-14.2</b>
		REV: <b>10</b>

<b>REFERENCE USE</b>
<ul style="list-style-type: none"><li>• <i>Procedure segments may be performed from memory.</i></li><li>• <i>Use the procedure to verify segments are complete.</i></li><li>• <i>Mark off steps within segment before continuing.</i></li><li>• <i>Procedure should be available at the work location.</i></li></ul>

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<b>F3</b>	<b>OPERATIONS EMERGENCY SURVEYS</b>	NUMBER:
		<b>F3-14.2</b>
		REV: <b>10</b>

## 1.0 PURPOSE

The purpose of this procedure is to provide guidance to the Operations Group in conducting onsite emergency surveys during an emergency. Surveys are necessary to check the habitability of work areas, and to recognize radiological hazards when entering areas to perform equipment operation, search and rescue, etc.

## 2.0 APPLICABILITY

This Instruction **SHALL** apply to the Operations Group and should be applicable during an emergency in event the shift RPS or the normal RPS staff is not available to conduct onsite surveys.

## 3.0 PRECAUTIONS

- 3.1 Consider special requirements for minimizing internal and external exposure, as per this procedure.
- 3.2 Exposures in excess of 5 REM/year **SHALL** be authorized by the Emergency Director.
- 3.3 Respiratory protection **SHALL** be worn for radiation levels greater than 100 mR/hr  $\beta\gamma$  or surface contamination greater than 100,000 dpm/100 cm<sup>2</sup>  $\beta\gamma$ . SCBA **SHALL** be worn for air sample greater than  $1 \times 10^{-7}$   $\mu$ Ci/cc Gross  $\beta\gamma$ . This number is based on gross iodine. After isotopic and DAC hours are determined, SCBAs may be removed with REC's permission.

<b>F3</b>	<b>OPERATIONS EMERGENCY SURVEYS</b>	NUMBER: <b>F3-14.2</b>
		REV: <b>10</b>

#### 4.0 PROCEDURE

4.1 Upon notification of an Emergency condition, the operator requested to perform onsite surveys **SHALL** report to the Emergency Director immediately.

4.2 Obtain the following information from the Emergency Director.

4.2.1 Area(s) to be monitored.

4.2.2 Specific survey(s) to be performed.

4.2.3 Protective clothing or type of respiratory protection required.

A. IF Aux. Bldg Special is running with valid signal, THEN Full Suit-up with SCBA.

B. IF radioactive leak to atmosphere is suspected AND conditions are unknown, THEN Full Suit-up with respirator and GRM-I canister.

4.3 Proceed to the Operational Support Center (OSC) and obtain the necessary equipment required to perform the specific survey, from the OSC Emergency Locker.

4.4 Don protective clothing, as necessary.

4.5 Ensure TLD and dosimeters are worn.

4.6 WHEN appropriate, THEN remove respirator from bag, inspect, affix canister and don respirator.

<b>F3</b>	<b>OPERATIONS EMERGENCY SURVEYS</b>	NUMBER: <b>F3-14.2</b>
		REV: <b>10</b>

**NOTE:** Use a RO-20 or RO-2A while performing surveys. A  $\beta$  plus  $\gamma$  reading indicates the plume has been encountered. A  $\gamma$  reading with no  $\beta$  indicates the plume is elevated or displaced. DO NOT linger in the plume longer than necessary.

#### 4.7 Perform a General Radiation Survey:

**NOTE:** Observe cold weather operation restrictions, Figure 1, if surveys are to be performed outdoors.

**NOTE:** Two (2) dose rate meters should be used if radiation levels are expected to be greater than 10 Rem/hour.

**NOTE:**  $\beta$  radiation levels indicate high level contamination or airborne activity.

**NOTE:**  $\beta$  readings greater than 100 mRem/hr requires respiratory protection.

##### 4.7.1 Select the PINGP form that covers the area to be surveyed.

- PINGP 603, Turbine Building Floor Sketches
- PINGP 605, Aux Building Floor Sketches
- PINGP 765, Prairie Island Security Fenced Site Plan

##### 4.7.2 IF the survey meter goes off-scale high, OR the meter malfunctions, THEN leave the area immediately.

##### 4.7.3 IF the dose rate exceeds 10 Rem/hr, OR if exposures approach 3 Rem, THEN retreat to a low background area. **Notify** the Emergency Director and await further instructions.

<b>F3</b>	<b>OPERATIONS EMERGENCY SURVEYS</b>	NUMBER:
		<b>F3-14.2</b>
		REV: <b>10</b>

4.8 IF applicable, THEN determine stay times as follows:

$$\text{STAY TIME (hours)} = \frac{\text{Allowable Exposure (mRem)}}{\text{Dose Rate (mRem/hr)}} = \frac{4000}{\text{Current Exposure (mRem)}} \cdot \frac{\text{Dose Rate (mRem/hr)}}{\text{Dose Rate (mRem/hr)}}$$

4.9 Perform Contamination Surveys:

4.9.1 Obtain smears, plastic bags, and appropriate survey maps from the OSC Emergency Locker.

- PINGP 566, Emergency Smear Survey Log, and
- PINGP 603, Turbine Building Floor Sketches, and/or
- PINGP 605, Aux Building Floor Sketches
- PINGP 765, Prairie Island Security Fenced Site Plan

4.9.2 Don protective clothing as appropriate.

4.9.3 Proceed to the survey area.

**NOTE:**

Contamination levels > 100,000 dpm/100cm<sup>2</sup> requires respiratory protection.

4.10 Perform an Air Sample Survey:

4.10.1 Obtain an air sampler from the OSC Emergency Locker (RAS-1 or RADECO).

4.10.2 Select PINGP form that is associated with air-sampler being used.

- PINGP 564, Collecting Air Sample Using A RADECO,

OR

- PINGP 565, Collecting Air Samples Using A RAS-1.

<b>F3</b>	<b>OPERATIONS EMERGENCY SURVEYS</b>	NUMBER:
		F3-14.2
		REV: 10

**NOTE:** DO NOT place the sampler on the ground or on contaminated surfaces.

**4.10.3** IF appropriate, leave the area during sample run time to minimize exposure.

**NOTE:** Use clean gloves and exercise precaution when handling filters and adsorbers to prevent cross contamination.

**4.10.4** IF manual calculation desired to determine the particulate activity, THEN calculate the sample volume and sample activity as follows:

1. RAS-1

$$\text{Flow Rate (LPM)} \times \text{Flow Rate Correction Factor} \times 1000 \text{ cc/liter} \times \text{run time (min)} = \frac{\text{cc}}{\text{Sample Volume}}$$

$$\frac{\text{Net Counts} \times 4.5 \times 10^{-6}}{\text{Sample Volume (cc)}} = \frac{\mu\text{ci/cc}}{\text{Sample Activity}}$$

2. RADECO

$$\text{Flow Rate (SCFM)} \times \text{Flow Rate Correction Factor} \times 28320 \text{ cc/SCF} \times \text{run time (min)} = \frac{\text{cc}}{\text{Sample Volume}}$$

$$\frac{\text{Net Counts} \times 1.5 \times 10^{-5}}{\text{Sample Volume (cc)}} = \frac{\mu\text{ci/cc}}{\text{Sample Activity}}$$

<b>F3</b>	<b>OPERATIONS EMERGENCY SURVEYS</b>	<b>NUMBER:</b> <b>F3-14.2</b>
		<b>REV:</b> <b>10</b>

**NOTE:**     Particulate activity  $\geq 1 \times 10^{-7}$   $\mu\text{Ci}/\text{cc}$  requires the use of a SCBA.

**4.10.5**     IF manual calculation is desired to determine the Iodine activity, THEN proceed as follows:

A.     Using the Corrected Count Per Minute (CCPM) obtained, and the gross iodine table, Figure 2, determine the iodine activity ( $\mu\text{Ci}$ ) on the adsorber.

B.     Calculate the specific iodine activity ( $\mu\text{Ci}/\text{cc}$ ) in the sample as follows:

$$\frac{\mu\text{Ci Iodine}}{\text{Sample Volume (CC's)}} = \text{_____ } \mu\text{Ci}/\text{cc}$$

**NOTE:**     Iodine activity  $\geq 1 \times 10^{-7}$   $\mu\text{Ci}/\text{cc}$  requires use of SCBA.

<b>F3</b>	<b>OPERATIONS EMERGENCY SURVEYS</b>	NUMBER:	<b>F3-14.2</b>
		REV:	<b>10</b>

**Figure 1 Cold Weather Operation Restrictions**

1. If outside temperature is greater than 32°F (0°C), instrument use is unlimited.
2. If outside temperature is between 32°F (0°C) and 0°F (-18°C), no instrument should be used for more than 5 minutes.
3. If outside temperature is between 0°F (-18°C) and -20°F (-28°C), no instrument should be used for more than 2 minutes.
4. If the outside temperature is below -20°F (-28°C), no instrument should be used unless special batteries (alkaline or Ni-CD) are in the instrument and this would increase the temperature range to -40°F (-40°C). The instrument should only be used for very short times (less than 30 seconds).
5. The instrument should completely warm up between periods of cold weather use. Instrument warm-up may be indoors or in a heated vehicle and should take 2-5 minutes.



<b>F3</b>	<b>OPERATIONS EMERGENCY SURVEYS</b>	NUMBER:
		<b>F3-14.2</b>
		REV: <b>10</b>

**Figure 2 Gross Iodine Table Using RM-14 or Equivalent With 2 Inch Pancake Probe With Silver Zeolite Adsorber**

CCPM	uCi Iodine	CCPM	uCi Iodine	CCPM	uCi Iodine
30	0.001	400	0.20	4000	2.1
40	0.009	450	0.23	4500	2.5
50	0.013	500	0.26	5000	2.8
60	0.020	600	0.30	6000	3.2
70	0.025	700	0.36	7000	3.8
80	0.031	800	0.40	8000	4.5
90	0.035	900	0.46	9000	5.0
100	0.043	1000	0.50	10000	5.6
120	0.053	1200	0.60	12000	6.0
140	0.060	1400	0.70	14000	7.5
160	0.070	1600	0.80	16000	10.0
180	0.090	1800	0.90	18000	13.0
200	0.100	2000	1.00	20000	15.0
220	0.120	2200	1.10	25000	25.0
240	0.140	2400	1.20	30000	33.0
260	0.150	2600	1.40	35000	50.0
280	0.160	2800	1.50	40000	60.0
300	0.170	3000	1.60	45000	100.0
350	0.180	3500	1.80		