

New Hampshire Yankee

Ted C. Feigenbaum
President and
Chief Executive Officer

NYN-90208

December 4, 1990

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Reference: Facility Operating License No. NPF-86, Docket No. 50-443

Subject: Emergency Response Manual Revision

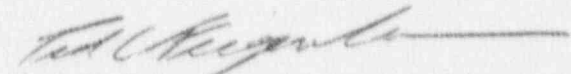
Gentlemen:

Enclosed, please find Revision 57 to the Seabrook Station Production Emergency Response Manual (NPER). The transmittal of this material to you was inadvertently delayed due to an administrative error.

This document is issued as a controlled distribution, and it is requested that you sign the receipt acknowledgement form and return it to the Seabrook Station Records Management Department. The enclosed receipt acknowledgement form documents receipt of these revisions.

Should you have any questions regarding these changes, please call Mr. James M. Peschel, Regulatory Compliance Manager, at (603) 474-9521, extension 3772.

Very truly yours,


Ted C. Feigenbaum

Enclosure

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United States Nuclear Regulatory Commission
Attention: Document Control Desk

December 4, 1990
Page two

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CHANGE INSTRUCTIONS

PRODUCTION EMERGENCY RESPONSE MANUAL

(NPER)

REMOVE	INSERT
Cover Sheet	Cover Sheet Rev. 57
Table of Contents (Entire)	Table of Contents Rev. 57
List of Effective Pages	List of Effective Pages Rev. 57
ER 5.2 (Entire)	ER 5.2, Site Perimeter and Offsite Monitoring and Environmental Sampling Rev. 14
ER 5.8 (Entire)	ER 5.8, Ingestion Exposure Pathway Coordination Rev. 1

DIRECT ANY CONCERNS REGARDING THIS REVISION TO MANUALS AND PROCEDURES SECTION AT EXT 3420.

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* PRODUCTION EMERGENCY RESPONSE MANUAL *
*
* (NPER) *
*

1. Does this manual/manual revision:
 - a. Make changes in the facility as described in the FSAR? Yes No
 - b. Make changes in procedures as described in the FSAR? Yes No
 - c. Involve tests or experiments not described in the FSAR? Yes No
 - d. Involve changes to the existing Operating License or require additional license requirements? Yes No

2. If any of the above questions are answered yes, a safety evaluation per NHY Procedure 11210 is required.

SUBMITTED BY J. A. Macdonald 8-7-90
J. A. MACDONALD, RADIOLOGICAL TECHNICAL SPECIALIST DATE

SORC REVIEW COMPLETED DURING MEETING 90-223 8-24-90
NUMBER DATE

APPROVED BY B. J. Drawbridge 8/24/90
B. J. DRAWBRIDGE, EXECUTIVE DIRECTOR - DATE
NUCLEAR PRODUCTION

REVISION 57 - EFFECTIVE: 09-11-90

DATE OF LAST PERIODIC REVIEW: 11/28/89
DATE NEXT PERIODIC REVIEW DUE: 11/28/91

PRODUCTION EMERGENCY RESPONSE MANUAL
(NPER)

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EMERGENCY RESPONSE PROCEDURE COVER FORM

A. IDENTIFICATION

NUMBER ER 5.2 REVISION 14
TITLE SITE PERIMETER AND OFFSITE MONITORING AND ENVIRONMENTAL
SAMPLING
ORIGINATOR G. M. Keyes

1. Does this procedure/procedure revision:
- a. Make changes in the facility as described in the FSAR? Yes No
 - b. Make changes in procedures as described in the FSAR? Yes No
 - c. Involve tests or experiments not described in the FSAR? Yes No
 - d. Involve changes to the existing Operating License or require additional license requirements? Yes No
2. If any of the above questions are answered yes, a safety evaluation per NHY Procedure 11210 is required.

B. INDEPENDENT REVIEW

<u>TITLE</u>	<u>SIGNATURE</u>	<u>DATE</u>
<u>Health Physics Supr.</u>	<u>Stacy L. Dody</u>	<u>8/6/90</u>

C. SORC REVIEW

SORC MEETING NO. 90-223

D. APPROVAL AND IMPLEMENTATION

<u>Stacy L. Dody</u> STATION MANAGER	<u>8-24-90</u> APPROVED DATE	<u>09-11-90</u> EFFECTIVE DATE
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1.0 OBJECTIVES

This procedure specifies the emergency response actions to accomplish site-perimeter and offsite radiological monitoring and environmental sampling.

2.0 RESPONSIBILITIES

2.1 OFFSITE MONITORING COORDINATOR (5.1)

Responsible for coordination of emergency site perimeter and offsite monitoring and environmental sampling.

2.2 OFFSITE MONITORING AND SAMPLING PERSONNEL (5.2)

Responsible for performing emergency environmental sampling and monitoring as directed by the Offsite Monitoring Coordinator.

2.3 SAMPLE ANALYSIS PERSONNEL (5.3)

Responsible for analyzing emergency air samples collected by offsite sampling teams, and coordinating the transfer of other environmental samples from teams to either the YNSD Environmental Laboratory or Mobile Environmental Laboratory.

2.4 OFFSITE MONITORING COMMUNICATOR (5.4)

Responsible for relaying messages to and from offsite teams and also for maintaining a continuous log of location and radiological data.

2.5 RADIOLOGICAL ASSISTANT (5.5)

Coordinates radiological control measures at the Emergency Operations Facility (EOF), including decontamination activities.

3.0 PRECAUTIONS

Monitor exposure by frequently reading pocket dosimeters during monitoring and sampling actions.

4.0 PREREQUISITES

Not applicable to this procedure.

5.0 ACTIONS

5.1 OFFSITE MONITORING COORDINATOR

1. Review station emergency operational, radiological and meteorological conditions with the EOF Coordinator, Dose Assessment Specialist, NH Monitoring Team Coordinator, and NHY Offsite Response Organization (ORO) Field Team Dispatcher to determine the need for offsite monitoring or sampling support. Coordinate requests from the Field Team Dispatcher and NH Monitoring Team Coordinator regarding NHY ORO field team dispatch and sample analysis.
2. As personnel report, group them in pairs consisting of one leader and one team driver. Assign them to offsite monitoring and sampling teams by number (1, 2, or 3).
3. Ensure that all personnel reporting log in and out on the EOF Personnel Roster.
4. Ensure that vehicles are available for use by the monitoring and sampling teams.
5. Ensure that the teams complete their Offsite Monitoring and Sampling Team Predeployment Checklist, Form ER 5.2A.
6. Provide a blanket extension up to 2900 mrem/quarter for the offsite monitoring teams.
7. Have monitoring personnel request Dosimetry Records personnel to establish current quarter dose information.
8. Notify Dosimetry Records personnel of any further (i.e., greater than 2900) exposure limit changes.
9. As survey teams report they are ready for dispatch, inform the Dose Assessment Specialist.
10. In coordination with the NHY ORO Field Team Dispatcher and the NH Monitoring Team Coordinator, brief teams on station emergency conditions, projected plume location, and exposure considerations utilizing Form ER 5.2B, Offsite Monitoring and Sampling Team Briefing Form.
11. Upon the direction of the Dose Assessment Specialist, review the location of the projected plume, local population, and meteorological considerations and dispatch the survey teams to traverse these offsite areas. Direct offsite teams to identify the locations of maximum ground level concentration and plume boundaries at various locations, if possible.

5.1 OFFSITE MONITORING COORDINATOR

NOTE

In many cases monitoring at the site boundary may not be feasible because of the terrain. Ensure that precise survey locations are identified.

12. Evaluate the benefit of respiratory protection against the radiological hazard and interference with the performance of required actions.

13. Determine the need to dispense potassium iodide (KI) tablets to emergency personnel based upon:

NOTE

Administering KI after an uptake may limit thyroid dose depending on time after exposure.

- a. iodine concentration,
- b. time relative to iodine exposure, and
- c. projected intake (e.g., > 500 MPC hrs.).

14. Direct the Offsite Monitoring Communicator to maintain communications with all offsite monitoring and sampling teams via the VHF radio system.

15. Direct the Offsite Monitoring Communicator to relay messages to and from offsite survey teams and to maintain a continuous log of location and radiological data on the Field Survey/Air Sample Calculation Worksheet, Form ER 5.2C.

16. As survey teams call in radiological data, calculate the particulate and iodine activity concentration of the samples using the formula on Form ER 5.2C. Notify the Dose Assessment Specialist, the NHY ORO Field Team Dispatcher and the NH Monitoring Team Coordinator when offsite data becomes available.

NOTE

For higher activity samples place an R02 or R02A on the collection face of the cartridge open window. Divide the dose rate (net) of the sample by 0.5 mR/hr/ μ Ci to determine sample activity.

$$I-131 \mu\text{Ci/cc} = \frac{\text{Net (mR/hr)}}{(.5 \text{ mR/hr}/\mu\text{Ci})(\text{Vol. ft}^2)(28,320 \text{ cc/ft}^3)}$$

(Protected: Ref. 6.9)

5.1 OFFSITE MONITORING COORDINATOR

17. Attempt to identify actual plume characteristics and centerline values. Review offsite team distribution with the NHY ORO Field Team Dispatcher and NH Monitoring Team Coordinator and assign locations in accordance with the estimated plume characteristics.

NOTE

The NH Monitoring Team Coordinator retains the right to assign the NH teams if he so deems.

18. Evaluate and control the radiological exposures being accumulated by offsite teams. Update teams on plant emergency conditions, plume location and exposure considerations.

19. When appropriate or upon completion of their assignments, direct survey teams to report back to the EOF for sample delivery.

20. As environmental radiological air sample data becomes available from Sample Analysis Personnel, notify the Dose Assessment Specialist.

21. As environmental radiological sample data becomes available from the YNSD Environmental Laboratory, notify the Dose Assessment Specialist.

22. For environmental sampling, instruct the offsite monitoring teams to use either the ten-mile grid maps or the fifty-mile grid maps for documenting sample locations.

5.2 OFFSITE MONITORING AND SAMPLING PERSONNEL

5.2.1 Predeployment Actions

1. Sign in on the EOF Personnel Roster.
2. Report to the Offsite Monitoring Coordinator at the EOF for team and vehicle assignments.

5.2 OFFSITE MONITORING AND SAMPLING PERSONNEL

5.2.1 Predeployment Actions

3. Obtain the monitoring and sampling kit corresponding to the team number from the storage area. Complete the checklist steps listed in Form ER 5.2A, Offsite Monitoring and Sampling Team Predeployment Checklist.

NOTE

Additional sampling equipment and specific predeployment actions may be necessary depending on the samples requested by the Offsite Monitoring Coordinator.

NOTE

Exact inventory of consumable supplies in kit is not necessary. Assess adequacy of stock on hand.

4. Proceed to assigned vehicle with kit.
5. Place all survey equipment in survey vehicle.
6. When the predeployment checklist has been completed and personnel are ready to be dispatched, contact the Offsite Monitoring Coordinator to receive a predeployment briefing. Complete Form ER 5.2B during the briefing.

5.2.2 Monitoring Actions En Route to Survey Locations

1. While en route to the assigned survey location, monitor the radiation levels.
2. If requested by the Offsite Monitoring Coordinator, report any readings and locations.
3. When the assigned survey location has been reached, determine the sample location using the Offsite Monitoring Team Ten-Mile EP2 Grid Map (Figure 1) as follows:
 - a. Locate the one square mile quadrant you are in (e.g., the plant quadrant location is 9-K).

5.2 OFFSITE MONITORING AND SAMPLING PERSONNEL

5.2.2 Monitoring Actions En Route to Survey Locations (Continued)

b. Break up the quadrant into 9 squares resembling a telephone keypad.

1	2	3
4	5	6
7	8	9

K

9

c. Determine where you are in the quadrant (e.g., the location of the plant within quadrant 9-K is 6).

d. The sample location is recorded using the number on the grid map first, the letter on the grid map second, and the number location within the quadrant last (e.g., the plant location is 9-K-6).

e. Record the location on the Field Survey/Air Sample Data Form, Form ER 5.2D.

4. Complete the appropriate steps in §5.2.3 as directed by the Offsite Monitoring Coordinator.

5.2.3 Monitoring and Sampling Actions at the Assigned Locations

1. Beta-Gamma Dose Rate Survey

a. At each location, survey for the following and record readings on Form ER 5.2D:

- 1) gamma radiation levels at waist level,

NOTE

If the area dose rate equals or exceeds 500 mR/hr, immediately report this to the Offsite Monitoring Coordinator.

- 2) beta and gamma radiation levels at waist level, and
- 3) the highest beta and gamma radiation level indicated by a square meter scan about two inches above the ground.

5.2 OFFSITE MONITORING AND SAMPLING PERSONNEL

5.2.3 Monitoring and Sampling Actions at the Assigned Locations (Continued)

b. If no further samples were requested report the results to the EOF.

2. Air Sampling Using Portable Air Sampler

a. Connect the portable air sampler to the vehicle battery.

CAUTION

LEAVE THE ENGINE RUNNING AND BE SURE TO MATCH RED CLAMP TO POSITIVE TERMINAL AND BLACK CLAMP TO A GROUND (i.e., ENGINE BLOCK).

b. Check the air sampler head for proper loading of silver zeolite cartridge and paper filter.

c. Air samples should be taken in open areas away from trees, buildings, and shielded from weather conditions.

d. Unless otherwise directed, obtain a minimum 20 cubic feet (560 liters) sample. Record start and stop times and flow rate on Form ER 5.2D, Field Survey/Air Sample Data Form.

NOTE

Use the calibration flow rate from the attached sticker.

e. After the sample is collected, measure background count rate using the E-140 W/HP 210 probe. Record on Form ER 5.2D.

NOTE

If the background is >300 CPM, move to an area of lower background.

f. Remove the sampler head and separate the filter holder from the cartridge holder.

g. Using the filter holder as the counting geometry, count the filter and record the results on Form ER 5.2D.

h. Count the silver zeolite cartridge (on contact) and record results on Form ER 5.2D.

5.2 OFFSITE MONITORING AND SAMPLING PERSONNEL

5.2.3 Monitoring and Sampling Actions at the Assigned Locations (Continued)

- i. Place the samples in a labeled plastic bag(s) for storage (label by location and time).
- j. Report the results to the EOF. Read the information from Form ER 5.2D using the number designation of each entry. Do not relay any units over the radio.
- k. Remain in low background area and wait for further instructions. Inform the EOF in the event radiological conditions warrant changing your location.
- l. A projected thyroid dose may be estimated from the measured I-131 concentration through the field analysis of silver zeolite cartridges by using Figure 2, Field Sample Thyroid Dose Nomogram.

5.2.4 Return to the EOF

1. When directed to return to the EOF by the Offsite Monitoring Coordinator, park the vehicle in the vehicle monitoring area.
2. Notify the Communicator by radio of your arrival at the EOF.
3. Dispose of all radioactive waste in drum provided inside the vehicle monitoring area.
4. Monitor hands, head and feet for contamination. If contaminated, report to the Radiological Assistant.
5. Deliver sample bags and data sheets to the Radiological Assistant.
6. Return to your vehicle and monitor the inside and outside for contamination. Survey for smearable and fixed contamination inside and out paying close attention to the air filter and radiator.
7. Document vehicle survey in accordance with Procedure ER 4.6, Offsite Monitoring and Decontamination, documenting all contamination levels greater than 1,000 dpm/100cm² beta gamma smearable and 100 cpm/probe area beta gamma fixed.
8. Remove remaining protective clothing and perform a whole body frisk at the Radiological Assistant control point.

5.2 OFFSITE MONITORING AND SAMPLING PERSONNEL

5.2.4 Return to the EOF

9. Use Procedure ER 4.6 to document and report all personnel contamination greater than 100 cpm/probe area above background beta gamma to the Radiological Assistant.
10. For dosimetry processing report to the dosimetry records workstation with thermoluminescent dosimeters (TLD) and self-reading pocket dosimeters (SRPD).
11. Await further assignments. While waiting, assist the Radiological Assistant, as necessary, recheck your survey kit and prepare it for further use. When ready for redeployment report to the dosimetry records workstation for current quarter exposure update and issue of dosimetry.

5.2.5 Subsequent Sampling Actions

1. Air Sampling Using Installed Environmental Air Samplers
 - a. Complete the steps listed in Procedure EC 3.1 (see the Environmental Compliance Manual (NYEC)), Radiological Environmental Sampling of Air Particulates and Radioiodine, as directed by the Offsite Monitoring Coordinator. The equipment necessary to complete the procedure is provided at the EOF. Obtain necessary equipment prior to leaving EOF.

NOTE

The Offsite Monitoring Coordinator specifies the locations from which environmental air samples are to be obtained. Do not proceed to each location unless directed.

- b. Report any problems encountered to the Offsite Monitoring Coordinator.
 - c. When samples have been collected, labeled, and packaged turn them in to the Radiological Assistant at the EOF.
2. Smear Sampling
 - a. When requested by the Offsite Monitoring Coordinator, obtain a smear sample of approximately 100cm² in the sampling area.
 - b. Count the smear using an E140 or equivalent count rate meter.
 - c. Record the results on Form ER 5.2D. Report the results to the EOF.

5.2 OFFSITE MONITORING AND SAMPLING PERSONNEL

5.2.5 Subsequent Sampling Act (continued)

d. Place the smear in a labeled envelope for possible further analysis at the EOF.

3. TLD Collection and Analysis

a. Prepare for TLD retrieval and replacement in accordance with Procedure EC 3.2, Environmental Monitoring of Direct Radiation, omitting steps as directed by the Offsite Monitoring Coordinator.

b. If background dose rates warrant, place retrieved and replacement TLDs in a shielded box during transit.

c. As directed by the Offsite Monitoring Coordinator, proceed to the TLD locations and change out the TLDs in accordance with Procedure EC 3.2.

d. Return the TLDs to the Dosimetry Analysis Personnel for evaluation.

4. Milk Sampling

a. Prepare for milk sampling in accordance with Procedure EC 3.5, Radiological Environmental Sampling of Milk, omitting steps as directed by the Offsite Monitoring Coordinator.

b. Proceed to the milk sample locations as specified by the Offsite Monitoring Coordinator and obtain the sample.

c. Label samples (location, date, time). Forward the samples to the Radiological Assistant.

5. Sampling of Food Crops and Vegetation

a. Prepare for vegetation and food crop sampling in accordance with Procedure EC 3.4, Radiological Environmental Sampling of Food Crops and Vegetation, omitting steps as directed by the Offsite Monitoring Coordinator.

b. Proceed to the specified sampling locations and obtain the required samples.

c. For samples of vegetation not covered by Procedure EC 3.4, obtain specific direction on collection requirements from the Offsite Monitoring Coordinator.

5.2 OFFSITE MONITORING AND SAMPLING PERSONNEL

5.2.5 Subsequent Sampling Actions (Continued)

d. Label samples (location, date, time). Forward the samples to the Radiological Assistant.

6. Water Sampling

a. When specified by the Offsite Monitoring Coordinator, obtain two one-gallon containers for fresh water grab samples.

b. Collect two one-gallon grab samples from each sampling point specified by the Offsite Monitoring Coordinator.

c. Label samples (location, date, time). Forward samples to the Radiological Assistant.

7. Snow Sampling

a. Obtain a meter stick, scoop and plastic bag for snow sampling.

b. At sampling locations specified by the Offsite Monitoring Coordinator, stake off a one meter square plot in an open area.

c. Using a scoop, obtain a one inch deep sample from the surface of the entire 1 meter by 1 meter area (avoid any debris such as leaves, twigs, and soil in the sample).

d. Place snow in a plastic bag for transport to the preparation area. Mark the bag indicating the sample location, date, time, and other relevant information.

e. Forward samples to the Radiological Assistant.

8. Soil Sampling

a. Choose an open area that is free of manmade or environmental disturbances such as mining, erosion or flooding. The area should be easily sampled, free of large stones, trees and other heavy vegetation.

b. Select a sample container capable of holding the volume of soil collected.

c. Label the sample container using a waterproof marker indicating the sample location, date, time, and any other relevant information.

5.2 OFFSITE MONITORING AND SAMPLING PERSONNEL

5.2.5 Subsequent Sampling Actions (Continued)

- d. Mark off a 20 inch by 20 inch area. Remove vegetation, stones larger than a half inch in diameter, and other debris from the area.
- e. Remove the dirt outlined with a sampling scoop to a depth of approximately 1 inch.
- f. Transfer the dirt to the sample container and seal securely.
- g. Forward samples to the Radiological Assistant.

5.3 SAMPLE ANALYSIS PERSONNEL

1. Sign in on the EOF Personnel Roster.
2. Report to the Offsite Monitoring Coordinator at the EOF.
3. Analyze incoming samples in accordance with Procedure ER 5.5, Use of EOF Series 85 Multichannel Analyzer.
4. Complete analysis using Figure 6, Sample Analysis Worksheet, to calculate the following:
 - a. Sample volume and gross activity,
 - b. Calculated Infant Thyroid dose rate, and
 - c. Calculated Fraction MPC for each identified isotope.

CAUTION

IF THE CALCULATED IODINE AIR CONCENTRATION EXCEEDS 1×10^{-7} $\mu\text{Ci/cc}$, OR PARTICULATE FISSION PRODUCT CONCENTRATIONS EXCEED THEIR RESPECTIVE MPCs, NOTIFY THE OFFSITE MONITORING COORDINATOR. DO NOT ERASE MCA MEMORY UNTIL SO DIRECTED.

5. Record sample information on the lower half of Form ER 5.2D, Sample Analysis section, and attach Figure 6 and sample analysis printout.

5.3 SAMPLE ANALYSIS PERSONNEL

6. As directed by the Offsite Monitoring Coordinator, evaluate the iodine sample cartridges for potential breakthrough as follows (Protected: Ref. 6.9):

- a. Count inlet side with Ludlum 2200/HP-210 probe per Reference 6.7.
- b. Count outlet side with Ludlum 2200/HP-210 probe per Reference 6.7.
- c. Divide the results of step a above by the results of step b above.
- d. If the quotient is less than two (2), notify the Offsite Monitoring Coordinator.

7. Coordinate with YNSD Environmental Lab staff in the analysis of environmental samples.

5.4 OFFSITE MONITORING COMMUNICATOR

1. Sign in on the EOF Personnel Roster.
2. Report to the Offsite Monitoring Coordinator at the EOF.
3. As directed, set up the offsite sampling team base radio system.
4. Obtain blank copies of Form ER 5.2C.
5. Obtain copies of Form ER 7.4A, Emergency Facility Log to maintain a continuous log of all communications and/or events.
6. As teams attempt to establish radio communications with the EOF base radio, respond as appropriate.
7. At the direction of the Offsite Monitoring Coordinator, relay additional details regarding surveys and techniques.
8. As teams radio in to report data, record the information on Form ER 5.2C or ER 7.4A as applicable.
9. Ensure that the Offsite Monitoring Coordinator is aware of incoming information.

5.5 RADIOLOGICAL ASSISTANT

1. Report to the Offsite Monitoring Coordinator.
2. Assist the Coordinator in the dispatch of the teams.
3. Coordinate with Dosimetry Records personnel on EOF access control for contamination monitoring once the teams have dispatched.
4. Establish a Chronological Event Log and document all activities at the contamination control point.
5. As needed, request additional personnel from the NHY Offsite Monitoring Coordinator.
6. Coordinate Yankee Atomic Electric Company (YAEC) Environmental Lab and Dosimetry Support vehicle(s) placement inside the potential contamination zone.
7. Assist YAEC Lab personnel establish their activities within the EOF.
8. Notify the Offsite Monitoring Coordinator, the NH Monitoring Team Coordinator and the NHY ORO Field Team Dispatcher of YAEC Lab personnel arrival.
9. Establish sample receipt and transfer process within the EOF.
10. Direct all EOF decontamination activities.
11. Coordinate with the Offsite Monitoring and Sampling Teams returning to the EOF for implementation of any required decontamination practices.
12. Complete Form ER 5.2E, Environmental Lab Sample Submission, for air and milk samples and forward samples to the Sample Analysis Personnel.
13. Food Crops and Vegetation Samples
 - a. Prepare sample in accordance with Procedure EC 3.4, Sampling of Food Crops and Vegetation.
 - b. For sample preparation not covered by Procedure EC 3.4, obtain direction from the Offsite Monitoring Coordinator.
 - c. Complete Form ER 5.2E.
 - d. Forward samples to the Sample Analysis Personnel.

5.5 RADIOLOGICAL ASSISTANT

14. Water Samples

- a. Add 80 ml of concentrated HCL per gallon and 100 mg NaHSO₃ per gallon to one sample and 80 ml of concentrated HNO₃ per gallon to the other. Clearly denote on each container which acid is used.
- b. Complete Form ER 5.2E.
- c. Forward samples to the Sample Analysis Personnel.

15. Snow Samples

- a. Melt the snow in the plastic bag(s) and transfer the contents to one-gallon size containers.
- b. Complete Step 14 above for water samples, except identify on Form ER 5.2E as snow.

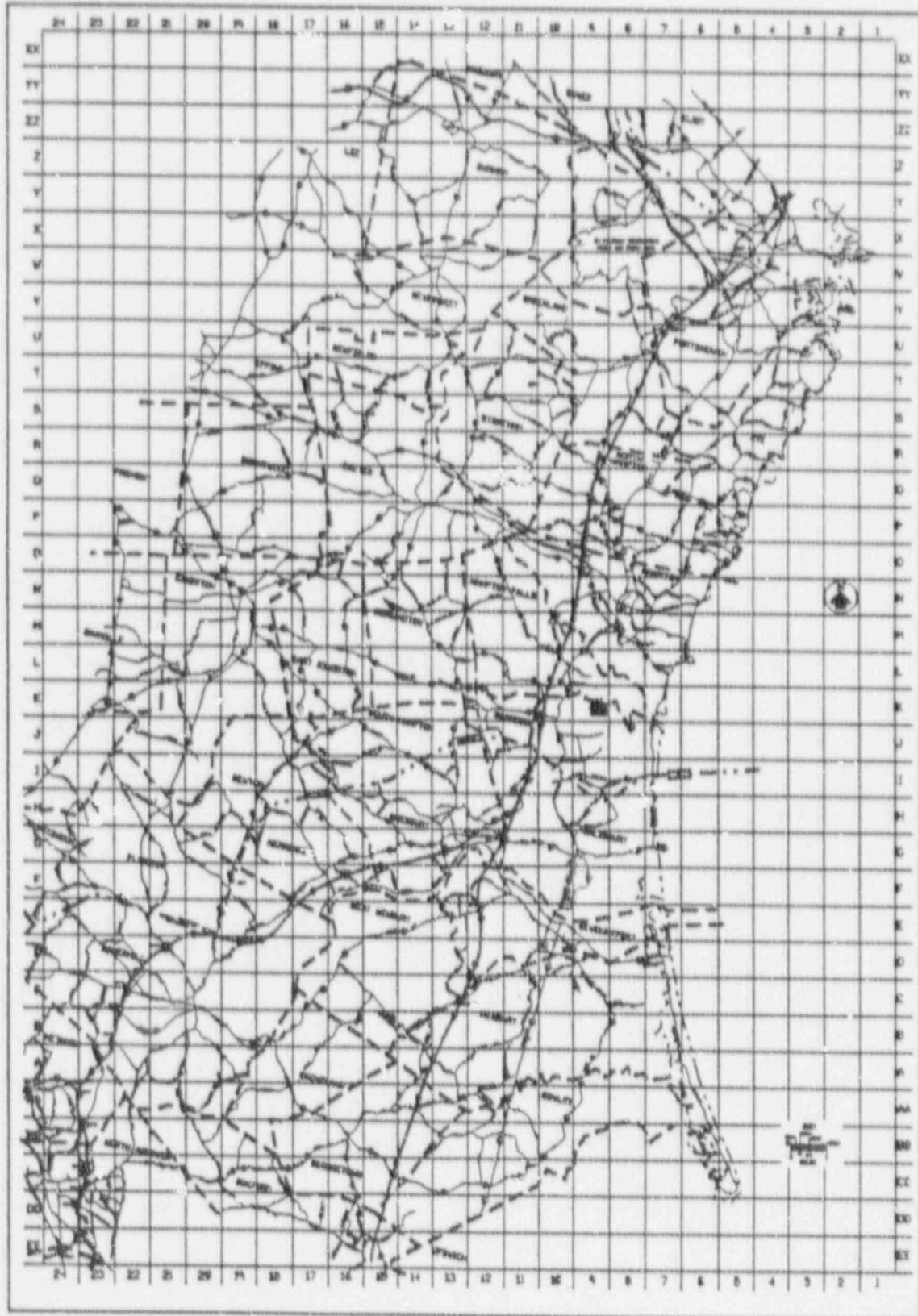
16. Soil Samples

- a. Weigh sample.
- b. Complete Form ER 5.2E, Environmental Lab Sample Submission.
- c. Forward samples to the Sample Analysis Personnel.

6.0 REFERENCES

1. ER 5.5, Use of the EOF Series 85 Multichannel Analyzer
2. EC 3.1, Radiological Environmental Sampling of Air Particulates and Radioiodine
3. EC 3.2, Environmental Monitoring of Direct Radiation
4. EC 3.5, Radiological Environmental Sampling of Milk
5. EC 3.4, Sampling of Food Crops and Vegetation
6. EPA 520/1-75-001, Manual For Protective Action Guides and Protective Action for Nuclear Incidents
7. SS# 25564, Establishing Efficiencies for Field Calculations of Radioactive Activity on Air Sample Cartridges, June 16, 1986
8. ER 7.4, Documentation and Record Keeping
9. NRC Inspection Report No. 50-433/89-19
10. ER 4.6, Offsite Monitoring and Decontamination

FIGURE 1
OFFSITE GRID MAP
10-MILE EPZ



.JGNI

NHY_EPLAN:EP

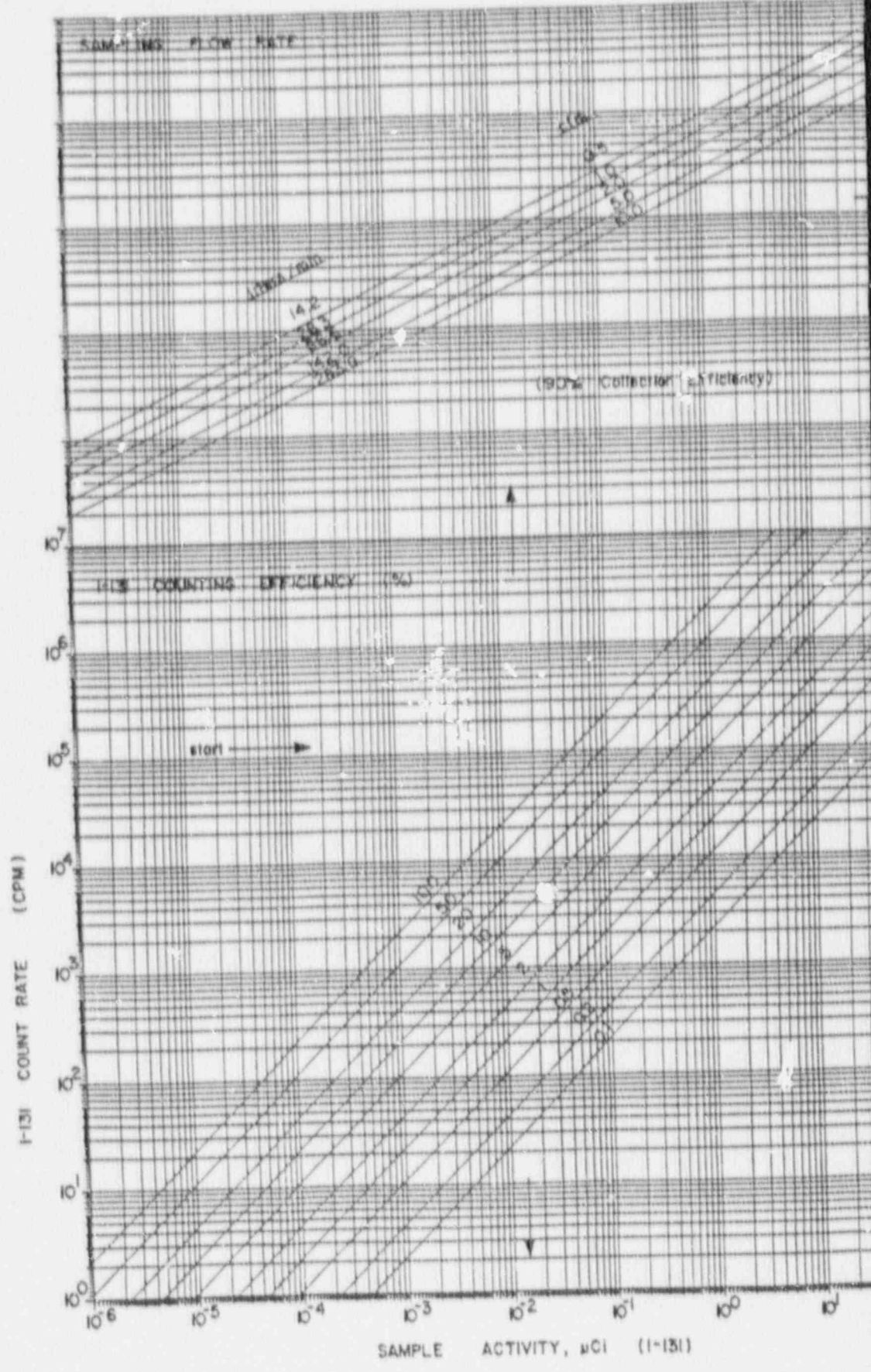
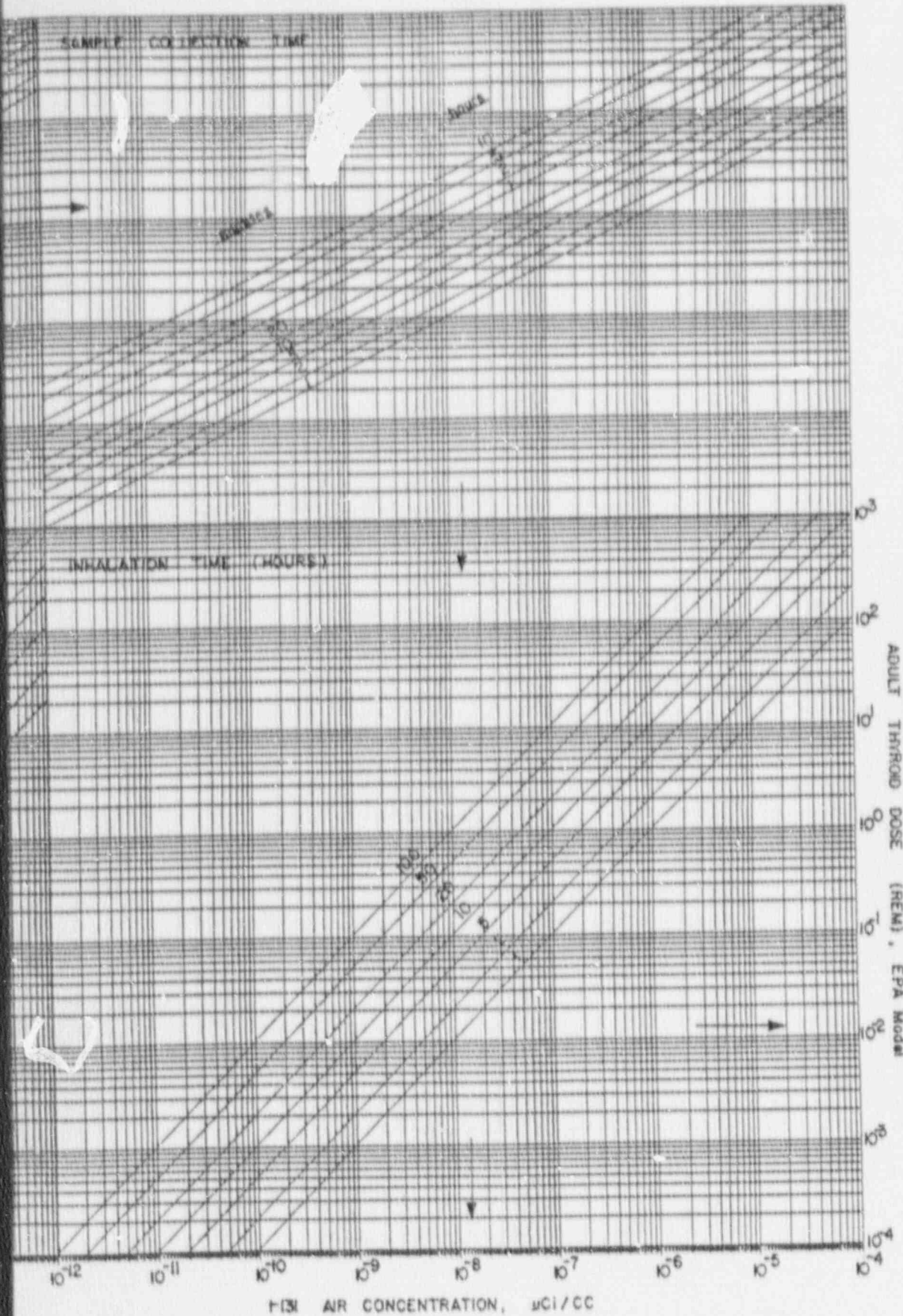


FIGURE 2
THYROID DOSE NOMOGRAM



SI
APERTURE
CARD

Also Available On
Aperture Card

9012110249-01

FIGURE 3
ENVIRONMENTAL LAB SAMPLE SUBMISSION FORM INSTRUCTIONS

Complete Form ER 5.2E as follows:

1. FROM, DATE SHIPPED, SHIPPING METHOD - Fill in the appropriate information.
2. PLANT CODE - Contains the letter 'S' for Seabrook.
3. SAMPLE TYPE CODE - Enter the two-letter code from Figure 4 that corresponds to the sample type.
4. SAMPLE STATION CODE - The sample station code identifies the type of EPZ area that was sampled and the sampling grid coordinates. Determine the code as follows:
 - a. EPZ Area - Enter either "T" or "F" to correspond to the Ten-Mile EPZ area (Figure 1) or the Fifty-Mile EPZ area (Figure 5) from which the sample collection locations were determined.
 - b. Sampling Grid Coordinates - Provide the quadrant number first and the quadrant letter second (e.g., 9-K).
 - c. Break up the quadrant into 9 squares resembling a telephone key pad.

1	2	3
4	5	6
7	8	9

K

9

- d. Determine where you are in the quadrant (e.g., the location of the plant within quadrant 9-K is 6).
 - e. The sample location is recorded using the EPZ area map indicator first, the number on the grid map second, the letter on the grid map third, and the number location within the quadrant last (e.g., the plant location is T-9-K-6).
 - f. The sample location for the fifty (50) mile map is determined the same way as the 10 mile map except there is a second key pad used as the first 9 quadrant pad is already drawn on the map.
 - g. The sample location is recorded using the EPZ area map indicator first, the number on the grid map second, the letter on the grid map third, the first grid number location fourth, and the number in the quadrant last (e.g., the plant location is F-9-H-7-6).
5. SAMPLE NUMBER - Fill in the week number.
 6. YEAR - Enter the last two digits of the year.

FIGURE 3
ENVIRONMENTAL LAB SAMPLE SUBMISSION FORM INSTRUCTIONS
(Continued)

7. STATION AND SAMPLE TYPE DESCRIPTION AND/OR COMMENTS - Describe the location and/or type of sample or mark 'N/A.'
8. COLLECTION PERIOD - Enter the start and stop times for all sample collections. 'M', 'D' and 'HR' correspond to 'month', 'day', and 'hour', respectively.

NOTE

Accurate information for the "Collection Period" is required as to the duration of the collection and for the exact time of sampling for grab samples or multiple grab samples that are field composited so the proper correction can be made for decay of activity from the collection time, or midpoint of the collection period, to the time of analysis.

9. SAMPLE AMOUNT VOLUME/WEIGHT - The volume or weight of the sample is needed to ensure adequate sample size and to calculate the correct activity by unit volume in the case of charcoal filters and air particulate.
10. ANALYSIS TO BE PERFORMED - Place an "X" in the Ge (Li) column to indicate the minimum analysis that should be performed. Mark other columns as appropriate.
11. WATER ONLY - For water samples only, check the "Composite" or "Grab" block as applicable.
12. SAMPLE FIELD TREATMENT - Document sample preparation provided. Preparation includes addition of acids or stabilizers such as sodium bisulfite or preservatives such as formaldehyde and methimazole. Indicate if a sample has been frozen and sectioned. If no field treatment was performed, write in "None."
13. COLLECTED BY/RECEIVED BY/TRANSMITTED BY - Self-explanatory.

FIGURE 4
ENVIRONMENTAL SAMPLE TYPE CODES

AIR

AP Air Particulate

CF Charcoal Filter

CONTAMINATION ASSESSMENT

SM SMEAR or wipe samples

WATER

WP Precipitation, Rain or Snow

WF Fresh Water, Lakes or Ponds

WR River Water

WE Estuary Water

WS Seawater

WG Ground Water

TERRESTRIAL

TM Milk

TF Edible Food Crop, except green leafy vegetables (identify - edible)
(e.g., cranberry, beans)

NV Non-edible Mixed Vegetation (e.g., grass)

EV Edible Green Leafy Vegetable (e.g., lettuce)

TJ Juices from EV samples, if any

TC Cattle Feed (identify - pellets, silage)

TS Soil - Specify exact depth(s)

TB Biological Organisms (identify)

T2 Special Terrestrial Sample (identify)

ME Meat

ZC Miscellaneous

FIGURE 5
OFFSITE GRID MAP
50 MILE EPZ

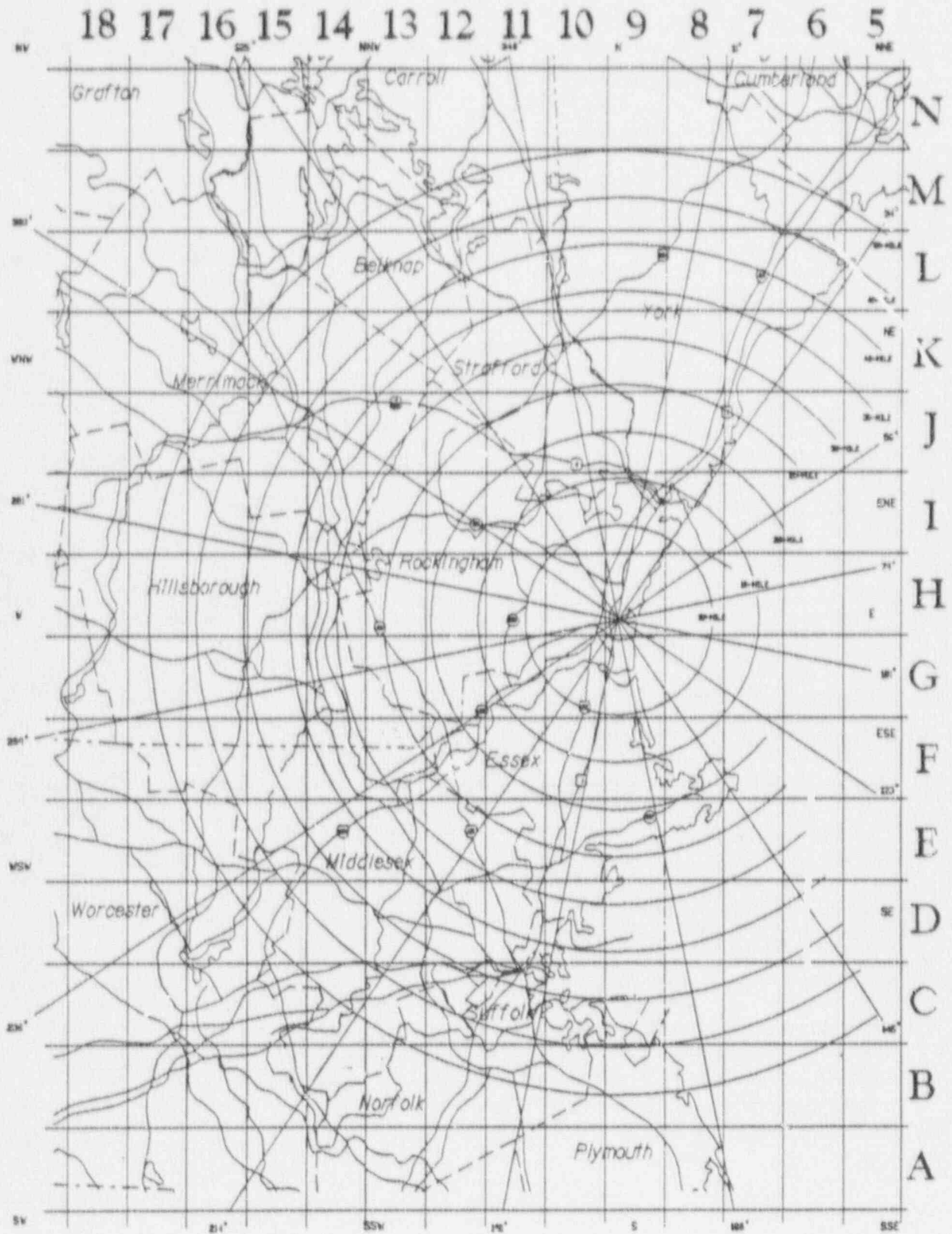


FIGURE 6
SAMPLE ANALYSIS WORKSHEET

Sample No.: _____ Date / Time: _____ Initials: _____

SAMPLE VOLUME CALCULATION

Sample Run Time (min)	Sample Flow Rate (cfm)	Sample Volume (cf)	(cc/cf)	Sample Volume (cc)
_____	X _____	= _____	X 2.83E+04	= _____

DOSE CONVERSION FACTORS FOR IODINES

Nuclide	Measured Concentration (µCi/cc)		Infant Thyroid Dose Conversion Factors (Rem/hr)/(µCi/cc)		Calculated Infant Thyroid Dose Rate
I-131	_____	X	1.62E+06	=	_____ Rem/hr
I-132	_____	X	7.92E+04	=	_____ Rem/hr
I-133	_____	X	5.40E+05	=	_____ Rem/hr
I-134	_____	X	3.96E+04	=	_____ Rem/hr
I-135	_____	X	1.62E+05	=	_____ Rem/hr
Total	_____				Total _____ Rem/hr
	(Also Form ER 5.2D, Line 33)				(Also Form ER 5.2D, Line 35)

MPC VALUES FOR IODINES

Nuclide	Measured Concentration (µCi/cc)		MPC* Values (µCi/cc)		Calculated Fraction MPC
I-131	_____	+	9.00E-09	=	_____
I-132	_____	+	2.00E-07	=	_____
I-133	_____	+	3.00E-08	=	_____
I-134	_____	+	5.00E-07	=	_____
I-135	_____	+	1.00E-07	=	_____
					Total _____ MPC
					(Also Form ER 5.2D, Line 34)

* 10 CFR 20 Appendix B, Table 1, Column 1

FIGURE 6
SAMPLE ANALYSIS WORKSHEET
(Continued)

MPC VALUES FOR PARTICULATES

Nuclide	Measured Activity (μCi/cc)	MPC* Values (μCi/cc)	Calculated Fraction MPC	Nuclide	Measured Activity (μCi/cc)	MPC* Values (μCi/cc)	Calculated Fraction MPC
Ag-110M	_____	÷ 1.00E-08	= _____	Mn-56	_____	÷ 5.00E-07	= _____
Am-241	_____	÷ 1.00E-10	= _____	Na-22	_____	÷ 9.00E-09	= _____
Ba-140	_____	÷ 4.00E-08	= _____	Na-24	_____	÷ 1.00E-07	= _____
Bi-207	_____	÷ 1.00E-08	= _____	Nb-95	_____	÷ 1.00E-07	= _____
Bi-214	_____	÷ 1.00E-06	= _____	Np-237	_____	÷ 1.00E-10	= _____
Cd-109	_____	÷ 7.00E-08	= _____	Np-239	_____	÷ 7.00E-07	= _____
Ce-141	_____	÷ 2.00E-07	= _____	Pb-214	_____	÷ 1.00E-06	= _____
Ce-144	_____	÷ 6.00E-09	= _____	Pu-239	_____	÷ 4.00E-11	= _____
Co-57	_____	÷ 2.00E-07	= _____	Rb-89	_____	÷ 1.00E-06	= _____
Co-58	_____	÷ 5.00E-08	= _____	Ru-103	_____	÷ 8.00E-08	= _____
Co-60	_____	÷ 9.00E-09	= _____	Sb-124	_____	÷ 2.00E-08	= _____
Cr-51	_____	÷ 2.00E-06	= _____	Sn-113	_____	÷ 5.00E-08	= _____
Cs-134	_____	÷ 1.00E-08	= _____	Sr-85	_____	÷ 1.00E-07	= _____
Cs-136	_____	÷ 2.00E-07	= _____	Sr-91	_____	÷ 3.00E-07	= _____
Cs-137	_____	÷ 1.00E-08	= _____	Ta-182	_____	÷ 2.00E-08	= _____
Cs-138	_____	÷ 1.00E-06	= _____	U-235	_____	÷ 1.00E-10	= _____
Fe-59	_____	÷ 5.00E-08	= _____	W-187	_____	÷ 3.00E-07	= _____
Hg-203	_____	÷ 1.00E-07	= _____	Y-91M	_____	÷ 2.00E-05	= _____
K-40	_____	÷ 3.00E-09	= _____	Zn-65	_____	÷ 6.00E-08	= _____
La-140	_____	÷ 1.00E-07	= _____	Zr-95	_____	÷ 3.00E-08	= _____
Mn-54	_____	÷ 4.00E-08	= _____	Total	_____	Total MPC	_____
				Act.			

Continue

(Also Form ER 5.2D, Line 31) (Also Form ER 5.2D, Line 32)

* 10 CFR 20 Appendix B, Table 1, Column 1

OFFSITE MONITORING AND SAMPLING PERSONNEL PREDEPLOYMENT CHECKLIST

Monitoring and Sampling Team Number _____ Date _____

NOTE

Check that the kit is lead sealed. If the seal is broken, inventory the kit using Form ER 8.1D, Emergency Operations Facility Radiological Emergency Supplies Inventory Checklist Offsite Monitoring Team Kits.

- | | <u>Initials</u> |
|---|-----------------|
| 1.0 <u>PORTABLE AIR SAMPLER</u> | |
| a. Record Serial Number here: _____ | _____ |
| b. Install a silver zeolite cartridge and particulate filter (rough side out) in the filter head. | _____ |
| c. Ensure the sampler is operational. | _____ |
| 2.0 <u>E-140 OR EQUIVALENT COUNT RATE METER</u> | |
| a. Record Serial Number here: _____ | _____ |
| b. Battery/Response check SAT | _____ |
| 3.0 <u>RADIO CHECK</u> (mobile and hand-held) | |
| Set up both radios and perform a radio check as follows: | |
| a. In a normal voice say "EOF, THIS IS NHY (team #) _____ REQUESTING A RADIO CHECK. DO YOU READ ME OVER?" | _____ |
| b. Acknowledge EOF response by saying "EOF, THIS IS NHY (team #) _____, RADIO IS OPERATIONAL OUT." | _____ |
| 4.0 <u>ROZ-A OR EQUIVALENT BETA-GAMMA INSTRUMENT</u> | |
| a. Record the serial number here _____ | _____ |
| b. Battery/Response check SAT | _____ |
| 5.0 <u>MISCELLANEOUS</u> | |
| a. Obtain sufficient respiratory equipment. | _____ |
| b. Obtain any necessary environmental monitoring sampling equipment. | _____ |
| c. Obtain ten- and/or fifty-mile EP2 grid map books as directed by Offsite Monitoring Coordinator. | _____ |
| d. Obtain dosimetry and exposure status from Dosimetry Records personnel, and record current RAE. | _____ |
| Leader _____ mrem Driver _____ mrem | |
| e. Check dosimeter charger in kit. | _____ |

OFFSITE MONITORING AND SAMPLING PERSONNEL BRIEFING FORM

Monitoring/Sampling Team Number: _____ Time: _____ Date _____

Leader (Name): _____ Driver (Name): _____

1. Plant Status: _____

2. Radiological Release: _____ in progress _____ expected _____ terminated

3. Source of Release: _____

4. Current Wind Direction from _____ (degrees)

5. Current Wind Speed: _____ mph

6. Projected dose rates at survey locations (when available):

Location	Dose Rate
_____	_____ mrem/hr
_____	_____ mrem/hr
_____	_____ mrem/hr

7. Instructions: _____

8. Current RAE: Leader _____ mrem Driver _____ mrem

Revised RAE: Leader _____ mrem Driver _____ mrem

_____ mrem _____ mrem

_____ mrem _____ mrem

NOTE

In the event of radio failure, use the following commercial telephone numbers to contact the EOF: (603) 433-1424
 (603) 431-1704 Ext. 417

FIELD SURVEY/AIR SAMPLE CALCULATION WORKSHEET

DATE: _____/TIME: _____

REPORT NUMBERED ITEMS ONLY

Team	(1) _____	Air Sample Data	
		Sample Time (min)	(15) _____
Location of Sample	(2) _____		
Monitoring Dosim Rates			
<u>Gamma (Window Closed)</u>		Volume of Air Sample (cu. ft.)	(16) _____
waist level			
RO-2 (mR/hr)	(3) _____	Eberline 140/E140N	
RO-2A (mR/hr)	(4) _____	Background Count Rate (cpm)	(17) _____
Ludlum 19 (µR/hr)	(5) _____	Filter Paper Count Rate	
2" level		(Gross cpm)	(18) _____
RO-2 (mR/hr)	(6) _____	SZ Cartridge (Gross cpm)	(19) _____
RO-2A (mR/hr)	(7) _____		
Ludlum 19 (µR/hr)	(8) _____	Direct-Reading Dosimeter (mR)	
<u>Beta-Gamma (Window Open)</u>		Leader	(20) _____
waist level		Driver	(21) _____
RO-2 (mR/hr)	(9) _____		
RO-2A (mR/hr)	(10) _____	Options:	
Eberline-140 (cpm)	(11) _____	Smear Sample (Gross cpm)	(22) _____
2" level		Peak Centerline Reading (23) _____	mR/hr
RO-2 (mR/hr)	(12) _____	at location (24) _____	
RO-2A (mR/hr)	(13) _____	Edge Locations (25) _____ and (26) _____	
Eberline-140 (cpm)	(14) _____		

AIR SAMPLE CALCULATIONS PARTICULATE

- = NCPM _____ X 1.6 E-10 = _____ uCi/cc
 #18 Gross cpm #17 Background #16 Volume

IODINE

- = NCPM _____ X 6.4 E-9 = _____ uCi/cc
 #19 Gross cpm #17 Background #16 Volume

_____ µCi/cc X 1.62 E+6 = Infant Thyroid Dose Rate _____ Rem/hr

Approximate Distance and Direction from Plant: _____ miles _____ degrees.

NOTE

Air concentrations of radioiodine can be rapidly approximated for a 20-cubic foot air sample by using the ratio 300 cpm/1E-7 µCi/cc I-131.

FIELD SURVEY/AIR SAMPLE DATA FORM

DATE: _____/TIME: _____

REPORT NUMBERED ITEMS ONLY

Team	(1) _____	<u>Air Sample Date</u>	
		Sample Time Stop (hh:mm)	(15) _____
Location of Sample	(2) _____	Sample Time Start (hh:mm)	- _____
		Total Running Time (min)	= _____
Monitoring Dose Rates		Air Sample Flow Rate (cfm)	x _____
<u>Gamma (Window Closed)</u>		Volume of Air Sample (cu. ft.)	= (16) _____
waist level			
RO-2 (mR/hr)	(3) _____	Eberline 140/E140N	
RO-2A (mR/hr)	(4) _____	Background Count Rate (cpm)	(17) _____
Ludlum 19 (μR/hr)	(5) _____	Filter Paper Count Rate 2" level	
		(Gross cpm)	(18) _____
RO-2 (mR/hr)	(6) _____	S2 Cartridge (Gross cpm)	(19) _____
RO-2A (mR/hr)	(7) _____		
Ludlum 19 (μR/hr)	(8) _____	Direct-Reading Dosimeter (mR)	
<u>Beta-Gamma (Window Open)</u>		Leader	(20) _____
waist level		Driver	(21) _____
RO-2 (mR/hr)	(9) _____		
RO-2A (mR/hr)	(10) _____	Options:	
Eberline-140 (cpm)	(11) _____	Smear Sample (Gross cpm)	(22) _____
2" level		Peak Centerline Reading (23) _____	mR/hr
RO-2 (mR/hr)	(12) _____	at location (24) _____	
RO-2A (mR/hr)	(13) _____	Edge Locations (25) _____	and (26) _____
Eberline-140 (cpm)	(14) _____		

SAMPLE ANALYSIS

(completed upon return to EOF)

Performed By: (27) _____

SAMPLE RESULTS

Date/Time Cartridge (28) _____ MCA Disk# (29) _____ Spectrum Tag# (30) _____
 Analyzed: Filter (28) _____ MCA Disk# (29) _____ Spectrum Tag# (30) _____

Activity of particulate observed
 (31) _____ μCi/cc (32) _____ Total MPC
 Calculated

Activity of Iodine isotopes observed
 (33) _____ μCi/cc (34) _____ Total MPC
 Calculated Infant
 (35) _____ Thyroid Dose

SAMPLE ANALYSIS DATA ATTACHED

Remarks: (36) _____

ENVIRONMENTAL LAB SAMPLE SUBMISSION

FROM: _____ DATE SHIPPED: _____
 SHIPPING METHOD: _____
 UPS
 Air Mail
 Parcel Post
 Courier: _____
 EOF Transfer

DISTRIBUTION: 1 Copy - Accompany Samples
 Original - Sample Analyst
 Field Files

SAMPLE IDENTIFICATION					ANALYSIS TO BE PERFORMED																				
PLANT CODE	SAMPLE TYPE CODE	SAMPLE STATION CODE	SAMPLE NUMBER	YEAR	STATION AND SAMPLE TYPE DESCRIPTION AND/OR COMMENTS	COLLECTION PERIOD		SAMPLE AMOUNT VOLUME +/- HEIGHT (MKS UNITS)	RADIOCHEMISTRY																
						START	STOP	SPEC																	
						M	D	HR	M	D	HR	RA-226	H-3	57-99.90	57-99.90	06'60"-45" 0	06(L1)	06(L1)	06(L1)	1-131 (LL)	0 H-3	1-131 (LL)	1-131 (LM)		
S																									
REMARKS:					SAMPLE FIELD TREATMENT:					COLLECTED BY:															
LAB USE ONLY: RECEIVED BY: _____ TIME: _____					RECEIVED BY: _____					TRANSMITTED BY: _____															
ANLOT #:																									
LABSMP #:																									
*m ³ - ft ³ x 0.02832																									

EMERGENCY RESPONSE PROCEDURE COVER FORM

A. IDENTIFICATION

NUMBER ER 5.8 REVISION 1
TITLE INGESTION EXPOSURE PATHWAY COORDINATION
ORIGINATOR G. M. Keyes

1. Does this procedure/procedure revision:
- a. Make changes in the facility as described in the FSAR? Yes No
 - b. Make changes in procedures as described in the FSAR? Yes No
 - c. Involve tests or experiments not described in the FSAR? Yes No
 - d. Involve changes to the existing Operating License or require additional license requirements? Yes No
2. If any of the above questions are answered yes, a safety evaluation per NHY Procedure 11210 is required.

B. INDEPENDENT REVIEW

<u>TITLE</u>	<u>SIGNATURE</u>	<u>DATE</u>
<u>HP SUPERVISOR</u>	<u>[Signature]</u>	<u>8/3/90</u>

C. SORC REVIEW

SORC MEETING NO. 90-223

D. APPROVAL AND IMPLEMENTATION

<u>[Signature]</u> STATION MANAGER	<u>8/24/90</u> APPROVED DATE	<u>09-11-90</u> EFFECTIVE DATE
---------------------------------------	---------------------------------	-----------------------------------

CONTENTS AND REVISION STATUS

<u>CONTENTS</u>	<u>PAGE NO.</u>	<u>PAGE REV.</u>
COVER	1	1
CONTENTS AND REVISION STATUS	2	1
1.0 OBJECTIVES	3	1
2.0 RESPONSIBILITIES	3	
3.0 PRECAUTIONS	3	
4.0 PREREQUISITES	3	
5.0 ACTIONS	3	
5.1 EOF COORDINATOR	3	
5.2 DOSE ASSESSMENT COORDINATOR	4-5	1
5.3 METPAC OPERATOR	6	1
6.0 REFERENCES	6	

1.0 OBJECTIVES

To establish guidelines for the evaluation of the impact of an accident involving the release of radioactive material from Seabrook Station relating to the ingestion exposure pathway and long-term relocation considerations.

2.0 RESPONSIBILITIES

2.1 EOF COORDINATOR

Offers to coordinate the efforts of the State of New Hampshire, State of Maine, the New Hampshire Yankee Offsite Response Organization (NHY ORO) and New Hampshire Yankee regarding the formulation of re-entry and recovery protective actions.

2.2 DOSE ASSESSMENT SPECIALIST (DAS)

Develops initial projected information regarding the location and extent of contamination of the environment following the termination of a release and its eventual complete dispersal. Coordinates the evaluation of sample analysis data obtained from all groups performing ingestion pathway sampling and develops information useful for the establishment of long-term protective actions.

2.3 METPAC OPERATOR

Assists in the development of data tables, and presentations for evaluating affected locations and exposure pathways.

3.0 PRECAUTIONS

Not applicable.

4.0 PREREQUISITES

An event has occurred at Seabrook Station that included a release of radioactive material in a form that resulted in ground deposition.

5.0 ACTIONS

5.1 EOF COORDINATOR

1. Discuss with represented organizations to optimize the utilization of available assessment resources at the EOF and other locations for the prompt determination of re-entry and recovery strategies.
2. Arrange with appropriate NHY EOF staff the required services and equipment to expedite the assessment of radiological samples taken in support of re-entry and recovery activities.

5.1 EOF COORDINATOR

3. Arrange for utilization of additional sampling and measurement teams from other utilities as needed.

5.2 DOSE ASSESSMENT SPECIALIST

5.2.1 Short-Term Actions

NOTE

The objective during the implementation of short-term actions is to develop a potential contamination pattern in order to establish the initial sampling strategies in conjunction with the offsite organizations.

1. Following the termination of the release, obtain either the I-131 deposition pattern or the most reliable estimate of the thyroid dose, H_{th} , for each sector block of the affected area. To acquire this pattern, it may be necessary to use the METPAC thyroid TID printout (Reference 6.3), the Engineering Support Center (ESC) resources, or other resources to account for actual versus predicted iodine release components.

NOTE

A sector block is an area defined by a one-mile by 22.5 degree region.

2. Categorize the deposition or dose pattern according to the following Derived Response Level (DRL) criteria which apply to consumption of nonleafy locally grown produce by the one-year-old-child age group. This should be performed without regard to time of year since the short-term objective is to produce a deposition pattern for the establishment of a sampling strategy.

<u>Infant Thyroid Dose</u> <u>Range, H_{th} (Rem)</u>	<u>I-131 Deposition</u> <u>Range $D(\mu\text{Ci}/\text{m}^2)$</u>	<u>DRL Category</u>
$0 < H_{th} < .003$	$0 < D < .066$	1
$.003 \leq H_{th} < .03$	$.066 \leq D < .66$	2
$.03 \leq H_{th} < .3$	$.66 \leq D < 6.6$	3
$.3 \leq H_{th} < 3.0$	$6.6 \leq D < 66$	4
$3.0 < H_{th}$	$66 < D$	5

5.2 DOSE ASSESSMENT SPECIALIST

5.2.1 Short-Term Actions (Continued)

NOTE

The above criteria are based on a conversion factor of 22.2 $\mu\text{Ci}/\text{m}^2/\text{rem}^{-1}$ which assumes that a constant deposition velocity of $.01\text{m}/\text{sec}^{-1}$ occurred during the release, and that the derived response level for I-131 on nonleafy produce for the one-year-old child is $.066 \mu\text{Ci}/\text{m}^2$. Refer to Reference 6.1 for additional technical basis.

3. Prepare a map or other visual aid as requested, depicting the affected sector blocks by DRL category, to aid in the development of sampling strategies.
4. Participate in sampling strategy meetings with all offsite support organizations as needed. During this process, the use of monitoring equipment in conjunction with and in addition to sampling should be strongly encouraged since the NHY Ingestion Pathway Tracking (IPT) computer program can be used to correlate this information.

5.2.2 Long-Term Actions

NOTE

The objective of long-term actions is to coordinate, correlate and manage all sampling and measurement data from all groups and provide reports and visual aids of the data in a cohesive form.

1. Coordinate offsite sampling activities of the NHY sample collection teams to ensure effective utilization of all resources.
2. Arrange for all offsite sample and measurement data to be routed to NHY Dose Assessment personnel.
3. Direct the METPAC Operator or other available personnel to enter the offsite sample and measurement data into the IPT software per Reference 6.2.
4. Periodically review sampling and measurement data and the IPT outputs to identify inconsistencies between sampling methodologies of each organization, assumptions used in Reference 6.1 to evaluate the data, and protective action recommendations issued by each offsite organization.
5. Report any of the above inconsistencies to the EOF Coordinator.

5.2 DOSE ASSESSMENT SPECIALIST

5.2.2 Long-Term Actions

6. Participate in meetings with offsite and onsite organizations to provide copies and interpretations of the IPT outputs.

5.3 METPAC OPERATOR

1. Assist in the development of the initial potential contamination pattern and in the initial sampling strategy.
2. Enter offsite sampling and measurement data into the computer using the IPT software as per Reference 6.2.
3. Provide guidance to personnel assigned to assist in the IPT data entry process.
4. Produce IPT reports and plots as per Reference 6.2 when requested by the DAS or EOF Coordinator.
5. Provide further evaluations, assessments and duties as assigned by the Dose Assessment Specialist.

6.0 REFERENCES

1. New Hampshire Yankee Ingestion Pathway Tracking (IPT) Software Technical Reference Manual
2. New Hampshire Yankee Ingestion Pathway Tracking Software User Manual
3. YAEC Technical Description of the SB METPAC System