

ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

CONTROLLED COPY NUMBER 23

GINNA STATION

UNIT 74

COMPLETED

DATE :-

TIME :-

PROCEDURE NO. SC-1.2B

REV. NO. 1

ALERT CLASS GUIDELINES

TECHNICAL REVIEW

PORC 10-14-81

J. C. Bodine
QC REVIEW

10-19-81
DATE

APPROVED FOR USE

Paul Snow
PLANT SUPERINTENDENT

10-19-81
DATE

QA x NON-QA CATEGORY 1.0

REVIEWED BY:

THIS PROCEDURE CONTAINS 2 PAGES

SC-1.2BALERT CLASS GUIDELINES1.0 PURPOSE:

- 1.1 This procedure provides guidance on the actions which should be taken when an event of the Alert Class occurs at Ginna Station.
- 1.2 This should assure the emergency personnel are available to respond if radiation monitoring is required or the situation becomes more serious.

2.0 REFERENCES:

- 2.1 SC-1 Radiation Emergency Plan
- 2.2 SC-1.1A Ginna Station Event Evaluation and Classification

3.0 INSTRUCTIONS:

- 3.1 Events in the Alert Class indicate an actual degradation of the level of plant safety or potential for such degradation. See SC-1.1A for conditions which lead to an alert.
- 3.2 The Control Room Operator on becoming aware that an Alert Class Event has occurred at Ginna Station will notify the Shift Supervisor.
- 3.3 The Shift Supervisor will report to the Control Room and evaluate plant parameters and conditions.
- 3.4 Actions will be taken to limit or correct the condition so as to prevent more serious consequences.
- 3.5 A Control Room Operator shall announce: "Attention Technical Support Center personnel: report for alert response." so as to activate the Technical Support Center (TSC).
 - 3.5.1 During the off-duty hours the TSC personnel will be called in per Procedure SC-1.3D Manning Onsite Technical Support Center.
 - 3.5.1.1 The Shift Supervisor is Emergency Coordinator until relieved.

- 3.6 Notify NRC Operations Officer, using the Red Phone, of the Plant condition.
- 3.7 Notify State, Wayne and Monroe Counties that an Alert Class event has occurred using telephone numbers in O-9.3.
- 3.8 The Shift Supervisor or TSC may call for assistance from maintenance, Radiation Survey Teams, consultants, Headquarter Recovery Groups, or other organizations.
- 3.9 Periodic Plan status updates will be made to off-site authorities to keep them aware and capable of quick response if needed.
- 3.10 Provide periodic meteorological information to offsite authorities, and radioactive release information and dose estimates resulting from any actual releases.
- 4.0 When conditions are under control a verbal close out with the NRC will be made.
- 4.1 The State and Counties will be notified that the alert situation no longer exists.
- 4.2 An A-25.1 or other appropriate reports will be made.
- 4.3 A written summary of the event will be submitted to the NRC within 24 hours of closeout.

ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

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23

GINNA STATION
UNIT #1
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DATE :-

TIME :-

PROCEDURE NO. SC-1.3F

REV. NO. 0

EMERGENCY COORDINATORS DUTIES

TECHNICAL REVIEW

PORC 10-21-81

JC Bodine
QC REVIEW

10-22-81
DATE

APPROVED FOR USE

Bruce Snow
PLANT SUPERINTENDENT

10-22-81
DATE

QA 1 NON-QA CATEGORY 1.0

REVIEWED BY: _____

THIS PROCEDURE CONTAINS 3 PAGES

SC-1.3FEMERGENCY COORDINATORS DUTIES1.0 PURPOSE:

- 1.1 To provide A checklist for the use of the Emergency Coordinator when responding to a radiation emergency.

2.0 REFERENCES:

- 2.1 SC-1 Radiation Emergency Plan.

3.0 INSTRUCTIONS:

- 3.1 The following checklist may be used by the Emergency Coordinator as a reminder of items to be addressed.

EMERGENCY COORDINATOR CHECKLIST

1. Take charge of Emergency Center and Brookwood Information Center.
2. Ensure communications are established with the Control Room.
3. Assume responsibilities of the emergency from the Shift Supervisor on duty.
4. Request an evaluation of plant conditions from the Shift Supervisor by using Status Form, Attachment I to SC-1.3A.
5. Establish communications with the Technical Support Center and Survey Center for their evaluation of the situation.
6. Information to Off-Site Authorities
 - 6.1 Relay information on Status Report form to N.Y. State, 9-1-518-457-2200 or 518-457-6811, if not done by Control Room Personnel.
 - 6.2 Relay information to Wayne County Office of Disaster Preparedness, 9-1-946-4878, if not done by Control Room personnel.
 - 6.3 Relay information to the Monroe County Office of Emergency Preparedness (71-9-473-0710 or 428-7200) if the Control Room has not done so.

- 6.4 Report accident and current status using Status Report Form Attachment I to SC-1.3A to the Vice President of Electric Steam Production and Superintendent of Nuclear Production (Refer to SC-1.12C). Advise them if the Recovery Organization should be put on Alert.
- 6.5 Contact RG&E Manager of Corporate Communications, 71-2635 or 71-9-377-3828 to advise him of the situation.
7. Ensure weather conditions have been obtained and the information reported to the dose estimating area. Verify that SC-1.13 is instituted and that the proper Isopleth overlay is being used to determine maximum concentration points.
8. Ensure that Survey Teams are being dispatched and Tag Board assignments are filled.
9. Ensure SC-1.14A accountability of personnel has commenced.
10. Notify the Coast Guard (9-1-716-846-4168) to keep the lake area near the plant clear of all water traffic if a General Emergency is declared.
11. Notify Westinghouse to activate their Emergency Response Plan (9-1-412-256-7844). See SC-1.12C.
- 11.1 Notify INPO to activate their Emergency Response Center (9-1-404-953-0904).
- 11.2 Request Radiological Assistance from RAP team, Brookhaven if warranted (9-1-516-282-2200).
12. Ensure that the Health Physicist is kept informed on the radiation doses. No one shall receive > 1 REM without special permission from Emergency Coordinator or the Health Physicist.
13. Ensure that accountability of personnel is complete (SC-1.14A) and:
 - a) Based on these results institute search and rescue operations as deemed necessary. (Refer to SC-1.14B and SC-1.9).
 - b) Initiate Emergency Medical Plan using A-7 Procedure for Handling Illness or Injuries at Ginna Station as necessary.
14. In conjunction with the Health Physicist, evaluate the data from the survey teams.
15. Review the extent of the emergency, Unusual Event, Alert, Site Emergency, or General Emergency, and revise if necessary.

Class of Emergency _____

16. Advise N.Y.S., Dept. of Health, Bureau of RAD Health of Current Condition and any significant changes at 1-518-474-2866 or EOC at 1-518-457-4203.
17. Report Public whole body and thyroid dose projection as determined by the Health Physicist per SC-1.13 and area survey results.
18. Determine which personnel shall be called to the Plant to man the Operational Support Center and assist in recovery. Plan for personnel use so that round-the-clock coverage is available if needed.
19. If a Site Emergency has been declared or is imminent, dispatch an individual to the county EOC's (Wayne and Monroe, if they have been activated) to assist them.
20. Ensure that personnel and cars are monitored and surveyed to assess the extent of contamination and determine any necessary decontamination measures for non-essential personnel prior to sending them home.
21. After performing any necessary decontamination, collect the film badges of non-essential personnel and send them home. The following routes should be used as determined by Emergency Coordinator. Advise the County Sheriff of evacuation route (9-1-946-9711).
1. Lake Road East: When wind is from the East.
 2. Lake Road West: When wind is from the West.
 3. Route 350 South: When wind is from the South.
 4. Lake Road East & West: When the wind is from the North.
22. Evaluate conditions and determine further operations as described in SC-1.11, Post Accident Re-entry and recovery plan.
23. Update report to authorities per SC-1.4 General Emergency in the event of either of the following:
- 23.1 Loss of fission product barriers with potential for exceeding Protective Action Guidelines off site, or other plant conditions that make release of large amounts of radioactivity possible.
 - 23.2 Loss of physical control of the plant. (Take over by sabotage group).

ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

CONTROLLED COPY NUMBER

23

GINNA STATION

UNIT #1

COMPLETED

DATE :-

TIME :-

PROCEDURE NO. SC-1.7D

REV. NO. 10

EMERGENCY RADIATION MONITORING OFF-SITE

SURVEY TEAM #9D (RED)

TECHNICAL REVIEW

PORC 10-21-81

JCBodine
QC REVIEW

10-22-81
DATE

APPROVED FOR USE

Brinkman
PLANT SUPERINTENDENT

10-22-81
DATE

QA X NON-QA _____ CATEGORY 1.0

REVIEWED BY: _____

THIS PROCEDURE CONTAINS 9 PAGES

SC-1.7DEMERGENCY RADIATION MONITORING OFF-SITESURVEY TEAM #9D (RED)1.0 PURPOSE:

- 1.1 The prime objective of Radiation Off-Site Monitoring Team is to rapidly survey areas downwind of the plant site in order to determine the extent and magnitude of any uncontrolled release of radioactive materials following an incident. It should be stressed that initial off-site survey is of great importance, decisions regarding extent and types of protective actions required will be based upon data reported by survey teams.

2.0 REFERENCES:

- 2.1 SC-1 Radiation Emergency Plan
- 2.2 SC-1.7B Determination of Iodine or Particulate

3.0 INSTRUCTIONS:

- 3.1 Obtain footlocker 9D (RED), if seal is broken, check equipment as per list inside.
- 3.2 Obtain equipment not stored in footlocker:
- 3.2.1 Personal film badge and TLD from Guard House Rack or Emergency Center supply.
- 3.2.2 Pack of 6 environmental TLD's from lead storage container.
- 3.2.3 Radio (It may be necessary to obtain radio from guard).
- 3.2.4 RADECO H-809C Portable High Volume Air Sampler with Filter Holder.
- 3.2.5 RM-14 Radiation Monitor with HP-190 Probe.
- 3.2.6 Dosimeter (0-500MR) and sign-in on dosimeter log sheet.
- 3.3 Check operation of RM-14, portable air sampler, and radio as per Attachment I.
- 3.4 Report by radio to Technical Support Center that Survey Team #9D (RED) is commencing survey.

- 3.5 Sign out on Tag Board, then obtain transportation and check vehicle for contamination prior to departure. If > 2000 CPM above BKG, contact Technical Support Center. Establish radio contact when leaving site, call Survey Communications Aide to report team 9D-Red is commencing survey. "Log time, date, and team members on survey map.
- 3.5.1 Drive along route listed below. (Proceed slowly) using the RM-14 Radiation Monitor with probe held out window surveying as you go. Record readings on survey map (Attachment II). If during your survey a significant increase is noted, stop and carefully survey the area. Keep the Communications Aide informed of results and of your progress. Anytime a reading is excess of 5 mr/hr and/or 11,000 CPM is found, report the results and location to the Survey Communications Aide.

3.6 First Stage Survey

NOTE: Numbers given in parentheses are intersection designations on survey maps. Mileages given are approximations.

- 3.6.1 Travel east on Lake Road to Knickerbocker Road (1.1 miles). Place a TLD near intersection of Lake Road and Knickerbocker Road (#1). Hammer a nail into a Utility pole and hang the TLD from the nail with tape. Record location details, date, time and TLD number on back of map.
- 3.6.2 Go south on Knickerbocker Road to Brick Church Road (1.0 miles). Place a TLD near intersection of Knickerbocker Road and Brick Church Road (#2). Record location details, date, time and TLD number on back of map.
- 3.6.3 Continue south on Knickerbocker Road to Kenyon Road (1.3 miles). Take an air sample at intersection of Knickerbocker Road and Kenyon Road (#9). This sampling may be cancelled or another location requested.
- 3.6.3.1 Install GY-130 silver zeolite cartridge and particule filter in filter holder.
- 3.6.3.2 Insure on/off switch on sampler is in "OFF" position.
- 3.6.3.3 Connect power cables to battery Red clip to positive Black clip to ground.
- 3.6.3.4 Turn on sampler and record start time and flow rate on back of survey map.
- 3.6.3.5 Allow sample to run for approximately 10 minutes, then shut off sampler and record stop time.
- 3.6.3.6 Calculate volume of air sampled, as follows:
- Volume Sampled _____ cubic feet = _____ minutes sampled x _____ CFM
- 3.6.3.7 Take a background reading with RM-14 record reading in CPM.

3.6.3.8 Remove GY-130 cartridge from holder and read with RM-14 holding probe on inlet side of filter, record reading in CPM.

3.6.3.9 Measure particulate activity as in previous step, but do not touch filter with probe. Record reading in CPM.

3.6.3.10 Report the following data to the Survey Communications Aide.

1. Sample location
2. Time sample taken
3. Volume of air sampled in cc's
4. Background count rate in CPM
5. GY-130 cartridge (iodine) count rate in CPM
6. Particulate filter count rate in CPM

NOTE: Field calculation of airborne activity may be performed as described in Attachment I.

3.6.4 Go west on Kenyon Road to Slocum Road (1.9 miles).

3.6.5 Go north on Slocum Road to Brick Church Road (1.3 miles). Place A TLD near intersection of Slocum Road and Brick Church Road (#4). Record location details, date, time and TLD number on back of map.

3.6.6 Continue north on Slocum Road to Lake Road (1.0 miles) and report to Survey Communications Aide for further directions.

3.6.7 Continue with second stage survey as directed.

3.6.8 If radio contact cannot be made, make phone report.

315-524-6711

315-524-4446

315-524-4891 (Control Room)

315-524-7601 (Station 13A)

NOTE: There are two second stage survey routes. Depending on wind directions, the Emergency Coordinator will inform you as to which one to take.

3.7 Second Stage Survey - West or Northwest winds

3.7.1 Go south on Slocum Road to Route 104.

3.7.2 Go east on Route 104 to Route 350/Ontario Center Road (1.0 miles).

- a.7.3 Go south on Route 350 to Route 441/Walworth Road (6.3 miles).
- 3.7.4 Go east on Route 441/Walworth Road to main intersection in Village of Walworth (1.0 miles). Place a TLD near the intersection (#26). Record location details, date, time and TLD number on back of map.
- 3.7.5 Report by Radio or phone to Survey Communications Aide (see step 3.6.8). If no further surveys are required at this time, return to Emergency Survey Center.
- 3.8 Second Stage Survey - East or Northeast Winds.
 - 3.8.1 Go south on Slocum Road to Route 104.
 - 3.8.2 Go east on Route 104 to Route 350/Ontario Center Road (1.0 miles).
 - 3.8.3 Go south on Route 350 to Plank Road (3.2 miles).
 - 3.8.4 Go west on Plank Road to County Line Road (4.1 miles). Place a TLD near the intersection of Plank Road and County Line Road (#46). Record location details, date, time and TLD number on back of map.
 - 3.8.5 Continue west on Plank Road to Salt Road (1.5 miles). Place a TLD near the intersection of Plank Road and Salt Road (#39). Record location details, date, time and TLD number on back of map.
 - 3.8.6 Go north on Salt Road to Schlegel Road (4.1 miles). Place a TLD near the intersection of Salt Road and Schlegel Road (#42). Record location details, date, time and TLD number on back of map.
 - 3.8.7 Radio a report to Survey Communications Aide. If no further surveys are required at this time, return to Emergency Survey Center.
- 3.9 Sign-in upon arrival at Emergency Survey Center.
- 3.10 Give Survey Map (Attachment II) to the Survey Center Manager.
- 3.11 Return all equipment to previous locations. Note any discrepancies on inspection log and give to Survey Center Manager.
- 3.12 Inventory footlocker and seal if complete.
- 3.13 Standby for further orders.

ATTACHMENT I

Environmental Sample Station - Filter Changing

In the event of an emergency, the first samples will be collected from the environmental stations. These samples will aid in evaluating the extent and possible off-site effects of the emergency. There are 6 on-site air samples and 5 off-site.

Procedure for Changing Environmental Particulate Filters - Emergency Plan

1. Check vacuum gauge and record.
2. Switch off pump.
3. Record on the envelope left from previous sample change the reading of the system vacuum, date, time, gasmeter cu. ft. and hour readings in column labeled "OFF".
4. Remove filter holder at quick disconnect joint.
5. Unscrew outside retaining ring and remove filter from holder.
6. Put filter into envelope and seal.
7. If charcoal cartridge is in use, unscrew the inside retaining ring and remove the charcoal cartridge. Emplace a new GY-130 cartridge and reassemble the sampling head. Record the date, time, gas volume meter reading and hour meter reading. Leave a new envelope with the same information for a new cartridge and label it Iodine Cartridge.
8. Put new glass fiber filter into holder, replace retaining ring and reconnect holder back to pump at quick disconnect joint.
9. On new envelope record station number, date, time, gas meter cu. ft. and hour meter readings in column labeled "ON".
10. Turn on pump and record system vacuum.
11. Leave new envelopes for next collection, bring old envelopes into Emergency Control Center for beta counting of sample.

RM-14 Check

1. Disconnect power cord from back taking care not to turn test switch on.
2. Insure that an HP-190 probe is connected to detector jack.
3. Turn range switch to Batt. - should read in "BATT-OK".
4. Turn range switch to X1. Unit is ready for use.
5. All readings must be multiplied by range switch setting for proper readings.

ATTACHMENT I (Cont'd)FIELD CALCULATIONS FOR LOW VOLUME AIR SAMPLES USING RM-14

- 1) Particulate - Filter Removed from Holder:

$$\frac{(\text{CPM Sample} - \text{CPM BKG}) (2.4 \times 10^{-5})}{(\text{Volume of Sample in CC})} = \text{uCi/cc Particulate}$$

- 2) Iodine - Cartridge Inlet Face to Probe - End Cap Removed:

$$\frac{(\text{CPM Sample} - \text{CPM BKG}) (8.34 \times 10^{-5})}{(\text{Volume of Sample in CC})} = \text{uCi/cc Iodine}$$

TAKING LOW VOLUME SAMPLE:

1. RECORD: Date, Time, Location, and Totalizer Reading (A).
2. Turn Unit ON and sample for approximately 30 minutes.
3. Turn Unit OFF - RECORD: Date, Time, Location & Totalizer Reading (B).
4. Sample Volume = (B-A) (Calibration Factor) = cc.

NOTE: Calibration Factor is noted on side of sampler.

5. Read filters with RM-14 and save in marked envelopes.

LOW VOLUME AIR SAMPLER CHECK:

1. Connect Battery Pack to Pump Unit.
2. Turn switch ON - Check flow meter for movement.
3. Turn Unit OFF.
4. INSURE Filter Assembly contains a GY-130 cartridge and a particulate filter before taking sample.

RADECO H 809C HIGH VOLUME AIR SAMPLER CHECK:

1. Connect cables to power source, Red clip to positive and Black clip to negative.
2. Turn on switch and check flow meter, flow meter will be off scale high with no filters in place.
3. Turn unit off.
4. Insure filter assembly contains a GY-130 cartridge and a particulate filter.

TAKING RADECO HIGH VOLUME AIR SAMPLE:

1. Record: Date, Time, and Location.
2. Turn unit on and sample for 10 minutes.

ATTACHMENT I (Cont'd)

3. Record the flow rate in cfm. (Normal is 1.5 cfm)
4. Sample volume = flow rate in cfm X minutes sampled.
5. Read filters with RM-14 and save in marked envelopes.

FIELD CALCULATIONS FOR HIGH VOLUME AIR SAMPLES USING RM-14:

1. Particulate - Filter removed from holder:

$$\frac{(\text{CPM Sample} - \text{CPM BKG}) (8.38 \times 10^{-10})}{(\text{Volume of Sample in Cubic Feet})} = \text{uCi/cc Particulate}$$

2. Iodine - Cartridge Inlet Face to Probe:

$$\frac{(\text{CPM Sample} - \text{CPM BKG}) (3.0 \times 10^{-9})}{(\text{Volume of Sample in Cubic Feet})} = \text{uCi/cc Iodine-131}$$

ATTACHMENT I (Cont'd)

RADIO USE PROCEDURE

1. Extend antenna full (if necessary)
2. Channel selector on Channel 1
3. Turn unit ON
4. Adjust squelch
5. Depress switch to transmit, call "Survey Center"
6. Speak in normal voice, slowly and distinctly, into speaker/mike
7. Release switch to receive

AUTO DIGI-MASTER DOSE RATE METER

1. Turn unit on
2. Take readings noting if they are MR/HR or R/HR.

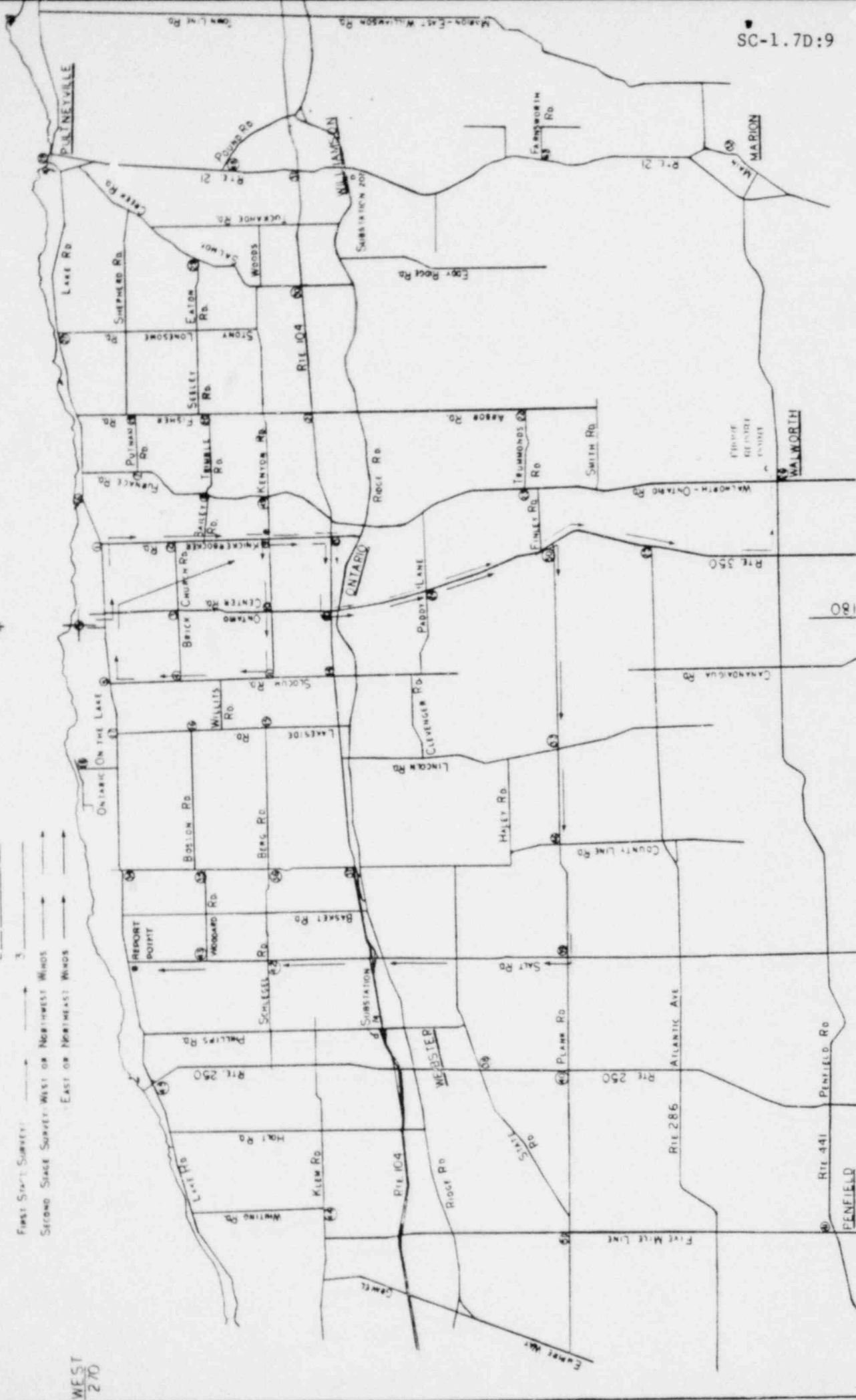
NOTE: Unit reads out every 2 seconds.

EMERGENCY MONITORING NEW RED SURVEY MAP

Date _____ Time _____ Team Members: 1 _____ 2 _____ 3 _____

FIRST STAGE SURVEY: _____
 SECOND STAGE SURVEY: WEST OR NORTHWEST WINDS _____
 EAST OR NORTHEAST WINDS _____

WEST
270



GINNA STATION
UNIT 2
COMPLETED
DATE :-
TIME :-

ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

CONTROLLED COPY NUMBER

23

PROCEDURE NO. SC-1.7H

REV. NO. 11

EMERGENCY RADIATION MONITORING OFF-SITE

SURVEY TEAM 9H - (ORANGE)

TECHNICAL REVIEW

PORC 10-21-81

JC Bodini
QC REVIEW

10-22-81
DATE

APPROVED FOR USE

Bruce L. Smith
PLANT SUPERINTENDENT

10-22-81
DATE

QA ☒ NON-QA ☐ CATEGORY 1.0

REVIEWED BY: _____

THIS PROCEDURE CONTAINS 10 PAGES

SC-1.7HEMERGENCY RADIATION MONITORING OFF-SITESURVEY TEAM 9H - (ORANGE)1.0 PURPOSE:

- 1.1 The prime objective of Radiation Off-site Monitoring Team is to rapidly survey areas downwind of the plant site in order to determine the extent and magnitude of any uncontrolled release of lease of radioactive materials following an incident. It should be stressed that initial off-site survey is of great importance, decisions regarding extent and types of protective actions required will be based upon data reported by Survey Teams.

2.0 REFERENCES:

- 2.1 SC-1 Radiation Emergency Plan
- 2.2 SC-1.7B Determination of Iodine or Particulate

3.0 INSTRUCTIONS:

- 3.1 Obtain footlocker 9H-(Orange), if seal is broken, check equipment as per list inside.
- 3.2 Obtain following equipment not stored in footlocker:
- 3.2.1 Personal film badge and TLD from guardhouse rack or Emergency Center supply.
- 3.2.2 Radio (It may be necessary to obtain radio from guards)
- 3.2.3 RADECO H-809C Portable high volume air sampler with filter holder.
- 3.2.4 RM-14 Radiation Monitor with HP-190 Probe.
- 3.2.5 Dosimeter (0-500 MR) and sign in on dosimeter log sheet.
- 3.2.6 Packet of six environmental TLD's from lead storage container.
- 3.3 Check operation of RM-14, portable air sampler, and radio as per Attachment I.
- 3.4 Report to Survey Communications Aide that Survey Team 9H (Orange) is commencing survey.

- 3.5 Sign-out on tag board.
- 3.5.1 Obtain transportation. Check the vehicle for contamination with the RM-14. If reading is less than 2,000 cpm above background, proceed with survey. If greater than 2,000 cpm above background, call Emergency Center for decontamination instructions.
- 3.5.2 Log date, time and team members on Survey Map.
- 3.5.3 Call Survey Center and establish radio contact when leaving site.
- 3.5.4 Drive along route listed below (proceed slowly) using the RM-14 Radiation Monitor with probe held out window surveying as you go.
- 3.5.5 Record readings on survey map (Attachment II). If during your survey a significant increase is noted, stop and carefully survey the area. Keep the Communications Aide informed of results and of your progress. Anytime a reading in excess of 5 mr and/or 11,000 cpm is found, report the results and location to the Communications Aide immediately.

3.6 First Stage Survey

NOTE: Numbers given in parentheses are intersection designations on survey maps. Mileages given are approximations.

- 3.6.1 Travel east on Lake Road to Fisher Road (2.7 miles).
- 3.6.2 Go south on Fisher Road to Shepherd Road (0.7 miles). Take an air sample near the intersection of Fisher Road and Shepherd Road (#19). This sampling may be cancelled or another location requested.
 - 3.6.2.1 Install GY 130 silver zeolite cartridge and particule filter in filter holder.
 - 3.6.2.2 Insure on/off switch on sampler is in "OFF" position.
 - 3.6.2.3 Connect power cables to battery - Red clip to positive, Black clip to ground.
 - 3.6.2.4 Turn on sampler and record start time and flow rate on back of survey map.
 - 3.6.2.5 Allow sample to run for approximately 10 minutes, then shut off sampler and record stop time.
 - 3.6.2.6 Calculate volume of air sampled as follows:

Volume Sampled _____ Cubic Feet _____ minutes sampled x _____ CFM

- 3.6.2.7 Take a background reading with RM-14, record reading in CPM.
- 3.6.2.8 Remove GY-130 cartridge from holder and read with RM-14 holding probe on inlet side of filter, record reading in CPM.
- 3.6.2.9 Measure particulate activity as in previous step, but do not touch filter and probe. Record reading in CPM.
- 3.6.2.10 Report the following data to Survey Communications Aide.

1. Sample location
2. Time sample taken
3. Volume of air sampled in cc's
4. Background count rate in CPM
5. GY-130 cartridge (iodine) count rate in CPM
6. Particulate filter count rate in CPM

NOTE: Field calculation of airborne activity may be performed as described in Attachment I.

- 3.6.3 Place a TLD near the intersection of Fisher Road and Shepherd Road (#19). Hammer a nail into a pole and hang the TLD from the nail with tape. Record location details, date, time and TLD number on back of map.
- 3.6.4 Continue south on Fisher Road to Trimble Road (1.1 miles). Place a TLD near the intersection of Fisher Road and Trimble Road (#20). Record location details, date, time and TLD number on back of map.
- 3.6.5 Continue south on Fisher Road to Kenyon Road (0.7 miles). Go west on Kenyon Road to Furnace Road (1.1 miles). Place a TLD near the intersection of Kenyon Road and Furnace Road (#49). Record location details, date, time and TLD number on back of map.
- 3.6.6 Go north on Furnace Road to Lake Road (2.7 miles) and contact Survey Communications Aide for further direction.
- 3.6.7 Follow second stage survey as directed.
- 3.6.8 If radio contact cannot be made, report by phone.

315-524-6711
315-524-4446
315-524-4891 (Control Room)
315-524-7601 (Station 13A)

NOTE: There are two second stage survey routes. Depending on wind directions, the Emergency Coordinator will inform you as to which one to take.

3.7 Second Stage Survey - West or Northwest winds

- 3.7.1 Go south to Ridge Road.
- 3.7.2 Go south on Walworth-Ontario Road to Trummonds Road (2.3 miles).
- 3.7.3 Go east on Trummonds Road to Arbor Road (1.1 miles). Place a TLD near the intersection of Trummonds Road and Arbor Road (#22). Record location details, date, time and TLD number on back of map.
- 3.7.4 Go north on Arbor Road to Ridge Road (2.3 miles).
- 3.7.5 Go east on Ridge Road to Eddy Ridge Road (2.2 miles). Place a TLD near the intersection of Ridge Road and Eddy Ridge Road. Record location details, date, time and TLD number on back of map.
- 3.7.6 Continue east on Ridge Road to Tuckahoe Road (0.3 miles).
- 3.7.7 Go north on Tuckahoe Road to Salmon Creek Road (2.5 miles). Place a TLD near the intersection of Tuckahoe Road and Salmon Creek Road. Record location details, date, time and TLD number on back of map.
- 3.7.8 Radio a report to Survey Communications Aide. If no further surveys are required at this time, return to Emergency Survey Center.

3.8 Second Stage Survey - East or Northeast winds

- 3.8.1 Go west on Lake Road to Roder Parkway (access road to Ontario on the Lake) (5.1 miles from #19). Go north on Roder Parkway to intersection with Ontario Drive and place TLD near intersection (#18) (0.5 miles). Record location details, date, time and TLD number on back of map.
- 3.8.2 Return to Lake Road, continue west to County Line Road (2.4 miles).
- 3.8.3 Go south on County Line Road to Berg/Schlegel Road (2.0 miles). Place a TLD near the intersection of County Line Road and Berg/Schlegel Road (#36). Record location details, date, time and TLD number on back of map.
- 3.8.4 Continue south on County Line Road to State Road (road makes a jog to right between Route 104 and Ridge Road. Turn left onto Ridge Road to return to County Line Road). (2.8 miles)

- 3.8.5 Go west on State Road to Route 250 (2.8 miles). Place a TLD at the intersection of State Road and Route 250 (#38). Record location details, date, time and TLD number on back of map.
- 3.8.6 Go south on Route 250 to Plank Road (1.2 miles).
- 3.8.7 Go west on Plank Road to RG&E Eastern Monroe Service Center, 1270 Plank Road. Radio report to Survey Center.
- 3.8.8 Return to Route 250 and go north to Main Street in the Village of Webster (2.3 miles).
- 3.8.9 Go east on Main Street to Phillips Road (0.6 miles).
- 3.8.10 Go north on Phillips Road to substation #74 driveway which is 20' north of access road to Route 104.
- 3.8.11 If you have special substation key, change particulate filter and iodine cartridge at environmental monitor #9 located in the substation.
- 3.8.12 Radio report to Survey Center. If no further surveys are required at this time, return to Emergency Survey Center.
- 3.9 Sign-in upon arrival at Emergency Survey Center.
- 3.10 Give survey map (Attachment II) to the Communications Aide.
- 3.11 Return all equipment to proper locations.
- 3.12 Inventory foot locker and seal if complete. Note any discrepancies on Inspection log and give to Health Physicist.
- 3.13 Stand-by for further orders.

ATTACHMENT I

Environmental Sample Station - Filter Changing

In the event of an emergency, the first samples will be collected from the environmental stations. These samples will aid in evaluating the extent and possible off-site effects of the emergency. There are 6 on-site air samples and 5 off-site.

Procedure for Changing Environmental Particulate Filters - Emergency Plan

1. Check vacuum gauge and record.
2. Switch off pump.
3. Record on the envelope left from previous sample change the reading of the system vacuum, date, time, gasmeter cu. ft. and hour readings in column labeled "OFF".
4. Remove filter holder at quick disconnect joint.
5. Unscrew outside retaining ring and remove filter from holder.
6. Put filter into envelope and seal.
7. If charcoal cartridge is in use, unscrew the inside retaining ring and remove the charcoal cartridge. Emplace a new GY-130 cartridge and reassemble the sampling head. Record the date, time, gas volume meter reading and hour meter reading. Leave a new envelope with the same information for a new cartridge and label it Iodine Cartridge.
8. Put new glass fiber filter into holder, replace retaining ring and reconnect holder back to pump at quick disconnect joint.
9. On new envelope record station number, date, time, gas meter cu. ft. and hour meter readings in column labeled "ON".
10. Turn on pump and record system vacuum.
11. Leave new envelopes for next collection, bring old envelopes into Emergency Control Center for beta counting of sample.

RM-14 Check

1. Disconnect power cord from back taking care not to turn test switch on.
2. Insure that an HP-190 probe is connected to detector jack.
3. Turn range switch to Batt. - should read in "BATT-OK".
4. Turn range switch to X1. Unit is ready for use.
5. All readings must be multiplied by range switch setting for proper readings.

ATTACHMENT I (Cont'd)FIELD CALCULATIONS FOR LOW VOLUME AIR SAMPLES USING RM-14

- 1) Particulate - Filter Removed from Holder:

$$\frac{(\text{CPM Sample} - \text{CPM BKG})}{(\text{Volume of Sample in CC})} \left(\frac{2.4 \times 10^{-5}}{\text{cc}} \right) = \text{_____ } \mu\text{Ci/cc Particulate}$$

- 2) Iodine - Cartridge Inlet Face to Probe - End Cap Removed:

$$\frac{(\text{CPM Sample} - \text{CPM BKG})}{(\text{Volume of Sample in CC})} \left(\frac{8.34 \times 10^{-5}}{\text{cc}} \right) = \text{_____ } \mu\text{Ci/cc Iodine}$$

TAKING LOW VOLUME SAMPLE:

1. RECORD: Date, Time, Location, and Totalizer Reading (A).
2. Turn Unit ON and sample for approximately 30 minutes.
3. Turn Unit OFF - RECORD: Date, Time, Location & Totalizer Reading (B).
4. Sample Volume = (B-A) (Calibration Factor) = cc.

NOTE: Calibration Factor is noted on side of sampler.

5. Read filters with RM-14 and save in marked envelopes.

LOW VOLUME AIR SAMPLER CHECK:

1. Connect Battery Pack to Pump Unit.
2. Turn switch ON - Check flow meter for movement.
3. Turn Unit OFF.
4. INSURE Filter Assembly contains a GY-130 cartridge and a particulate filter before taking sample.

RADECO H 809C HIGH VOLUME AIR SAMPLER CHECK:

1. Connect cables to power source, Red clip to positive and Black clip to negative.
2. Turn on switch and check flow meter, flow meter will be off scale high with no filters in place.
3. Turn unit off.
4. Insure filter assembly contains a GY-130 cartridge and a particulate filter.

TAKING RADECO HIGH VOLUME AIR SAMPLE:

1. Record: Date, Time, and Location.
2. Turn unit on and sample for 10 minutes.

ATTACHMENT I (Cont'd)

3. Record the flow rate in cfm. (Normal is 1.5 cfm)
4. Sample volume = flow rate in cfm X minutes sampled.
5. Read filters with RM-14 and save in marked envelopes.

FIELD CALCULATIONS FOR HIGH VOLUME AIR SAMPLES USING RM-14:

1. Particulate - Filter removed from holder:

$$\frac{(\text{CPM Sample} - \text{CPM BKG}) (8.38 \times 10^{-10})}{(\text{Volume of Sample in Cubic Feet})} = \text{_____ } \mu\text{Ci/cc Particulate}$$

2. Iodine - Cartridge Inlet Face to Probe:

$$\frac{(\text{CPM Sample} - \text{CPM BKG}) (3.0 \times 10^{-9})}{(\text{Volume of Sample in Cubic Feet})} = \text{_____ } \mu\text{Ci/cc Iodine-131}$$

ATTACHMENT I (Cont'd)RADIO USE PROCEDURE

1. Extend antenna full (if necessary)
2. Channel selector on Channel 1
3. Turn unit ON
4. Adjust squelch
5. Depress switch to transmit, call "Survey Center"
6. Speak in normal voice, slowly and distinctly, into speaker/mike
7. Release switch to receive

AUTO DIGI-MASTER DOSE RATE METER

1. Turn unit on
2. Take readings noting if they are MR/HR or R/HR.

NOTE: Unit reads out every 2 seconds.

Date _____ Time _____ Time Members: _____

2

3 _____

SECOND GRADE SURVEY: WINDS OF NOVEMBER

EAST OR WEST: WINDS



CONTROLLED COPY NUMBER

THIS PROCEDURE CONTAINS 7 PAGES

SC-1.15INSPECTION OF EMERGENCY EQUIPMENT1.0 PURPOSE:

- 1.1 The equipment required by the emergency plan and the means of assuring it is available is outlined in this procedure. Inspections will be made monthly as required by Technical Specifications.

2.0 REFERENCES:

- 2.1 SC-1, Emergency Plan
- 2.2 Tech. Specs., Table 4.1-1
- 2.3 SC-1.15A, Communications Equipment Check

3.0 INSTRUCTIONS:

- 3.1 Inspection of Emergency Survey Center
- 3.1.1 Check voltage and test operability of survey instruments
- 3.1.2 Run the Battery powered air samplers for five minutes.
- 3.1.3 Start RADECO H-809C and H-809B2 air samplers and allow to run 1 minute.
- 3.1.4 Contact Security to check operability of each radio.
- 3.1.5 Check center for general equipment, Appendix A. Note date of inspection on face masks.
- 3.1.6 Check boxes for needed equipment, Appendix B. If seal is unbroken assume equipment is intact. The boxes shall be opened, as a minimum semi-annually, to change batteries and verify inventory.
- 3.1.7 Change chart paper on area monitor.
- 3.1.8 Make communications check per SC-1.15A, Section 3.2.
- 3.1.9 If any discrepancies are found make note on the Monthly Inspection Log (Attachment I) and advise Health Physicist. If there are no discrepancies, enter NONE on Log Sheet.
- 3.1.10 Discrepancies are to be corrected as soon as possible and so noted on the log sheet and filed per A-1701.

- 3.2 Inspection of Control Room, Health Physics Office and Auxiliary Building Emergency Equipment. Appendix C.
 - 3.2.1 Check voltage and test operability of dose rate meters.
 - 3.2.2 Check that all equipment is present.
 - 3.2.3 If any discrepancies are found make a note on the Monthly Inspection log-Attachment I and advise the Health Physicist. If there are no discrepancies, enter NONE for each location.
 - 3.2.4 Discrepancies are to be corrected as soon as possible and so noted on the log sheet and filed per A-1701.
- 3.3 Inspection of Technical Support Center and Operational Support Center
 - 3.3.1 Check operability of radiation monitor.
 - 3.3.2 Check that all equipment is present per Appendix "C". If there are no discrepancies, enter NONE on Log Sheet.
 - 3.3.3 Note date of inspection on face masks.
 - 3.3.4 Make communications check per SC-1.15A, Section 3.1.
 - 3.3.5 Note any discrepancies on the Monthly Inspection Log - Attachment I and advise the Health Physicist.
- 3.4 Turn in Trouble Cards for any needed repairs or malfunctions.
- 3.5 Inspect the Auxiliary Survey Center quarterly.
 - 3.5.1 Make communications check per SC-1.15A, Section 3.3.
- 3.6 Perform operational check with check source on emergency plant vent monitor, monthly.

APPENDIX "A"EMERGENCY EQUIPMENT FOR GENERAL USE IN SURVEY CENTER

1. Assignment Tag Board
2. Telephone, Intercom
3. Phone Lists and Phone Books
4. Survey Team Maps
5. Survey Boxes and Equipment
6. Contaminated Clothing Bin
7. 5 Beta-Gamma Survey Instruments
8. 3 High Level Dose Rate Meters
9. Radiation Monitor, Probe and Count Shelf
10. 2 Dosimeter Chargers and Batteries
11. 10 Film Badges or Personnel TLD's
12. 4 Battery Operated Particulate Air Samplers
13. 2 RADECO H 809 B2 Air Samplers
14. Filters for Air Samplers - Particulate & Charcoal
15. Decontamination Kit
16. Carton of Additional Clothing
17. Six Portable Radios
18. Dosimeters - 6 (0-5R) and 12 (0-500MR)
19. Full Face Respirators - 4, Charcoal Filters - 8
20. 3 packages of 6 environmental TLD badges (off-site only).
21. 4 RADECO H 809C Air Samplers.

APPENDIX "B"EMERGENCY EQUIPMENT FOR SURVEY BOXES

1. Coveralls, disposable		2	_____
2. Hoods, disposable		2	_____
3. Gloves, disposable pair		2	_____
4. Booties, disposable pair		2	_____
5. Hats, Surgeon		2	_____
6. Hoods, Rain		2	_____
7. Coat, Rain		2	_____
8. Boots, Rain pair		2	_____
9. Equipment Belt(s) & Bag(s) (On-Site only)		2	_____
10. Flashlight and Batteries (Change batteries Jan. & July)		2	_____
11. Plastic Bags		2	_____
12. Masking Tape		2	_____
13. Pencil and Sharpener		2	_____
14. Tablet		2	_____
15. Survey Route and Maps		2	_____
16. Air Sample Filters - Particulate & Silver Zeolite GY-130		2	_____
17. Air Sample Envelopes (Iodine)	Minimum of 10	2	_____
(Environmental)	Minimum of 10	2	_____
18. Dimes for phones (off-site only)		10	_____
19. Clipboard			_____
20. Appropriate procedure for team			_____
21. Hammer and nails (off-site only)			_____

DATE: _____

INITIALS: _____

APPENDIX "C"SITE EMERGENCY EQUIPMENTA. CONTROL ROOM

1. Scott Air Pack (2)
2. High Range Dosimeters (10)
Recharger (1)
3. Anti-Contamination Clothing (6 sets)
4. High Range Dose Rate Meter (1)
5. Plant Radiation Survey Maps
6. Smear Envelopes and Papers
7. Potassium Iodide Tablets

B. HEALTH PHYSICS OFFICE

1. Scott Air Pack
2. High Range Dosimeter
3. Anti-Contamination Clothing
4. High Range Dose Rate Meter

C. AUXILIARY BUILDING

1. Scott Air Pack (1)
2. High Range Dose Rate Meter (1)

D. TECHNICAL SUPPORT CENTER

1. Radiation Monitor
2. Full Face Respirators (10)
3. Charcoal Filters (10)
4. Dosimeters (10)
5. Potassium Iodide Tablets
6. Dosimeter Charger (1)
7. RADECO H-809 B2 Air Sampler and Particulate
and iodine cartridges (GY-130)

APPENDIX "C"

SITE EMERGENCY EQUIPMENT

(Cont'd)

E. OPERATIONAL SUPPORT CENTER

- | | |
|--------------------------------|----------|
| 1. Respirators & Filters | (6) |
| 2. Flood Lights, portable | (2) |
| 3. Anti-Contamination Clothing | (6 sets) |

SC-1.15:7

Refer to SC-1.15 for Instructions

MONTHLY INSPECTION LOG - ATTACHMENT I

DISCREPANCIES NOTED - DATE, INITIALS

DISCREPANCIES CORRECTED - DATE, INITIALS

Survey Center

Date: _____

Initials: _____

Control Room

Date: _____

Initials: _____

HP Office

Date: _____

Initials: _____

Auxiliary Building

Date: _____

Initials: _____

Technical Support Center

Date: _____

Initials: _____

Operational Support Center

Date: _____

Initials: _____

Auxiliary Survey Center

Date: _____

Initials: _____

Emergency Plant Vent Monitor

Date: _____

Initials: _____

REVIEWED BY: _____