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Name: ~~GERLACH*ROSE M~~ EMPL#: 28401 CA#: 0363

Address: ~~NUCSA2~~

Phone#: ~~254-3194~~

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TO: ~~GERLACH*ROSE M~~ 06/24/2003

LOCATION: DOCUMENT CONTROL DESK

FROM: NUCLEAR RECORDS DOCUMENT CONTROL CENTER (NUCSA-2)

THE FOLLOWING CHANGES HAVE OCCURRED TO THE HARDCOPY OR ELECTRONIC MANUAL ASSIGNED TO YOU:

222 - 222 - OFFSITE EMERGENCY MONITORING TEAM: EMERGENCY PLAN-POSITION SPECIFIC PROCEDURE

REMOVE MANUAL TABLE OF CONTENTS DATE: 07/15/2002

ADD MANUAL TABLE OF CONTENTS DATE: 06/23/2003

CATEGORY: PROCEDURES TYPE: EP

ID: EP-PS-222

REPLACE: REV:8

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A045

Field Team Information Form

Field Team members shall read and sign-in on RWP #8002, complete this form, and provide it to the HP Radioman (HPR) or Field Team Director (FTD), whichever is in control of the field teams, prior to dispatching.

FIELD TEAM: _____

NAME(S): _____

YTD EXPOSURE: _____mRem

YTD EXPOSURE: _____mRem

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CELL PHONE NUMBER: _____

SURVEY DATA FORM
(with RMS Inoperable)

FIELD TEAM: _____

DATE/TIME (military): _____ / _____

SECTOR: _____ DISTANCE: _____ miles

Exposure Data

Name: _____
Badge Slot # _____

SRD Reading: _____ mR

Name: _____
Badge Slot # _____

SRD Reading: _____ mR

Radiation Survey

Survey Meter HP # _____

CW

mR/hr

Air Sample

Air Sampler # _____

Frisker HP # _____

Cartridge

Particulate

Sample Count Rate: _____ cpm

_____ cpm

Bkgd Count Rate: _____ cpm

_____ cpm

Corrected Count Rate:
(sample - Bkgd)

ccpm

_____ ccpm

SIGNOUT SHEET

Team Designation _____ **Date** _____ **Time** _____

Team Member # 1 Name _____ **TLD #** _____

SRD (low range) S/N _____ **Cal Due Date** _____

SRD (high range) S/N _____ **Cal Due Date** _____

Team Member # 2 Name _____ **TLD #** _____

SRD (low range) S/N _____ **Cal Due Date** _____

SRD (high range) S/N _____ **Cal Due Date** _____

Instrument	HP #	Cal Due Date	Checked By
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Survey Meter	_____	_____	_____
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Frisker	_____	_____	_____
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Air Sampler	_____	_____	_____
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GARDS Unit Ser. #	_____	_____	_____
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Cellular Telephone Number: _____

INSTRUMENT CHECKOUT INSTRUCTIONS

Obtain a blank **Signout Sheet (EP-AD-000-172)**. Enter required data on form as corresponding sections of this procedure are completed. Leave the completed form on the clipboard inside the FAF/EOF Storage Room.

1. Enter team designation, date, and time.
2. Enter team members names and TLD numbers.
3. SRD Checkout
 - a. Check calibration due dates for high and low range SRDs. (If calibration is past due **DO NOT USE**. Obtain replacement.) Record SRD S/N and calibration due date on **Signout Sheet**.
 - b. Zero SRDs as follows:
 - Place the end of the SRD which houses the contact pin on the charging contact and press down firmly.
 - While keeping the SRD firmly depressed on the contact pin (the scale is illuminated) adjust the hairline to zero by turning the zeroing knob.
 - Release the SRD from the charging contact and re-read the scale to ensure that the hairline has not moved from zero.
 - If the hairline does not read zero, repeat above steps.

NOTE: Do not re-zero the SRD in the field unless authorized to do so by the HP Radioman or Field Team Director.

4. Instrument Checkout
 - a. Check each instrument's calibration due date. If calibration is past due **DO NOT USE**, obtain a replacement.
 - b. Enter each instrument's HP# and calibration due date on the corresponding line on the **Signout Sheet**.
 - c. Perform checkout of each instrument as described below. If an instrument fails any of its checks, **DO NOT USE**. Obtain replacement from the HP Equipment Room. If all instrument checks are successful, initial corresponding **Checked By** column on **Signout Sheet**.
 - d. The source block for instrument operational checks is located in a posted, sealed box inside the FAF/EOF Storage Room.

SURVEY METER

- **Battery Check**
Turn selector switch to **"BAT"** position. The meter should read in the **"BAT OK"** range.
- **High Voltage**
Turn selector switch to **"HV"** position. The meter should read between 850 and 950 on the bottom scale (HV x 100).
- **X10 Scale Check**
Turn the selector switch to the **"x10"** scale and the speaker switch on.

With the GM tube shield closed and the **INTEGRATE/SLOW/FAST** switch in the **"SLOW"** position, set the detector horizontally on the source block.

Ensure meter reads (on the top scale) within the parameters specified on the source block and speaker functions.

Turn the selector switch to the **"OFF"** position.

FRISKER

- **Battery Check**
Place the **"ON/OFF"** switch to the **"OFF"** position.

Press red **"BAT TEST"** button located next to the **"ON/OFF"** switch.

Meter should deflect to **"BATT OK"** region of scale.

- **Confidence Check**
Turn **"ON/OFF"** switch to the **"ON"** position.

Turn up volume.

Set **RANGE** to x100 scale.

Place frisker probe near source block. Meter should deflect, with continuous annunciation.

Turn **RANGE** back to x1 position.

Turn frisker to **"OFF"** position.

AIR SAMPLER

- Load air sampler head.
Obtain the following items from your kit:
 - Air sampler head
 - Sealed silver zeolite cartridge
 - Particulate filter
 - Disposable gloves
 - Flexible sample line

Place the particulate filter in the air sample head with the cross hatched side down.

Mark the outer (fuzzy) surface with a soft tipped marker.

Remove the silver zeolite cartridge from the bag and place in the air sampler head with the arrows on the cartridge pointed in the direction of air flow.

Load the head onto the flexible sample line attached to the air sampler.

- Plug air sampler cord into wall outlet, verify that motor and air sampler are operable.
- Check that flow meter ball is visible within the window of the flow check sticker.
- Turn off and unplug air sampler and cover sample head with rubber glove.

GARDS UNIT

Setup

- Open GARDS case door, turn power switch OFF, (located on left side of case), unplug power cord.
- Locate/install the TEL-12A module, tightening the end screws.
- Close case door. Locate GPS and radio antennae, and prepare for monitoring vehicle loading.

Shutdown

- Turn power switch OFF, disconnect antennae, remove TEL-12A module and store inside case.
- Plug unit into 120 volt receptacle, turn power switch to ON.
- Press TEST. (AC light must illuminate as a minimum.)

If any startup test on GARDS fails, notify the HPR/FTD for further instructions. This equipment supplies supplemental data and can be shutdown without affecting the capabilities of the Monitoring Team.

FIELD SURVEY INSTRUCTIONS FOR FIELD TEAMS

NOTE: If either team member's dose approaches 800 mrem, immediately notify the individual in control of the field teams (HP Radioman or Field Team Director). If a team member's dose approaches 80% of an extended dose limit (e.g., via revision of RWP #8002) or the survey meter exceeds 1000 mR/hr, the field team should retreat to a low dose rate area and notify the individual in control of the field teams before proceeding with surveys.

NOTE: Every effort should be made to minimize time in high dose rate areas.

1. Enter the **Survey Meter HP#** in the radiation survey section of the **Survey Data Form, (TAB 1)**.
2. Using the **Survey Meter** (closed window), determine the highest dose rate within about 20 feet of the vehicle. Insure that the **INTEGRATE/SLOW/FAST** switch is in the **slow** position, take a dose rate reading 3 feet above the ground and record this on the **Survey Data Form**.
3. Enter the time that this measurement was made on the **Survey Data Form**.
4. Record **SRD** readings for both team members on the **Survey Data Form**.
5. Transmit closed window reading and exposure data to the individual in control of the field teams as soon as possible.

AIR SAMPLING INSTRUCTIONS

1. Check that the particulate filter and cartridge have been properly loaded onto the sample head.
2. Check that the toggle switch is in "OFF" position and the glove is removed. Retain this glove to cover sample head after sample is completed.
3. With the engine running and headlights off, turn on the inverter and plug in the air sampler.
4. Extend the sample head outside vehicle facing up wind if possible.

NOTE: If there is precipitation in progress, place the sample head inside the vehicle near open window.

5. Obtain a set of particulate and cartridge sample tags and verify that they have the same sample number. Fill out date, team, sector, and distance.
6. Obtain a stopwatch from the Emergency Monitoring kit and reset to zero.

NOTE: Some stopwatches are mechanical and may require winding. A wristwatch may be used if a stopwatch is unavailable.

7. Start the air sampler and stopwatch. Record the start time and flow rate on the sample tags.

NOTE: The sample flow rate for the nearsite (ALPHA, BRAVO) team air sampler is fixed at 2 cfm.

8. After collecting a 10-minute sample, turn off the air sampler and record the stop time on the sample tags.
9. Cover the sample head assembly with a disposable glove, load equipment into vehicle, turn off the inverter, and exit the plume.
10. Retreat to a low background area.
 - a. Using a survey meter, locate an area well outside of the plume in which to count the air sample.

NOTE: You should be at least one sector away from the plume.

11. Spread a masslin wiping cloth or an equivalent type of covering over a clean area of the tailgate, to be used as a work area, and tape in place.
12. Enter the frisker and air sampler HP #s on the Survey Data Form.

13. Obtain two small (approximately 4" x 6") plastic bags from kit.
 - a. Attach completed sample tags and **"RADIOACTIVE MATERIAL"** stickers to each bag and a sample tag to the back of the **Survey Data Form**.

NOTE: Personnel handling potentially contaminated material shall always wear gloves.
14. Remove the cartridge from the air sampler head (filter assembly) and place in small plastic bag labeled with the cartridge sample tag.
15. Set up the frisker for counting as follows:
 - a. Ensure alarm set, located on back of frisker, is in the **"SET-OFF"** position.
 - b. Set the Range to **X1**.
 - c. Set Response switch to **"SLOW"** position.
 - d. Place **"ON/OFF"** switch in the **"ON"** position.
16. Determine background count rate.
 - a. Place the frisker probe on the work area, away from the samples.
 - b. Observe the meter for approximately 30 seconds to determine an average count rate.
 - c. Enter this count rate in the background count rate section of the **Survey Data Form**.
17. Determine the cartridge sample count rate.
 - a. Hold the frisker probe in contact with the bagged silver zeolite cartridge.

NOTE: Ensure the inlet side of the cartridge is facing the probe. (Inlet side is side with arrows facing away.)
 - b. Observe the meter for approximately 30 seconds to determine an average count rate.
 - c. Record the sample count rate in the Cartridge column on the **Survey Data Form**.
18. Place the small plastic bag containing the cartridge into the large bag marked **"CARTRIDGE SAMPLES"** and retain for future analysis.
19. Subtract the background count rate from the sample count rate to determine the net count rate. Enter on **Survey Data Form**.

20. Using the tweezers, remove the particulate filter from the air sample head and place in another small plastic bag labeled with the particulate sample tag.
21. Count the Particulate filter.
 - a. Hold the frisker probe in contact with the bagged filter.
 - b. Observe the meter for approximately 30 seconds to determine an average count rate.
 - c. Record the sample count rate in the Particulate column on the **Survey Data Form**.
22. Place the small plastic bag containing the filter into the large plastic bag marked **"PARTICULATE SAMPLES"** and retain for future analysis.
23. Subtract the background count rate from the sample count rate to determine net count rate. Enter on **Survey Data Form**.
24. Before proceeding, put on a pair of clean gloves to prevent cross-contamination of new filter assembly.
25. Re-load the air sampler head assembly onto the air sampler (see **TAB 2**) and cover with a clean disposable glove.
26. Dispose of potentially contaminated items in designated waste bag labeled **"RADIOACTIVE MATERIALS"**.
27. Report net count rates for the cartridge and particulate filter to the HP Radioman or Field Team Director, whichever is in control of the field teams.
28. If requested by the HPR/FTD, report to the specified pick-up station.

NOTE: The particulate filter is not transferred with the silver zeolite cartridge.
29. Transfer silver zeolite cartridge in small bag to the bag held by Runner.