

Annex M - Soil

1	Upon arrival at Field Team Center, receive a status briefing from team leader and review this SOP to familiarize yourself with what might be required. Clarify any questions with Team Leader or Field Team Center Coordinator before departing on sampling assignments. Verify communications, radio channels, cell phone numbers, FTC number, etc.
2	Receive sampling assignment(s) from Team Leader.

IF	THEN
Assignments are outside of the Restricted Zone	Proceed with Item #3 of checklist
Assignments include locations inside Restricted Zone	If needed, request assistance from Team Leader or Field Team Center staff in plotting routes to assigned locations. Request briefing on dosimetry and use of any protective gear issued. Request any information on stay time restrictions. Request monitoring station location. Review sampling techniques, procedures, requirements, and locations with assigned escort. Follow the escorts instructions regarding cross-contamination and exposure control measures.

3	Inventory sampling kit using Attachment 1. Obtain any missing items from Field Team Center.
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IF	THEN
Team Leader advises that samples are to be split (processed at different labs to verify accuracy).	Make two complete collections at assigned sample site per normal procedures. Indicate this information on both data sample sheets and containers.

Prior to Traveling to the Sample Site

4	Label all containers with as much information as possible.
5	Fill out the Sample Laboratory Data Sheet with as much information as possible and have the sampler sign the chain of custody section.
6	Ensure the vehicle has adequate fuel, paper liner on floorboards and cargo area, trash box with liner or trash bag with duct tape, sample transport container, receptacle for reusable equipment (for decon), maps, and communication equipment.
7	Turn on GPS unit and Survey Meter
8	Place the following items into backpack or equipment caddy: sample jars, spear and/or scoop, paint scrapper, permanent marker, two resealable bags, ink pen, Sample and Laboratory Data Sheet, sampling instructions, GPS unit, paper towels, small trash bag, and knife. Split samples require pan, extra jar, bags and Sample Data Sheet
9	Don PPE (Tyvek, Boot covers, and Gloves).

Upon Arrival to Sample Site

10	Radio Field Team Center of arrival and explain purpose of sampling to the property owner (if appropriate) while verifying the exact address for the Sample and Laboratory Data Sheet. Conduct an area survey taking note of background readings in the margin of the Sample and Laboratory Data Sheet.
11	Don respiratory equipment, if advised by Field Team Center.
12	Utilized lined trash box or prepare a garbage bag to receive waste by taping it in place on an easily accessible area in the work vehicle.
13	Select sample point. Choose a location that is large enough to get a 10cm x 10cm area that is undisturbed, open (not protected by trees or shrubs), free of excessive vegetation and large rocks, etc., and has not been subjected to erosion since the release of radioactive material.
14	Use the survey meter to take a radiation reading at a height of one (1) meter above (or away from) the sample area. Record the reading on Sample Data Sheet as Field 1 Meter Reading.
15	Use the survey meter to take a radiation reading at a maximum of 3-5 cm (2") above the sample area. Do not make contact with the sample point. Record the reading on Sample Data Sheet as Field Contact Reading.
16	If the area is heavily vegetated contact the FTC for alternate location, then proceed with a complete vegetation sample prior to step 17. Note: Soil sample ID# followed by a "V" on sample container and Sample Laboratory and Data Sheet.
17	Remove soil from a 10cm x 10cm area to a depth of 2cm. Place the soil into the soil sample jar and close lid. Note: A minimum of 250g of soil is required for analysis. Do not include any vegetation with soil sample.
18	Complete label info on jar then place the jar into the smaller resealable bag and seal.
19	Use the survey meter to take radiation reading at a maximum of 3-5cm from sample container. Do not make contact with sample container. Record reading on Sample Data Sheet as Sample Contact Reading.
20	Complete the sample submission sheet recording time, GPS latitude, and longitude.
21	Place the sample sheet and bagged sample into a second resealable bag and seal. Ensure all information on sample sheet is visible.
22	Remove any mud or clay from all sampling tools at the sampling point. This is only a gross decon. Reusable tools will be decontaminated at the decon station at Sample Reception Site.

Returning to Vehicle

23	Secure samples in transport container.
24	Place reusable equipment, if any, in decon container for decontamination.
25	Place continuous use equipment (survey meter, backpack, etc.) in equipment container.
26	Place disposable equipment in waste container.
27	Remove one layer of gloves and place in waste container.
28	Contact Field Team Center to update status of Field Sampling Team and proceed to next sample point as previously instructed.

**Annex M - Soil
Sampling Equipment Inventory Sheet**

This list covers all items needed for soil samples. You may need to obtain additional equipment for other types of samples (i.e. Leafy Vegetation, Water, etc.)

Equipment Caddy
Backpack
Protective Gloves
Boot Covers
Tyvek
(1) 16oz Clear, Wide Mouth Sample Jar w/ Label
(1) 7"x8" resealable bag
(1) 9"x12" resealable bag
(1) 10cm Paint Scrapper (w/ 2cm depth marking)
Soil Scoop
Soil Spear
Permanent Marker
Paper Towels
Clipboard
Sampling Instructions
Sample and Laboratory Data Sheet
Ink Pen
Survey Meter
GPS Unit (wrap in plastic)
Hand Held Radio (wrap in plastic)
Utility belt (Optional)
Small Trash Bag
Mixing Pan (for split samples only)
Knife

Note: Frozen soils may require cold chisel and hammer.

Note: Split samples will require additional bags, sample jar, and Sample and Laboratory Data Sheet.

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Instructions for Completing Sample and Laboratory Data Sheet

Plant - Beaver Valley Power Station

Sector - Leave Blank if Unknown

Distance - Leave Blank if Unknown

Date Collected - MM/DD/YYYY (ex. 06/31/2010)

Mil Time - Use 24 hour clock

Code - See the key on sheet (ex. "SL" for soil)

Agency Log No. - Given by Field Team Center for tracking

Street - Leave Blank if Unknown

GPS Latitude - Enter Direction and Degrees-Minutes Decimal

GPS Longitude - Enter Direction and Degrees-Minutes Decimal

Collected by - Enter Your Name and agency

Sampling Info - Fill out info for Soil Sample (Comment any irregularities)

Field 1 Meter Reading - Reading obtained in Step 14 before sample

Field Contact Reading - Reading obtained in Step 15 before sample

Sample Contact Reading - Reading obtained in Step 19 after sample

Duplicate/Split # - Enter split or duplicate number if applicable

Chain of Custody - Print name, sign, date and time