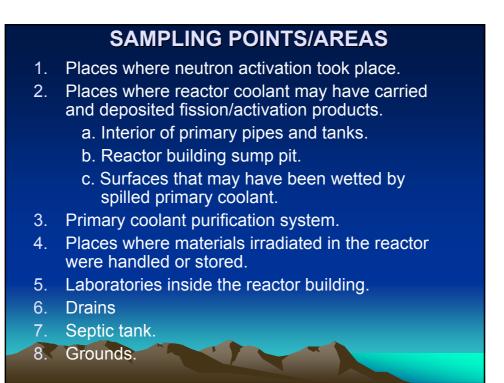


OUTLINE

Objectives Sampling points/Area/Location Procedure for Sampling Vapor Sample for Tritium Procedure for Smear/Swipe Test Procedure for Air Samples for Air Contamination Procedure for Sampling Surface Coating/Paint Procedure for Sampling Ion-exchange Resin Procedure for Sampling Water Samples Procedure for Sampling Metal/Wood Procedure for Sampling Soil Samples Procedure for Sampling Concrete

Objectives

- To get samples from the reactor building for laboratory analysis
- To document and label properly the samples taken
- To map the sampling points with proper label
- To take picture of the sampling point using digital camera
- To ensure safety of personnel, public and environment
 - To satisfy regulatory requirements



Vapor Sample Collection for 3H Determination

Materials:

- Glass jar, 1L capacity, clean and dry
- Dry ice
- Petri dish
- Sharp bladed spatula
- Glass beaker, 100 ml
- Labeling kit (marking pen etc.)
- Logbook
 - Digital camera

Continuation... Vapor Sample Collection

- 1. Close windows and laboratory door.
- 2. Fill the glass jar half-full with dry ice.
- 3. Place jar on a dish.
- 4. Let it stand for 1-2 hrs.
- 5. Scrape off the accumulated "snow" and ice in the side of the jar into the glass beaker.
- 6. Set aside beaker for sample to thaw out.
- 7. Label the sample.
- 8. Record to logbook (where? when? who?).
- 9. Take picture of location.
- 10. Bring samples to the storage/preparation room.

Smear/Swipe Test

Materials:

- Filter paper/cotton swabs
- Water/alcohol
- Disposable gloves
- Forceps/Tongs
- Plastic bag (zip lock type)
- Labeling kit (marking pen etc.)
- Holding box
- Logbook
- Digital camera

Continuation... Smear/Swipe Test

- 1. Map the area of sampling points.
- 2. Wear disposable gloves.
- 3. Moisten the filter paper.
- 4. Hold the filter paper using fingertips.
- 5. Get swipe samples at least 100cm² (outside to inside stroke with just enough pressure)
- 6. Place swipe samples into the plastic bag.
- 7. Label the plastic bag properly.
- 8. Place the plastic bag to the holding box.
- 9. Record to logbook (where? when? who?).
- 10. Take picture of location.
- 11. Send samples for analysis.

Air Samples for Air Contamination

Materials:

- Air sampler (model#, S.N., technical specs.)
- Plastic bag
- Filter paper
- Tweezers
- Labeling kit (marking pen etc.)
- Logbook
- Digital camera

Continuation ... Air Samples for Air Contamination

- 1. Wear appropriate clothing and personal dosimeter.
- 2. Put clean filter paper to air sampler holder.
- 3. Install/Set-up air sampler in appropriate location.
- 4. Set collection time.
- 5. Put on the air sampler.
- 6. Take out the filter paper using tweezers.
- 7. Place the samples in plastic bag.
- 8. Label the plastic properly
- 9. Record to logbook (where? when? who?)
- 10. Take picture of location.
- 11. Send samples for analysis.

Surface Coatings/Paints

Materials:

- Sharp bladed spatula/chisel
- Plastic bags
- Labeling kit (marking pen etc.)
- Holding box
- Logbook
- Digital camera



- 1. Mark the area of sampling points.
- 2. Scrape the coatings/paints.
- 3. Collect the scraped samples.
- 4. Place the samples in the plastic bags.
- 5. Label the plastic bag properly.
- 6. Place the plastic bag to the holding box.
- 7. Record to logbook (where? when? who?)
- 8. Take picture of location.
- 9. Bring samples to the storage/preparation room.

Ion-Exchange Resin Samples

Materials:

- Plastic container
- Plastic bag
- Disposable gloves
- Adjustable wrench
- Scaffolding
- Labeling kit (marking pen etc.)
- Logbook
- Digital camera



- Set up scaffolding for top cover removal.
- Isolate the resin tank.
- Drain water level up to resin level.
- Remove top cover of the resin tank.
- Get resin sample.
- Place sample in plastic bag.
- Label the bag properly.
- Record to logbook (where? when? who?).
- Take picture of location.
 - Bring samples to the storage/preparation room.

WATER SAMPLES

Materials:

- Disposable gloves
- Polyethylene bottle with cover
- Labeling kit (marking pen etc.)
- Logbook
- Digital camera

Continuation... Water Samples

- 1. Locate the sampling area.
- 2. Get water samples.
- 3. Place in polyethylene bottle.
- 4. Label the bottle.
- 5. Record to logbook (where? when? who?).
- 6. Take picture of location.
- 7. Bring samples to the storage/preparation room.

METAL AND WOOD SAMPLES

Materials:

- Electric Drill with Drill Bits
- Core Drill with Core Bits
- Scraper
- Plastic Bag
- Holding Box
- Labeling kit (marking pen etc.)
- Logbook
- Digital camera

Continuation... Metal and Wood Samples

Procedure:

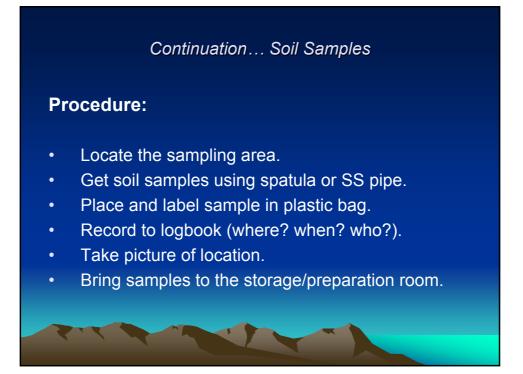
room.

- 1. Locate the sampling area.
- 2. Get sample from area using electric drill/ scraper.
- 3. Place the sample in plastic bag.
- 4. Label the plastic bag properly.
- 5. Place the plastic bag to the holding box.
- 6. Record to logbook (where? when? who?).
- 7. Take picture of location.
- 8. Bring samples to the storage/preparation

SOIL SAMPLES

Materials:

- Plastic Bag
- Spatula
- SS pipe
- Disposable gloves
- Working gloves
- Labeling kit (marking pen etc.)
- Logbook
- Digital camera



Concrete Samples

Materials:

- Hilti Coring Device
- Plastic Bags
- Coring Bits
- Labeling kit (marking pen etc.)
- Holding box
- Logbook
- Digital camera



- Mark the area of sampling points.
- Set up the coring device properly.
- Drill to required depth.
- Remove the core samples from coring device.
- Place the samples in plastic bags.
- Label the plastic bags properly.
- Place the plastic bags to the holding box.
- Record to logbook (where? when? who?).
- Take picture of location.
- Bring samples to the storage/preparation room.



