

Activity-Based Sampling

Objective

1. Describe activity-based sampling for airborne contaminants such as asbestos.



Asbestos- SOP 2084

- OSWER Directive 9345.4
- Goal-assess asbestos exposure from contaminated soils via modeling/monitoring
- Models inconclusive
- Monitoring preferred
- Activity-Based Sampling (ABS)
- Exposure varies by activities performed AND
- Site-specific soil type

Asbestos Contamination from Mining



Gravel-like waste rock from vermiculite mining.

Personal Monitoring - Asbestos

- Collection of personal air samples over exposure period of interest
- Samplers serve as surrogates for population at risk
- Similar to industrial hygiene-style workplace exposure monitoring used for evaluating lead and pesticides

Activity-Based Air Sampling - Asbestos

- Generic activity-based sampling scenario
 - Raking
 - Weed whacking/cutting



Activity-Based Air Sampling - Asbestos

- Site-Specific Activity-Based sampling scenario
 - ATV riding



Activity-Based Air Sampling - Asbestos

- Site-Specific Activity-Based sampling scenario
 - Child playing in dirt



Activity-Based Air Sampling - Asbestos

- Site-Specific Activity-Based sampling scenario
 - Agricultural
 - Landscaping



Activity-Based Air Sampling - Asbestos

- Site-Specific Activity-Based sampling scenario
 - Walking with stroller



Activity-Based Air Sampling - Asbestos

- Site-Specific Activity-Based sampling scenario
 - Jogging
 - Bicycling
 - Basketball
 - Hiking



FRIABLE FROLIC



MOON-SUITED VOLLEYBALL PLAYERS KICK UP ASBESTOS AT ILLINOIS BEACH STATE PARK
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