

INSTRUCTIONS FOR PLANNING A SAMPLING PROGRAM FOR ASBESTOS DUST

PURPOSE

Provide instructions in planning a sampling program for a plant which uses asbestos.

SELECTION OF WORK AREAS

Work areas are defined as locations where one or more workers are exposed to a potentially harmful material while performing assigned duties. Such factors as the work processes being performed, the uniformity of concentration of harmful material in the areas, the ventilation which is provided, and the usual location of workers should be considered when delineating the work areas. Both Work Area and Personal Samples shall be collected. Work Area Samples are collected at fixed locations by mounting the samplers on a stand or machine where the cassettes are positioned at breathing zone levels in order to collect representative samples for the areas. The Personal Samples are obtained by collecting the samples near the breathing zones of employees who wear the samplers while performing their normal duties. Eight-hour time-weighted average samples are taken to determine the average asbestos concentrations for the workers or locations sampled. Ceiling or peak concentrations are revealed from samples collected at locations where concentrations greater than the 5 fibers per ml standard are possible for short intervals (usually less than 15 minutes). The standard for the ceiling concentration is 10 fibers per ml of air.

By making a tour of the plant with a supervisor and having the supervisor explain the processes being performed, one can decide on the work areas to be sampled. One shall also prepare sampling data sheets for each area sample. Data sheets for the Work Area Samples shall be partially completed by listing:

1. The plant being sampled.
2. The sample designation.
3. The work area.
4. The anticipated starting time.
5. The expected sampling period.

SELECTION OF EMPLOYEES TO WEAR SAMPLERS

When making the plant tour, the industrial hygienist should decide with the supervisor the employees who will wear the samplers in each work area. An appropriate number of Personal Samples shall be collected in each work area to be representative of the average exposure which any worker performing his usual duties in that area would receive. These shall be breathing zone samples collected for both 8-hour time-weighted averages and ceiling values. Data sheets shall be partially filled out for each of the Personal Samples by listing:

1. The plant being sampled.
2. The sample designation
3. The work area where the employee is primarily located.
4. The name and duties of the employee.
5. The anticipated starting time.
6. The expected sampling period.