

Gilsenan, Michael

From: Atteloney, Leonard
Sent: Tuesday, August 13, 2002 12:13 PM
To: Gilsenan, Michael
Cc: Radhakrishnan, Krish
Subject: The Air Sampling Technician shall perform air sampling after the area is free of dust accumulations as determined by the Proje

Importance: High



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Please review the SOW for 114 Liberty and make appropriate additions and changes.

Leonard.

**New York City Department of Environmental Protection
Bureau of Environmental Compliance
Project Monitoring Contract Scope of Work
For
114 Liberty Street**

Background

A follow-up visit to 114 Liberty Street revealed dust accumulations present on surfaces within the interior of the building. Clean-up of the interior of the building will be done by a licensed asbestos abatement contractor hired by the Department of Environmental Protection (DEP). Air sampling will be done at the conclusion of the clean-up activity.

Purpose

The purpose of this contract is to acquire project monitoring services including site monitoring during clean-up activities, wipe and air sampling and laboratory analysis. The Project Monitoring Contractor shall provide personnel experienced and certified in asbestos abatement monitoring and air and wipe sampling to be on-site, full-time, during work area preparation and cleaning phases of building interiors (12 stories approximately 55,000 square feet in total).

The Monitoring Contractor shall perform the following tasks:

1. Monitor the cleanup of the building interiors to ensure all activities are being performed in accordance with the project specifications and appropriate regulatory requirements;
2. Technicians hired by the Air Monitoring Contractor will collect area air samples for asbestos fibers analysis;
3. Technicians will collect wipe samples for total metals, total mercury and dioxin analysis;
4. Analyze area air samples for asbestos;
5. Analyze wipe samples for total metals, mercury and dioxin.

Work shall be performed 24 hours per day, seven (7) days per week.

Qualifications

Project Monitors

The Project Monitors must be employees of the Air Monitoring Contractor. The Project Monitors must possess valid NYS Asbestos Project Monitor certificates. Monitors must have served as a third party project monitor on at least 25 asbestos abatement projects. Project Monitor must have performed final clearance inspections on at least 25 asbestos abatement projects. At a minimum at least 3 Project Monitors must be on staff.

Technicians

Air monitoring technicians must possess valid NYS Asbestos Project Sampling Technician (APST) certificates. Technicians must have performed air sampling for at least 6 months. At a minimum at least 5 Air Sampling Technicians must be on staff.

Wipe Sampling Technicians

Wipe sampling technicians must have 1 year experience in wipe sampling for a variety of contaminants. Employees shall have received state certified training in dust sampling. At a minimum at least 2 Wipe Sampling Technicians must be on staff.

Analytical Laboratory

Environmental laboratory must be certified by the New York State Department of Health. Certification in each the following analytes must have been maintained for at least six consecutive proficient testing rounds: Asbestos Fibers in Air by PCM and TEM; Totals Metals including Mercury in Solid and Hazardous Waste and Dioxin in Solid and Hazardous Waste.

Laboratory must possess a GC equipped with a capillary column and a high resolution mass spectrometer for analyzing Dioxin and an ICP for Total Metals. Analysis for Mercury must be done by cold vapor.

Proof of qualifications must be presented upon request by the DEP.

Specifications

This contract between DEP and the Monitoring Contractor shall be in force for 3 consecutive weeks from the commencement date. The monitoring contractor must be prepared to mobilize within 72 hours of the contract award. Cleaning activities shall be scheduled for _____ residences per day. Air sampling shall be scheduled and completed within 24 hours of successful visual inspection by the Project Monitor.

Electricity needed to conduct air sample sampling must be provided by the owner or occupancy of the work area.

Sampling equipment must be in sufficient quantity to provide the amount and type of samples required for this project. At a minimum the following equipment are required: air-sampling pumps with maximum flow rate capacity of 15 liters per minute, tripods, rotometers, sample cassettes with mixed cellulose ester filters having pore size of 0.8microns, disposable porous cellulosic towellette moistened with wetting agent and solvent-wetted sampling agent.

Laboratory must have all analytical instruments on site with sensitivities to the lowest level of detection as required by the analytical methods for each analyte.

All appropriate data, original field forms/data sheets, chain of custody forms and typed reports must be accurate and completed before submitted to DEP.

Project Monitoring

The project monitor shall provide oversight of clean-up activities to ensure compliance with project specifications, tenants authorizations, and applicable rules and regulations. The project monitor shall be present on site during all cleaning activities. The project monitor shall coordinate all scheduling requirements for timely completion of the work (completion of work area preparation and cleaning activities within three (3) weeks. The project monitor shall maintain the inventory of valuable items in each unit as provided by tenants. A copy of the contractor requirements is attached. For additional and specific tasks, refer to this attachment.

The project monitor shall provide daily monitoring of all work activities to insure compliance with the scope-of-work, the applicable rules and regulations, and the contracts. This includes but is not limited to the verification of worker certification status, the use of proper engineering controls and appropriate work practices.

The project monitor shall direct corrective actions when appropriate and shall be responsible to stop work until corrections are made. Findings must be reported immediately to DEP via telephone call. Written notification of observation and corrective actions must be received by the DEP within 48 hours of telephone call.

Monitor shall complete a Project Completion Report for each work area and submit to DEP within 48 hours after successful clearance results.

Pre-cleaning and Post-cleaning Wipe Sampling Procedures by Wipe Sampling Technician

The Wipe Sampling Technician will collect pre-cleanup and post-cleanup wipe samples at ____ percent of the residences cleaned up to a maximum of _____ residences as instructed by DEP. This sampling will consist of the collection of 3 pre cleaning and 3 post cleaning wipe samples for dioxin, total metals and mercury (Note: a separate wipe sample is required for each parameter). Metals and mercury wipe samples will be collected in accordance with procedures specified in HUD Appendix 13.1. Dioxin wipe samples will be collected in accordance with the procedures specified in ASTM D 6661-01.

The Technician will document all the necessary information regarding sampling activities and complete all field logs, data sheets, and chain-of-custody forms. Samples must be labeled and accompanied with completed chain-of-custody forms before submitting to the laboratory for analysis.

Post Cleaning Air Sampling Procedures by Air Sampling Technician

Sampling shall not begin until a visual inspection confirms the absence of visible dust and debris. Post cleaning air sampling shall be performed upon successful visual inspection and completed within 24 hours. A successful visual inspection shall be an inspection that verifies the absence of dust and debris. All surfaces must be completely dry prior to the start of sampling. Upon completion of the cleaning, air sampling will be conducted to verify attainment of the clean-up criteria. Based on consultation with the resident or owner, aggressive or modified aggressive air sampling will be conducted. Residents shall not be present during aggressive air sampling activities.

.Before beginning aggressive air sampling, a 1 horsepower electric leaf blower shall be used to direct exhaust air against walls, ceilings, floors and other surfaces. This shall continue for at least five minutes per 1,000 square feet of floor. When directing the exhaust, caution shall be taken to minimize disturbance and potential damage to furnishings and personal belongings.

Personal protective equipment including disposable clothing, gloves, and respirators shall be worn during aggressive air sampling activities.

HVAC systems shall be shut down or isolated locally during aggressive air sampling.

Room and window air conditioners shall not be operated during aggressive air sampling.

Leaf blowers shall not be employed for modified aggressive air sampling.

All other procedures are identical for aggressive and modified aggressive air sampling, unless otherwise noted.

At least one 20-inch fan shall be placed in the center of each room sampled. One fan per 10,000 cubic feet of room space shall be used. The fans shall be operated on slow speed and pointed toward the ceiling. The fans shall run for at least 15 minutes prior to the start of sampling. The fans shall operate continuously throughout sampling and shall not be turned off until sampling is completed.

For studio apartments 3 air samples shall be collected. For 1-bedroom apartments and above, 5 air samples shall be collected. Sampling equipment shall be placed in living areas and away from obstructions. The sampling cassette must be placed on a tripod, not taped to existing surface and should be directed downward at a 45 degree angle.

Common spaces will be sampled without the use of forced air devices (fans, leaf blowers etc). For small spaces, less than 160 square feet, 3 samples will be collected. For large spaces greater than 160 square feet and less than 25,000 square feet 5 samples will be collected. For spaces greater than 25,000 square feet, 1 sample will be collected for each 5,000 square feet. Sampling equipment shall be placed away from obstructions. The sampling cassette must be placed on a tripod directed downward at a 45 degree angle and not taped to existing surfaces.

Air samples will be collected in accordance with the procedures specified in NIOSH 7400 Method. The flow rate for collection of air samples shall be at least 10 liters per minute and no more than 15 liters per minute. Air sampling cassettes need to be monitored to ensure that the filters do not develop dark spots that would indicate clogging. The minimum sampling volume required is 3600 liters. If clogging develops then the cassette must be changed .

All clearance air samples and completed chain of custody forms must be submitted to the immediately after sampling is completed.

A turn-around time of 24 hours is required for the analysis of all post-cleaning air samples.

Laboratory Analysis

Asbestos Air Fiber Samples

All samples collected will be analyzed by the NIOSH 7400 Method , Counting rule "A." The remaining portion of the filter will be analyzed by AHERA Method which counts fibers >0.5um in length. The laboratory must also record fibers >5um in length to determine the PCMe value.

The PCMe Value is determined by counting all fibers >5um with 3:1 aspect ratio by TEM.

The residence will be recleaned and retested if the clean-up (health based) criteria of **0.0009 fibers/cc (PCME measured by TEM)** is not achieved or if determined necessary by EPA. This clean-up criterion may be reevaluated and revised, if determined necessary based on field conditions and analytical limitations.

Total Metals and Mercury Wipe Samples

Analysis of Total Metals (23 Target Metals) must be done utilizing the EPA Method SW-846 6010B. Mercury wipes must be analyzed in accordance with EPA Method SW-846 7471A. The turnaround time shall be _____ days. The clearance criteria for all the Target Metals in Wipe Samples except Lead is presently under review by the EPA. The HUD Clearance guidelines for Lead is as followed:

200 ug/ft²:	Floors
500 ug/ft²:	Window sills
800 ug/ft²:	Window wells

Dioxin Wipe Samples

Analysis of Dioxin Wipe samples must be done utilizing EPA Method SW -846 8290. The turnaround time shall be 7 days. The health based criteria as established by the EPA is **4ngms/m² in Wipe Samples**.

A final report shall be submitted to the DEP within 1 week of project completion. The report shall clearly identify the work performed in each unit and shall include all laboratory reports, chain-of-custody forms, field notes, copies of employee credentials (i.e. certificates), tenant and owner authorizations, etc.