

DEP COMM. OFFICE

DEC-12-2002 11:39

ADMINISTRATIVE OPERATIONS
NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION
Asbestos Control Program
39-17 Junction Boulevard, 8th Floor, Corona, NY 11368-5107

ONLY
TYPEWRITTEN
FORMS WILL BE
ACCEPTED



ASBESTOS PROJECT NOTIFICATION
(ASBESTOS INSPECTION REPORT)

Building Dept. or TRU No.
FOR OFFICIAL USE ONLY

1. _____
(See fee schedule)

When submitting this form at the NYC Department of Buildings, the original form and three (3) copies with original signatures are required. Submittal at the NYCDP requires one copy of the form with original signatures. This form must be submitted to the NYC DEP not less than one week in advance of the start of abatement activities.

I. FACILITY

2. Address 1 City Hall Park Borough Manhattan Zip 10007
AKA City Hall 3. Block 122 4. Lot 1
5. Type of Facility Mayor Offices 6. Name of Building City Hall

II. BUILDING OWNER

7. Name City of New York, DCAS 8. Contact Person Dario Vazquez
9. Tel. # (212) 669-7245 Fax # (212) 669-2897
10. Address 1 Centre Street, 16 th Floor-North, City Manhattan State NY Zip 10007

III. GENERAL CONTRACTOR

11. Name N.A. Tel. # _____

IV. ASBESTOS ABATEMENT CONTRACTOR

12. Name D & S Abatement, Inc. 13. Contact Person Chris Berkusanin
14. Federal Employer ID. # 133943248 15. Tel. # (973) 345-8685 Fax # (973) 345-9338
16. Address 11 Rosengren Ave. City Totowa, State NJ Zip 07512

V. THIRD PARTY AIR MONITOR

17. Name KAM Consultants 18. Contact Person Dimitri Molohides
19. Federal Employer ID. # 113068255 20. Tel. # (718) 729-1997 Fax # (718) 728-1122
21. Address 35-40 36 th Street, City L.I.C. State NY Zip 11106
22. Sample Analysis Laboratory KAM Consultants 23. NYS DOH ELAP # 11273

VI. PROJECT INFORMATION

24. Starting date for this portion of work _____ Projected completion date _____

Asbestos work schedule ☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☒ Friday ☒ Saturday ☒ Sunday

Shift from: _____ ☐ am ☐ pm to _____ ☐ am ☐ pm

If other,
specify As per City Hall schedule.

Access to inspect the premises must be provided during the work schedule indicated in this item.

25. Total amount of asbestos-containing material to be abated during this work

450 Square Feet, and/or 18 Linear Feet

DEP COMM. OFFICE
DEC-12-2002 11:39Fax: 718-595-3525
ADMINISTRATIVE OPERATIONS

Dec 12 2002 11:46

P.01

P.01/03



4544

The City of New York
OFFICE OF ADMINISTRATIVE OPERATIONS
City Hall, New York, New York 10007
(212) 788-3014

Return Fax #
212-788-3286

FAX COVER SHEET

Date: 12/12/02

TO: Commissioner Christopher Ward (Attn: Diana)
FAX #: 718-595-3525
FROM: Jean Ross
TEL: 212-788-3014

No. of pages to follow 2

Action to be taken:

- ☐ Urgent/Immediate attention
- ☐ Awaiting your comments
- ☐ As you requested
- ☐ For your information and/or files
- ☐ Please call upon receipt
- ☒ Per our conversation
- ☐ Other (Please see below)

Chris - Please Review the attached and advise.

Thanks much for your help!

Jean

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A. BULK SAMPLES

Definition: Any material containing more than 1% asbestos as determined by PLM (Polarized Light Microscopy).

Methodology – Appendix A Subpart F 40 CFR part 763 section 1

B. AIR SAMPLES

PCM (Phase Contrast Microscopy)

Clearance Criteria – 0.01 fibers/cc or less

Limitation

PCM cannot distinguish asbestos from non-asbestos fibers

PCM does not count fibers sizes less than 5 micron in length

Methodology – NIOSH 7400

TEM (Transmission Electron Microscopy)

Clearance Criteria – 70 structures / sq.mm

TEM can count fiber sizes less than 0.5 micron and can differentiate between asbestos and non-asbestos fibers

Methodology – AHERA

AHERA- (Asbestos Hazard Emergency Response Act) standard is a very stringent indoor standard that is used to determine whether children may re-enter a school building after asbestos has been removed.

EPA and City used this standard because it is most stringent and protective, even though it is unlikely that the public will be exposed to asbestos from WTC site for extended period of time.

C. DUST SAMPLES

EPA or NYS or NYC does not have a standard for sampling dust.

The presence of asbestos in dust is not necessarily a significant hazard. The dust must become airborne and be inhaled for it to cause health problems.

Measurement of asbestos in air are more accurate indicators of the potential for exposure.

Methodology – American Society for Testing and Materials - ASTM D5755

Limitation (As per ASTM document attached)

5.1.1 This test method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with ACM or compliance with federal or state or local regulations or statutes.

5.1.2 At present, a single relationship between asbestos containing dust and potential human exposure does not exist.

smaller components without losing its fibrous properties or appearance.

3.2 Descriptions of Terms Specific to This Standard:

3.2.1 *aspect ratio*—the ratio of the length of a fibrous particle to its average width.

3.2.2 *bundle*—a structure composed of three or more fibers in a parallel arrangement with the fibers closer than one fiber diameter to each other.

3.2.3 *cluster*—a structure with fibers in a random arrangement such that all fibers are intermixed and no single fiber is isolated from the group; groupings of fibers must have more than two points touching.

3.2.4 *debris*—materials that are of an amount and size (particles greater than 1 mm in diameter) that can be visually identified as to their source.

3.2.5 *dust*—any material composed of particles in a size range of ≤ 1 mm and large enough to settle by virtue of their weight from the ambient air (see definition for settleable particulate matter in Test Method D 1739).

3.2.6 *fiber*—a structure having a minimum length of 0.5 μ m, an aspect ratio of 5:1 or greater, and substantially parallel sides (4).

3.2.7 *fibrous*—of a mineral composed of parallel, radiating, or interlaced aggregates of fibers, from which the fibers are sometimes separable. That is, the crystalline aggregate may be referred to as fibrous even if it is not composed of separable fibers, but has that distinct appearance. The term fibrous is used in a general mineralogical way to describe aggregates of grains that crystallize in a needle-like habit and appear to be composed of fibers. Fibrous has a much more general meaning than asbestos. While it is correct that all asbestos minerals are fibrous, not all minerals having fibrous habits are asbestos.

3.2.8 *indirect preparation*—a method in which a sample passes through one or more intermediate steps prior to final filtration.

3.2.9 *matrix*—a structure in which one or more fibers, or fiber bundles that are touching, are attached to, or partially concealed by a single particle or connected group of non-fibrous particles. The exposed fiber must meet the fiber definition (see 3.2.6).

3.2.10 *structures*—a term that is used to categorize all the types of asbestos particles which are recorded during the analysis (such as fibers, bundles, clusters, and matrices). Final results of the test are always expressed in asbestos structures per square centimetre.

4. Summary of Test Method

4.1 The sample is collected by vacuuming a known surface area with a standard 25 or 37 mm air sampling cassette using a plastic tube that is attached to the inlet orifice which acts as a nozzle. The sample is transferred from inside the cassette to an aqueous solution of known volume. Aliquots of the suspension are then filtered through a membrane. A section of the membrane is prepared and transferred to a TEM grid using the direct transfer method. The asbestiform structures are identified, sized, and counted by TEM, using SAED and EDXA at a magnification of 15 000 to 20 000X.

5. Significance and Use

5.1 This microvacuum sampling and indirect analysis method is used for the general testing of non-airborne dust samples for asbestos. It is used to assist in the evaluation of dust that may be found on surfaces in buildings such as ceiling tiles, shelving, electrical components, duct work, carpet, etc. This test method provides an index of the concentration of asbestos structures in the dust per unit area analyzed as derived from a quantitative TEM analysis.

5.1.1 ~~This test method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these determinations.~~

5.1.2 ~~At present, a single direct relationship between asbestos-containing dust and potential human exposure does not exist. Accordingly, the user should consider these data in relationship to other available information in their evaluation.~~

5.2 This test method uses the definition, settleable particulate material, found in Test Method D 1739 as the definition of dust. This definition accepts all particles small enough to pass through a 1 mm (No. 18) screen. Thus, a single, large asbestos containing particle(s) (from the large end of the particle size distribution) dispersed during sample preparation may result in anomalously large asbestos concentration results in the TEM analyses of that sample. It is, therefore, recommended that multiple independent samples are secured from the same area, and a minimum of three samples analyzed by the entire procedure.

6. Interferences

6.1 The following minerals have properties (that is, chemical or crystalline structure) which are very similar to asbestos minerals and may interfere with the analysis by causing a false positive to be recorded during the test. Therefore, literature references for these materials must be maintained in the laboratory for comparison to asbestos minerals so that they are not misidentified as asbestos minerals.

6.1.1 *Antrigorite.*

6.1.2 *Palygorskite (Attapulgit).*

6.1.3 *Halloysite.*

6.1.4 *Pyroxenes.*

6.1.5 *Sepiolite.*

6.1.6 *Vermiculite scrolls.*

6.1.7 *Fibrous talc.*

6.1.8 Hornblende and other amphiboles other than those listed in 3.1.2.

6.2 Collecting any dust particles greater than 1 mm in size in this test method may cause an interference and, therefore, must be avoided.

7. Materials and Equipment

7.1 *Purity of Reagents*—Reagent grade chemicals shall be used in all tests. Unless otherwise indicated, it is intended that all reagents conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. Other grades may be used, provided it is first ascertained that the reagent is of sufficiently high purity to permit its use without



Designation: D 5755 - 95

AMERICAN SOCIETY FOR TESTING AND MATERIALS
1910 Race St. Philadelphia, Pa 19103Reprinted from the Annual Book of ASTM Standards. Copyright ASTM
If not listed in the current combined index, will appear in the next edition

Standard Test Method for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Structure Number Concentrations¹

This standard is issued under the fixed designation D 5755; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This test method covers a procedure to (a) identify asbestos in dust and (b) provide an estimate of the concentration of asbestos in the sampled dust reported as the number of asbestos structures per unit area of sampled surface.

1.1.1 If an estimate of the asbestos mass is to be determined, the user is referred to Test Method D 5756.

1.2 This test method describes the equipment and procedures necessary for sampling, by a microvacuum technique, non-airborne dust for levels of asbestos structures. The non-airborne sample is collected inside a standard filter membrane cassette from the sampling of a surface area for dust which may contain asbestos.

1.2.1 This procedure uses a microvacuuming sampling technique. The collection efficiency of this technique is unknown and will vary among substrates. Properties influencing collection efficiency include surface texture, adhesiveness, electrostatic properties and other factors.

1.3 Asbestos identified by transmission electron microscopy (TEM) is based on morphology, selected area electron diffraction (SAED), and energy dispersive X-ray analysis (EDXA). Some information about structure size is also determined.

1.4 This test method is generally applicable for an estimate of the concentration of asbestos structures starting from approximately 1000 asbestos structures per square centimetre.

1.4.1 The procedure outlined in this test method employs an indirect sample preparation technique. It is intended to disperse aggregated asbestos into fundamental fibrils, fiber bundles, clusters, or matrices that can be more accurately quantified by transmission electron microscopy. However, as with all indirect sample preparation techniques, the asbestos observed for quantification may not represent the physical form of the asbestos as sampled. More specifically, the procedure described neither creates nor destroys asbestos, but it may alter the physical form of the mineral fibers.

1.5 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.6 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the

responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

2.1 ASTM Standards:

- D 1193 Specification for Reagent Water²
- D 1739 Test Method for the Collection and Measurement of Dustfall (Settleable Particulate Matter)³
- D 3195 Practice for Rotameter Calibration³
- D 3670 Guide for Determination of Precision and Bias of Methods of Committee D-22³
- D 5756 Test Method for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Mass Concentration³

3. Terminology

3.1 Definitions:

3.1.1 **asbestiform**—a special type of fibrous habit in which the fibers are separable into thinner fibers and ultimately into fibrils. This habit accounts for greater flexibility and higher tensile strength than other habits of the same mineral. For more information on asbestiform mineralogy, see Refs (1),⁴ (2) and (3).

3.1.2 **asbestos**—a collective term that describes a group of naturally occurring, inorganic, highly fibrous, silicate dominated minerals, which are easily separated into long, thin, flexible fibers when crushed or processed.

DISCUSSION—Included in the definition are the asbestiform varieties of serpentine (chrysotile); riebeckite (crocidolite); grunerite (grunerite asbestos); anthophyllite (anthophyllite asbestos); tremolite (tremolite asbestos); and actinolite (actinolite asbestos). The amphibole mineral compositions are defined according to nomenclature of the International Mineralogical Association (3).

Asbestos	Chemical Abstract Service No. ⁵
Chrysotile	12001-29-5
Crocidolite	12001-28-4
Grunerite Asbestos	12172-73-5
Anthophyllite Asbestos	77536-67-5
Tremolite Asbestos	77536-68-6
Actinolite Asbestos	77536-66-4

3.1.3 **fibril**—a single fiber that cannot be separated into

¹ This test method is under the jurisdiction of ASTM Committee D-22 on Sampling and Analysis of Atmospheres and is the direct responsibility of Subcommittee D22.07 on Sampling and Analysis of Asbestos.

Current edition approved August 15, 1995. Published October 1995.

² Annual Book of ASTM Standards, Vol 11.01.

³ Annual Book of ASTM Standards, Vol 11.03.

⁴ The boldface numbers in parentheses refer to the list of references at the end of this test method.

⁵ The non-asbestiform variations of the minerals indicated in 3.1.3 have different Chemical Abstract Service (CAS) numbers.

smaller components without losing its fibrous properties or appearance.

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A. BULK SAMPLES

Definition: Any material containing more than 1% asbestos as determined by PLM (Polarized Light Microscopy).

Methodology – Appendix A Subpart F 40 CFR part 763 section 1

B. AIR SAMPLES

PCM (Phase Contrast Microscopy)

Clearance Criteria – 0.01 fibers/cc or less

Limitation

PCM cannot distinguish asbestos from non-asbestos fibers

PCM does not count fibers sizes less than 5 micron in length

Methodology – NIOSH 7400

TEM (Transmission Electron Microscopy)

Clearance Criteria – 70 structures / sq.mm

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EPA and City used this standard because it is most stringent and protective, even though it is unlikely that the public will be exposed to asbestos from WTC site for extended period of time.

C. DUST SAMPLES

EPA or NYS or NYC does not have a standard for sampling dust.

The presence of asbestos in dust is not necessarily a significant hazard. The dust must become airborne and be inhaled for it to cause health problems.

Measurement of asbestos in air are more accurate indicators of the potential for exposure.

Methodology – American Society for Testing and Materials - ASTM D5755

Limitation (As per ASTM document attached)

5.1.1 This test method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with ACM or compliance with federal or state or local regulations or statutes.

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New York City Department of Environmental Protection
Asbestos Control Program

WTC Visual Inspections

Inspection Guidelines

1. Phase 1 inspections to include the buildings within the following area:
Chambers Street (Northern Boundary)
Battery Place (Southern Boundary)
Broadway (Eastern Boundary)
South End Avenue (Western Boundary)
Boundaries are inclusive.
2. Inspections to be performed with two-person teams.
3. A survey form must be completed for each site visited. Each form must be completed with as much information as possible. The inability to gain access to the premise must be noted in the comments.
4. Visual inspections must be performed of the building facade (all sides), all setbacks, and the roof. Visual inspections must also be performed at all open spaces, alleys, parks, open sitting areas, etc. Samples should not be collected. This is a visual assessment only.
5. Survey teams must not enter any residential units during the performance of these assessments. Balconies at residential buildings to the extent possible can be viewed from the roof or setbacks if they exist.
6. Information regarding clean-up activities obtained from building owners/management must be confirmed through visual observations. Copies of all reports and data must be requested. If available, copies should be obtained by the inspection team.
7. Building representatives must be informed at the completion of the inspection that a survey/assessment of debris is necessary whenever debris is noted. Building representatives must hire a certified asbestos investigator to perform the assessment and collect samples. Samples containing greater than 1% asbestos are asbestos containing material (ACM). Only licensed contractors with certified asbestos workers can handle ACM. The names of contractors, air monitors, and investigators can be obtained from the Department's web site, www.nyc.gov/dep.

1/23/02

DRAFT

Asbestos

The U.S. and NYC standard for asbestos in community and residential buildings is 0.01 fibers/cubic centimeter (f/cc) in indoor air. DEP is augmenting asbestos sampling being done by USEPA and other state and city agencies.

Results indicate that, as expected, asbestos is present in some of the debris at the site and in areas very close to the site. As of September 28, 2001, most air sampling results outside the security zone were below the standards for asbestos in indoor air.

As testing continues, there may be the possibility of occasional short-term increases in levels of asbestos in the air above the residential standard of 0/01 fibers per cubic centimeter of air. When the measured level for the outdoor ambient air is above .01 f/cc, the samples are being further analyzed to determine how many of the fibers are actually asbestos fibers.

① Bulk — PLM
> 1% Asbestos.

② AIR — OSHA PCM 0.01
L TEM 70
6.05

> 5 Mm

③ ASTM

Mike fyc
Krish
4/24/02

ASBESTOS CONTROL PROGRAM (ACP)

Purpose

To protect public, workers and the environment by ensuring controlled abatement of asbestos containing materials.

Authority

Title 15, Chapter 1 of RCNY (Local Law 76 of 1985)
Delegation of NYC DOL ICR 56 (Local Law 101 of 1989)
Delegation of US EPA NESHAPS – 40 CFR Part 61

Functional Units

Technical Review unit, Enforcement & Training and Certification Unit.

Technical Review Unit

- Process asbestos notification forms
- Process variance applications – Develop and approve procedures that protect public health and the environment where compliance would be a hardship.
- Revenue for FY2001 – \$2.5 million
- Staff – Tech. 6, Non-tech. 4 & Temp. 2

Enforcement Unit

- Response to complaints 24 hours per day, seven days a week.
- Conduct unscheduled inspections based on the asbestos notification.
- Issue Notice of Violations (NOV) and provide expert testimony.
- Assist and cooperate with other Enforcement agencies like FBI, US EPA Criminal Investigation Division, Attorney General's Office, District Attorney's Office, US DOL OSHA, NYS DEC, Inspector General's Office and provide expert testimony based on our investigation.
- Audit NYC DEP certified investigators and Not An Asbestos Notifications.
- Illegal dumpsite clean-up using Asbestos contractors where responsible party is not identifiable.
- Imposed fines \$2.7 million for calendar year 2001
- Staff – Tech. 8, Non-tech. 2 & Seasonal aide 1

Training and Certification Unit

- Process applications for Asbestos Handlers, Supervisors and Investigators.
- Administer standardized examination for new applicants and issues certificates.
- Handler examinations are given in English, Spanish, Polish, Russian, Korean, Czechs and Serbo-Croatians.
- Participate in the Office of Child Support's program by verifying child support's status prior to issuing certificates.
- Provides / verifies certification status of individuals on request from the public.
- Revenue for FY2001 – \$ 0.5 million
- Staff – Tech. 2, Non-tech. 5 & P/T 1

HIGHLIGHTS:

1. ACP was among the first program to post complete copy of their rules on the Department's web page. In addition Asbestos notification forms have been redesigned and posted in the website for public to download.
2. Consolidated Edison of New York has set up a computer within ACP offices for electronic submittal of asbestos notification forms. We are planning to implement a similar procedure for the regulated community in the near future.
3. In December 2000 Mr. Carlstein Lutchmedial was given an award for his excellent enforcement work and referring cases to US Attorney's Office.
4. **WTC**

ISSUES:

1. Additional manpower in Enforcement will help in inspecting more active jobs, to achieve a better compliance and will generate more revenue.
2. Non-friables – filing

New York City Department of Environmental Protection

Comments on the Clearance Criteria

According to the information in the IRIS database and USEPA web site, the USEPA “estimates that breathing air containing 0.0004 f/cc during a lifetime would result in not greater than a one in ten thousand increased chance of developing cancer”. “Reference concentrations and reference doses have not been established.”

The information on limitations in the IRIS database indicates that “alterations in the unit risk invalidates and distorts their application in estimating the potential risk”. “The figure is based on a lifetime exposure and may not be appropriately applied to less than lifetime exposure situations.” The calculation to a 30-year exposure based on the information in IRIS may not be valid.

“The unit risk is based on fiber counts made by PCM and should not be applied directly to measurements made by other analytical techniques”. “The correlation between PCM fiber counts and TEM measurements is very poor.” “The correlation between PCM fiber counts and TEM fiber counts is very uncertain and no generally applicable conversion factor exists for these two measurements”. The adopted conversion factor was based on the geometric mean from data sets that included both measurements and had a wide range of values for the conversion.

The collection of 4000 liters of air will result in clogged filters. In addition, the increased sampling time and inconvenience to unit occupants should be considered. The laboratory effort (interpreted from the cost per sample increase) does not justify the increased air volume collection. Based on conversations with laboratories, the cost per sample increase would be between \$15 and \$25. The air sampling technician costs are typically in the range of \$35 per hour and the inconvenience to the concerned citizens is not measurable.

The 3-day turnaround time is high if we are to consider the receipt of elevated levels and need for further action.

6/20/02

H. Roof Decontamination

Application: This procedure utilizes wet methods and careful hygiene protocol for cleaning roofs contaminated with asbestos containing material (ACM).

1. The entire roof shall be considered the work area. All abatement will be performed by NYSDOL licensed contractors with NYC DEP certified workers.
2. A changing area consisting of two adjacent step-off pads located on the roof immediately adjoining the roof entrance/exit. This area shall consist of a clean pad and a change pad. The clean pad shall be adjacent to the building interior access way (or at the point of entry to the roof for exterior access). The change pad shall be adjacent to the contaminated roof areas. Each pad (change pad and clean pad) shall consist of two layers of 10-mil reinforced plastic on the roof/access way surface and shall be large enough to facilitate changing and decontamination as described herein. A minimum of 4' x 4' is recommend, though the exact configuration will be specific to the roof.
3. Workers shall first step from the building interior (or exterior at the point of entry to the roof) directly onto the clean pad. On the clean pad, each worker shall be double suited with disposable coveralls, plastic booties, gloves, and head coverings. Rubber boots may be used instead of the plastic booties. The boots shall be wet wiped and HEPA vacuumed prior to leaving the roof. Each worker shall wear a minimum of a half-face air-purifying respirator equipped with HEPA cartridges.
4. All penetrations at the roof shall be cleaned by wet methods/HEPA vacuum and sealed with polyethylene sheeting.
5. Roof cleanup shall begin at the entrance/exit and proceed in a path working away from the entrance/exit. Water shall be the primary engineering control to minimize the potential for fiber release.
6. Roof surfaces shall be wetted and then wet cleaned using wet wiping techniques with water, mops, rags, brushes, etc. HEPA vacuuming may also be used as alternative to or in combination with wet cleaning.
7. Throughout the procedure, all personnel entering or existing the roof shall observe the personal decontamination practices. Attention shall be paid to limiting unnecessary walking on or disturbance of material on the roof. These personal decontamination procedures shall be adhered to strictly in order to minimize the potential for spreading contamination to the interior of the buildings.
8. Solid nonporous objects, such as metal patio furniture, plant potters, and plastic furniture cushions, shall be wet wiped with damp rags. Wooden objects such as decking shall be HEPA vacuumed, wet wiped, and lightly brushed with a bristle brush utilizing simultaneous misting and local HEPA exhaust. Woven materials shall either be disposed as ACM or bagged and removed off-site for proper laundering in accordance with 29 CFR 1901. 1001. Potted plants with visual contamination should be disposed as ACM waste unless the owner requests decontamination. Potted plants will be repeatedly rinsed, and provisions shall be made to catch the runoff water (i.e. into ACM disposal bags or by using rags and HEPA wet-vacs).
9. Air Monitoring shall be performed by NYSDOL licensed a Third Party Air Monitoring firm with certified workers. At a minimum, air sampling shall be performed at the interior of the building entrance to the roof.



Designation: D 5755 - 95

AMERICAN SOCIETY FOR TESTING AND MATERIALS

1916 Race St. Philadelphia, Pa 19103

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If not listed in the current combined index, will appear in the next edition

Standard Test Method for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Structure Number Concentrations¹

This standard is issued under the fixed designation D 5755; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This test method covers a procedure to (a) identify asbestos in dust and (b) provide an estimate of the concentration of asbestos in the sampled dust reported as the number of asbestos structures per unit area of sampled surface.

1.1.1 If an estimate of the asbestos mass is to be determined, the user is referred to Test Method D 5756.

1.2 This test method describes the equipment and procedures necessary for sampling, by a microvacuum technique, non-airborne dust for levels of asbestos structures. The non-airborne sample is collected inside a standard filter membrane cassette from the sampling of a surface area for dust which may contain asbestos.

1.2.1 This procedure uses a microvacuuming sampling technique. The collection efficiency of this technique is unknown and will vary among substrates. Properties influencing collection efficiency include surface texture, adhesiveness, electrostatic properties and other factors.

1.3 Asbestos identified by transmission electron microscopy (TEM) is based on morphology, selected area electron diffraction (SAED), and energy dispersive X-ray analysis (EDXA). Some information about structure size is also determined.

1.4 This test method is generally applicable for an estimate of the concentration of asbestos structures starting from approximately 1000 asbestos structures per square centimetre.

1.4.1 The procedure outlined in this test method employs an indirect sample preparation technique. It is intended to disperse aggregated asbestos into fundamental fibrils, fiber bundles, clusters, or matrices that can be more accurately quantified by transmission electron microscopy. However, as with all indirect sample preparation techniques, the asbestos observed for quantification may not represent the physical form of the asbestos as sampled. More specifically, the procedure described neither creates nor destroys asbestos, but it may alter the physical form of the mineral fibers.

1.5 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.6 This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the

responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

2.1 ASTM Standards:

- D 1193 Specification for Reagent Water²
- D 1739 Test Method for the Collection and Measurement of Dustfall (Settleable Particulate Matter)³
- D 3195 Practice for Rotameter Calibration³
- D 3670 Guide for Determination of Precision and Bias of Methods of Committee D-22³
- D 5756 Test Method for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Mass Concentration³

3. Terminology

3.1 Definitions:

3.1.1 *asbestiform*—a special type of fibrous habit in which the fibers are separable into thinner fibers and ultimately into fibrils. This habit accounts for greater flexibility and higher tensile strength than other habits of the same mineral. For more information on asbestiform mineralogy, see Refs (1),⁴ (2) and (3).

3.1.2 *asbestos*—a collective term that describes a group of naturally occurring, inorganic, highly fibrous, silicate dominated minerals, which are easily separated into long, thin, flexible fibers when crushed or processed.

DISCUSSION—Included in the definition are the asbestiform varieties of: serpentinite (chrysotile); riebeckite (crocidolite); grunerite (grunerite asbestos); anthophyllite (anthophyllite asbestos); tremolite (tremolite asbestos); and actinolite (actinolite asbestos). The amphibole mineral compositions are defined according to nomenclature of the International Mineralogical Association (3).

Asbestos	Chemical Abstract Service, 10 ⁵
Chrysotile	12001-29-5
Crocidolite	12001-28-4
Grunerite Asbestos	12172-73-5
Anthophyllite Asbestos	77536-67-3
Tremolite Asbestos	77536-68-6
Actinolite Asbestos	77536-66-4

3.1.3 *fibril*—a single fiber that cannot be separated into

¹ This test method is under the jurisdiction of ASTM Committee D-22 on Sampling and Analysis of Atmospheres and is the direct responsibility of Subcommittee D22.07 on Sampling and Analysis of Asbestos.
Current edition approved August 15, 1995. Published October 1995.

² Annual Book of ASTM Standards, Vol 11.01.

³ Annual Book of ASTM Standards, Vol 11.03.

⁴ The boldface numbers in parentheses refer to the list of references at the end of this test method.

⁵ The non-asbestiform variations of the minerals indicated in 3.1.3 have different Chemical Abstract Service (CAS) numbers.

D 5755

smaller components without losing its fibrous properties or appearance.

3.2 Descriptions of Terms Specific to This Standard:

3.2.1 *aspect ratio*—the ratio of the length of a fibrous particle to its average width.

3.2.2 *bundle*—a structure composed of three or more fibers in a parallel arrangement with the fibers closer than one fiber diameter to each other.

3.2.3 *cluster*—a structure with fibers in a random arrangement such that all fibers are intermixed and no single fiber is isolated from the group; groupings of fibers must have more than two points touching.

3.2.4 *debris*—materials that are of an amount and size (particles greater than 1 mm in diameter) that can be visually identified as to their source.

3.2.5 *dust*—any material composed of particles in a size range of ≤ 1 mm and large enough to settle by virtue of their weight from the ambient air (see definition for settleable particulate matter in Test Method D 1739).

3.2.6 *fiber*—a structure having a minimum length of 0.5 μ m, an aspect ratio of 5:1 or greater, and substantially parallel sides (4).

3.2.7 *fibrous*—of a mineral composed of parallel, radiating, or interlaced aggregates of fibers, from which the fibers are sometimes separable. That is, the crystalline aggregate may be referred to as fibrous even if it is not composed of separable fibers, but has that distinct appearance. The term fibrous is used in a general mineralogical way to describe aggregates of grains that crystallize in a needle-like habit and appear to be composed of fibers. Fibrous has a much more general meaning than asbestos. While it is correct that all asbestos minerals are fibrous, not all minerals having fibrous habits are asbestos.

3.2.8 *indirect preparation*—a method in which a sample passes through one or more intermediate steps prior to final filtration.

3.2.9 *matrix*—a structure in which one or more fibers, or fiber bundles that are touching, are attached to, or partially concealed by a single particle or connected group of non-fibrous particles. The exposed fiber must meet the fiber definition (see 3.2.6).

3.2.10 *structures*—a term that is used to categorize all the types of asbestos particles which are recorded during the analysis (such as fibers, bundles, clusters, and matrices). Final results of the test are always expressed in asbestos structures per square centimetre.

4. Summary of Test Method

4.1 The sample is collected by vacuuming a known surface area with a standard 25 or 37 mm air sampling cassette using a plastic tube that is attached to the inlet orifice which acts as a nozzle. The sample is transferred from inside the cassette to an aqueous solution of known volume. Aliquots of the suspension are then filtered through a membrane. A section of the membrane is prepared and transferred to a TEM grid using the direct transfer method. The asbestiform structures are identified, sized, and counted by TEM, using SAED and EDXA at a magnification of 15 000 to 20 000X.

5. Significance and Use

5.1 This microvacuum sampling and indirect analysis method is used for the general testing of non-airborne dust samples for asbestos. It is used to assist in the evaluation of dust that may be found on surfaces in buildings such as ceiling tiles, shelving, electrical components, duct work, carpet, etc. This test method provides an index of the concentration of asbestos structures in the dust per unit area analyzed as derived from a quantitative TEM analysis.

5.1.1 This test method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these determinations.

5.1.2 At present, a single direct relationship between asbestos-containing dust and potential human exposure does not exist. Accordingly, the user should consider these data in relationship to other available information in their evaluation.

5.2 This test method uses the definition, settleable particulate material, found in Test Method D 1739 as the definition of dust. This definition accepts all particles small enough to pass through a 1 mm (No. 18) screen. Thus, a single, large asbestos containing particle(s) (from the large end of the particle size distribution) dispersed during sample preparation may result in anomalously large asbestos concentration results in the TEM analyses of that sample. It is, therefore, recommended that multiple independent samples are secured from the same area, and a minimum of three samples analyzed by the entire procedure.

6. Interferences

6.1 The following minerals have properties (that is, chemical or crystalline structure) which are very similar to asbestos minerals and may interfere with the analysis by causing a false positive to be recorded during the test. Therefore, literature references for these materials must be maintained in the laboratory for comparison to asbestos minerals so that they are not misidentified as asbestos minerals.

6.1.1 *Antigorite*.

6.1.2 *Palygorskite (Attapulgite)*.

6.1.3 *Halloysite*.

6.1.4 *Pyroxenes*.

6.1.5 *Sepiolite*.

6.1.6 *Vermiculite scrolls*.

6.1.7 *Fibrous talc*.

6.1.8 Hornblende and other amphiboles other than those listed in 3.1.2.

6.2 Collecting any dust particles greater than 1 mm in size in this test method may cause an interference and, therefore, must be avoided.

7. Materials and Equipment

7.1 *Purity of Reagents*—Reagent grade chemicals shall be used in all tests. Unless otherwise indicated, it is intended that all reagents conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. Other grades may be used, provided it is first ascertained that the reagent is of sufficiently high purity to permit its use without

file
Asbestos Inspection Report

Page 1 of 1

Premise # 125 Cedar Street				Date of Inspection March 02, 2002	
Floor All	Zip	Block Block	Lot #	Boro Code 1	
Inspector Carl Lutchmedial	Badge # A058001	Squad # 1	Basis of Inspection		Pictures No
Contractors Name na				Sample # Na	
Address na				Sample # na	
City State Zip				Sample # na	
Laboratory Name na				Building Owner Sirkin Realty	
Address				Address 403 east 62 nd street	
City State Zip				City State Zip NY NY 10021	
Contact Person At Site 3 rd & 5 th Floor tenants				Time of Inspection 9 am – 11 am	
On arrival Inspection disclosed that tenants from the 3rd floor ([PII]) and 5th floor [PII] were cleaning their apartments. The apartments were heavily contaminated with WTC debris. I observed that they were not wearing masks. They said they have mask, but were not wear them at this time. I asked them if any sampling was done to determine the presence of ACM and they said no. [PII] had been present at a meeting I had with the tenants and their attorney, the landlord, and an asbestos investigator sometime ago. At that meeting they had agreed that more sampling would be done to determine the presence of ACM. However, [PII] said that they had decided that they would forego the sampling and clean their apartments on their own. When it is cleaned to their satisfaction, the owner Samson Management would do a re-occupancy testing. At this time they requested that DEP don't do any testing.					

NOV #						Result Code 5
NOV #						Supervisor Inntial

Boro Code 1 = Manhattan 2 = Bronx 3 = Brooklyn 4 = Queens 5 = Staten Island
Bldg. Type A > 6 Stories B < 6 Stories C - Single Family D - School
 E - Hospital F – Public Owned Property
Result Codes 1= Violation Issued 2 = No Violations Issued 3 = No Access
 4 = Project Not Started 5 = Project Completed

1. Number surveys and inspections conducted over 500
2. The results of the review of sampling data submitted by the building owners are as follows:

Bulk samples collected 1,478
 Positive Bulk Samples 105 (greater than 1%)

Air Samples collected

Phase Contrast Microscopy(PCM)	74,459
Positive PCM sample results	761

Transmission Electron Microscopy(TEM)	35,438
Positive TEM sample results	105

Clean-ups were conducted after positive samples

3. Total number of outdoor air samples collected by DEP 3,888
 Number of positive samples 9

Handwritten note:
 Napier Point
 EPR is also
 responsible for
 indoor air - True

Number surveys conducted as of 2/18/2002	364
Number of letters mailed for information	207
Number of letters mailed for clean-up of façade / roof so far	108
Number of complaints recd. From 2/11/02	36
Number of complaints responded	14
Complainant who is yet to respond to our repeated phone calls	9
No of complaints that we scheduled or in the process of scheduling or in progress	13

Results of our response to complaints

DEP did ^{not} observe debris or major problem that was not addressed.

Majority of the people called because air monitoring is free and they just want to get their apartment tested.

Some people fear there are other contaminants they want DEP to test.

CAPITAL PROPERTIES ASSOCIATES, LP

FACSIMILE TRANSMITTAL SHEET

TO:

Mr. R. Radhakrishnan, PE

FROM:

David A. Parisier

COMPANY:

Department of Environmental
Protection

DATE:

February 22, 2002

FAX NUMBER

718-595-3744

TOTAL NO. OF PAGES INCLUDING COVER.

27

PHONE NUMBER

RE:

Additional Information

☐ URGENT☐ FOR REVIEW☐ PLEASE COMMENT☐ PLEASE REPLY☐ PLEASE RECYCLE

NOTES/COMMENTS:

527 MADISON AVENUE, NEW YORK, NY 10022 •
PHONE: 212.980.0090 • FAX: 212.980.5669

WTC Visual Survey Form

Premise Address:		
Block:	Residential ☐ Commercial ☐	Name of Building:
Lot:	Mix Use ☐ Other ☐ _____	
# of Stories:	AKA's:	
Building Owner/Management:		Telephone Number: ()
Name:		FAX: ()
Address:		
On Site Contact:		Telephone Number: ()
Name:		
Building Owner Management Activities		
Interior Survey Performed ☐ Yes ☐ No		
Exterior Survey Performed ☐ Yes ☐ No		
General Clean Up ☐ Yes ☐ No Locations: _____		
ACM Clean Up ☐ Yes ☐ No Locations: _____		
Air Monitoring ☐ Yes ☐ No Locations: _____		
Copies of All Reports and Data Requested ☐ Yes		

Visual Inspection Results:

Facade:					
		Inspected	Debris		
North	☐ N/A	☐ Yes ☐ No	☐ No Visible/Fine Layer	☐ ½ to 1"	☐ > 1"
South	☐ N/A	☐ Yes ☐ No	☐ No Visible/Fine Layer	☐ ½ to 1"	☐ > 1"
East	☐ N/A	☐ Yes ☐ No	☐ No Visible/Fine Layer	☐ ½ to 1"	☐ > 1"
West	☐ N/A	☐ Yes ☐ No	☐ No Visible/Fine Layer	☐ ½ to 1"	☐ > 1"
Facade Description: _____					

Roof					
Debris: ☐ No Visible /Fine Layer ☐ ½ to 1" ☐ > 1"					
Description: _____					

Setbacks N/A ☐					
Floor: _____	Debris: ☐ No Visible/Fine Layer	☐ ½ to 1"	☐ > 1"		
Floor: _____	Debris: ☐ No Visible/Fine Layer	☐ ½ to 1"	☐ > 1"		
Floor: _____	Debris: ☐ No Visible/Fine Layer	☐ ½ to 1"	☐ > 1"		
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Floor: _____	Debris: ☐ No Visible/Fine Layer	☐ ½ to 1"	☐ > 1"		
Comments					

Date: ____/____/2002

 Inspection Team: Name: _____ Agency: _____
 Name: _____ Agency: _____

WTC Visual Survey Form

Premise Address:

Block:	Residential ☐ Commercial ☐	Name of Building:
Lot:	Mix Use ☐ Other ☐	
# of Stories:	AKA's:	
Building Owner/Management:		Telephone Number: ()
Name:		FAX: ()
Address:		
On Site Contact:		Telephone Number: ()
Name:		
Building Owner Management Activities		
Interior Survey Performed ☐ Yes ☐ No		
Exterior Survey Performed ☐ Yes ☐ No		
General Clean Up ☐ Yes ☐ No Locations: _____		
ACM Clean Up ☐ Yes ☐ No Locations: _____		
Air Monitoring ☐ Yes ☐ No Locations: _____		
Copies of All Reports and Data Requested ☐ Yes		

Visual Inspection Results:

Facade:					
North	☐ N/A	Inspected	Debris	☐ No Visible/Fine Layer	☐ ½ to 1" ☐ > 1"
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Floor: _____	Debris: ☐ No Visible/Fine Layer	☐ ½ to 1"	☐ > 1"		
Comments					

Date: ____/____/2002

Inspection Team: Name: _____

Agency: _____

Name: _____

Agency: _____

smaller components without losing its fibrous properties or appearance.

3.2 Descriptions of Terms Specific to This Standard:

3.2.1 *aspect ratio*—the ratio of the length of a fibrous particle to its average width.

3.2.2 *bundle*—a structure composed of three or more fibers in a parallel arrangement with the fibers closer than one fiber diameter to each other.

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4. Summary of Test Method

4.1 The sample is collected by vacuuming a known surface area with a standard 25 or 37 mm air sampling cassette using a plastic tube that is attached to the inlet orifice which acts as a nozzle. The sample is transferred from inside the cassette to an aqueous solution of known volume. Aliquots of the suspension are then filtered through a membrane. A section of the membrane is prepared and transferred to a TEM grid using the direct transfer method. The asbestiform structures are identified, sized, and counted by TEM, using SAED and EDXA at a magnification of 15 000 to 20 000X.

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5.1.1 ~~This test method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these determinations.~~

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6.1 The following minerals have properties (that is, chemical or crystalline structure) which are very similar to asbestos minerals and may interfere with the analysis by causing a false positive to be recorded during the test. Therefore, literature references for these materials must be maintained in the laboratory for comparison to asbestos minerals so that they are not misidentified as asbestos minerals.

6.1.1 *Analcime*.

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7. Materials and Equipment

7.1 *Purity of Reagents*—Reagent grade chemicals shall be used in all tests. Unless otherwise indicated, it is intended that all reagents conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. Other grades may be used, provided it is first ascertained that the reagent is of sufficiently high purity to permit its use without



Designation: D 5755 - 95

AMERICAN SOCIETY FOR TESTING AND MATERIALS
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1.1 This test method covers a procedure to (a) identify asbestos in dust and (b) provide an estimate of the concentration of asbestos in the sampled dust reported as the number of asbestos structures per unit area of sampled surface.

1.1.1 If an estimate of the asbestos mass is to be determined, the user is referred to Test Method D 5756.

1.2 This test method describes the equipment and procedures necessary for sampling, by a microvacuum technique, non-airborne dust for levels of asbestos structures. The non-airborne sample is collected inside a standard filter membrane cassette from the sampling of a surface area for dust which may contain asbestos.

1.2.1 This procedure uses a microvacuuming sampling technique. The collection efficiency of this technique is unknown and will vary among substrates. Properties influencing collection efficiency include surface texture, adhesiveness, electrostatic properties and other factors.

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¹ Annual Book of ASTM Standards, Vol 11.01.

² Annual Book of ASTM Standards, Vol 11.03.

³ The boldface numbers in parentheses refer to the list of references at the end of this test method.

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Current edition approved August 15, 1995. Published October 1995.

D 5755

smaller components without losing its fibrous properties or appearance.

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3.2.4 *debris*—materials that are of an amount and size (particles greater than 1 mm in diameter) that can be visually identified as to their source.

3.2.5 *dust*—any material composed of particles in a size range of ≤ 1 mm and large enough to settle by virtue of their weight from the ambient air (see definition for settleable particulate matter in Test Method D 1739).

3.2.6 *fiber*—a structure having a minimum length of 0.5 μ m, an aspect ratio of 5:1 or greater, and substantially parallel sides (4).

3.2.7 *fibrous*—of a mineral composed of parallel, radiating, or interlaced aggregates of fibers, from which the fibers are sometimes separable. That is, the crystalline aggregate may be referred to as fibrous even if it is not composed of separable fibers, but has that distinct appearance. The term fibrous is used in a general mineralogical way to describe aggregates of grains that crystallize in a needle-like habit and appear to be composed of fibers. Fibrous has a much more general meaning than asbestos. While it is correct that all asbestos minerals are fibrous, not all minerals having fibrous habits are asbestos.

3.2.8 *indirect preparation*—a method in which a sample passes through one or more intermediate steps prior to final filtration.

3.2.9 *matrix*—a structure in which one or more fibers, or fiber bundles that are touching, are attached to, or partially concealed by a single particle or connected group of non-fibrous particles. The exposed fiber must meet the fiber definition (see 3.2.6).

3.2.10 *structures*—a term that is used to categorize all the types of asbestos particles which are recorded during the analysis (such as fibers, bundles, clusters, and matrices). Final results of the test are always expressed in asbestos structures per square centimetre.

4. Summary of Test Method

4.1 The sample is collected by vacuuming a known surface area with a standard 25 or 37 mm air sampling cassette using a plastic tube that is attached to the inlet orifice which acts as a nozzle. The sample is transferred from inside the cassette to an aqueous solution of known volume. Aliquots of the suspension are then filtered through a membrane. A section of the membrane is prepared and transferred to a TEM grid using the direct transfer method. The asbestiform structures are identified, sized, and counted by TEM, using SAED and EDXA at a magnification of 15 000 to 20 000X.

5. Significance and Use

5.1 This microvacuum sampling and indirect analysis method is used for the general testing of non-airborne dust samples for asbestos. It is used to assist in the evaluation of dust that may be found on surfaces in buildings such as ceiling tiles, shelving, electrical components, duct work, carpet, etc. This test method provides an index of the concentration of asbestos structures in the dust per unit area analyzed as derived from a quantitative TEM analysis.

5.1.1 This test method does not describe procedures or techniques required to evaluate the safety or habitability of buildings with asbestos-containing materials, or compliance with federal, state, or local regulations or statutes. It is the user's responsibility to make these determinations.

5.1.2 At present, a single direct relationship between asbestos-containing dust and potential human exposure does not exist. Accordingly, the user should consider these data in relationship to other available information in their evaluation.

5.2 This test method uses the definition, settleable particulate material, found in Test Method D 1739 as the definition of dust. This definition accepts all particles small enough to pass through a 1 mm (No. 18) screen. Thus, a single, large asbestos containing particle(s) (from the large end of the particle size distribution) dispersed during sample preparation may result in anomalously large asbestos concentration results in the TEM analyses of that sample. It is, therefore, recommended that multiple independent samples are secured from the same area, and a minimum of three samples analyzed by the entire procedure.

6. Interferences

6.1 The following minerals have properties (that is, chemical or crystalline structure) which are very similar to asbestos minerals and may interfere with the analysis by causing a false positive to be recorded during the test. Therefore, literature references for these materials must be maintained in the laboratory for comparison to asbestos minerals so that they are not misidentified as asbestos minerals.

6.1.1 *Antigorite.*

6.1.2 *Palygorskite (Attapulgite).*

6.1.3 *Halloysite.*

6.1.4 *Pyroxenes.*

6.1.5 *Sepiolite.*

6.1.6 *Vermiculite scrolls.*

6.1.7 *Fibrous talc.*

6.1.8 Hornblende and other amphiboles other than those listed in 3.1.2.

6.2 Collecting any dust particles greater than 1 mm in size in this test method may cause an interference and, therefore, must be avoided.

7. Materials and Equipment

7.1 *Purity of Reagents*—Reagent grade chemicals shall be used in all tests. Unless otherwise indicated, it is intended that all reagents conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. Other grades may be used, provided it is first ascertained that the reagent is of sufficiently high purity to permit its use without

FINAL (October 11, 2001) ATSDR, CDC, EPA, OSHA Environmental Assessment Workgroup Asbestos Action Levels for World Trade Center Response			
Action Level & Analysis Method	General Public/Recommendations ¹	Supporting Information ²	Comments
NYC Background ³ PCM/PCMe ⁴ f/cc (see footnotes 2 and 3)	No restriction on access to any area.	AHERA standards (40 CFR 763); ATSDR Toxicological Profile for Asbestos; OSHA 29 CFR 1926.1101	- Remediation goal is to achieve background levels. - AHERA guidance for schools requires that when schools are remediated for asbestos, the indoor air levels of asbestos should be similar to local outdoor air levels. - Lowest attainable cancer risk
NYC Background to 0.01 f/cc PCM/PCMe ³	- No restriction on access to streets and public/commercial building; continue to monitor - Evaluate to determine if long-term access is acceptable; evaluate trends over months. - Identify source - Take action, as practical, to reduce levels to background	AHERA standards (40 CFR 763); ATSDR Toxicological Profile for Asbestos; IRIS; OSHA 29 CFR 1926.1101	- No significant cancer risk for short-term occupancy for residential and school buildings. - AHERA guidance for schools requires that when schools are remediated for asbestos, the indoor air levels of asbestos should be similar to local outdoor air levels
70 structures/mm ² TEM	- If < than 70 s/mm², no restrictions on access to buildings - If > 70 s/mm², resample to confirm and analyze field blanks; take action to identify source and reduce levels to < 70 s/mm²	AHERA standards (40 CFR 763) NYC Clearance standard for buildings	- AHERA standards apply only to schools, and by NYC ordinance to buildings. - Method sensitivity and counting rules should follow Appendix A (Table 1) in AHERA 40 CFR 763; Method sensitivity based on # grids analyzed and air sample volume and must be maintained at 0.005 f/cc.
0.01 - 0.1 f/cc PCM/PCMe ³	- Continue to monitor; consider the need for additional sampling sites. - If air levels are consistently between 0.01 to 0.1 f/cc, evaluate the need for advisories, the need to limit access and the need for dust suppression..	Lowest limit set at 1/10 PEL/REL/TLV; AHERA standards (40 CFR 763); ATSDR Toxicological Profile for Asbestos; IRIS; OSHA 29 CFR 1926.1101;	- Long-term exposures may increase cancer risk in the general public. - Unlike workers the general population, includes children and sensitive persons, does not receive exposure monitoring and does not participate in annual health screening
> 0.1 f/cc PCM/PCMe ³	- Evaluate the need to restrict general public access. - Continue to monitor; consider the need for additional sampling sites..	Unacceptable cancer risk following long-term exposure; AHERA standards (40 CFR 763); ATSDR Toxicological Profile for Asbestos; IRIS; OSHA 29 CFR 1926.1101	General public should not be exposed to levels suspected of adverse health effects upon long-term exposure.
Action levels (f/cc) for workers involved in emergency response and recovery activities	Disaster Response and Recovery Workers (follow applicable OSHA standards)	Basis	Comments
0.1 PCM only	Respiratory protection required for workers, based on an 8 hour time weighted average (TWA) of exposure of 0.1 PCM. Longer shift work, i.e., lower levels of exposure	PEL	Value, 0.1 f/cc based on an eight hour time weighted average, is the Occupational Safety and Health Administration's (OSHA) Permissible Exposure; Limit for asbestos, as specified in the OSHA Construction Industry Regulation for Asbestos, 29 CFR 1926.1101.
1.0 PCM only	- The maximum allowable level for workers average over 30 minute period (OSHA short term exposure level). - PPE required above 1.0 f/cc PCM.	STEL	Value, 1.0 f/cc measured over a 30-minute period, is the Occupational Safety and Health Administration's (OSHA) Short-Term Exposure Limit for asbestos, as specified in the OSHA Construction Industry Regulation for Asbestos, 29 CFR 1926.1101.

1. General public includes adults and children not directly involved in emergency response and recovery activities. 2. Documents and information that were considered in setting the action level. 3. Background levels for NYC are being determined. 4. PCM equivalents (PCMe) is determined using TEM analysis and counting fibers > 0.3 μ m in diameter and > 5 μ m in length. PCMe should be determined using consistent methods to provide comparable concentrations. If PCM is exceeded, may need to determine PCMe using TEM. Use professional judgement to determine if PCMe is needed by evaluating the frequency and magnitude of exceedance, size of geographic area involved, and trends in data.

7-10-2008 > 3 weeks

Fwd: FINAL ATSDR, CDC, EPA, & OSHA Asbestos Screening Matrix

Subject: FINAL ATSDR, CDC, EPA, & OSHA Asbestos Screening Matrix

Date: Mon, 15 Oct 2001 13:03:40 -0400

From: "Rodenbeck, Sven" <svr1@cdc.gov>

To: 'Data WTC' <wtcdata@gw.dec.state.ny.us>

Hello!

Attached is the FINAL ATSDR, CDC, EPA, & OSHA Environmental Assessment Workgroup Asbestos Screening guide.

<<Final WTC Asbestos Action Levels Oct 11 2001.wpd>>

Sven

CAPT Sven E. Rodenbeck, Sc.D., P.E., DEE
ATSDR/DHAC Mailstop E32
1600 Clifton Road, NE
Atlanta, GA 30333
(404) 498-0439
Srodenbeck@cdc.gov

 <u>Final WTC Asbestos Action Levels Oct 11 2001.wpd</u>	Name: Final WTC Asbestos Action Levels Oct 11 2001.wpd Type: RA_sitrep10-02 File (application/wordperfect5.1) Encoding: base64 Description: WordPerfect 6.1
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Fwd: FINAL ATSDR, CDC, EPA, & OSHA Asbestos Screening Matrix

Subject: Fwd: FINAL ATSDR, CDC, EPA, & OSHA Asbestos Screening Matrix**Date:** Mon, 15 Oct 2001 13:07:59 -0400**From:** "Data WTC" <wtcdata@gw.dec.state.ny.us>

To: <amirpat@aol.com>, <shnakasa@bechtel.com>, <tjdowd@bechtel.com>, <kmartinez@cdc.gov>, <kmw2@cdc.gov>, <Lwilder@cdc.gov>, <pcharp@cdc.gov>, <pkowalski@cdc.gov>, <sneurath@cdc.gov>, <SRodenbeck@cdc.gov>, <FoxJ@coned.com>, <gerryk@dep.nyc.gov>, <cherasard-paul@dol.gov>, <Garvey-Robert@dol.gov>, <mcchesney.dennis@epa.gov>, <Mintz.David@epamail.epa.gov>, "Carl Johnson" <cxjohnso@gw.dec.state.ny.us>, "David Egelston" <daegelst@gw.dec.state.ny.us>, "Dave Shaw" <djshaw@gw.dec.state.ny.us>, "Denise Sheehan" <dmsheeha@gw.dec.state.ny.us>, "David O'Toole" <drottoole@gw.dec.state.ny.us>, "Edwin Dassatti" <eedassat@gw.dec.state.ny.us>, "Fred Nuffer" <frnuffer@gw.dec.state.ny.us>, "Gerald Barnhart" <gabarnha@gw.dec.state.ny.us>, "Italo Carcich" <igcarcich@gw.dec.state.ny.us>, "Mike Murray" <jmmurray@gw.dec.state.ny.us>, "James Tuffey" <jwtuffey@gw.dec.state.ny.us>, "Karen Chytalo" <knchytal@gw.dec.state.ny.us>, "Larry Enoch" <lsenoch@gw.dec.state.ny.us>, "Larry Skinner" <lxskinne@gw.dec.state.ny.us>, "Field Response people NYCFIELD" <nycfield@gw.dec.state.ny.us>, "Phil Galvin" <pjgalvin@gw.dec.state.ny.us>, "Philip DeGaetano" <pmdegaet@gw.dec.state.ny.us>, "Paul Counterman" <prcounte@gw.dec.state.ny.us>, "Peter Duncan" <psduncan@gw.dec.state.ny.us>, "Robert Warland" <rkwarlan@gw.dec.state.ny.us>, "Susan Taluto" <sitaluto@gw.dec.state.ny.us>, "Sondra Martinkat" <smmartin@gw.dec.state.ny.us>, "Tim Sinnott" <txsinnot@gw.dec.state.ny.us>, <aauchinc@health.nyc.gov>, <jleight@health.nyc.gov>, <mperrin@health.nyc.gov>, <njeffery@health.nyc.gov>, <gac01@health.state.ny.us>, <jah18@health.state.ny.us>, <nkk01@health.state.ny.us>, <rjw03@health.state.ny.us>, <rlc07@health.state.ny.us>, <tot01@health.state.ny.us>, <jmharrison2@hotmail.com>, <Warrington2@hotmail.com>, <jharrison@iuoeiettc.org>, <ageyh@jhsp.edu>, <pbreyse@jhsp.edu>, <tmatte@myam.org>, <jocj3@ny.ngb.army.mil>, <gkelpin@nysnet.net>, <maureen.cox@osha.gov>, <tanya.ross@osha.gov>, <DEisenhardt@psc.gov>, <envmonrpts@sdm-moses.com>, <eslamim@sdm-moses.com>, <mossam@sdm-moses.com>, <opsdmna@semo.state.ny.us>, <DOHeocDesk@yahoo.com>, <epa_eoc@yahoo.com>

CC: "Jeff Lindell" <jxlindel@gw.dec.state.ny.us>,

"Thomas Plesnarski" <txplesna@gw.dec.state.ny.us>

Shared by Sven Rodenbeck at ATSDR

-Matt Darcangelo
(518) 402-9606

**New York City Department of Environmental Protection
Bureau of Environmental Compliance
Asbestos Control Program**

Environmental Survey and Assessment of Buildings in the Vicinity of the WTC

This proposal for sampling and assessment of building interior spaces was developed using information provided by the Indoor Air Taskforce. The taskforce has representatives from various agencies including but not limited to the USEPA, ATSDR, NYSDOH, OSHA, NYCDOH, and the NYCDEP.

Preliminary This evaluation and assessment is targeted to identify substances based on current knowledge of existing contaminants after building collapses and fires, and on the review of information from sampling data to date. The Indoor Air Taskforce has identified seven primary contaminants that may have impacted buildings in the vicinity of the World Trade Center disaster. These contaminants include asbestos, fibrous glass, refractory ceramic fibers, silica, dioxin, lead and PAHs.

The initial phase of this building interior space evaluation will be performed at 100 buildings within a four-block radius of the WTC site. The selection of buildings will be based on the location, lack of sampling information from the building owner, requests for sampling from building occupants, and input from various agencies and/or organizations. Four units in each building will be selected for sampling and evaluation. The assessments will include environmental sampling for each of the identified contaminants.

The methodology for evaluation and assessment will vary dependent on the contaminant.

Asbestos

Asbestos air samples will be collected and analyzed by TEM analysis. Five samples collected simultaneously at each location with a minimum volume of 1200 liters. The re-occupancy standard of 70 f/m³ will be used as the basis for evaluation of the data.

Recommendations from the task force will be used to evaluate and assess the following contaminants: fibrous glass, refractory ceramic fibers, silica, dioxin, lead, and PAHs.

water

New York City Water Board

Impact of World Trade Center Attack on Water/Sewer System

Physical Damage to Infrastructure

Water main valves ringing the WTC were closed shutting water service inside the perimeter of the site. It is assumed that the water mains and probably the sewers as well directly under the rubble were crushed. A number of water main breaks have been noted (X as of 9/xx) and repairs are being effected when feasible. Sewers outside of the perimeter are working and the West Street interceptor is clear and working. Wastewater Regulators have also observed and were found to be OK as well. DEP will not be exactly sure of the condition of all infrastructure for some time. Sewers that appear to be working upon inspection may be found to have partial collapses or hairline stress fractures that eventually will lead to failure. Assuming that most infrastructure outside the perimeter of the site will not need replacing, our current estimate is that the capital cost of necessary water main and sewer replacement will be less than \$5 million. It should be noted, however, that this capital cost will not be borne by the system, but will be reimbursed under Federal FEMA authorizations.

In terms of service, all areas outside of the perimeter of the site are being served with no loss of water pressure or quality being experienced downtown. We do not anticipate any difficulty providing normal service to any areas when they are reoccupied. In terms of municipal government and services, every City agency is back in business, although some have been temporarily relocated.

Asbestos

Asbestos was used in the WTC and has been found in the debris and ash in lower Manhattan. Studies show that asbestos can be hazardous when inhaled into the lungs. Scientists believe that limited short-term exposure to asbestos does not present a notable public health hazard. Disease generally is related to persisting exposure over many years. Accordingly, Federal, State and City officials do not believe the asbestos released by the WTC attack and collapse presents the type of public health risk that requires aggressive and extraordinary mitigation. Building owners are being advised to clean the filters on their Air Circulation Systems prior to use. Open water tanks should be drained, flushed, cleaned, and refilled with water from a plumbing system that has been flushed. With respect to debris and ash clean up, owners are being instructed to have the materials tested for asbestos by competent professionals. If no asbestos is found, the clean up can proceed. If asbestos is found, DEP must be contacted. Asbestos or Hazardous Materials staff will review each case and provide instructions for clean up.

Water Supply Security

On 9/11, upstate immediately established a command center operation. All staff were put on 12 hour shifts. Fixed posts were manned and air surveillance was deployed, both helicopter and fixed wing aircraft. Barriers were erected at all entrances. Fishing, boating and hiking was suspended. Additional "Jersey" barriers are being acquired to enhance longer-term barrier placement capability. Key elements of the system are being subjected to more extreme security measures. **(?? Diana...Tom Hook mentioned this but didn't describe the extreme measure. Perhaps we can't describe them in detail for security ?? Do or Should we say more here ??)**

Commissioner Miele has asked and the Secretary of the Army has agreed to provide DEP with special security on an emergency basis. This equipment consists of cameras, alarms, monitoring equipment and the like. A private citizen also made a gift to the Department of a number night goggles for use in nighttime observation around the watershed lands and facilities. The Army Corps of Engineers is engaged in reviewing our security measures and will provide their advice and recommendations. The Corps also has agreed to assist in the procurement and installation of additional electronic monitoring security equipment over the near term to enhance the level of protection.

Water Supply has increased the level of sampling. It is noted, however, that sampling programs for the types of organisms and chemicals that are likely threats are not far advanced. The sheer size and design of the City's water system, however, provides a formidable challenge to any possible threats of this type. Given the great quantity of water the system delivers on a daily basis, the introduction of a small amount of any particular agent would be quickly diluted and its effects, accordingly, diminished to the point where it would not pose a large scale risk. Effectively, large quantities of a poison agent, probably amounting to truckloads of material, would need to be introduced into the system to pose a significant general risk to the City's population. Moreover, the scattered points of introduction also provide multiple barriers of protection. For instance, if a biological agent were introduced in an upland reservoir, it would have to withstand an extended period of cold temperatures in the waters long travel time to the City and it would be subject to chlorination and disinfection at several points before it entered the City tunnels. Thus, the system's scale and design presents a significant obstacle to a potential terrorist type threat to the water system which could affect a substantial population. It is believed that the more serious threat of water supply contamination lies on the smaller scale, in the introduction of an agent into the internal plumbing of a large building, causing deaths within that building and starting a "panic" in the streets relative to Citywide water supply contamination.

Wastewater Treatment Plant Security

After the WTC attack, WWTP security was also considered. The plants were immediately put on alert. Entrance gates were barricaded and procedures were established for identifying and approving individuals passing in and out of the plants. NYC Police assistance was secured for high visibility locations such as North River and Owls Head. We do not believe, however, that WWTP's are high value targets. While a plant could be put out of commission, the system of Regulators would allow the plant to be by-passed, and rather than backing up into citizen's homes and businesses, raw sewage from the particular drainage district would flow into a nearby harbor or bay until the plant could be repaired and service resumed.

Revenue Impact of the World Trade Center Disaster

The WTC attack will have an impact on current and, perhaps, future revenue cash flows to the Water Board. The following possible impacts have been identified.

Late Payment Charges

The Water Board's lock box and payment processing operation and DEP's bill printing vendor were both located in the affected area below 14th Street. Disaster recovery procedures have been implemented. Payments mailed to the Church Street lockbox are being re-directed by the USPS to the Main Post Office at 33rd and 8th. JP Morgan Chase, the lockbox vendor, has reoccupied the premises at 55 Water Street, which houses their payment-processing center, and resumed operations. They are fully operational as of 9/21. Our bill-printing vendor was also located within the cordoned area. There was a one-week lag in the printing and mailing of bills, but bill printing is now fully operational and bills are being mailed. Due to the above, the imposition of interest has been suspended. Once Chase has processed the backlog of payments, anticipated to be 9/28 at the latest, the imposition of late payment charges will be reinstated. The projected cost of foregoing interest charges for a three-week period is approximately \$2 million dollars.

Reduced Water Consumption - WTC Complex

The WTC facility itself is non-viable and will be for the foreseeable future. The area is closed off to commerce and residence. Records indicate that billings to the complex averaged approximately \$100,000 per month, or about \$1.2 million per year. This is less than 1/10th of 1% of annual System revenues. The current revenue impact, however, will not equal 100% of the

WTC Impact on Water System**4**

total amount previously billed. It is anticipated that many businesses and residents will relocate entirely or partially to another location within the City while others will relocate entirely or partially outside of the City. If we assume that half of the activity will be relocated within the City and the consumption redistributed to other system accounts, the reduction in revenue would be less than \$1 million.

Reduced Water Consumption Short-term

All of the area below 14th street was minimally occupied for the week following the attack. The buildings south of Chambers and west of Broadway were unoccupied for the subsequent week. This impacted the City's daily water consumption and will likely impact the subsequent billings to customers. In the 10 days prior to 9/11, daily water demand in the City averaged 1,247 mg; in the 9 days after the attack the daily demand was 1,193 mg. This is a decrease of about 4%. Assuming all revenues were related to metered consumption, which of course they are not, a 4% decline would equate to daily revenue decrease of about \$144,000, or about \$1.3 million for the 9-day period. By September 20th, daily demand approached pre-attack levels. We will continue to monitor system consumption and observe the track of daily water demand to consider whether any further revenue losses should be anticipated.

General Economic Weakness and Tourism Decline

It is widely anticipated that the national and local economy will suffer a decline of some measure. It also can be anticipated that tourism in the City will suffer. A weak economy combined with tourism losses may lead to a decrease in hotel and commercial office occupancy levels as well as decreased manufacturing levels. All of these factors might contribute to lower water consumption. These impacts are difficult to predict. We are, however, comforted by the fact that only about 60% of the System's revenues are based on metered billings, that the majority of NYC water demand is related to relatively inelastic residential usage, and that only a small fraction is related to manufacturing uses. In the meantime, as we view the progress of the national and local economies, we will consult other water utilities to seek their experiences during economic downturns.

Payment Delays by Customers

It is anticipated that the interruption of billing caused by the disaster will cause a decrease in the flow of customer payments. Some bills may not have gone out on time and may have short payment return dates. We might also expect

WTC Impact on Water System**5**

that some customers might overlook their payment because of their preoccupation with national events. While we can expect this confusion to be short-term and to have an insignificant effect on this year's revenue, it might be prudent to increase delinquency mailings to metered customers to remind them that a payment is outstanding.

DEP COMM. OFFICE

Fax: 718-595-3525

Dec 12 2002 11:47

P. 03

P.03/03

DEC-12-2002 11:40

ADMINISTRATIVE OPERATIONS

ADBESTOS INSPECTION REPORT (continued)

26. Asbestos Hauler D & S Abatement, Inc.

NYS DEC Permit #

Tel.#

Disposal Site(s)

27. This asbestos abatement is part of a (Item a through e requires filing of this form with NYC Department of Buildings)

- a) ☐ Demolition b) ☐ Boiler Replacement c) ☐ Sprinkler Replacement d) ☒ Renovation/Alteration
- e) ☐ Fireproofing Replacement f) ☐ Other (Describe) _____

20. TYPE OF ABATEMENT (Check all appropriate boxes)

- ☒
- Removal
- ☐
- Enclosure
- ☐
- Encapsulation
- ☐
- Repair
- ☐
- Clean up

29. ABATEMENT PROCEDURE (Check all appropriate boxes)

- ☒
- Full Containment
- ☒
- Glovebag
- ☒
- Tent
- ☒
- DEP Variance Application

30. LOCATIONS OF ABATEMENT

[illegible]

31. I hereby declare that the information provided herein is true and complete to the best of my knowledge. I am familiar with Federal, State and NYC laws and regulations applicable to asbestos related work.

KAM Consultants Print Name of Air Monitor Signature 12/10/02 Date	D & S Abatement, Inc. Print Name of Asbestos Contractor Signature 12/10/02 Date	Khushru Hava Print Name of Applicant (If other than Owner) Signature 12/10/02 Date
--	--	---

12. I understand that as the owner of a building where asbestos abatement activity occurs, I am responsible for the performance of the asbestos abatement activities in accordance with the Asbestos Control Program Rules. I have contracted the third party air monitor who is completely independent of all parties involved in the asbestos project. I hereby declare that I have authorized the filing of this notification for the work specified herein.

Dario Vasquez, City of New York, DCAS

12/10/02

Print Name of Owner

Signature

0215

A STAMPED COPY OF THIS FORM INCLUDING AMENDMENTS MUST BE AVAILABLE AT THE WORK SITE

Any modification of information provided on this form must be reported immediately in writing directly to the NYC DEP ACP.

TOTAL P.04

TOTAL P.03

Demo

DDC

WTC

BOL
ALAMS

3 4 5 6

Emergency FAX

UABOAG (718)

595 3477



ROBERT C. AVALTRONI, DEPUTY COMMISSIONER
BUREAU OF AIR, NOISE, & HAZARDOUS MATERIALS

59-17 Junction Blvd., 11th floor
 Corona, New York 11368-5107
 (718) 595-4418
 FAX (718) 595-4544

mc

✓

1

R

David G. [Signature]

SEP-28-2001 FRI 12:45 PM NIOSH/R-11

FAX NO. 5134587147

P. 05

**Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health**

Interim Air Sampling Report

Saturday, September 22, 2001

Investigators from the National Institute for Occupational Safety and Health (NIOSH) collected air samples in areas immediately adjacent to the debris pile and on personnel actively involved in rescue efforts in the vicinity of the debris pile to characterize potential exposures. Below are the interim sampling results for Saturday, September 22, 2001.

Air Samples

Total Dust

- 4 area air samples were collected for total dust
 - Area sample 8-hour time-weighted average concentrations were below 1.0 mg/m³

Respirable Dust

- 2 area air samples were collected for respirable dust
 - Area sample 8-hour time-weighted average concentrations were below 0.05 mg/m³

Metals

- 4 area air samples were collected for metals
 - Nothing of concern was found regarding metal analysis

Crystalline silica

- 2 area air samples were collected for crystalline silica
 - No crystalline silica was detected on either of the air samples

Carbon Monoxide

- 7 real-time personal breathing zone samples were collected for carbon monoxide
 - All 8-hour time-weighted average concentrations were below 20 ppm
 - A single peak of 1239 ppm was observed on a torch cutter

Mercury

- 11 personal and 2 area air samples were collected for mercury
 - No mercury was detected on any of the air samples

SEP-26-2001 FRI 12:44 PM NIOSH/R-11

FAX NO. 5134587147

P. 02

Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health
Interim Bulk and Air Sampling Report
Wednesday, September 19, 2001

Investigators from the National Institute for Occupational Safety and Health (NIOSH) collected bulk and air samples in areas immediately adjacent to the debris pile and on personnel actively involved in rescue efforts in the vicinity of the debris pile to characterize potential exposures. Below are the interim sampling results for Wednesday, September 19, 2001.

Bulk Samples*Asbestos*

- 27 bulk samples were collected from undisturbed loose material within the restricted area
 - All samples indicated less than 1% asbestos (two contained between 1 and 3% asbestos)

Crystalline

- 27 bulk samples were collected from undisturbed loose material within the restricted area
 - All samples contained quartz, typically in amounts less than 5%, although one sample was as high as 18% quartz
 - None of the samples contained cristobalite

Metals

- 27 bulk samples were collected from undisturbed loose material within the restricted area
 - Nothing of concern was found regarding metal analysis

Air Samples*Asbestos*

- 3 personal samples and 3 area air samples were collected by NIOSH investigators
 - All task-based concentrations were below 0.05 fibers/cc as determined by TEM analysis
- Additional air samples were collected by NYDOH contractors (26 personal and 4 area)
 - Personal sample 8-hour time-weighted average concentrations were below 0.05 fibers/cc as determined by PCM
 - 3 personal samples were analyzed by TEM; all were less than 0.004 fibers/cc
 - Area sample results were below 0.04 fibers/cc as determined by PCM

Total Dust

- 17 air samples were collected for total dust (7 personal and 10 area)
 - Personal sample 8-hour time-weighted average concentrations were below 1.0 mg/m³
 - Area sample concentrations were below 1.7 mg/m³

Metals

- 17 air samples were collected for metals (7 personal and 10 area)
 - Nothing of concern was found regarding metal analysis

Carbon Monoxide

- 5 real-time personal breathing zone samples were collected for carbon monoxide
 - All 8-hour time-weighted average concentrations were below 3 ppm
 - A single peak of 79 ppm was observed on a city transit worker

Volatile Organic Compounds (VOCs)

- 6 air samples were collected on thermal desorption tubes (used as a screening technique)
 - Compounds identified included benzene, toluene, and polynuclear aromatic hydrocarbons which have been attributed to products of combustion
 - Concentrations of VOCs on all samples were well below established limits
- 19 air samples were collected with charcoal adsorbent tubes
 - Concentrations of VOCs on all samples were below detectable limits

SEP-28-2001 FRI 12:45 PM NIOSH/R-11

FAX NO. 5134587147

P. 03

**Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health
Interim Air Sampling Report
Thursday, September 20, 2001**

Investigators from the National Institute for Occupational Safety and Health (NIOSH) collected air samples in areas immediately adjacent to the debris pile and on personnel actively involved in rescue efforts in the vicinity of the debris pile to characterize potential exposures. Below are the interim sampling results for Thursday, September 20, 2001.

Air Samples*Asbestos*

- 54 personal and 5 area air samples were collected by NYDOH contractors
 - Most personal sample 8-hour time-weighted average concentrations were below 0.025 fibers/cc as determined by PCM (two were 0.06 fibers/cc)
 - All area sample results were below 0.008 fibers/cc as determined by PCM

Total Dust

- 5 personal air samples were collected for total dust
 - Personal sample 8-hour time-weighted average concentrations were below 1.0 mg/m³

Respirable Dust

- 6 personal air samples were collected for respirable dust
 - Personal sample 8-hour time-weighted average concentrations were below 0.05 mg/m³

Metals

- 5 area air samples were collected for metals
 - Nothing of concern was found regarding metal analysis

Crystalline silica

- 4 personal air samples were collected for crystalline silica
 - No crystalline silica was detected on any of the air samples

Volatile Organic Compounds (VOCs)

- 1 air sample was collected on a thermal desorption tube (used as a screening technique)
 - Compounds identified included benzene, toluene, and polynuclear aromatic hydrocarbons which have been attributed to products of combustion
 - Concentrations of VOCs were well below established limits
- 9 air samples were collected with charcoal adsorbent tubes
 - Concentrations of VOCs on all samples were below detectable limits

SEP-28-2001 FRI 12:45 PM NIOSH/R-11

FAX NO. 5134587147

P. 04

**Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health
Interim Air Sampling Report
Friday, September 21, 2001**

Investigators from the National Institute for Occupational Safety and Health (NIOSH) collected air samples in areas immediately adjacent to the debris pile and on personnel actively involved in rescue efforts in the vicinity of the debris pile to characterize potential exposures. Below are the interim sampling results for Friday, September 21, 2001.

Air Samples*Asbestos*

- 45 personal and 6 area air samples were collected by NYDOH contractors
 - Personal sample 8-hour time-weighted average concentrations were below 0.04 fibers/cc as determined by PCM
 - All area sample results were below 0.01 fibers/cc as determined by PCM

Total Dust

- 15 personal air samples were collected for total dust
 - Personal sample 8-hour time-weighted average concentrations were below 1.0 mg/m³

Metals

- 7 personal and 4 area air samples were collected for metals
 - Nothing of concern was found regarding metal analysis

Crystalline silica

- 2 personal air samples were collected for crystalline silica
 - No crystalline silica was detected on any of the air samples

Carbon Monoxide

- 5 real-time personal breathing zone samples were collected for carbon monoxide
 - Most 8-hour time-weighted average concentrations were below 2 ppm (one was 32 ppm)
 - A single peak of 823 ppm was observed on a torch cutter

**New York City Department of Environmental Protection
Asbestos Control Program**

**Summary of Information
Alphabetical Listing by Street**

300 Albany Street, Manhattan
Hudson View West

WWW updates by management to tenants, sample in file
Clean-Tech performed clean-up of common areas and there were plans to power wash the exterior

125 Barclay Street, Manhattan

TEM results for the 5th floor North MER, 3rd floor MER, and 10th floor MER
Roof Bulk Samples: <1%
Clean-up on roof directed by insurance company according to building manager.
Report by H.A. Bader Consultants, Inc. indicates air and surface sampling performed
TEM Air Sampling Floors 1-10: <70 s/mm²
Dust/Debris (49 samples) 5 (+), 17 (trace), 27 (-)
Lead Wipe Samples taken
ACP7 received 11/27/2001 for the clean-up of 370 square feet on the 3rd, 5th, 7th, 10th floor MER
Emergency notification was received 11/21/01

70 Battery Place, Manhattan

Building management summary of activities
EnviroTechniques Report states final NIOSH 7400 Method air tests were <0.01f/cc
Sample of data and summary of fiber counts per building unit.
Status Report
Complete data report not submitted.

71 Broadway, Manhattan

Two Air Samples on the 2nd Floor
Both samples analyzed NIOSH 7400 Method: <0.003 f/cc

115 Broadway, Manhattan

ACP7 received 11/19/2001 for the clean-up of 7,000 square feet of office space on the 3rd floor

Scope of work received 10/29/2001

ACP7 received 10/15/2001 for the clean-up of 386,000 square feet, floors 1-21, lobby and basement

Air samples analyzed by NIOSH 7400 method

9/28/2001 12 samples: <0.01 f/cc

9/27/2001 18 samples: <-0.01f/cc

217 Broadway, Manhattan

ACP7 received 9/28/01 for the clean-up of 20,000 square feet of roof (Scope of work had been submitted on 9/20/01)

225 Broadway, Manhattan

5 PCM samples (lobby east, lobby west, 17th, 22nd, and 23rd floor): <0.01f/cc

2 Dust Samples: No asbestos detected

2 Wipe Samples: No asbestos detected

233 Broadway, Manhattan

6 AHERA Samples (lobby, 5th, 12th, 16th, and 29th floor): No asbestos structures detected.

345 Chambers Street, Manhattan

Stuyvesant High School

Extensive sampling performed, data available from BOE

Air Sampling Reports by ATC Environmental

Air Sampling Reports by Taylor Environmental

Floor Plans

Clean-up in two phases: Phase I Floors 6 –11, Phase II Floors 1-5 (50,000 square feet)

90 Church Street, Manhattan

US Post Office

ACP7 received 12/14/2001 for the clean-up of 7,000 square feet on the 7th floor, SW storage area.

100 Church Street, Manhattan

Bulk Sampling Report by Ambient Group: 324 bulk samples collected
Floor plans and data for sampling locations
ACP7 received 11/30/2001 for the clean-up of 79,500 square feet,
Floors 7-8,10-12,14,16,20 and Mezzanine
Emergency notification and scope of work was received 11/13/01 and indicated 75,500 square feet of clean-up.

110 Church Street, Manhattan

ACP7 received 11/29/2001 for the clean-up of 622,702 square feet
Floors sub cellar, cellar, 1-21, PH1,PH2,PH3
Emergency notification and letter was received 11/26/01

22 Cortlandt Street, Manhattan

Bulk and Air Sample Results
61 Bulk samples (includes dust wipes): 6 (+), 35 (trace), 20 no asbestos detected
94 PCM samples: all samples with levels above 0.01 f/cc were followed up with TEM
highest level reported was 30 s/mm²
Scope of work for clean up by asbestos contractor submitted on 10/18/2001
Floor plans, areas and square footage
ACP7 received 12/14/2001 for the clean-up of 92,500 square feet

Century 21

10 Bulk samples: all trace
PCM air tests, 1 PCM above 0.01 f/cc from the 3rd floor was followed up with TEM
sample was reported as overloaded

105 Duane Street, Manhattan

Separate summaries of activities available.

88 Greenwich Street, Manhattan

Two Air Samples, one on the ground floor, the other on the fourth floor
Both samples analyzed NIOSH 7400 Method: <0.003 f/cc

102-104 Greenwich Street, Manhattan

Emergency notification received 12/3/2001 for the clean-up of 25,920 square feet basement-5th floor
ACP7 received 12/11/2001 for the clean-up of 26,000 square feet basement-5th floor
Scope of Work
12 Bulk Sample Results: 11 (+), 1 (none detected)

292 Greenwich Street, Manhattan

Data available from SCA.

310 Greenwich Street, Manhattan

Independence Plaza

Bulk Samples Not Collected: No suspicious materials found during inspections

TEM AIR TESTS: (200+ samples)

5 samples on each floor: 2nd floor through 39th floor,
32nd floor has one repeat sampling*
4 samples: 1st floor

* 10/19/01 32th floor (West Side corridor): 78.74 s/mm²

Mr. Victor Escalona of Commercial Laboratory Enterprise stated he advised client to HEPA vacuum the floors and wipe down the walls. On October 24, 2001, he repeated the sampling and the results were <19.69. Confirmation from building manager on actions taken is pending.

40 Harrison Street, Manhattan

Independence Plaza

Bulk Samples Not Collected: No suspicious materials found during inspections

TEM AIR TESTS: (200+ samples)

5 samples on each floor: 1st Floor, 3rd Floor through 39th Floor
7 samples 2nd Floor
Common Areas and Random Apartments

51 Harrison Street, Manhattan

Independence Plaza

11/6/2001 –11/7/2001

Townhouses

Bulk Samples Not Collected: No suspicious materials found during inspections

TEM AIR TESTS: (Two samples per apartment)

Apartments: 354A, 368B, 352B, 372B, 364B, 358B, 356A, 43B, 53B, 51A, 328B,
316A, 314B, and 312B

1 Liberty Plaza, Manhattan

Hillmann Environmental Report

Interview Information, Visual Inspection Report

87 Bulk Samples, None Positive

Owner opted to have specified areas of dust accumulation by asbestos contractor, other areas cleaned by custodial staff.

Daily air tests during "rehabilitation" indicated some levels above 0.01 f/cc during the initial clean-up.

Air tests: five samples per floor for 54 floors using NIOSH 7400 Method

1/5 of the samples analyzed by TEM for QA, all <0.01 f/cc

No analytical reports, information is from the Hillmann Environmental Summary Report

15 Maiden Lane, Manhattan

Clearance letter from Dur-All Environmental

No sampling results

ACP7 received 10/4/2001 for the clean-up of 7,000 square feet at the lobby and main floor

33 Maiden Lane, Manhattan

Report from QuES&T, report of results, data not submitted

No significant dust accumulations reported. Bulk sampling was performed on each floor.

One sample on the 3rd floor at three square feet of debris was positive. Proposal for 2nd, 3rd, 5th floor and O & M clean-up by QuES&T. Wet-wipe and HEPA vacuum by asbestos contractor as "precaution".

TEM air sampling on each floor. Results not submitted.

59 Maiden Lane, Manhattan

Structural clearance by P.E.

PCM air tests: 28 samples collected 9/16/2001: <0.01 f/cc

17 samples collected 9/15/2001: <0.01 f/cc

34 samples collected 9/14/2001: <0.01 f/cc

ACP7 received 12/19/2001 for the removal of 15,750 square feet of ACM from the ceiling of the 6th floor south wing ceiling

75 Maiden Lane, Manhattan

Information referenced in report for 80 Maiden Lane, Manhattan

Air Quality: Asbestos NIOSH 7400 Method, Methane, Hydrogen Sulfide

No Analytical Reports

80 Maiden Lane, Manhattan

Structural Assessment

26 story building/500,000 square feet of office space

Windows and air cooled package units underwent inspection and clean-up before start up

Air Quality: Asbestos NIOSH 7400 Method, Methane, Hydrogen Sulfide

Asbestos Air Samples: 39 samples collected 9/19/01

3 samples per floor on floors 3 through 15, 3 samples on the 19th floor
sample results <0.01f/cc

69 Murray Street, Manhattan

13 Bulk Samples collected: 7 (+), 5 (trace), 1 (no asbestos detected)

Scope of Work received 10/15/2001

ACP7 received 12/14/2001 for the clean-up of 4,300 square feet on the roof and lobby

65 Nassau Street, Manhattan

ACP7 received 12/11/2001 for the clean-up of 49,750 square feet from basement to the 10th floor

102 North End Avenue, Manhattan

ACP7 received 1/4/2002 for the clean-up of 4,000 square feet at the restaurant on the ground floor

Scope of work

140 North End Avenue, Manhattan

Tribeca Bridge Tower

Investigator report on inspection of the building interior performed on 9/14/01 and 9/20/01.

Bulk samples collected on 9/14/01 in Apartment 4A, lobby, and 18th floor hallway: <1%

Air Samples NIOSH 7400 taken on 9/14/01: Lobby - 0.003 f/cc

Apt. 4A- 0.005 f/cc

16th floor hallway- 0.002 f/cc

Bulk Samples collected 9/20/01: 16 samples, <1%

Air Samples collected 9/20/01: 6 samples, <0.01f/cc

80 North Moore Street, Manhattan

Independence Plaza

11/6/2001 –11/7/2001

Townhouses

Bulk Samples Not Collected: No suspicious materials found during inspections

TEM AIR TESTS: (200 sample)

5 samples on each floor: 1st Floor through 39th Floors
Common Areas and Random Apartments

1 Pace Plaza, Manhattan

A tenant had bulk sampling performed. Bulk Dust Sample <1%.

53 Park Place, Manhattan

Letter from Pinnacle Environmental for emergency notification received 11/27/01 and indicated 118,000 square feet of clean-up for floors 2-11, penthouse, and corridors.
ACP7 received 11/29/01 for the clean-up of 118,000 square feet on floors 2-11 and penthouse

40 Rector Street, Manhattan

ATC Summary Report
90 AHERA samples, 5 per floor, floors 1-19: <70 s/mm²

225 Rector Place, Manhattan

Parc Plaza

ATC Clearance Letter
ACP7 received 10/2/01 for the clean-up of 9000 square feet of roof

21 South End Avenue, Manhattan

ACS Report and Management Report
2 TEM Air Samples: No asbestos detected
2 Bulk Samples: 1 (no asbestos detected), 1 (trace)
Water samples from main.

Gateway Plaza, Manhattan

345 South End Avenue, Manhattan

355 South End Avenue, Manhattan

Buildings 100,200, and 400

199 bulk samples

182 TEM samples

Re-opening plan by Building Management printout from Web Site

Building owner requested DEP assistance and oversight

42 Trinity Place, Manhattan

Letter from West Fair Restoration indicated debris on roof was bagged and roof was HEPA vacuumed.

Letter from Duct Clean indicated HVAC system cleaned, HEPA vacuums used, new access doors installed.

46 Trinity Place, Manhattan

Report by Athenica

PCM and TEM taken, re-occupancy criteria met

12 TEM air samples: $<70 \text{ s/mm}^2$

20 Vesey Street, Manhattan

Emergency notification received on 11/20/2001 for the clean-up of 315 square feet at a 10th floor office.

Letter from owner indicated 10 square feet of windowsill to be cleaned from 10th floor office, other 305 square feet of office cleaned only as a precaution

200 Vesey Street, Manhattan

3 World Financial Center

ACP7 received 10/9/2001 for the clean-up of 115, 100 square feet

clean-up specified furniture and carpeting, setback, SE corner of floors 3-26, 48, 51, 52

Scope of work submitted 10/5/2001

Floor plans and diagrams of clean-up areas

Emergency notification received 10/9/2001 for 100,000 square feet

ACP7 received 12/06/2001 for the clean-up of 11,300 square feet on the SE corner of floors 1,2, Mezzanine, training room of the 3rd floor, and AC Unit on the 3rd floor

201 Warren Street, Manhattan
IS89 M

Extensive sampling performed, data available from the BOE.

80 Washington Street, Manhattan

Summary report from ATC Associates.

11 TEM air samples were collected on 9/28/2001 in accordance with AHERA

Results indicated clearance for re-occupancy

Data not included.

111 Washington Street, Manhattan
Parking Garage

32 bulk samples: (-) (trace chrysotile)

123 Washington Street, Manhattan
AKA 4 Albany Street

10/16/01 Telephone report from asbestos contractor CENY that water was being pumped and filtered from the basement. No other work reported at that time.

ACP7 received 11/16/2001 for the clean-up of 700 square feet of debris

100 square feet of debris from the northwest corner offices of floors 2 through 8
(emergency notification 11/12/01 via DEP Help Line)

84 West Broadway, Manhattan

Analytical reports from Applied Technology

2 bulk samples (-)

8 TEM air samples (1 in each apartment): no asbestos detected.

115 West Broadway, Manhattan

Three (3) bulk samples from the roof (+)

ACP7 received on 11/30/2001 for the clean-up of 3,000 square feet of roof

Scope of work and emergency notification was submitted on 11/15/2001

47 West Street, Manhattan

Summary report from ATC Associates.

30 TEM air samples were collected on 9/26/2001 in accordance with AHERA

Results indicated clearance for re-occupancy

Data not included

140 West Street, Manhattan

Verizon Building

Scope of work submitted by LVI for the clean-up of the 32 story building/ 1,171,500 square feet

Debris presumed ACM (9/14/2001)

ACP7 received 9/18/2001

1,000,000 square feet of clean-up at various locations throughout the building by LVI

ACP7 received 9/20/2001 (emergency notification called in 9/19/2001)

1,000,000 square feet of clean-up at various locations within the building by PAR Environmental

ACP7 received 9/27/2001

250,000 square feet of clean-up at various areas by Comprehensive Environ.

Air Tests provided on disk by Hillmann Environmental

200 West Thames Street, Manhattan

ACP7 received 12/1-/2001 for 300 square feet of clean-up on the 8th floor

135 William Street, Manhattan

TEM Air tests performed for a tenant, $<70 \text{ s/mm}^2$

156 William Street, Manhattan

Management Update: Air intakes and interior plenums cleaned, new air filters installed, dust cleaned from lobby, report of air testing by one of the tenants.

Tenant Air Tests: Four (4) TEM Air samples- $<70 \text{ s/mm}^2$

2 World Financial Center, Manhattan

South Tower

ACP7 received on October 11, 2001 for the clean-up of 581,340 square feet floors lobby, 1-11

Emergency notification was received 10/5/01

DCAS buildings (City-Owned Buildings)

DCAS information was provided by Deputy Commissioner Joe Wagner.

- The work as described in the developed checklist for re-occupancy has been completed.
- Asbestos bulk and air sampling was performed. The results were satisfactory in both cases. (The material was found to be negative and air tests permitted re-occupancy).
- All the ductwork has been cleaned. Window A/C unit has not been completed. The window units are expected to be completed by October 1st as access to different locked offices becomes available. Notices have been posted at the buildings instructing staff not to turn on the window A/Cs.
- All the buildings were checked for structural stability twice and they have been certified. Some repairs, some of which were identified prior to the WTC incident, are still needed and have been scheduled.
- The impact and amount of work varied in different buildings.

Sampling information available from DCAS

Consolidated Edison of New York

- Con Edison Emergency Notification received 9/11/01 for the removal of 120 linear feet coal tar wrap under Brooklyn Bridge between Water and Front Street.
- Emergency notification for the removal of 100 linear feet of steam insulation on Barclay Street between Washington and Greenwich Street.
- ACP7 received on 12/12/2001 for the removal of 1,520 linear feet of steam insulation at a street excavation on Murray Street between Greenwich and Broadway (the "restoration effort")
- ACP7 received on 1/11/2002 for 50 linear feet at a street excavation on Washington Street between Vesey and Barclay Street.
- ACP7 received on 1/11/2002 for the removal of 100 linear feet from a feeder pipe at South Street between Peck Slip and Dover for restoration.
- Con Edison Emergency Notification received 9/11/01 for the removal of 120 linear feet coal tar wrap at South Street and Peck Slip.
- Con Edison Notification received 12/4/01 regarding two 40 foot feeder cables at Vesey and West Street.
- Con Edison Emergency Notification received 11/3/01 at West Broadway and Vesey Street.

RESPONSE & PREVENTION BRANCH

FAX COVER SHEET

TO: Steve Lavin 718-595-3744
Matt Darcangelo / Bob Watteoni

BRANCH/SECTION: _____

TELEPHONE/FAX: _____

FROM: Arlene Anderson

BRANCH/SECTION: RPB

TELEPHONE/FAX: _____

Fax: (732) 321-4425

Tel: _____

DATE: 9/13/01

TIME: 2:05 pm

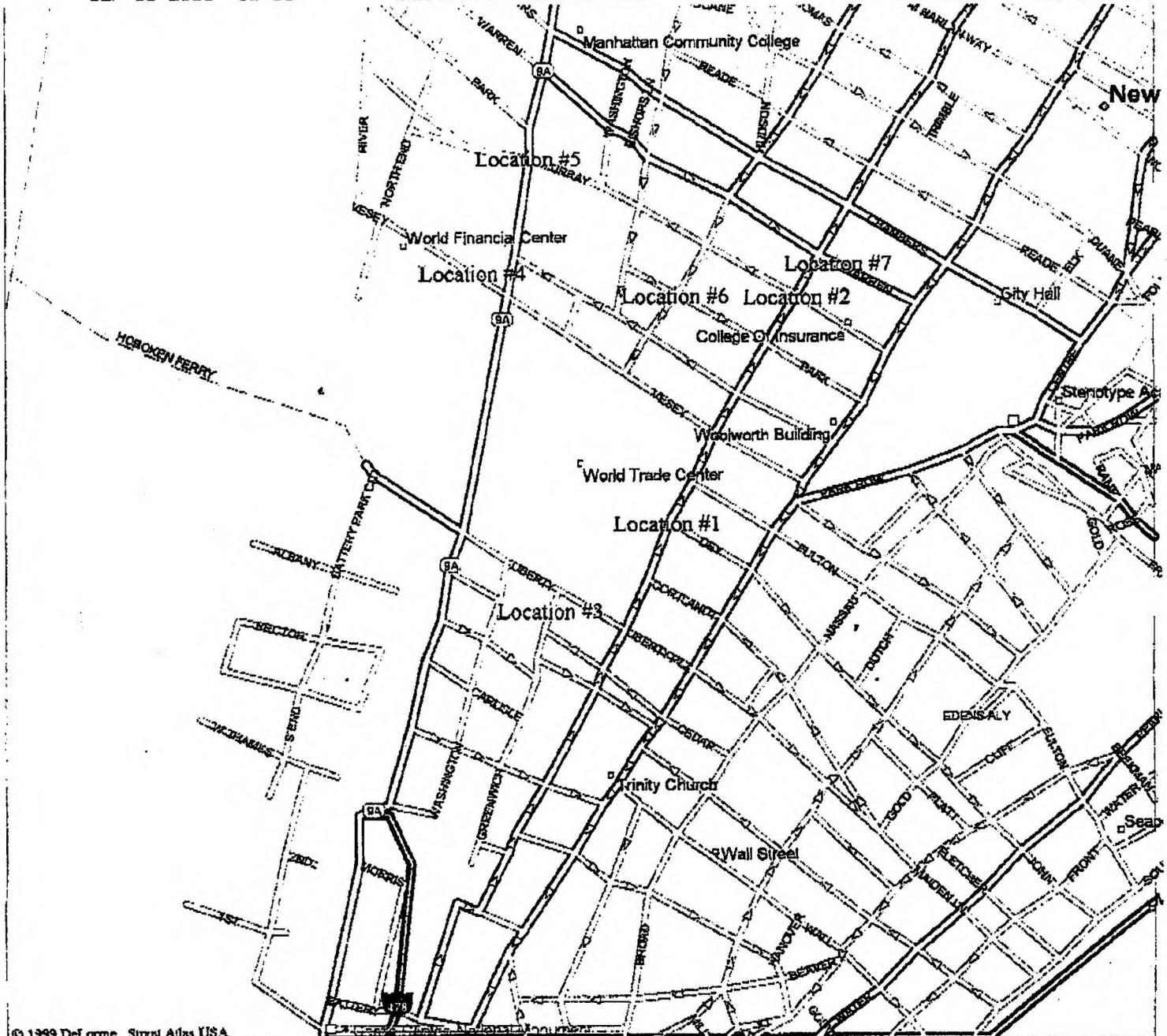
NO. OF PAGES: 4
(Including cover sheet)



SEP-13-2001 16:13

USEPA-RESP. & PREV. BR.

732 321 4425 P.04/04



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Mag 16.00

Thu Sep 13 11:43 2001

Scale 1:7,812 (at center)

500 Feet

200 Meters

- | | |
|---------------------------|-------------------|
| Local Road | Point of Interest |
| Major Connector | Park/Reservation |
| Primary State Route | Mega City |
| Ferry | Land |
| Walkway/Stairway | Water |
| Interstate/Limited Access | City Park |
| Toll Highway | |
| Exit | |

NYER Asbestos Samples Results						
Date	Sample	Sample	Matrix	Asbestos Concentration	IR Screening method	TEM
Sampled	Number	Location		PLM % Type		
9/12/01 0:00	00930	NYSC-Comp	Dust	ND	No	
9/12/01 0:00	00931	REM	Dust	ND	Yes	
9/12/01 0:00	00932	Congress	Dust	<1% Chrysotile	No	
9/12/01 0:00	00933	Deghen-car	Dust	ND	Yes	
9/12/01 0:00	00934	Deghen-grnd	Dust	0.5% Chrysotile	Yes	
9/12/01 0:00	00921	NYSC-Pole1	Vacuum			ND
9/12/01 0:00	00922	NYSC-walkway	Vacuum			ND
9/12/01 0:00	00923	Cran1 Ledge	Vacuum			ND
9/12/01 0:00	00924	Cran2-Truck	Vacuum			ND
9/12/01 0:00	00925	REM	Vacuum			ND
9/12/01 0:00	00926	REM-Honda	Vacuum			ND
9/12/01 0:00	00927	Congress	Vacuum			ND
9/12/01 0:00	00928	Deghen-acura	Vacuum			ND
9/12/01 0:00	00929	Deghen-acura d	Vacuum			ND
9/12/01 0:00	00593	Field Blank	Vacuum			ND
9/12/01 0:00	00594	Lot Blank	Vacuum			ND
9/12/01 0:00	00595	Trip Blank	Vacuum			ND
9/12/01 0:00	00771	#4 Bulk	Dust	<1% Chrysotile	Yes	
9/12/01 0:00	00772	#5 Bulk	Dust	<1% Chrysotile	Yes	
9/12/01 0:00	00773	#6 Bulk	Dust	<1% Chrysotile, <1% Amosite	Yes	
9/12/01 0:00	00774	#7 Bulk	Dust	<1% Chrysotile, <1% Amosite	No	
9/12/01 0:00	00775	#1 Bulk	Dust	<1% Chrysotile	Yes	
9/12/01 0:00	00776	#4 Bulk	Dust	<1% Chrysotile	Yes	
9/12/01 0:00	00854	#2 Bulk	Dust	<1% Chrysotile, <1% Amosite	No	
9/12/01 0:00	00777	Loc# 1	Air			ND
9/12/01 0:00	00853	Loc# 2	Air			ND
9/12/01 0:00	00778	Loc# 3	Air			ND
9/12/01 0:00	00779	Loc# 4	Air			ND
9/12/01 0:00	00780	Loc# 4 Dup	Air			ND
9/12/01 0:00	00851	Loc# 5	Air			ND
9/12/01 0:00	00852	Loc# 6	Air			ND
9/12/01 0:00	00935	Trip Blank	Air			ND
9/12/01 0:00	00936	Lot Blank	Air			ND

ND - Nondetect; Vacuum - Dust sample collected using Microvacuum

USEPA Dust and Air Analytical Results from 9/12/01 Sampling Event

Ground Zero Seven dust/fibrous materials samples were collected in the vicinity of Ground Zero. All samples contained less than 1% asbestos (Chrysotile). Three samples contained less than 1% amosite. Nine air samples were collected and analyzed for asbestos which was not detected in any samples.

Brooklyn Air Sampling Five dust/fibrous materials samples were collected in South Brooklyn and Brooklyn Heights. All samples contained less than 1% asbestos (Chrysotile). Twelve air samples were analyzed for asbestos which was not detected in any air samples.

Methodology

Air samples were analyzed by TEM EPA 40CFR763 AHERA.
Dust samples were analyzed by PLM - EPA-600 R-93/116.

SEP-18-2001 10:10

NYSDEC ALBANY CO SPILLS
U.S. EPA REGION 2 REPP

P.02/11

200 200 0106 7.01/02

September 18, 2001 (7:04am)

Preliminary Data

New York City/ World Trade Center Sampling Activities
Street Runoff Asbestos Results

EPA Personnel: Dennis McChesney
Stephen Hale

Sampling platform: EPA Whaler/ NYCFD Fire boat (tied)

Sampling Date: 09/14/01

Sampling Time: 1430-1500

Location: Foot of Rector St at Hudson River. Samples were collected from approx 1 foot diameter direct runoff pipe

Sample Matrix: Water

Analytes (Laboratory): Metals (Region 2)
PCBs/PBBs (Axys)
PAHs (Axys)
Dioxins/Furans (Axys)
Asbestos (NYSDOH)

Sampling: Discrete grab samples of washdown water discharging to the Hudson River were collected as it flowed out of the pipe, before entering the River. Sanitation workers were hosing the street in the vicinity.

Preliminary Asbestos Results reported by Dr. James Weber, DOH - Wadsworth

Chrysotile Asbestos 0.61%
9.6 Billion Fibers/L
0.045 g/L

Amphibole Asbestos ND

Particulates: 7.4 g/L

Blank Sample Bottle ND

> 1% is regulated in building material, MCL 7 MFL, 10-4 cancer risk 700 MFL

Air Samples - GC/MS analysis

0777
A-1, 2-

Results for 9/16/01

File name	NYC027	File name	NYC028	File name	NYC029
Sample Location	Day & Church	Sample Location	Liberty & Trinity	Sample Location	Liberty & West
Sample Number	00608	Sample Number	00607	Sample Number	00604
Volume	0.25 L	Volume	0.25 L	Volume	.25 L
Acetone	14 ppb	Chloromethane	10 ppb	Acetone	19 ppb
Toluene	4 ppb	Acetone	23 ppb		
		Benzene	20 ppb		
		Toluene	7 ppb		

File name	NYC030	File name	NYC031	File name	NYC032
Sample Location	West & Vessey	Sample Location	Liberty & Greenwich	Sample Location	Albany & Wash
Sample Number	00603	Sample Number	00606	Sample Number	00605
Volume	0.25 L	Volume	0.25 L	Volume	0.25 L
Acetone	16 ppb	Acetone	8 ppb	Acetone	17 ppb
MTBE	5 ppb	Benzene	6 ppb	Benzene	5 ppb
Toluene	6 ppb	Toluene	8 ppb		

These are the VOC results, including TICs, for the Tedlar bag grab samples collected at six locations for ambient air monitoring on 16 Sep 2001.

SEP-18-2001 10:11

NYSDEC ALBANY CO SPILLS

P.04/11

Six sediment samples were collected on 9/15/01 and analyzed on 9/17/01 for Pesticide/PCB analysis by GC/ECD. The results and MDLs are reported in units of $\mu\text{g/Kg}$.

Analytical interpretations: The samples were extracted using soxhlet method. Low concentration ($<26\mu\text{g/Kg}$) of few pesticide compounds (DDE, Dieldrin DDT) and low concentrations ($<1\text{ppm}$) Of weathered Aroclor 1254 and weathered Aroclor 1260 were found. Due to severe contamination of the first column (DB-608) from the extracts during the pesticide run, the second column was used to quantitate the PCBs concentration in all samples.

A surrogate solution was added to all samples prior to extraction. All surrogate recoveries were within the QA/QC criteria, and surrogate recoveries ranged from 82% to 137%.

Sample WTC-P1 was chosen to be spiked with pesticide spike solution. g-BHC and DDT were slightly out of the QA/QC criteria on the low side in both MS and MSD and heptachlor was also out of the QA/QC criteria on the low side in MSD, due to matrix effect. Low MS/MSD recoveries for DDT and the end of sequence QC indicated that DDT may have decomposed during the analysis. Recoveries of the rest of the spike compounds were within the QA/QC criteria and recoveries ranged from 36% to 91%.

The initial calibration, the continuing calibrations, resolution check, and PEMs all met QC criteria. The blank was free from any target compounds. Sample were extracted and analyzed within REAC's holding time period.

Samples are being reanalyzed to confirm the DDT results.

To: ERWIN
F. F.
Raj

9/17/01 2:00 PM

SEP-18-2001 10:11

Analytical Procedure for Pesticides/PCBs in Soil**Extraction Procedure**

The soil samples were extracted by the Soxhlet method. A thirty gram aliquot was spiked with a surrogate solution consisting of tetrachloro-m-xylene and dechlorobiphenyl, mixed with 30 g anhydrous sodium sulfate and extracted for 16 hours with 300 mL of hexane/acetone (1:1). The extract was concentrated to 5 mL.

Gas Chromatographic Analysis

The extract was analyzed for pesticide/PCBs using simultaneous dual column injections. The analysis was done on an HP 6890 GC/ECD system equipped with an HP 6890 automatic sampler. The systems were controlled with an HP-ChemStation. The following conditions were employed:

First Column	DB-608, 30 meter, 0.32 mm fused silica capillary, 0.50 µm film thickness
Second Column	Rtx-CLPesticides, 30 meter, 0.32 mm fused silica capillary, 0.50 µm film thickness
Injector Temperature	200°C
Detector Temperature	300°C
Temperature Program	120°C for 1 minute 9°C/min to 285°C, hold for 10 minutes
Injection Volume	1 µL

The gas chromatographs were calibrated using 5 pesticide standards at 20, 50, 100, 200, and 500 µg/L. The results from each mixture were used to calculate the response factor (RF) of each analyte and the average RF was used to calculate the concentration of pesticide in the sample. Quantification was based on the DB-608 column (signal 1) and the identity of the analyte was confirmed using the Rtx-CLPesticides column (signal 2). A fingerprint chromatogram was run using each of the seven Aroclor mixtures and toxaphene; the calibration curves were run only if a particular PCB or toxaphene were found in the sample.

SEP-18-2001 10:12

NYSDEC ALBANY CO SPILLS

P.06/11
7.06/03

Table 1.x Results of the Analysis for Pesticide/PCDs in Soil
WA# S2001 WTC Sediment Site
Based on Dry Weight

Client ID Location Percent Solid Analyte	WTC-D2 Dredge-2 38		WTC-D3 Dredge-3 38	
	Conc.	MDL	Conc.	MDL
	µg/kg	µg/kg	µg/kg	µg/kg
a-BHC	U	8.8	U	8.8
g-BHC	U	8.8	U	8.8
b-BHC	U	8.8	U	8.8
Heptachlor	U	8.8	U	8.8
d-BHC	U	8.8	U	8.8
Aldrin	U	8.8	U	8.8
Heptachlor Epoxide	U	8.8	U	8.8
g-Chlordane	U	8.8	U	8.8
a-Chlordane	U	8.8	U	8.8
Endosulfan (I)	U	8.8	U	8.8
p,p'-D D E	23	8.8	19	8.8
Dieldrin	U	8.8	4.3 J	8.8
Endrin	U	8.8	U	8.8
p,p'-D D D	9.2	8.8	7.3 J	8.8
Endosulfan (II)	U	8.8	U	8.8
p,p'-D D T	U	8.8	U	8.8
Endrin Aldohyde	U	8.8	U	8.8
Endosulfan Sulfate	U	8.8	U	8.8
Methoxychlor	U	8.8	U	8.8
Endrin Ketone	U	8.8	U	8.8
Toxaphene	U	220	U	220
Aroclor 1016	U	110	U	110
Aroclor 1221	U	220	U	220
Aroclor 1232	U	110	U	110
Aroclor 1242	U	110	U	110
Aroclor 1248	U	110	U	110
Aroclor 1254	560 W	110	460 W	110
Aroclor 1260	380 W	110	430 W	110
Aroclor 1268	U	110	U	110

J - Estimated, less than MDL
U - Not Detected at MDL

SEP-18-2001 10:12

NYSDEC ALBANY CO SPILLS

P.07/11
7.07/03

Table 1.x Results of the Analysis for Pesticide/PCBs in Soil
WA# 52001 WTC Sediment Site
Based on Dry Weight

Client ID Location Percent Solid	SRI.K091501 - 100		WTC-P1 Ponar-1 42		WTC-P2 Ponar-2 44		WTC-P3 Ponar-3 39		WTC-D1 Dredge-1 38	
Analyte	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg	Conc. µg/kg	MDL µg/kg
a-BHC	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
g-BHC	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
b-BHC	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
Heptachlor	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
d-BHC	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
Aldrin	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
Heptachlor Epoxide	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
g-Chlordane	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
a-Chlordane	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
Endosulfan (I)	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
p,p'-D D E	U	3.3	26	7.9	12	7.6	14	8.5	21	8.8
Dieldrin	U	3.3	7.9 J	7.9	6.1 J	7.6	5.5 J	8.5	5.1 J	8.8
Endrin	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
p,p'-D D D	U	3.3	18	7.9	6.9 J	7.6	7.5 J	8.5	8.7 J	8.8
Endosulfan (II)	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
p,p'-D D T	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
Endrin Aldehyde	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
Endosulfan Sulfate	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
Methoxychlor	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
Endrin Ketone	U	3.3	U	7.9	U	7.6	U	8.5	U	8.8
Toxaphene	U	83	U	200	U	190	U	210	U	220
Aroclor 1016	U	42	U	99	U	95	U	110	U	110
Aroclor 1321	U	83	U	200	U	190	U	210	U	220
Aroclor 1232	U	42	U	99	U	95	U	110	U	110
Aroclor 1242	U	42	U	99	U	95	U	110	U	110
Aroclor 1248	U	42	U	99	U	95	U	110	U	110
Aroclor 1254	U	42	700 W	99	370 W	95	350 W	110	500 W	110
Aroclor 1260	U	42	510 W	99	280 W	95	280 W	110	400 W	110
Aroclor 1268	U	42	U	99	U	95	U	110	U	110

J - Estimated, less than MDL
U - Not Detected at MDL

C:\TEMP\SRG5.WB2

The pesticide results, listed in Table 1.1, are calculated by using the following formula:

$$C_u = \frac{(DF)(A_u)(V_i)}{(RF_{avg})(V_i)(W)(D)}$$

where;

- C_u = Concentration of analyte ($\mu\text{g/kg}$)
- DF = Dilution Factor
- A_u = Area or peak height
- V_i = Volume of sample (mL)
- RF_{avg} = Average response factor
- V_i = Volume of extract injected (μL)
- W = Weight of sample (g)
- D = Decimal percent solids

Response Factor calculation:

The response factor for each specific analyte is calculated using the peak area (peak height) from the continuing calibration check as follows:

$$RF = \frac{A_u}{\text{total pg injected}}$$

where;

A_u = Area or peak height

and

$$RF_{avg} = \frac{RF1 + \dots + RFn}{n}$$

where;

n = number of samples,

Revision 3/9/00

SEP-18-2001 10:13

NYSDEC ALBANY CO SPILLS

P.09/11

NYC Response
Asbestos Bulk Sample Analysis Results

Date	Sample No.	Sampling Location	Matrix	PLM Results	Comments
Sampled				% Asbestos	
8/16/01	00439	Battery Park and Memorial	Dust	2.1	Chrysotile
ND Not Detected					
PLM Polarized Light Microscope, NY ELAP 196.1 Method					
ENT 8/17/01 2:00PM					

Dore La Poste
for
9/17/01 2:15 PM

USEPA Air Analytical Results of Sampling Events from Fixed Stations on 9/15-16/01

Lower Manhattan Fixed ambient air sampling stations have been established at seven locations in the vicinity of Ground Zero. Samples were collected for the presence of asbestos over two consecutive 12 hour periods (round 3 and 4). Asbestos was detected marginally above background (70 structures/mm²) in a duplicate sample taken from sampling location E (Intersection of Liberty and South End Ave.). The duplicate samples obtained from location E registered 53 and 90 structures/mm² respectively. All but one of the round 4 (8:00 am - 8:00 pm, 9/16) samples were unable to be analyzed for asbestos content due to clogging of the air filters with general particulate matter.

Methodology Asbestos fiber analysis by Transmission Electron Microscopy (TEM) - EPA 40 CFR Part 763 (AHERA).

Precautions EPA continues to advise personal protective equipment for the emergency response and cleanup workers, decontamination of workers, dust suppression, and tarping over removal debris while in transport.

NYC Response
Asbestos Air Sampling Results at Fixed Locations

Date	Sample No.	Sampling Location	Matrix	Round 3 S/mm2 (S-F/cc)*	Round 4 S/mm2 (S-F/cc)*	Comments
9/15-18/01	581/1401	G	Air	<18 (<0.0043)	18 (0.0089)	Chrysotile asbestos
9/15-18/01	582/1402	A	Air	<13.3 (<0.0046)	NA	Chrysotile asbestos
9/15-18/01	583/1403	B	Air	<8 (<0.0039)	NA	Chrysotile asbestos
9/15-18/01	584/1404	C	Air	<18 (<0.0043)	NA	Chrysotile asbestos
9/15-18/01	585/1407	D	Air	<8 (<0.0043)	NA	Chrysotile asbestos
9/15-18/01	586/1408	E	Air	53.33 (0.0190)	NA	Chrysotile asbestos
9/15-18/01	587/1409	E**	Air	90 (0.0321)	NA	Chrysotile asbestos
9/15-18/01	588/1410	F	Air	24 (0.0085)	NA	Chrysotile asbestos
9/15-18/01	589/1405	H	Air	<16 (<0.0045)	NA	Chrysotile asbestos
9/15-18/01	590/1406	I	Air	<18 (<0.0043)	NA	Chrysotile asbestos

NA: not analyzed due to overloading of particulates

Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) EPA 40CFR Part 763 (AHERA)

*Structure (S) Roughly equivalent to Fiber (F)

Standard criteria: EPA 40CFR Part 763 (AHERA): 0.01 fiber/cc (PCM), 70S/mm2, volume 1200L, for 25MM filter (TEM)

A: Intersection of Barclay+West Broadway

B: Intersection of Church+Dey St.

Round 3: 8:00PM (9/15) - 8:00AM (9/16)

C: Intersection of Liberty+Broadway

Round 4: 8:00AM (9/15) - 8:00PM (9/16)

D: Intersection of Greenwich+Albany;

E: Intersection of Liberty+South End Ave. E**: Duplicate

F: Intersection of Vesey+West St.

G: Intersection of Church and Duane

H: One Chase Plaza

ERT 9/17/01 9:30AM

**New York City Department of Environmental Protection
Bureau of Environmental Compliance
Asbestos Control Program**

Exterior surveys were performed beginning in January 2002. These surveys included the examination of building roofs, facades, setbacks, alleys, etc.

The attached listing indicates the buildings identified with visible accumulations of debris on the date of the survey. The Department provided building owners and managers with written information to have the debris assessed and cleaned appropriately. It is possible that a building owner has completed clean up activities but has not sent written information to the Department.

The information in the Department's listing was prepared using various information gathering. The above referenced table includes the block, lot, building identification number (BIN), number of structures, address, other addresses or building names (AKAs), the date of the most recent survey, the areas requiring cleanup identified during the survey, and the landmark status.

The block, lot, and BIN are information provided by the New York City Department of Buildings and the New York City Office of Emergency Management. The block and lot identifies the location of the building and the BIN, which is a unique number assigned to each structure. A single block/lot may have more than one structure and thereby have more than one BIN. In a few rare cases, a building may show more than one BIN. The number of structures at the address is provided in the designated column.

The exterior survey date indicates the most recent survey date. A follow-up visit to a given location will result in a new date placed in this column. A record of all visits is maintained in hard copy form only. Re-inspections of buildings where adequate clean up was performed are marked cleaned and are not included in this table.

The clean up required information indicates the areas where the Department identified visible accumulations of debris (R= Roof, F= Façade, S= Setback, O= Other). The "S" designation is followed by a number that refers to the floor where the setback is located (i.e. S25 indicates the setback on the 25th floor had visible accumulations of debris).

The "Area" designation is based on the Department's proposed clean up activities. The surveyed areas were divided into three smaller areas in order to provide effective and efficient oversight of clean up activities.

The "Historic" information was obtained from various sources and thereby the identifications vary. A building with any designation in this column will be considered a landmark building. This includes the eligible but not listed category.

4/22/02

Buildings where
Survey Identified
Visible Accumulations of Debris

**New York City Department of Environmental Protection
Asbestos Control Program**

1
4/19/02

BLOCK	LOT	BIN	# Str	ADDRESS	AKAs	Exterior Surveyed	CleanUp Required	Area	Historic
90	24	1001262	1	15 ANN STREET		2/19/02	Facade	2	
90	23	1001261	1	17 ANN STREET		2/19/02	R/F	2	
90	21	1001259	1	21 ANN STREET	2 Theater Alley	2/19/02	Roof	2	
92	23	1001273	1	35 ANN STREET	104-108 Nassau Street	2/19/02	R/F	2	
92	17	1001272	1	47 ANN STREET		2/20/02	Roof	2	
92	14	1079092	2	49 ANN STREET		2/20/02	R/S	2	
92	13	1001271	1	55 ANN STREET		2/20/02	Roof	2	
92	10	1001270	1	57 ANN STREET		2/20/02	R/O	2	
88	14	1801090	0	12 BARCLAY STREET		3/5/02	Lot	2	
88	13	1001240	1	14 BARCLAY STREET		3/5/02	Roof	2	
88	12	1001239	1	16 BARCLAY STREET		3/5/02	Roof	2	NRE
88	11	1001238	1	22 BARCLAY STREET	79-85 Church Street	3/5/02	Roof	2	NR, ICL, NYCLPC
15	7501	1082634	1	17 BATTERY PLACE	1 West Street, 2-26 Washington Street, 1 Western Union Plaza	1/29/02	R/F	3	IHL, NYCLPC
29	73	1000850	1	42 BEAVER STREET	44 Beaver St, 8 South William St	3/2/02	R/F	3	
29	7501	1078999	3	48 BEAVER STREET	56 Beaver St, 2-6 South William St	3/4/02	Roof	3	NYCLPC
27	27	1000830	1	65 BEAVER STREET	20 Exchange Pl, 16-26 William St, 14-28 Exchange Pl, 6 Hanover	2/15/02	S25	3	
28	15	1000834	1	80 BEAVER STREET		3/4/02	Roof	3	
90	14	1079072	3	5 BEEKMAN STREET	119-133 Nassau St, 10 Theater Alley, 3 Beekman St	2/15/02	R/F/S	2	NYCLPC
92	34	1001279	1	25 BEEKMAN STREET		2/15/02	Roof	2	
100	1	1001352	2	52 BEEKMAN STREET	69 Gold St., NYU Downtown Hospital, 170 William St.	2/15/02	Facade	2	
26	1	1078987	2	15 BROAD STREET	23-33 Wall Street, 11-19 Broad Street, 23 Wall St	3/23/02	Roof	3	NR, IHL
23	19	1078982	2	2 BROAD STREET	11 Wall Street, NY Stock Exchange, 9-21 Wall St., 2-16 Broad St., 6 New St.	2/21/02	Facade	3	NR, IHL, NYCLPC
26	1	1078988	2	15 BROAD STREET	43 Exchange Place	2/16/02	Roof	3	
26	1	1078988	2	15 BROAD STREET	55 Exchange Place	2/16/02	S20,21	3	
23	50	1000816	1	20 BROAD STREET	65-67 Exchange Place, 18-28 New Street	2/17/02	R/F/S/O	3	
25	19	1000824	1	25 BROAD STREET	44-60 Exchange Place, The Exchange	2/17/02	Roof	3	NR, NYCLPC
25	10	1000823	1	41 BROAD STREET	35-41 Broad Street	2/17/02	R/F/O	3	
25	7	1000822	1	45 BROAD STREET	43-47 Broad Street	2/22/02	R/F	3	NRE
24	55	1000820	1	50 BROAD STREET	46-50 New St	2/22/02	R/F	3	
24	1	1000817	1	60 BROAD STREET	25 Beaver Street, 52-56 New St., 15-27 Beaver St.	2/21/02	R/S19,27	3	
13	1	1000043	1	1 BROADWAY	1-3 Greenwich Street, 1 Battery Place	1/24/02	Roof	3	NHL, IHL, NR, NYCLPC
22	13	1000811	1	26 BROADWAY	73-81 New St., 1-11 Beaver St	2/21/02	R/S	3	IHL, NYCLPC
20	1	1000802	1	29 BROADWAY	1-9 Trinity Place/2-6 Morris Street	3/23/02	R/S5,19, 30,33	3	NRE
20	12	1000805	1	47 BROADWAY	23 Trinity Place	3/23/02	Roof	3	
20	13	1000806	1	49 BROADWAY	25 Trinity Place	3/23/02	R/F	3	
64	15	1079037	1	160 BROADWAY	4-6 Liberty Place	2/28/02	Facade	3	NRE
64	16	1001088	1	170 BROADWAY	2-4 Maiden Lane	3/23/02	Facade	3	

Buildings where
Survey Identified
Visible Accumulations of Debris

**New York City Department of Environmental Protection
Asbestos Control Program**

2
4/19/02

BLOCK	LOT	BIN	# Str	ADDRESS	AKAs	Exterior Surveyed	CleanUp Required	Area	Historic
63	21	1001079	1	173 BROADWAY	2-8 Cortlandt Street	2/27/02	R/F	1	
65	16	1001099	1	174 BROADWAY	1 Maiden Lane	3/23/02	Roof	2	
63	20	1001078	1	175 BROADWAY		1/25/02	R/F	1	NRE
65	17	1001100	1	176 BROADWAY	3-7 Maiden Lane	3/23/02	Roof	2	
63	19	1001077	1	177 BROADWAY		1/25/02	R/F	1	
63	18	1001076	1	179 BROADWAY		1/25/02	R/F/S4	1	
65	18	1001101	1	180 BROADWAY		3/23/02	Roof	2	
63	17	1001075	1	181 BROADWAY		1/25/02	Roof	1	
65	19	1001102	1	182 BROADWAY		3/2/02	R/F	2	
63	16	1001074	1	183 BROADWAY		1/25/02	Roof	1	
63	15	1001073	1	187 BROADWAY		1/26/02	Roof	1	
63	13	1001072	1	189 BROADWAY	1-3 Dey Street	1/26/02	R/F	1	
79	19	1001221	1	202 BROADWAY		2/15/02	Facade	2	
87	1	1001231	1	209 BROADWAY	Saint Paul, 55 Church St, 1-29 Vesey St	1/28/02	Roof/Yard	2	NR, NYCLPC
89	12	1001245	1	222 BROADWAY	147-165 Fulton Street, 2-22 Ann Street	3/6/02	R/F	2	
135	31	1001472	1	265 BROADWAY	267 Broadway	1/28/02	Roof	1	
135	20	1001469	1	92 CHAMBERS STREET		1/24/02	Roof	1	
135	19	1001468	1	94 CHAMBERS STREET		1/24/02	Roof	1	
149	11	1001629	1	95 CHAMBERS STREET	77 Reade St	1/24/02	Roof	1	
135	18	1001467	1	96 CHAMBERS STREET		3/23/02	Facade	1	
149	12	1001630	1	97 CHAMBERS STREET	79 Reade St., 79-81 Reade St	1/24/02	R/F	1	
135	17	1066184	1	98 CHAMBERS STREET		3/23/02	Facade	1	
135	14	1001465	1	102 CHAMBERS STREET	149 Church St, 149-151 Church St, 32 Warren St, 30-32 Warren Street	1/27/02	R/F	1	
136	27	1001486	1	110 CHAMBERS STREET		3/5/02	Facade	1	
136	25	1079160	2	114 CHAMBERS STREET	112 Chambers St	3/23/02	Facade	1	
136	24	1001485	1	116 CHAMBERS STREET		1/26/02	Facade	1	
136	23	1001484	1	118 CHAMBERS STREET		1/26/02	R/F	1	
145	9	1001581	1	119 CHAMBERS STREET		1/26/02	Facade	1	
145	10	1001582	1	121 CHAMBERS STREET	103 Reade St	1/26/02	Facade	1	
136	16	1001481	1	128 CHAMBERS STREET	85-93 West Broadway	1/26/02	R/F	1	NRE
140	1	1001500	1	139 CHAMBERS STREET	141 Chambers St, 1 Hudson St	1/27/02	R/F	1	
140	3	1001501	1	143 CHAMBERS STREET		1/26/02	R/F	1	NYCLPC HEARD
137	34	1001498	1	144 CHAMBERS STREET		1/26/02	R/F	1	
140	4	1001502	1	145 CHAMBERS STREET		1/26/02	R/F	1	
137	33	1001497	1	146 CHAMBERS STREET		1/26/02	R/F	1	
137	32	1001496	1	148 CHAMBERS STREET		1/26/02	R/F	1	
137	7501	1001495	1	150 CHAMBERS STREET		2/28/02	R/S	1	

Buildings where
Survey Identified
Visible Accumulations of Debris

New York City Department of Environmental Protection
Asbestos Control Program

3
4/19/02

BLOCK	LOT	BIN	# Str	ADDRESS	AKAs	Exterior Surveyed	CleanUp Required	Area	Historic
137	29	1001494	1	154 CHAMBERS STREET		1/26/02	Facade	1	
140	9	1001504	1	155 CHAMBERS STREET		1/26/02	Facade	1	
137	28	1001493	1	156 CHAMBERS STREET		1/26/02	Facade	1	
137	27	1001492	1	158 CHAMBERS STREET		3/5/02	R?/F	1	
137	26	1001491	1	162 CHAMBERS STREET		3/23/02	Facade	1	
63	6	1001070	1	19 CHURCH STREET	26 Cortlandt St., 25 Dey St. Former East river Savings Bank	1/26/02	Roof	1	NRE
123	10	1001396	1	95 CHURCH STREET	99 Church St, 26/42 Park Pl, 23-41 Barclay St.	1/27/02	Roof	1	NRE
124	12	1001405	1	111 CHURCH STREET	27 Park Place, 24-26 Murray St, 24 Murray St	1/28/02	Facade	1	
76	7	1001178	1	27 CLIFF STREET		2/20/02	Roof	2	
63	1	1079030	1	10 CORTLANDT STREET		1/26/02	Roof	1	
63	1	1078966	1	10 CORTLANDT STREET		1/26/02	Roof	1	
63	3	1001069	1	22 CORTLANDT STREET		1/26/02	R/F/S7	1	
63	12	1001071	1	5 DEY STREET	7 Dey Street	1/26/02	Roof	1	
78	26	1001198	1	7 DUTCH STREET	7 & 7.5 Dutch Street	2/17/02	Facade	2	
78	7504	1001197	1	15 DUTCH STREET		2/17/02	Facade	2	
0	0	1000825	1	40 EXCHANGE PLACE	27 William St., 25-29 William St.	3/2/02	Roof	2	
75	21	1075618	1	40 FULTON STREET	259-265 Pearl Street	2/15/02	Roof	2	
75	7	1001172	1	50 FULTON STREET		2/16/02	R/F	2	
76	1	1001176	1	64 FULTON STREET		2/15/02	Roof	2	
76	28	1001184	1	70 FULTON STREET	74 Fulton Street, 48-50 Gold Street	2/20/02	R/F	2	
77	23	1001191	1	90 FULTON STREET		3/2/02	R?/F	2	
77	22	1001190	1	92 FULTON STREET		3/2/02	R?/F	2	
78	21	1001196	1	104 FULTON STREET	102-104 Fulton St.	3/2/02	R?/F	2	
78	20	1001195	1	106 FULTON STREET	14 Dutch Street	3/23/02	Facade	2	
78	49	1001210	1	112 FULTON STREET	17-19 Dutch Street	2/17/02	R/F	2	
78	46	1001208	1	118 FULTON STREET		2/17/02	R/F	2	
91	8	1001264	1	119 FULTON STREET	50 Ann Street	2/20/02	R/F	2	
78	45	1001207	1	120 FULTON STREET		2/17/02	R/F	2	
91	9	1079088	2	121 FULTON STREET	48 Ann Street, 123 Fulton Street	2/20/02	R/F	2	
91	9	1001265	2	123 FULTON STREET	46 Ann Street, 121 Fulton Street	2/20/02	Roof	2	
91	12	1001266	1	127 FULTON STREET	42 Ann Street	2/19/02	Roof	2	NRE
89	2	1001243	1	141 FULTON STREET		3/5/02	R/F	2	
89	3	1001244	1	143 FULTON STREET	24-26 Ann Street	3/5/02	Roof	2	
76	25	1001182	1	44 GOLD STREET	Country Café	2/15/02	Roof	2	
94	1	1083352	10	80 GOLD STREET	55 Fulton Street/ Footlocker/ Southbridge Towers	2/14/02	Roof	2	
19	11	1000796	1	67 GREENWICH STREET	28 Trinity Place, 28-30 Trinity Place	1/24/02	R/F	3	NYCLPC HEARD
19	18	1000798	1	81 GREENWICH STREET	44 Trinity Place	3/27/02	R?/F	3	

Buildings where
Survey Identified
Visible Accumulations of Debris

New York City Department of Environmental Protection
Asbestos Control Program

4
4/19/02

BLOCK	LOT	BIN	# St	ADDRESS	AKAs	Exterior Surveyed	CleanUp Required	Area	Historic
19	19	1000799	1	83 GREENWICH STREET	46-48 Trinity Place	3/23/02	R/F	3	
53	41	1001058	1	94 GREENWICH STREET	16 Rector St., 14-18 Rector Street	1/26/02	R/F	3	NYCLPC HEARD
53	39	1001056	1	96 GREENWICH STREET		1/26/02	R/F	3	
53	40	1001057	1	94.5 GREENWICH STREET	94 1/2 Greenwich ST	1/26/02	R/F	3	NYCLPC HEARD
51	14	1001034	1	125 GREENWICH STREET	18-22 Thames Street, 129 Greenwich St.	1/25/02	Roof	3	NRE
52	8	1079009	1	133 GREENWICH STREET	23 Thames St, 21-23 Thames	1/25/02	R/F	3	
52	8	1079008	1	133 GREENWICH STREET	25-29 Thames St	1/25/02	R/F	3	
52	10	1001038	1	137 GREENWICH STREET	120 Cedar Street	1/25/02	Facade	3	
52	22	1075700	1	141 GREENWICH STREET	124 Liberty Street/127 Cedar Street	1/25/02	R/F	3	
132	7501	1081076	1	275 GREENWICH STREET	85 Murray St, 85-87 Warren Street	1/25/02	Facade	1	
0	0	1000832	1	5 HANOVER SQUARE	66 Beaver Street, 10 Hanover Street	2/18/02	S20	2	
79	14	1001217	1	15 JOHN STREET		2/20/02	Facade	2	
65	22	1001104	1	20 JOHN STREET		3/2/02	R?/F	2	
65	24	1001105	1	24 JOHN STREET		3/2/02	R?/F	2	
78	35	1001200	1	39 JOHN STREET	72-78 Nassau Street	2/15/02	Facade	2	
67	30	1001110	1	44 JOHN STREET		2/16/02	Facade	2	NHL, IHL, NR
69	7502	1001127	1	90 JOHN STREET	15-23 Platt Street, 20-24 Gold Street	2/15/02	R/S?	2	NRE
66	1	1001108	1	19 LIBERTY STREET	44 Maiden Lane, 28-62 Maiden Lane, 42-54 Nassau St, 79-83 William Street	2/15/02	Roof	3	NHL, IHL, NR
52	7501	1001042	1	110 LIBERTY STREET	113 Cedar St., 113-117 Cedar St.	1/25/02	R/F	3	
52	7502	1001041	1	114 LIBERTY STREET	119 Cedar St.	1/25/02	R/F	3	NRE
52	21	1001040	1	120 LIBERTY STREET	125 Cedar Street	1/25/02	R/F	3	NRE
16	120	1000057	1	200 LIBERTY STREET	1 World Financial Center	1/28/02	Roof	3	
64	21	1001090	1	10 MAIDEN LANE		2/20/02	R/F	3	
64	23	1001091	1	14 MAIDEN LANE		3/2/02	R/F	3	NRE
64	1	1079032	2	20 MAIDEN LANE	51 Nassau Street	2/15/02	R/F	3	
65	6	1001096	1	21 MAIDEN LANE		2/15/02	R/F	2	NRE
64	2	1001080	1	22 MAIDEN LANE		2/15/02	R/F	3	
65	4	1001095	1	25 MAIDEN LANE	57-61 Nassau St.	2/15/02	R/F	2	
68	11	1001112	1	75 MAIDEN LANE	9-11 Gold Street	2/20/02	Facade	2	
42	31	1001015	1	80 MAIDEN LANE	13-27 Cedar Street	3/23/02	Facade	3	NRE
68	7	1001111	1	83 MAIDEN LANE	1 Gold Street	2/16/02	Facade	2	
68	18	1001124	1	95 MAIDEN LANE	2-8 Gold Street	2/19/02	R/S2	2	
42	36	1001016	1	90 MAIDEN LANE	9-11 Cedar Street	2/19/02	R/F	3	IHL, NYCLPC
68	10	1001122	1	101 MAIDEN LANE	201-203 Pearl Street	2/20/02	Roof	2	
133	7501	1001445	2	41 MURRAY STREET	41 & 43 Murray Street	1/27/02	Facade	1	NYCLPC HEARD
133	7	1001435	1	45 MURRAY STREET		1/27/02	Facade	1	NYCLPC HEARD
133	8	1001436	1	47 MURRAY STREET		1/27/02	R/F	1	NYCLPC HEARD

Buildings where
Survey Identified
Visible Accumulations of Debris

**New York City Department of Environmental Protection
Asbestos Control Program**

5
4/19/02

LOCK	LOT	BIN	# Str	ADDRESS	AKAs	Exterior Surveyed	CleanUp Required	Area	Historic
133	7503	1001437	1	49 MURRAY STREET		1/27/02	Facade	1	NYCLPC HEARD
133	10	1001438	1	51 MURRAY STREET		1/27/02	R/F	1	NYCLPC HEARD
133	11	1001439	1	53 MURRAY STREET		1/27/02	R/F	1	NYCLPC HEARD
133	15	1082029	1	59 MURRAY STREET	61-75 West Broadway/ 59 Warren St., 61 Warren St., 73 West Broadway	3/5/02	R/F	1	
132	7	1001423	1	77 MURRAY STREET		3/22/02	R/F	1	
78	41	1001203	1	NASSAU STREET		3/4/02	R?/F	2	
64	7	1001083	1	49 NASSAU STREET		2/15/02	R/F	3	
64	5	1001082	1	53 NASSAU STREET		2/15/02	R/F	3	
64	4	1001081	1	55 NASSAU STREET	24 Maiden Lane, 24-26 Maiden Lane	2/15/02	R/F/O	3	
65	2	1001094	1	63 NASSAU STREET		3/2/02	R?/F	2	NYCLPC HEARD
65	7501	1001106	1	65 NASSAU STREET	28-30 John St	3/2/02	R?/F	2	NRE
79	6	1001214	1	75 NASSAU STREET		3/2/02	Facade	2	
78	7503	1001201	1	80 NASSAU STREET	80-84 Nassau St	2/20/02	Facade	2	
79	3	1001213	1	83 NASSAU STREET		3/2/02	R/F	2	
79	2	1001212	1	85 NASSAU STREET		3/2/02	R/F	2	
78	40	1001202	1	86 NASSAU STREET		3/2/02	R?/F	2	
79	1	1001211	1	87 NASSAU STREET	126-136 Fulton St.	3/2/02	R?/F	2	
78	42	1001204	1	88 NASSAU STREET		3/20/02	Roof	2	
89	1	1001242	1	93 NASSAU STREET	135-139 Fulton Street, 28-34 Ann Street	2/19/02	Facade	2	On FEMA list
91	13	1001267	1	94 NASSAU STREET	129 Fulton St., 40 Ann St. , 129-133 Fulton St.	2/19/02	Roof	2	
90	18	1001257	1	111 NASSAU STREET	4 Theater Alley	2/19/02	R/F	2	
92	24	1079094	1	116 NASSAU STREET	45 Ann St	2/19/02	F/S1	2	
90	17	1001256	1	113 NASSAU STREET	6 Theater Alley	3/5/02	R?/F	2	
92	26	1001274	1	118 NASSAU STREET		2/19/02	Roof	2	
92	27	1001275	1	120 NASSAU STREET		2/19/02	Roof	2	
92	28	1001276	1	122 NASSAU STREET		2/19/02	Roof	2	
92	29	1001277	1	124 NASSAU STREET		2/19/02	Roof	2	
100	3	1001353	1	150 NASSAU STREET	2-6 Spruce St	3/4/02	Facade	2	NYCLPC
124	8	1001401	1	19 PARK PLACE	16 Murray Street	1/27/02	R?/F	1	
126	2	1001410	1	33 PARK PLACE	110 Church St	3/5/02	R?/F	1	
126	8	1001411	1	43 PARK PLACE		1/27/02	R/F	1	
126	9	1079148	2	45 PARK PLACE		3/5/02	Roof	1	NYCLPC HEARD
90	1	1085949	1	1 PARK ROW	1-11 Ann St	4/13/02	Roof	2	
90	7501	1001249	1	15 PARK ROW		2/17/02	Roof	2	NYCLPC
90	7	1001250	1	23 PARK ROW	5 Theater Alley	4/13/02	Roof	2	
90	7	1001250	1	27 PARK ROW		2/17/02	Roof	2	
90	10	1001251	1	29 PARK ROW	7 Theater Alley	2/18/02	Roof	2	

Buildings where
Survey Identified
Visible Accumulations of Debris

**New York City Department of Environmental Protection
Asbestos Control Program**

6
4/19/02

BLOCK	LOT	BIN	# Str	ADDRESS	AKAs	Exterior Surveyed	CleanUp Required	Area	Historic
90	13	1001254	1	34 PARK ROW	1 Beekman Street	2/17/02	R/F	2	
68	7501	1001121	1	205 PEARL STREET		2/19/02	R/F	2	
69	6	1001120	1	211 PEARL STREET		2/20/02	Roof	2	
69	5	1001119	1	213 PEARL STREET		2/20/02	Roof	2	
68	4	1001118	1	215 PEARL STREET		2/20/02	Roof	2	
41	15	1001008	1	60 PINE STREET	20-24 Cedar Street	2/19/02	R/F/O	3	IHL
69	23	1079051	3	12 PLATT STREET	10 Gold St.	3/2/02	Rcof	2	
69	23	1079051	3	12 PLATT STREET	12 Gold St., 12-14 Gold St.	3/2/02	Roof	2	
69	23	1079051	3	12 PLATT STREET	12 Piatt St.	3/2/02	Roof	2	
16	7508	1065475	1	200 RECTOR PLACE	Liberty Court	1/28/02	R/S9	3	
51	1	1001031	1	2 RECTOR STREET	56-66 Trinity Place, 91-101 Greenwich St	1/25/02	Roof	3	NRE
19	21	1000800	1	11 RECTOR STREET	87-89 Greenwich Street	1/26/02	R/F	3	
51	14	1001034	1	22 THAMES STREET	American Stock Exchange	1/25/02	R/F	3	
51	13	1001033	1	86 TRINITY PLACE	American Stock Exchange, 113-123 Greenwich St	1/26/02	Roof	3	NHL
52	15	1001039	1	104 TRINITY PLACE	109 Cedar Street	1/25/02	R/F	3	
52	30	1001043	1	112 TRINITY PLACE	106 Liberty St., 111 Cedar St.	1/25/02	R/F	3	
16	150	1000060	1	250 VESEY PLACE	4 World Financial Center	1/28/02	Roof	1	
88	2	1001233	1	12 VESEY STREET	14 Vesey St	1/26/02	R/F/S4	2	NR, ICL
88	4	1001234	1	18 VESEY STREET		3/5/02	Roof	2	
88	8	1001236	1	26 VESEY STREET	Stage Deli	1/26/02	Roof	2	
46	9	1001025	1	14 WALL STREET	1-11 Nassau St, 7-15 Pine St, 8-20 Wall St	2/15/02	R/S	3	IHL
43	6	1001020	1	26 WALL STREET	2-8 Nassau St., 17-21 Pine St.	2/21/02	R/O	3	NR, IHL
43	5	1001019	1	30 WALL STREET	23 Pine Street	2/15/02	Roof	3	
26	14	1078991	2	37 WALL STREET	43-49 Exchange Place, 43 Exchange Place	2/16/02	R/F	3	
26	21	1000826	1	45 WALL STREET	33-41 William Street, 35-41 Exchange Place	2/16/02	Roof	3	
40	3	1001004	1	60 WALL STREET	Deutsche Bank, 65 Pine Street	2/14/02	R/F/S/O	3	
27	1	1000827	1	55 WALL STREET	Regent of Wall St., 34-40 William St., 7-29 Exchange Pl, 2-4 Hanover St	2/15/02	R/F/S/O	3	NR, NHL, NYCLPC
27	9	1000828	1	63 WALL STREET	79-83 Beaver Street, 1-5 Hanover Street	2/14/02	R/S15,20,4/O	3	
135	10	1001462	1	22 WARREN STREET		1/27/02	Roof	1	
135	11	1001463	1	24 WARREN STREET	26 Warren St	1/27/02	R/F	1	
134	14	1001454	1	29 WARREN STREET		1/27/02	R?/F	1	
134	10	1001452	1	31 WARREN STREET	27 Murray St	1/27/02	Facade	1	
133	22	1079151	2	49 WARREN STREET	51 Warren St	1/25/02	R/F	1	NRE, NYCLPC HEARD
133	21	1001442	1	53 WARREN STREET		1/25/02	Roof	1	NRE, NYCLPC HEARD
136	11	1001478	1	54 WARREN STREET		1/25/02	Roof	1	NRE
133	12	1001441	1	55 WARREN STREET	55 Murray St	1/27/02	R/F	1	NRE, NYCLPC HEARD
136	12	1001479	1	56 WARREN STREET		1/25/02	R/F	1	NRE

Buildings where
Survey Identified
Visible Accumulations of Debris

**New York City Department of Environmental Protection
Asbestos Control Program**

7
4/19/02

DOCK	LOT	BIN	# Str	ADDRESS	AKAs	Exterior Surveyed	CleanUp Required	Area	Historic
137	10	1805487	0	86-90 WARREN STREET	88 Warren St	1/25/02	R/F/Lot	1	
17	29	1000793	1	90 WASHINGTON STREET	52-54 West Street/23-31 Rector St	2/27/02	Facade	1	NYCLPC
127	1	1001414	1	30 WEST BROADWAY	BMCC Extension, 81-95 Barclay St, 235-247 Greenwich St., 82-104 Park Pl	3/2/02	R?/F	1	
17	7501	1078972	1	47 WEST STREET	47-49 West St	1/26/02	Roof	1	
29	36	1078995	1	1 WILLIAM STREET	1-3 South William St., 63-67 Stone St.	3/4/02	Roof	3	NYCLPC
28	1	1000831	1	2 WILLIAM STREET	3 Hanover Square, 60 Beaver St, 3 Pearl St., 60-64 Beaver St.	3/2/02	R/S23	3	
40	16	1001006	1	52 WILLIAM STREET	47-49 Pine Street, Club Quarters	2/15/02	Roof	3	
41	22	1001012	1	60 WILLIAM STREET	48 Pine Street	2/19/02	F/S	3	
41	24	1001013	1	62 WILLIAM STREET	30-38 Cedar Street	2/19/02	Roof	3	NRE
68	36	1001116	1	100 WILLIAM STREET	72-78 John St, 29-35 Platt Street	2/16/02	Facade	2	
77	15	1001187	1	130 WILLIAM STREET		2/20/02	Facade	2	
77	20	1001189	1	140 WILLIAM STREET	96 Fulton Street	3/23/02	R/F	2	
93	20	1001281	1	156 WILLIAM STREET	51-55 Beekman St, 73-85 Ann Street	2/15/02	Roof	2	
93	24	1001282	1	164 WILLIAM STREET		3/5/02	R?/F	2	

DEPARTMENT OF ENVIRONMENTAL PROTECTION ASBESTOS CONTROL PROGRAM

WTC Activities

1. Staff performed site visits to determine the activities conducted by building owners and provide building owners or managers with the advisory “ Building Maintenance Issues Involved in Reopening Buildings” and to request copies of any air tests performed after clean-up.
2. Staff responded to telephone inquiries from building owners, tenants and consultants from 8:00 a.m. to 8:00 p.m., seven days a week for two months.
3. Air sampling activities
 - a. At ground zero – ongoing from Sep. 11
 - b. Outer boroughs (five locations) – from Sep. 14 to Oct. 1, 2001
 - c. In front of 4 schools in WTC vicinity - ongoing from October 4, 2001
4. Staff also conducted inspections where a complaint or a telephone notification was received or where building owners requested assistance.
5. Press release announcements to the public to contact DEP Help Center with any concerns during re-occupancy. Staff responded to sites and performed inspections.

New York City Department of Environmental Protection
Bureau of Environmental Compliance
Asbestos Control Program

Environmental Survey and Assessment of Buildings in the Vicinity of the WTC

This proposal for sampling and assessment of building interior spaces was developed using information provided by the Indoor Air Taskforce. The taskforce has representatives from various agencies including but not limited to the USEPA, ATSDR, NYSDOH, OSHA, NYCDOH, and the NYCDEP.

This evaluation and assessment is targeted to identify substances based on current knowledge of existing contaminants after building collapses and fires, and on the review of information from sampling data to date. The Indoor Air Taskforce has identified seven preliminary contaminants that may have impacted buildings in the vicinity of the World Trade Center disaster. These contaminants include asbestos, fibrous glass, refractory ceramic fibers, silica, dioxin, lead and PAHs.

The initial phase of this building interior space evaluation will be performed at 100 buildings within a four-block radius of the WTC site. The selection of buildings will be based on the location, lack of sampling information from the building owner, requests for sampling from building occupants, and input from various agencies and/or organizations. Four units in each building will be selected for sampling and evaluation. The assessments will include environmental sampling for each of the identified contaminants.

The methodology for evaluation and assessment will vary dependent on the contaminant.

Asbestos

Asbestos air samples will be collected and analyzed by TEM analysis. Five samples collected simultaneously at each location with a minimum volume of 1200 liters. The re-occupancy standard of 70 s/mm² will be used as the basis for evaluation of the data.

Recommendations from the task force will be used to evaluate and assess the following contaminants fibrous glass, refractory ceramic fibers, silica, dioxin, lead, and PAHs.



**Department of
Environmental
Protection**

59-17 Junction Boulevard
Corona, New York
11368-5107

**Joel A. Miele Sr., P.E.
Commissioner**

**Robert C. Avaltroni
Deputy Commissioner**

**Bureau of
Environmental Compliance**
Tel (718) 595-4418
Fax (718) 595-4422

**Asbestos and Lead Control Program
Training and Certification**

Temporary Asbestos Certificate for Use at WTC Clean-up Only

Pursuant to your application for asbestos handler, please be advised that this letter will serve as a temporary certificate.

This temporary certificate is valid only for use at clean-up activities resulting from the attack at the World Trade Center and only when accompanied by a valid NYS DOL asbestos handler certificate or proof of NYS-DOH approved training. Individuals using proof of training must have photo-identification available on site. This temporary certificate is valid for one month.

Your certificate will be available for pick-up within one month provided the final review of your application and child support certification are acceptable. If you have any questions, please call (718) 595-3695 or (718) 595-3693.

**Temporary
Asbestos Handler Certificate**

Last Name: _____

First Name: _____

Gender: ____ Age: ____

Height: ____ Weight: ____

Identification #: _____ - _____ - _____

New / Renewal

Authorization



R. Radhakrishnan, P.E.
Director
Asbestos and Lead Control Program

October _____, 2001



www.nyc.gov/dep

(718) DEP-HELP

1. Number surveys and inspections conducted over 500
2. The results of the review of sampling data submitted by the building owners are as follows:

Bulk samples collected 1,478

Positive Bulk Samples 105 (greater than 1%)

Air Samples collected

Phase Contrast Microscopy(PCM)	74,459
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Positive PCM sample results	761
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Transmission Electron Microscopy(TEM)	35,438
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Positive TEM sample results	105
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Clean-ups were conducted after positive samples

3. Total number of outdoor air samples collected by DEP 3,888
 Number of positive samples 9

Asbestos in Residential Sampling

1. Overview of Results (locations, levels)
2. Standards (PLM vs. TEM)
Federal, City
3. Follow-up Action
4. Interpretation/Recommendation in Letter

Neil Cohn

TIM ^{CAR/}~~CARRY~~

PII

ALCP Activities

ALCP field staff has been performing inspections of all buildings where telephone notifications were received or where building owners requested assistance. Staff performed site visits in a grid pattern to determine the activities performed by the building owners, to provide building owners or managers with the advisory “Building Maintenance Issues Involved in Reopening Buildings”, and to request any copies of any air tests performed after clean-up.

Number of Buildings Visited	106
Air tests Performed	16*
Inspections	24
Work in Progress (clean-up of debris)	10

*Based on information provided to staff.

Daily asbestos worker examinations are being scheduled. Individuals must submit completed applications. At the completion of the examination, individuals who satisfy the certification requirements are being issued temporary certification for clean-up activities in the vicinity of the WTC only. The permanent certificates will be issued within three to four weeks.

Staff has been responding to telephone inquiries from building owners and tenants seven days per week. The number of concerned tenants who are re-occupying their homes and are calling for information regarding air quality has increased. Requests for data are also increasing.

09/23/01

Buildings Visited on Down Town

1 West Side Street Beth Triola Building Mgr Air Test done, Flyer given to the manager

17 Battery Place Air Test done Flyer given to John Occannello maintaince personnel

28 Washington & 19 West Street Joe Garcia Security Guard, Flyer given no work was done

Battery Parking garage-Edison parking. Par environmental Sign at the entrance
45k/14,810ln/ft dumpster in front with signs

21 West ST. - Air Monitoring was done cleaning is on going in the interior 3,9,22,Roof, Gus Flores building super

11 Greenwich st. Locked flyer was inserted

25 Greenwich St. Locked, flyer was inserted Building is used by the post office.

17 Trinity Place, Flyer was inserted , no one was working on the building,it's a deli.

44 Trinity Place, Locked flyer inserted.

46 Trinity Place, Locked flyer inserted .

50 Trinity Place, Locked, flyer Slipped in.

11 Rector Street, Locked flyer inserted.

98&100 Greenwich Street, Locked flyer inserted.

23 Thames, Nasdaq

86 Trinity Place Nasdaq Mr Thomas Long building Engineer air test done flyer given.

113-123 Greenwich Street, Air Test done Mr Thomas Long building Engineer flyer given.Nasdaq.

114 Greenwich Street, Building locked flyer inserted.

75 Greenwich Street, Locked, flyer inserted.

81 Trinity Place, Flyer given.

- 67 Greenwich Street, Building locked flyer inserted.
- 88 Greenwich Street, Air monitoring, Michael Riegler-Owner, flyer given.
- 76 Washinton Street, Locked,flyer inserted.
- 78 Washington Street, Flyer goiven
- 80 Washington Street, Flyer given.
- 90 Washington Street,Bank of ny. Building closed,flyer inserted.
- 33 Rector Street, Goldman pls. (212-925-2415) locked, flyer inserted.
- 40 Rector Street, Friday, air testing done,filters changed, Jack Meyer-fire Safety director.
- 38 Rector Street, Building locked, flyer slipped.
- 16 Rector Street, locked flyer slipped.
- 14 Rector Street, locked flyer slipped in.
- 2 Rector Street, flyer given.
- 941/2 Greenwich Street, flyer given.
- 96 Greenwich Street, locked, flyer inserted.
- 98 Greenwich Street, locked, flyer inserted.
- 100 Greenwich Street, locked flyer inserted.

Inspectors:Ramasubbu Rammohan and Sam Nebedum

**The following Buildings on Broadway were inspected
by Mr. Plumptre and Okello**

September 22, 2001

182	183
180	181
176	179
170	177
160	175
150	173
140*	115 Inspected- Mr. Jan Wolkowicz of Crmco Environmental on site.
120*	111 Inspected-Clean up completed. Mr. Kevin Hoey-Bnilding Manager.
100	71
80	65 Inspected- Clean up in Progress. Mr. Oleg Koledenkor
52	61
42*	55*
32	47
26	45
2*	39
	29
	25*
	5
	1

Note.

- 1. The * buildings were cleaned up by in-house workers and air monitoring was requested from the building representatives.**
- 2. DEP Flyers were given and left in the entire listed buildings.**
- 3. Air Monitoring results were requested from building 115 and 65 for the ongoing cleanup including completed 111 Broadway.**

- 4. Flyers were left underneath the doors of all locked entrances of contaminated stores from 180 Broadway to 140 Broadway except a Burger King store at 182 Broadway which the flyer was given to the store manager.**
- 5. Most of the buildings were without building Engineers and Flyers were left with the security.**
- 6. Most of the offices from 140 Broadway to One Broadway have been reoccupied for businesses and were running with outside generators.**
- 7. Almost all the building on the entire street were still with dusts on the outside windows.**

09/22/01

Buildings Visited on Broadway

- 196 Building was locked and information flyer was inserted through the shutter**
- 198 Met maintenance worker Al Myrie and gave the information flyer**
- 200 Modells Sporting – Locked and flyer was inserted**
- 202 Portabella Garments- Information flyer given to a worker**
- 204 Locked- Information flyer inserted**
- 150 Fulton Street- Mrs Field –restaurent –workers washing counters, information flyer given to the manager.**
- 195 Front façade washing was ongoing. Information flyer was given to the Director of facility, who doesn't know the details of any ACM clean-up and said will inform the individual who handles Asbestos projects for the building.**
- 197 Church- Information flyer was given to father, who claimed that someone was working on arranging the contractor. Air monitoring was advised.**
- 222 Pinnacle Environmental already completed a major clean-up in various floors and air monitoring results were requested. Spoke to the Engineer Jim Tinesky. The clean-up was started on 9/13/01.**
- 217 As per Property Manager Scott Laylor, bulk sampling was collected on 10th and 8th floor roofs and 2% ACM detected on the 10th floor. AA Services was performing the clean-up on the 10th floor roof. Air results requested.**
- 225 Tony Velez, Assistant Super- Information flyer was given**
- 233 Woolworth Building- Vincent Baffa, Building Manager- Air samples collected several occasions after the WTC attack and no positive readings found. Recently samples collected last night and results were unknown. Sampled locations –lobby, 9th, 14th floors. Information flyer was given to Mr. Baffa and air sampling was requested.**
- 250 John Migeo, Building Engineer- Air sampling was conducted couple of days ago and clearance levels were met. Building Owners ,Amtrust (917) 939-2504. Information flyer was given and air results requested.**

- 253 Information flyer was given to the security guard and no one was in the building.**
- 258 Jhonny, the engineer, the information flyer was given.**
- 261 Building was locked. As per the notice posted on the entrance door, air samplings conducted throughout the building. Tudor Realty (212) 557-3600**
- 270 As per the security guard, AES performed a clean-up and don't know the exact dates. Information flyer was given to the guard and was advised to handover to the building manager.**

Inspectors: Ramasubbu Rammohan and Dinesh Shah

World Trade Center Emergency Response Inspections conducted on September 23, 2001 – Carlstien Lutchmedial

310 Greenwich St – Met with Superintendent Vincent Hernandez (212) 962-3530. He said that the building did not get any of the debris from the WTC incident. We were unable to get into any of the apartments with windows. Inspection of the roof revealed that it was free of any suspect material. I was able to look into the terraces of the south side of the building from the roof and did not see any suspect debris. Also the surrounding yard of the building did not have any suspect material.

100 Church Street – At the building I met Frederick B. Maier and John Leonard of LVI Environmental Services Inc and Joseph Cianci of Ambient Group. Cianci said that he was currently sampling each floor and taking ten bulk samples per floor. They said they were there to provide the owner with a bid for the clean up. LVI said their plan was to put the entire building under negative air and do the cleanup. I also spoke to Marc Stein {(212) 971 0111 xt 177} the building owner. He said that he was presently accepting bids from various contractors. He estimates that the clean-up project should not take more than three weeks.

217 Broadway – I met Scott Lawler the Property Manager. He said that at this time the contractor AA Services did not get approval to bring their truck into the area so the cleanup did not start. AA is first scheduled to do the roof then the interior of the building.

222 Broadway – Building locked.

90 West Street/140 Cedar Street/21 Albany Street- Met with James Hall of Trade Winds Environmental Restoration Inc. he informed me that they were hired to pump out the water from the basement of the building. This building did not have power at this time. The water was being pumped into the sewer.

40 Rector Street – I met Joe Kelleher the Property Manager. At this time PAL was on site cleaning the roof and changing HVAC filters. He said that they were awaiting the insurance adjusters to evaluate the damage and hopefully Monday September 23, 2001 the clean up can begin.

33 Maiden Lane – the Chief Engineer Walter Sheering was on site. He took me to the 5th floor where I met Kenneth W. Houseman of Quest – 3rd party air monitor. Houseman informed me that they were currently working on the second floor. We proceeded to the second floor where I observed workers HEPA and wet wiping surfaces. The windows on the floor 2, 3, & 5 are sealed windows. Houseman explained that the cleaning they were doing were to err on the safe side because of the positive sample obtained. This sample most likely came from debris that was tracked into the building. I did not see any suspect debris of any of the surfaces.

104 Washington Street – this building house the 1st Precinct support unit. I met with Linus Armstrong the Director of Public safety. He said that their building is sealed and the only place that was contaminated was the lobby. He used his cleaning staff to clean up affected surfaces. I informed him that he should also conduct some air monitoring. He agreed to do so.

115 Broadway – I met handler supervisor Michal Batt # 80213 of Comco Asbestos removal Inc. and Oleg Berezhniy # AH 0017881 the 3rd party air monitor of CTSI. Comco presently had 60 workers on site. They had finished cleaning the 1, 2, 3, 4, 13, 16, 17, floors. They were preparing to clean the 14th and 15th floors. Inspection revealed that there was heavy contamination on floors where the windows were open. On other floors there was little or no debris. CTSI was informed to fax the clearance results to DEP. The contractor is using two shifts for the clean up.

1 Liberty Plaza – Met with Marek Jendrosa handler supervisor # 82788 of ETS. He said that he had 80 workers on site. Also on site was PAL and CTS. The 3rd party air monitor on site was Hillman Environmental. In total there were about 150 asbestos workers. Work was being done throughout the building. A lot of windows facing the WTC had been blown out and even though the floors were gross cleaned it still appeared contaminated. Hillman said they were doing a gross clean up first then were going to do a complete final clearance in the end. Even though some of the floors were cleaned the windows, which were broken, were not sealed. As a result dust were still coming into the building from the work ongoing at WTC.

180 Broadway - I met the security guard who informed me that the owner hired a company called NITRO to perform the clean up. Nitro is not an asbestos Contractor. This building has houses a Ranch ! fast food outlet and heavy contamination could be seen on the inside. The security officer also informed me that there were some office spaces with heavy contamination in them. He did not have keys to the spaces. He was given the DEP 24 hour number and asbestos clean-up recommendations for cleaning.

World Trade Center Emergency Response Inspections conducted on September 24, 2001 – Carlstien Lutchmedial

100 Church Street – At the building I met two workers who identified themselves as employees sub contracted by Global Crossing (telephone Company) to run a generator to keep their switching gear in operation. They said that the room they occupied on the first floor was cleaned by their company. Also that the owner made them sign a waiver of all liabilities before they could occupy the space. I was unable to locate any building rep on site.

99 Church Street – on site was Robert Ryan and Tadeusz Lukasik handler supervisor # 80809 of Pinnacle Environmental Corp. they said that they were doing a complete interior cleaning of all 11 floors. They had already completed the exterior of the building. A worker decon was set up on the first floor. Inspection revealed that most of the floors were completed. ATC was on site conducting air monitoring. Ryan was informed to send the final clearance to DEP.

90 Church Street – met Postal Police officer Bellamy in front of the building. He said that there was no one in the building. I went into the lobby and noticed that power had not been restored to this building. Bellamy said that from time to time a crew comes in and removes mails from the building.

222 Broadway – Clean-up already completed at this building.

170 Broadway - Clean-up already completed at this building.

88 Greenwich/19 Rector St. – Clean-up of exterior being done by Pinnacle Environmental. Work is expected to be completed today.

Battery Park -South Tower next to American Express Building clean in progress.

40 Rector Street – Met with Joe Attanasio of Milro Restoration (516) 379-6100. He said they were hired by the owner to clean the entire building. His company was not an asbestos company. No air monitoring was being done. At this time they had just started work on the 8th floor.

Bob,

To date we have information from 239 Bldg. Krish/Penny have done a fantastic job in distilling the information down to a user friendly Summary Sheet (see attached). This summary sheet will also be shared with Downtown Help Line so that they may screen callers who are not so interested in a lot of detail info. Also we could put up on DEP's website if Joel/Pamela want. Also, reports from owners are still coming in.

As of 6:05 38 calls were logged into the Hot Line, we have returned info back on 7 cases referred to DEP. Not sure of the 38 what % is DEP. Will find out in AM.

Feel better
mz

Owner/Management Actions Based on Reports to NYCDE

Pg 1 of Summary Sheet

Address	AKAs	InteriorDebris	GeneralCleanUp	ACMCleanUp	ACP7Form FiledBulk	Air
300 ALBANY STREET	Hudson View West		Yes			
21 BARCLAY STREET	WOOLWORTH BLDG.					Yes
125 BARCLAY STREET	149-153 West Street				Yes	Yes
50 BATTERY PLACE	South Cove Plaza		Yes		Yes	Yes
70 BATTERY PLACE						Yes
99 BATTERY PLACE	Liberty View		Yes		Yes	Yes
24 BEAVER STREET		No			No	No
5 BEEKMAN STREET	119-133 Nassau Street, 10 Theater Alley	No				
52 BEEKMAN STREET	69 Gold St., NYU Downtown Hospital, 170 William St.		Yes		Yes	Yes
117 BEEKMAN STREET	220-222 Water Street, Seaport Park Condo.					Yes
15 BROAD STREET	23-33 Wall Street, 11-19 Broad Street	No	Yes		Yes	Yes
18 BROAD STREET	8-18 Broad Street, NY Stock Exchange					
11 WALL STREET	NY Stock Exchange, 9-21 Wall St., 2-16 Broad St., 6 New					
15 BROAD STREET	43 Exchange Place	No	Yes		Yes	Yes
15 BROAD STREET	55 Exchange Place	No	Yes		Yes	Yes
25 BROAD STREET	44-60 Exchange Place, The Exchange					
50 BROAD STREET	46-50 New St				Yes	Yes
55 BROAD STREET	33 Beaver St	No	Yes		No	No
60 BROAD STREET	25 Beaver Street, 52-56 New St., 15-27 Beaver St.		Yes		Yes	Yes
1 BROADWAY	1-3 Greenwich Street, 1 Battery Place		Yes		Yes	No
11 BROADWAY	5-11 Greenwich Street				No	Yes
25 BROADWAY	13-39 Greenwich Street, 1-9 Morris Street	No			No	Yes
29 BROADWAY	1-9 Trinity Place/2-6 Morris Street	No	Yes		No	No
47 BROADWAY	23 Trinity Place	No	Yes		Yes	
55 BROADWAY	4 Exchange Place, 1 Exchange Plaza, 27-31 Trinity Place		Yes		Yes	Yes
61 BROADWAY	33-41 Trinity Place	No	Yes		Yes	Yes
75 BROADWAY	Trinity Church					
65 BROADWAY	65 Broadway/American Stock Exchange				Yes	Yes
71 BROADWAY	1-3 Rector Street/51-53 Trinity Place	No	Yes		No	Yes
120 BROADWAY	70-84 Cedar Street, 15-25 Nassau St. 2-16 Pine Street		Yes	Yes	Yes	Yes
111 BROADWAY	2-10 Thames St/91-95 Trinity Place		Yes	Yes	Yes	Yes
115 BROADWAY			Yes	Yes	Yes	No
140 BROADWAY	70 Liberty Street		Yes	Yes	Yes	Yes
170 BROADWAY	2-4 Maiden Lane		Yes	Yes	Yes	Yes
179 BROADWAY			Yes		Yes	Yes
181 BROADWAY			Yes		No	No
196 BROADWAY			Yes			
217 BROADWAY	The Astor Building, 2-10 Vesey Street		Yes	Yes	Yes	Yes
225 BROADWAY			Yes		Yes	Yes
229 BROADWAY	Woolworth Building, 2-20 Park Place, 1-19 Barclay Street					Yes
250 BROADWAY	2-4 Murray St. 1-7 Park Pl, 239-247 Broadway					Yes
270 BROADWAY	86 Chambers St, 80 Chambers St, 269-271 Broadway				Yes	Yes
277 BROADWAY	277 Broadway, 71-73 Chambers Street					
75 CHAMBERS STREET			Yes		No	No
79 CHAMBERS STREET	59-63 Reade St		Yes		No	No
92 CHAMBERS STREET			Yes		No	No



**Department of
Environmental
Protection**

59-17 Junction Boulevard
Corona, New York
11368-5107

**Joel A. Miele Sr., P.E.
Commissioner**

**Robert C. Avaltroni
Deputy Commissioner**

**Bureau of
Environmental Compliance**
Tel (718) 595-4418
Fax (718) 595-4422

Air Sampling Advisory for Asbestos

*The following advisory was prepared to assist
building owners/tenants with the performance of air sampling for asbestos.*

Persons who perform air sampling must possess valid New York State Asbestos Project Air Sampling Technician Certificates. Air sampling analysis must be performed by a laboratory with ELAP accreditation.

A minimum of five representative samples should be collected. In addition to these 5 samples, one representative area sample should be collected for every 5,000 square feet above 25,000 square feet of floor space. The area must be dry before sampling.

The re-occupancy or clearance air monitoring is considered satisfactory when every PCM analysis sample is less than or equal to 0.01 f/cc or every TEM analysis sample is less than 70 s/mm².

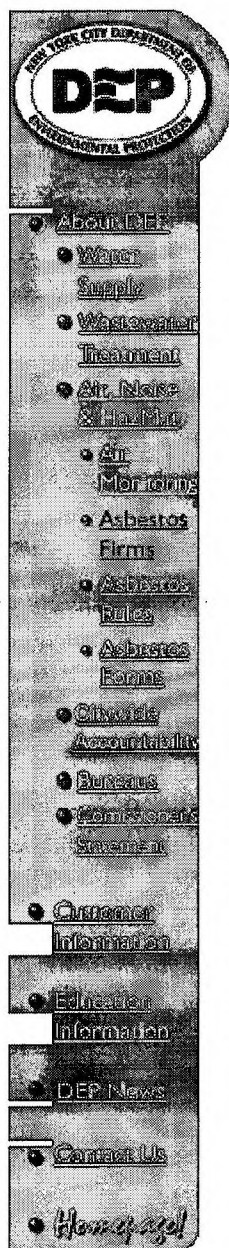
PCM samples exceeding the 0.01 f/cc should be analyzed with TEM analysis to determine whether the measured fibers are asbestos fibers. Additional clean-up activities are necessary for re-occupancy if the levels are exceeded.

For additional information regarding air sampling, please refer to the Asbestos Rules. A copy is posted on the Department's web page.

If you have any questions, please call the Asbestos Control Program or contact the Department of Environmental Protection's complaint center at (718) DEP-HELP (337-4357). Help Center operators will refer your call to Asbestos Control Program staff.



(718) DEP-HELP



THE CITY OF NEW YORK

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Air, Noise and Hazardous Materials

Certified Asbestos Investigators, Contractors and Firms

- ▶ [Certified Asbestos Investigators](#)
- ▶ [Asbestos Remediation Contractors](#)
- ▶ [Air Monitoring Firms](#)

Certified Asbestos Investigators

DEP does not provide recommendations or referrals. The NYC DEP certifies over 300 asbestos investigators per year. Certificates are valid for two years and the application for renewal must be received 60 days prior to the expiration date. The individuals listed here have agreed to the listing. While selecting an asbestos investigator, the ALCP suggests reviewing the individual's violation history (if one exists). Violation histories may be obtained within 48-72 hours by faxing a request to (718) 595-3749.

Abdul, Basir	(347) 432-8498/(718) 253-7646	Cert. # 83439 Exp. 08/25/03
Akeloko, Emmanuel	(718) 862-4041	Cert. # 80066 Exp. 1/28/03
Atanasoski, Boro	(201) 438-0154	Cert. # 81003 Exp. 6/24/02
Azhazha, Slava	(718) 769-6105	Cert. # 83912 Exp. 3/9/03
Bader, Howard A.	(212) 475-4122	Cert. # 85307 Exp. 7/18/03
Basri, Mohammad R.	(631) 367-1837	Cert. # 79178 Exp. 10/28/02
Bayat, Soudabeh	(718) 317-8315	Cert. # 81778 Exp. 3/23/03
Boggi, James R.	(973) 334-5641	Cert. # 85447 Exp. 7/13/03
Bova, Joseph	(718) 234-7437	Cert. # 81535 Exp. 9/3/02
Brzoza, John W.	(718) 441-9010	Cert. # 82565 Exp.

Asbestos Contractors and Air Monitoring Firms

Page 2 of 10

		1/11/03
Buljovic, Sloboda	(718) 456-9836 & (917) 572-9874	Cert. # 84271 Exp. 9/20/03
Cacchione, Paul	(718) 229-2683	Cert. # 75048 Exp. 10/20/01
Cali, Alfio J.	(718) 376-8926	Cert. # 85710 Exp. 11/1/03
Carey, Jennifer L.	(212) 420-8119	Cert. # 80026 Exp. 2/23/02
Carvalho, Robert C.	(201) 714-9858	Cert. # 85052 Exp. 5/28/03
Chabowski, Tomasz	(718) 349-6212	Cert. # 79362 Exp. 1/3/02
Chan, Howei	(914) 949-8994	Cert. # 79179 Exp. 12/29/01
Cheung, Aaron C.	(516) 935-6592	Cert. # 83483 Exp. 1/20/03
Chibbaro, Anthony	(718) 430-4150	Cert. # 82686 Exp. 9/16/02
Clark, Frank D.	(631) 586-1745	Cert. # 79696 Exp. 7/11/02
Cohen, Brad E.	(516) 681-2116	Cert. # 75446 Exp. 1/18/02
Concepcion, Hermogenes D.	(212) 975-2615	Cert. # 77136 Exp. 4/19/02
Coon, Ernest	(914) 439-6513	Cert. # 81714 Exp. 6/14/02
D'Alessandro, Sebastian M.	(718) 259-2644	Cert. # 84010 Exp. 3/24/03
Dadarkar, Vinod K.	(718) 961-2456	Cert. # 83576 Exp. 6/16/03
Devito, Joseph P.	(973) 895-3592	Cert. # 85051 Exp. 4/17/03
Diaz, Dario S.	(718) 239-0124	Cert. # 79072 Exp. 4/6/02
Domagala, Wojciech M.	(646) 772-1163	Cert. # 76954 Exp. 4/17/02
Downs, Jason G.	(212) 922-0077	Cert. # 83611 Exp. 11/12/03
Drabkin, Sergey	(718) 266-5754	Cert. # 81311 Exp. 7/27/02
Drozдов, David	(212) 290-6323	Cert. # 81779 Exp. 10/12/02
Drozдов, Mark	(212) 290-6323	Cert. # 79907 Exp. 9/9/02
Eng, Joseph	(718) 428-8969	Cert. # 82782 Exp. 12/1/02

Asbestos Contractors and Air Monitoring Firms

Page 3 of 10

Escalona, Victor	(718) 792-2832	Cert. # 78125 Exp. 6/11/02
Family, Abbas	(631) 427-5852	Cert.# 76955 Exp. 3/22/02
Fishman, Roman	(212) 353-8280	Cert. # 82431 Exp. 3/21/03
Fleischmann, Douglas F.	(201) 891-6851	Cert. # 83771 Exp. 2/6/03
Friedman, Alan	(914) 366-6611	Cert. # 83358 Exp. 2/12/03
Gardner, Robert	(973) 743-0465	Cert. # 79016 Exp. 11/07/01
Gargiulo, Paul C.	(718) 259-1404	Cert. # 84308 Exp. 7/17/03
Germain Robert F.	(914) 668-7086	Cert. # 84454 Exp. 7/9/03
Gianotti, Stephen G.	(718) 497-4354	Cert. # 83485 Exp. 1/14/03
Giorgio, Ralph J.	(718) 667-8500	Cert. # 77544 Exp. 2/10/02
Gogos, Stacey	(516) 328-1194	Cert. # 81824 Exp. 7/28/02
Guzdek, George	(215) 638-4338	Cert. # 84012 Exp. 9/23/02
Higgins, Andrew Scott	(973) 764-2276	Cert. # 76212 Exp. 11/9/01
Hinkley, Paul K.	(212) 285-2108	Cert. # 76956 Exp. 11/20/01
Hirshenson, Edward	(631) 758-0268	Cert. # 79310 Exp. 6/2/02
Hochman, P.E., Jay B.	(914) 576-0841	Cert. # 79785 Exp. 5/15/02
Hurni, Andre M.	(718) 289-5122	Cert. # 77618 Exp. 4/13/02
Kan, George	(718) 796-4761	Cert. # 85328 Exp. 8/19/03
Kantor, Lee N.	(718) 491-0804	Cert. # 83378 Exp. 3/12/03
Kapus, Marvin	(914) 637-7505	Cert. # 77138 Exp. 11/9/01
Kerbel, William S.	(718) 892-4679	Cert. # 85266 Exp. 7/30/03
Kim, Moon B.	(718) 661-9373	Cert. # 85709 Exp. 8/29/03
Kingsbury, Robert C.	(908) 686-0044	Cert. # 84921 Exp. 5/26/03
Kornreich, Lawrence D.	(973) 398-8183	Cert. # 79331 Exp. 1/31/02

Asbestos Contractors and Air Monitoring Firms

Page 4 of 10

Korsnes, Magne R.	(718) 876-7383	Cert. # 77547 Exp. 1/2/02
Kraft, Karen M.	(212) 213-8700	Cert. # 83064 Exp. 9/13/03
Krigsman, Ronald	(718) 471-4089	Cert. # 76507 Exp. 10/28/01
Krimgold, Efim	(718) 437-5331	Cert. # 77942 Exp. 4/19/02
Kristensen, James R.	(631) 581-7897	Cert. # 80568 Exp. 09/23/02
Kukreja, Ved P.	(718) 863-0045	Cert. # 81400 Exp. 8/15/02
Lacommare, Michael M.	(914) 337-0229	Cert. # 85311 Exp. 7/15/03
Langhorne, Rudy W.	(917) 373-6850 or (732) 237-0032	Cert. # 85713 Exp. 8/20/03
Lashley, Carl A.	(718) 812-4862	Cert. # 83675 Exp. 1/27/03
Lee, David	(718) 631-8275	Cert. # 79017 Exp. 10/17/02
Leventis, Stephen C	(201) 944-0735	Cert. # 85578 Exp. 2/14/03
Lewin, Robert F.	(917) 882-1947	Cert. # 82531 Exp. 11/2/02
Mahmud, Pervaiz	(718) 888-1887	Cert. # 78507 Exp. 3/18/02
Maniscalco, Richard J.	(631) 331-3811	Cert. # 84774 Exp. 6/24/03
Manouselis, Demetrius	(718) 729-5671	Cert. # 78213 Exp. 1/1/02
Margolin, Alan C.	(212) 867-6720	Cert. # 79364 Exp. 7/31/02
Marlow, Robert K.	(212) 677-3771 C (917) 846-2426	Cert. # 81715 Exp. 7/31/02
Masucci, Thomas	(718) 448-3400	Cert. # 79074 Exp. 11/15/01
Mate, Solomon	(718) 671-5266	Cert. # 83316 Exp. 3/5/03
Mbaye, Abdou	(201) 747-8379	Cert. # 85715 Exp. 9/16/03
McCarthy, William	(631) 261-4484	Cert. # 78662 Exp. 07/ 9/02
Merritt, Charles A.	(718) 767-0923	Cert. # 74556 Exp. 10/12/01
Mick, Kevin	(718) 494-0447	Cert. # 80180 Exp. 3/6/03
Milteer, Fred C.	(718) 794-1708	Cert. # 79987 Exp. 3/12/02

Asbestos Contractors and Air Monitoring Firms

Page 5 of 10

Mitchell, P.E., Richard L.	(646) 252-3702	Cert. # 84846 Exp. 4/16/03
Molloy, Laurence B.	(212) 929-8080	Cert. # 76458 Exp. 1/17/02
Moran, Mark S.	(518) 257-3313	Cert. # 76109 Exp. 1/21/02
Morse, Roger G.	(518) 283-7671	Cert. # 75021 Exp. 10/7/01
Moulana, Easa M.	(516) 365-6244/(516) 456-6147	Cert. # 81401 Exp. 7/7/03
Murdison, Richard	(516) 984-4315	Cert. # 81463 Exp. 5/15/03
Nakhumovich, Mark E.	(212) 353-8280	Cert. # 82604 Exp. 9/4/03
Namath, Edward G.	(212) 545-1855	Cert. # 85801 Exp. 9/27/03
Nassry, Enayat	(917) 382-0470 / H (856) 667-4522	Cert. # 81127 Exp. 7/4/03
Nelson, David A.	(703) 750-3000	Cert. # 85509 Exp. 5/13/03
Nwokoye, Augustine C.	(718) 655-3743	Cert. # 79181 Exp. 5/12/02
Olojede, Olurotimi A.	(718) 327-8116	Cert. # 83403 Exp. 11/22/02
Owoh, Francis	(718) 390-0914 or (877) 244-1752	Cert. # 74118 Exp. 9/26/01
Palermo, Robert J.	(718) 332-4119	Cert. # 78284 Exp. 3/25/02
Parisi, Thomas	(800) 626-9912	Cert. # 83216 Exp. 12/15/02
Pasaturo P.E., Joseph A.	(718) 921-0430	Cert. # 79366 Exp. 11/6/02
Pawlik, Mark	(917) 653-6096	Cert. # 79367 Exp. 2/16/02
Perel, Jacob	(917) 406-8978	Cert. # 76023 Exp. 2/28/02
Pevzner, Leonid A.	(917) 373-8024 C (718) 256-0260	Cert. # 80015 Exp. 9/15/02
Pevzner, Mark V.	(212) 349-4616 x1145	Cert. # 83578 Exp. 3/8/03
Pierce, Christopher J.	(201) 794-6900	Cert. # 76777 Exp. 12/7/01
Pirnat, Raymond M.	(973) 209-0988 /(973) 366-4660	Cert. # 74982 Exp. 11/15/01
Porter, Michael E.	(212) 631-9000	Cert. # 81632 Exp. 10/11/02
Rasmussen, Timothy J.	(201) 262-4141	Cert. # 84054 Exp. 2/27/03

Asbestos Contractors and Air Monitoring Firms

Page 6 of 10

Rathgeb, John	(212) 643-8548	Cert. # 77843 Exp. 3/19/02
Rivers, Byron R.	(718) 560-4123	Cert. # 79910 Exp. 10/7/02
Ross, William D.	(646) 235-3976	Cert. # 80147 Exp. 3/12/2002
Rubin, Semen A.	H (718) 996-3034,O (718) 863-0045 or C (917) 690-1154	Cert. # 81781 Exp. 2/2/03
Rutstein, Marc E.	(914) 906-4153 / (845) 638-0611	Cert. # 84599 Exp. 5/14/03
Saha, Ashutosh	(718) 278-2421	Cert. # 83359 Exp. 1/29/03
Saha, Prakash K.	(212) 922-0077	Cert. # 81437 Exp. 12/08/02
Savarese, William	(914) 946-3857	Cert. # 81537 Exp. 7/2/02
Scantlebury, Patrick E.	(718) 453-0199	Cert. # 79019 Exp. 6/4/02
Scarano Jr, Robert M.	(718) 398-4338	Cert. # 79368 Exp. 9/23/02
Shamailov, Yuriy	(718) 259-3308	Cert. # 75357 Exp. 1/1/02
Shaw, Leroy	(718) 918-0136	Cert. # 83772 Exp. 4/5/03
Shereshevsky, Leonid	(201) 794-6900	Cert. # 76780 Exp. 3/3/02
Sherman, Steven Jay	(800) 850-9230	Cert. # 79464 Exp. 1/21/02
Silberman, David	(718) 886-3840	Cert. # 83360 Exp. 2/10/03
Singer, Shemon	(718) 437-9600	Cert. # 85148 Exp. 6/14/03
Smoyer, John F.	(609) 652-1833	Cert. # 76509 Exp. 10/21/01
Stracar, Miro	(516) 937-5200	Cert. # 80924 Exp. 5/7/03
Strong, Robert	(212) 689-7468	Cert. # 82783 Exp. 12/7/02
Stumbo, Richard	(914) 906-4155 / (914) 763-6739	Cert. # 79075 Exp. 12/25/01
Sullivan, Kenneth C.	(631) 391-6145	Cert. # 77116 Exp. 10/5/01
Tamargo, Frank	(732) 617-9279	Cert. # 82870 Exp. 12/15/02
Tamayo, Marco A.	(212) 517-2158	Cert. # 83613 Exp. 7/17/03
Tanella, Philip M.	(718) 227-7244	Cert. # 81782 Exp. 2/11/03

Telemaque, Eric M.	(212) 631-9000	Cert. # 83800 Exp. 1/2/2004
Todaro, Saverio E.	(718) 441-7652	Cert. # 82780 Exp. 11/22/02
Traktman, Henry W.	(718) 941-7600	Cert. # 76962 Exp. 12/11/01
Traktman, Robert B.	(718) 941-7600	Cert. # 77305 Exp. 11/14/01
Tsang, Li	(516) 944-9500	Cert. # 84739 Exp. 4/1/03
Ultee, Linda	(212) 832-1134	Cert. # 79645 Exp. 4/29/02
Valentine, Anthony	(201) 569-6708	Cert. # 74310 Exp. 10/26/01
Van Deusen, Hobart R.	(203) 319-0089	Cert. # 85718 Exp. 07/30/03
Vargo, Ronald	(212) 714-5503	Cert. # 85581 Exp. 9/23/03
Vora, Kirit H.	(732) 225-6040	Cert. # 78596 Exp. 12/17/01
Walton, Kelly A.	(908) 862-4301	Cert. # 82785 Exp. 11/15/02
Whang, Dong S.	(718) 888-0802	Cert. # 82801 Exp. 11/10/02
Wilson Jr., Allen T.	(516) 239-4328	Cert. # 76906 Exp. 11/19/01
Wong, Luis C.	(718) 391-2020	Cert. # 82247 Exp. 12/11/02
Yaron, Michael	(212) 697-1484	Cert. # 83580 Exp. 12/9/02

[Back to top](#)

Asbestos Remediation Contractors

DEP does not provide recommendations or referrals. The following list was compiled from the asbestos project notification database. The list contains contractors who have performed ten (10) or more large asbestos abatement projects in the City of New York since January 1, 2001. Violation histories may be obtained within 48-72 hours by faxing a request to (718) 595-3749. A complete list of licensed contractors, or verification of other contractors already hired, is available by contacting the New York State Department of Labor.

4-A GENERAL CONTRACTING CORP	(718)499-1486
A.L.D. MANAGEMENT SERVICES, INC.	(718)429-0680
A.S.A.R. INTERNATIONAL CORP.	(718)832-4699

AAA ENVIRONMENTAL CONTRACTORS	(718)777-1200
AAC ENV CORP	(718)254-0503
ABATECH INDUSTRIES INC.	(908)322-3000
ABATEMENT INT'L/ADVATEX ASSOC.INC.	(718)994-2000
ABC CONSTRUCTION CONTRACTING INC.	(718)729-2501
ADMIRAL ENVIRONMENTAL LLC	(718)416-4000
AFFILIATED ENVIRONMENTAL SVCS NJ, INC.	(201)664-2880
AIR TECH LAB, INC	(718)439-0925
AMC UNITED INC	(973)345-8871
ASBESTOS CORPORATION OF AMERICA	(914)965-5829
A-TECH RESTORATION, INC.	(973)238-9225
AVALA CONTRACTING CO. INC	(973)249-8500
AVLIS CONSTRUCTION CORPORATION	(718)492-2649
BCG RESTORATION OF N.J.INC.	(732)382-2400
BEECO REMEDIATION SERVICES, INC.	(718)349-2289
BENJAMIN KURZBAN & SON CONTROL, INC.	(718)531-2900
CASHEL INCORPORATED	(718)944-6000
COMPLETE ENVIRONMENTAL SERVICES INC	(516)766-7900
COMPREHENSIVE ENVIRONMENTAL SERVICES	(973)478-5755
D&S RESTORATION, INC.	(973)345-8020
D.S.A. SERVICES, INC.	(718)499-2563
DEGMOR INC.	(212)431-0696
EAST COAST HAZ MAT REMOVAL, INC.	(973)345-0022
EMPIRE CONTROL ABATEMENT INC.	(718)961-9404
ETS CONTRACTING, INC.	(718)706-6300
GRAMERCY GROUP, INC	(516)876-0020
HAZARDOUS ELIMINATION CORP.	(516)752-2898
J.R. CONTRACTING & ENVIRONMENTAL CONSULTING INC.	(973)628-9500
KISS CONSTRUCTION INC.	(718)366-2090
KZ & V CONSTRUCTION CORP.	(718)786-1177
LVI ENVIRONMENTAL SERVICES INC	(973)772-3660
M&N GENERAL SERVICES INC.	(718)745-1738
MAYA GENERAL CONTRACTING	(718)401-0068
NATIONAL ABATEMENT CORP.	(718)752-2400
NEW YORK INSULATION , INC.	(718)418-7550
NORTHERN VALLEY CONTRACTING CO INC.	(718)937-4744
PAL ENVIRONMENTAL SAFETY CORP.	(718)349-0900
PAR ENVIRONMENTAL CORP.	(914)369-7500
PINNACLE ENVIRONMENTAL CORPORATION	(718)397-9292

R & R ENVIRONMENTAL CO, INC.	(908)284-8344
SAFEWAY ENVIRONMENTAL CORP.	(718)794-4300
SAJ ENVIRONMENTAL SERVICES	(201)837-7100
SEASONS INDUSTRIAL CONTRACTING CORP.	(718)227-5779
TERMON CONSTRUCTION, INC.	(718)326-8700
TOPLINE CONTRACTING	(718)628-7865
TRIO ASBESTOS REMOVAL CORP.	(718)961-4100
TWO BROTHERS CONTRACTING, INC.	(973)956-8700
XAREN CORPORATION	(800)288-1015

[Back to top](#)

Air Monitoring Firms

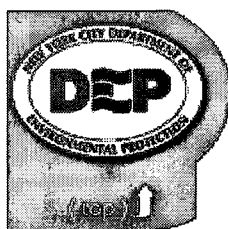
DEP does not provide recommendations or referrals. The following list was compiled from the asbestos project notification database. The list contains third party air monitoring firms who have performed sampling at ten or more large asbestos abatement projects since January 1, 2001. A complete list, or verification of other firms already hired, is available by contacting the [New York State Department of Labor](#).

ADVANCED ENVIRONMENTAL COPR.	(212) 545-1855
AIRTEK ENVIRONMENTAL CORP.	(212) 768-0516
AMBIENT GROUP INC.	(212) 463-7812
APPLIED GEOSERVICES, INC.	(212)868-1113
ATC ASSOCIATES INC.	(212) 353-8280
ATHENICA ENVIRONMENTAL	(718) 784-7490
CENTRAL ENVIRONMENTAL INC.	(718) 293-8727
COLE CONSULTING COORP.	(914)345-6000
CTSI	(732) 729-1800
EMTEQUE CORP.	(212) 631-9000
ENVIRO PROBE INC.	(718) 863-0045
ENVIRONMENTAL HEALTH INVESTIGATION, INC	(973) 729-5649
ENVIROTECHNIQUES	(973) 684-0202
GAC ENVIRONMENTAL	(212)875-9506
GCI	(212) 986-9460
GENESIS ENVIRONMENTAL	(718) 491-3915
HILLMAN ENVIRONMENTAL CO., INC.	(908) 688-7800
HYGIENETICS ENVIRONMENTAL	(212) 244-3443
KAM CONSULTANTS, INC	(718) 729-1997

NY ENVIRONMENTAL & ANALYTICAL LABS	(516) 944-9500
OMEGA ENVIRONMENTAL SERVICES, INC.	(201)489-8700
PUBLIC SERVICE /SAF ENVIRO	(718) 476-9202
ROY F. WESTON OF NEW YORK, INC.	(516) 873-3800
SAFETY ENVIRONMENTAL	(718) 390-0914
TAYLOR ENVIRONMENTAL GROUP, INC.	(516) 358-2955
WARREN & PANZER	(212) 992-0077

[Back to top](#)

Last updated October 30, 2001



Air, Noise and Hazardous Materials

- [Air Monitoring in Lower Manhattan](#)
- [*Certified Asbestos Investigators, Contractors and Firms*](#)
- [Asbestos Rules and Regulations](#)
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**New York City Department of Environmental Protection
59-17 Junction Blvd. 8th Floor, Corona NY 11368**

ALCP World Trade Center Incident Response

Date of Inspection _____

Premise Address: _____

Building _____

Contact _____ Tel: _____ Fax _____

Check List for cleaning

Facade Cleaned yes no ACM present yes no

Roof Cleaned yes no ACM present yes no

Interior Cleaned yes no Specify Floors _____

ACM present yes no Specify Floors _____

Clean Up Completed _____

Contractor _____ Tel _____

Air Monitor _____ Tel _____

Air Monitoring data: PCM TEM

Additional Work Ongoing yes no

Details (eg. Renovation, window replacement) _____

Is the building re-occupied Yes No

Additional

Information _____

Inspector Name: _____ Badge # _____

Inspector Signature _____