

**U.S. Environmental Protection Agency
Sampling Situation Report
Sunday, September 23, 2001 (2:00 pm)**

Fixed Ambient Air Sampling Locations (Asbestos)

- NYC / ER (Sept.19, 10 AM - 8PM)
 - 13 samples (including 1 duplicate) analyzed by PCM showed that 10 of these 13 samples were at or above the OSHA standard (0.01 f/cc) for PCM. Upon confirmatory TEM analysis 2 samples out of 10 were greater than the AHERA standard (70S/mm²). (Note: Sample volumes collected were lower than the recommended volumes. When normalized to 1200 liter volume, 2 samples exceeded the AHERA standard of 70S/mm².)
 - These two samples results were 76.78 and 76.93 s/mm² and were at locations B (Intersection of Church and Dey) and E (Intersection of Liberty and South End Avenue). Both these samples are within the immediately impacted area.

Fixed Ambient Air Sampling Locations (Asbestos)

- NYC / ER (Sept.21-22, 4PM - 4AM)
 - 13 samples (including 1 duplicate) analyzed by PCM showed only 1 of these samples marginally exceeding the OSHA standard (0.01 f/cc) for PCM. Upon confirmatory TEM analysis no exceedance of the AHERA standard (70S/mm²) was noted. (Note: Sample volumes collected were lower than the recommended volumes. When normalized to 1200 liter volume, no samples exceeded the AHERA standard of 70S/mm².)
- New Jersey
 - Sept 20 - all 4 samples showed less than detectable levels

NYC Bulk/Dust Samples

- One sample taken from the Tower 2 Beam on Sept. 21 had non-detectable levels of asbestos

Landfill Air Sampling locations (Asbestos and PM)

- 10 air samples taken on Sept. 22 had no detectable levels of asbestos
- Dust continues to be monitored at the site for dust suppression measures through the use of personal monitors

Direct Reading Instruments

- Nothing of significance identified.

Ambient Sampling & Rector Street Runoff Resampling

- Results from metals, PAHs and TSS analysis showed no exceedances of levels of concern

Metals in Hudson and East Rivers and Rector St. Runoff (mg/L)

Metal	Hudson River Background (GW Bridge)	Hudson River North WTC	Hudson River West WTC	East Hudson River (South WTC St)	Runoff (Rector St) 09/14/01	Rector St. Runoff % GW Bridge Background	Rector St. Runoff % GW Bridge 09/20/01	Midtown Pumping Station	Newtown Creek STP Effluent
Silver	ND	ND	ND	ND	30	10	ND	7.2	ND
Aluminum	410	240	ND	ND	640,000	156,098	1,500	300	ND
Arsenic	ND	ND	ND	ND	140	3,500	19	475	ND
Barium	23	18	17	17	8,600	37,391	60	261	38
Beryllium	ND	ND	ND	ND	78	78,250	ND	ND	ND
Calcium	260,000	290,000	280,000	290,000	270,000	5,500,000	2,115	240,000	92
Cadmium	ND	ND	ND	ND	ND	180	9,000	ND	ND
Cobalt	ND	ND	ND	ND	ND	160	160,000	ND	ND
Chromium	ND	ND	ND	ND	ND	3,000	100,000	23	767
Copper	ND	ND	ND	ND	ND	4,000	8,000	29	116
Iron	390	230	200	200	440	320,000	8,205	1,500	385
Potassium	260,000	300,000	300,000	310,000	290,000	100,000	38	6,200	2
Magnesium	860,000	820,000	960,000	990,000	940,000	990,000	0.38	8,400	1
Manganese	56	40	40	32	66	32,000	57,143	53	95
Sodium	7,200,000	8,300,000	8,300,000	8,500,000	8,000,000	100,000	1	9,500	0
Nickel	ND	ND	ND	ND	ND	910	36,400	8	300
Lead	ND	ND	ND	ND	ND	5,200	29,714	31	177
Selenium	ND	ND	ND	ND	ND	56	1,600	ND	ND
Antimony	ND	ND	ND	ND	ND	470	6,714	34	486
Thallium	ND	ND	ND	ND	ND	100	1,000	ND	ND
Vanadium	ND	ND	ND	ND	ND	790	15,800	ND	ND
Zinc	ND	ND	ND	ND	ND	49,000	24,500	150	3,000
Mercury	ND	ND	ND	ND	ND	9	9,000	ND	ND

* ½ of background detection limit used for calculation when background sample is Not Detected (ND)

NYC Response

Asbestos Air Sampling Results at Fixed Locations

Sampling Date and Time: 10:00 (9/19/01) to 18:00:00 (9/19/01)

7.01

PCM equivalent
+ fibers > .05 counts
+ only asbestos

Sampling Date	Sample No.	Sampling Location	Sample Volume	Matrix	PCM by NIOSH 7400		TEM by NIOSH 7402		TEM (AHERA)			
					f/m ³	f/cc	AF/ANF	Adjusted TEM f/cc	Structures (#)	S/mm ²	S-f/cc	
9/19/2001	01562	A	480	Air	39.49	0.032	5/15	0.015	2	1	18.46	0.0148
9/19/2001	01583	B	480	Air	39.49	0.032	3/15	<0.006	4	1	30.71	0.0247
9/19/2001	NS	C										
9/19/2001	01584	C1	480	Air	20.38	0.016	3/10	<0.006	2	0	12.31	0.0099
9/19/2001	01567	D	480	Air	33.12	0.027	1/4	<0.006	1	0	6.15	0.0049
9/19/2001	01589	E	480	Air	39.49	0.032	3/84	<0.006	2	3	30.77	0.0247
9/19/2001	01590	E DUP	480	Air	45.86	0.037	2/32	<0.006			<6.15	<0.0049
9/19/2001	01591	F	480	Air	16.55	0.013	1/139	<0.006			<6.15	<0.0049
9/19/2001	NS	F DUP										
9/19/2001	NS	G										
9/19/2001	01585	H	480	Air	<7.0	<0.006	0/12	<0.006				
9/19/2001	01586	I	480	Air	17.20	0.014		<0.006			<6.15	<0.0049
9/19/2001	01592	J	480	Air	12.10	0.01		<0.006			<6.15	<0.0049
9/19/2001	01588	K	480	Air	26.11	0.021	1/10	<0.006	1	1	12.31	0.0099
9/10/2001	NS	L										
9/19/2001	01594	N	480	Air	<7.0	<0.006			Waiting for Results			
9/19/2001	01593	M	480	Air	<7.0	<0.006			Waiting for Results			
9/22/2001	NS	P										

NORMALIZATION (x0.2)
TEM (AHERA) f/m³

116.15

76.78

30.78

15.38

76.93

15.38

15.38

15.38

15.38

30.78

Sampling Locations

- A: Intersection of Barclay+West Broadway
- B: Intersection of Church+Day St.
- C: Intersection of Liberty+Trinity
- C1: Intersection of Liberty+ Broadway
- D: Intersection of Greenwich+Albany
- E: Intersection of Liberty+South End Ave
- F: Intersection of Vesey+West St. F DUP
- G: Intersection of Church and Duane
- H: One Chase Plaza
- I: Wall Street+Broadway
- J: Corner of West and Warren
- K: Corner of Albany and West
- N: West Side Highway/ near community college
- M: Intersection of Liberty + Broad
- O: Pier 25
- P: Intersection of Harrison + West

NS: Not sampled

AF/ANF: Asbestos fibers/Non asbestos fibers

Sample volume is below recommended limit of the method

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

NA: not analyzed due to overloading of particulates

NR: Analysis not requested

Day rise 15:47

O = ? issues

ERT: 09/23/01 9:50 AM

NIOSH 7400: Fiber Analysis of Air samples Via NIOSH 7400, Revision 3, Issue 2, 8/15/94

NIOSH 7402: Asbestos Analysis of air samples by Transmission Electron Microscopy

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

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