

EPA Region 2 had positive results from a more sensitive testing method for its own building, and on this basis decided to abate for asbestos

Less sensitive tests, ones used for the rest of Manhattan, were negative for the Region 2 building

But for the results from the more sensitive tests, Region 2 would not have abated asbestos from its building

EPA Region 2 was offered free access to more sensitive testing by Region 8 for the rest of Manhattan but refused

The same, more sensitive test methods were used after the first bombing of the WTC, but Region 2 did not want them this time

EPA had positive results for asbestos in dusts lying on surfaces in its own building at 290 Broadway from a very sensitive test, transmission electron microscopy (TEM). This was a qualitative yes-no test, but is able to detect asbestos in much lower concentrations and is able to detect much smaller asbestos fibers than the older method, PLM.

But for the fact that Region 2 had the results of this more sensitive method, it would have taken no action to clean its building. This is because the results of the other tests, the air tests and the PLM tests of the surface and bulk dusts, were negative.

On the basis of the results of the sensitive test, EPA cleaned the lobby of its building with HEPA vacuum trucks, and also cleaned the lobbies of other buildings in the area. The General Services Administration also cleaned the EPA building, using wet-wiping methods using standard janitorial services. The filters on the air handling equipment were also changed, even though tests showed no detectable asbestos in these filters. EPA employees were “displaced” during these unusual cleaning operations.

The air both outside the entrance to the building, as well as inside the lobby, were monitored for asbestos before and after the cleaning procedures. The test results for 47 air samples were all negative (“no asbestos detected”), except for one air sample which had 25 structures per square millimeter. Region 2 is claiming that this 25 structures per square millimeter is a “safe” level and a “standard.” (See earlier section on air testing standards for a discussion refuting this claim.)

The figure shows graphically the difference in the testing methods used at the EPA Region 2 building, for the rest of Manhattan after the WTC collapse, and what was used after the bombing of the WTC a few years ago.

DIFFERENCE IN TESTING METHODS AND SENSITIVITIES FOR:

- EPA Region 2 building at 290 Broadway
- All of Manhattan and surrounding NYC after WTC collapse
- After the first bombing of the World Trade Center

Air	TEM low sensitivity air tests using transmission electron microscope (TEM) lab instruments	NEGATIVE at Region 2 building, 290 Broadway, inside and outside lobby, except 1 sample out of 47 had 25 structures per square millimeter, below what Region 2 calls "safe"
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Dusts on Surfaces	PLM low sensitivity polarizing light microscopes which can see only larger asbestos fibers and can only reliably give concentrations for 1% or higher	NEGATIVE at Region 2 building, 290 Broadway
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Dusts on surfaces and bulk dusts	TEM high sensitivity transmission electron microscopes which can see the smaller asbestos fibers and can also see them in much lower concentrations in dusts, probably lower than 0.001%	POSITIVE at Region 2 building, 290 Broadway
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Dusts on surfaces and bulk dusts	SEM high sensitivity scanning electron microscopes which can see the smaller asbestos fibers and can also see them in much lower concentrations in dusts, probably lower than 0.001%
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Offered to EPA Region 2 by Region 8 for free for Manhattan after WTC collapse. Also used after first bombing of WTC several years ago

The following are excerpts from a report summarizing the asbestos testing and actions taken at the Region 2 building under contract to the General Services Administration:

On 13 September 2001, air sampling was performed in the building by Phase Contrast Microscopy (PCM), and by Transmission Electron Microscopy (TEM). All of the PCM results were less than 0.01 fibers per cubic centimeter (f/cc), and all of the TEM sample results were No Asbestos Structures Detected (NSD). On 14 September 2001 Stratus Corporation was directed to collect two TEM air samples, and "wipe" samples inside and outside the building lobby, as well as to collect some bulk samples from W A C filters. These samples were collected to determine if asbestos fibers are now present within the dust around the area. After consulting with the laboratory, it was decided that the following types of samples would be collected:

1. Vacuum Samples - These are samples where a normal asbestos air sampling cassette is attached to a pump, and used like a small vacuum cleaner. ... The material collected can then be analyzed for asbestos by Qualitative Polarized Light Microscopy [PLM], and Qualitative Transmission Electron Microscopy [TEM].
2. Tape Samples - This is a sample where the collector uses a piece of clear tape, like scotch tape, to collect the sample. Where surfaces are visibly dirty, the piece of tape is applied to the surface, and then removed. ... The material collected can then be analyzed for asbestos by Qualitative Polarized Light Microscopy [PLM], and Qualitative Transmission Electron Microscopy [TEM].
3. Filter Samples - These samples are generated by cutting a piece of filter material out of the HVAC unit in the building and placing it in a plastic bag for delivery to the laboratory. The material collected can then be analyzed for asbestos by Qualitative Polarized Light Microscopy [PLM], and Qualitative Transmission Electron Microscopy [TEM].

On 14 September 2001, two dust samples were collected outside the building entrance, and three samples were collected inside the lobby. The initial TEM qualitative analysis did find chrysotile asbestos to be present in the dust at all locations inside, and outside the building.

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On 14 September 2001, three samples were collected from the HVAC filters. One sample was collected from AC-1, one sample was collected from AC-32, and one sample was collected from AC-31. No asbestos was detected in any of these three samples by PLM qualitative analysis, or by TEM qualitative analysis.

One of the two TEM air samples collected on 14 September 2001, simultaneous to the "wipe" sampling both yielded results of No Asbestos Structures Detected (NSD). The other sample did detect asbestos, as was collected inside the lobby, by the West wall.

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After the discovery of asbestos in the lobby of the building, the EPA informed the building management, that the EPA would be cleaning the lobby areas of all the buildings in the area. Additionally, building cleaning personnel also began performing cleaning inside the building lobbies.

On 16 September Stratus was requested to begin a regime of continuous TEM air sampling at the Duane Street entrance, the only operational entrance to the building. Initially, two samples were collected outside the Duane Street entrance, and two samples were collected inside the Duane Street entrance. ... On 19 September 2001 an additional two sets of samples were collected, and samples were taken at the air intake location to some HVAC systems at this time.

From 16 September through 19 September 2001, a total of 47 TEM air samples were collected at this site. Except for three samples, all results were No Structures Detected. Two of the other samples were overloaded, and the lab performed a qualitative scan on the sample. This means that particulate matter on the samples prevented the lab from accurately performing an analysis on the sample, so they had to declare it overloaded. The qualitative scan was then performed to see if any asbestos fibers could be found. On both overloaded samples, no asbestos structures were observed.

One sample collected outside the entrance during the morning of 17 September did find asbestos in the sample. The value for this sample was 0.003 structures per cubic centimeter [equivalent to] 25 structures per square millimeter. This reading is considered a low reading, and would be an acceptable reading for post abatement sampling after an asbestos abatement project.

[Stratus Corporation (October 5, 2001) Asbestos Emergency Monitoring Report at 290 Broadway after the World Trade Center Disaster, Final Report. Made available by EPA Region 2 in response to a January 3, 2002 Freedom of Information Act request by the New York Environmental Law and Justice Project. Posted at <http://www.nyenvirolaw.org/PDF/EPA-FOIL-scannedOn-2-27-02.pdf>