

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 on or in the vicinity of the debris pile to characterize potential and actual occupational 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
 - Most samples indicated less than 1% asbestos (2 contained between 1 and 3% asbestos)

Crystalline Silica

- 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

- 6 personal and 11 area air samples were collected by NIOSH investigators
 - Personal sample 8-hour time-weighted average concentrations were below 0.10 fibers/cc as determined by PCM
 - 3 personal samples were analyzed by TEM; all were below 0.05 fibers/cc
 - Most area sample results were below 0.030 fibers/cc (1 was 0.12 fibers/cc)
- 26 personal and 4 area air samples were collected by NYDOH contractors
 - Personal sample 8-hour time-weighted average concentrations were below 0.05 fibers/cc as determined by PCM
 - 22 personal samples were analyzed by TEM; most were non-detectable (4 were <0.016 fibers/cc)
 - Area sample results were below 0.04 fibers/cc as determined by PCM

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

Freon 22

- 5 area air samples were collected for Freon 22
 - Concentrations of Freon 22 on all samples were below detectable limits

Metals

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

Total Dust

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

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
- 19 air samples were collected with charcoal adsorbent tubes
 - Concentrations of VOCs on all samples were below detectable limits

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