EPA Response to FEMA on World Trade Center Monitoring and Cleanup
February 26, 2002

A) Summary of Sampling Activities at the World Trade Center (WTC) -

EPA has collected and analyzed roughly 6200 samples for asbestos in air and dust. (At the height of sampling, up to 120 air samples were collected daily.) EPA has also analyzed samples for PCBs, dioxin, PAH, metals, silica, VOCs, and particulate matter. EPA's database includes data from EPA; other federal, state, and local agencies (e,g., NYCDOH, NYSDOH, NYCDEP, NYSDEC, NJDEP ,OSHA), and private organizations. The database is estimated to include results from over 100,000 sample analyses: multiple analyses are conducted on each sample. More than 500 analytes were evaluated.

See the attached matrix which provides data on various entities' data collection and analysis efforts. Although a number of organizations are collecting data and are represented in the matrix, many of these have not shared the data results with EPA.

B. Proposed Approaches for Indoor Sampling at the World Trade Center

1) Complete Sampling Activities for NYCDOH/ATSDR/EPA Pilot Residential Sampling

Thirty residential buildings were sampled to determine whether residents were being exposed to concentrations of materials that may be harmful and to determine whether areas cleaned up posed a public health concern. The air samples from inside the buildings showed no elevated levels of asbestos, however low levels of asbestos and fibrous glass were found in the settled dust in some of the residential units, common areas, and outdoor areas. Both fibrous glass and asbestos were found in residences previously cleaned, however elevated levels were not found in any of the background samples. It is recommended to conduct re-sampling of all the residences with either elevated levels of asbestos or fibrous glass in the dust, after additional cleanup is completed. This sampling event will confirm the effectiveness of cleanup techniques (e.g., wet wipes, HEPA-vacuum) as well as to ensure that the residences are safe.

Approximately 50 of the 98 areas (residential units, common areas, and outdoor areas) sampled during the November/December Pilot Residential pilot would require re-sampling.

Cost Estimates

Conduct Follow-up Sampling at 50 locations:	
Equipment and Laboratory Costs:	$400,000
Travel and Per Diem for Sampling Team:	$ 60,000
On-Site Technical and Community Education Support from ATSDR:	
2 ATSDR Staff Travel and Per Diem Through July 2002:	$140,000
Grand Total:	**$600,000**

2) Provide Sampling and Cleaning for Residences Upon Request

Based on the extensive outdoor sampling efforts, demonstrating that the source of contamination has diminished (e.g. the fires are out, plume mapping), the Indoor Air Working Group comprised of representatives from New York City (DOH, DEP), New York State (DOH) and EPA, does not believe that door-to-door sampling and cleaning would be a cost effective method of addressing current residential concerns. As one of a number of alternatives, we are offering sampling and cleanup (or oversight of cleanup) to residences based on some screening criteria (e.g., was prior sampling conducted, has the residence been cleaned according to recommended NYCDOH procedures).

Based on the 2000 Consensus, there are approximately 11,000 residences in a 10 block radius of the WTC.. We are still trying to determine the number of employees in the 10-block radius. Costs for sampling and cleaning of the public schools within the vicinity of the WTC were not included. The Board of Education has been conducting extensive sampling of the 7 affected schools (i.e., P.S. 150, P.S. 234 and PS and IS 89, 100 Trinity Place, 90 Trinity Place, and Stuyvesant.) since each school was abated by New York City's School Construction Authority. Cleaning included: washing exteriors, wet wiping, HEPA vacuuming, and abating ventilation systems. (Costs for cleaning the outside of ALL buildings is not included, since NYCDEP is handling this matter.)

Range of Sampling Costs - 1,000 Residences to 11,000 Residences
$5 Million to $55 Million

Range of Cleanup Costs - Assume one-half of the residences would require cleanup
$2.5 Million to $25 Million

Costs for Commercial Sampling and Cleanup - TBD

3) Establish a Permanent Information Clearinghouse (Communications Task Force)

Provide detailed cleaning procedures (need to be developed)

Develop a database of all residential sampling (estimates of up to 100,000 sample analyses have been provided to NYCDEP)

Establish an office (i.e., 2 full time equivalents) to respond to community and query database (through debris cleanup)

Estimated Costs: $700,000

4) Establish a Scientific Panel to Address Risk and Cleanup Issues

Estimated Costs: $1M to $2M over 2 years