

***Test and Clean Program Related to the World
Trade Center Collapse***

EPA Office of Research and Development and Region 2

WTC Expert Technical Review Panel Meeting
December 13, 2005

WTC Options Identified in the June 30, 2005 Draft Final Sampling Plan

- with validated WTC signature
- without validated WTC signature

Final Plan

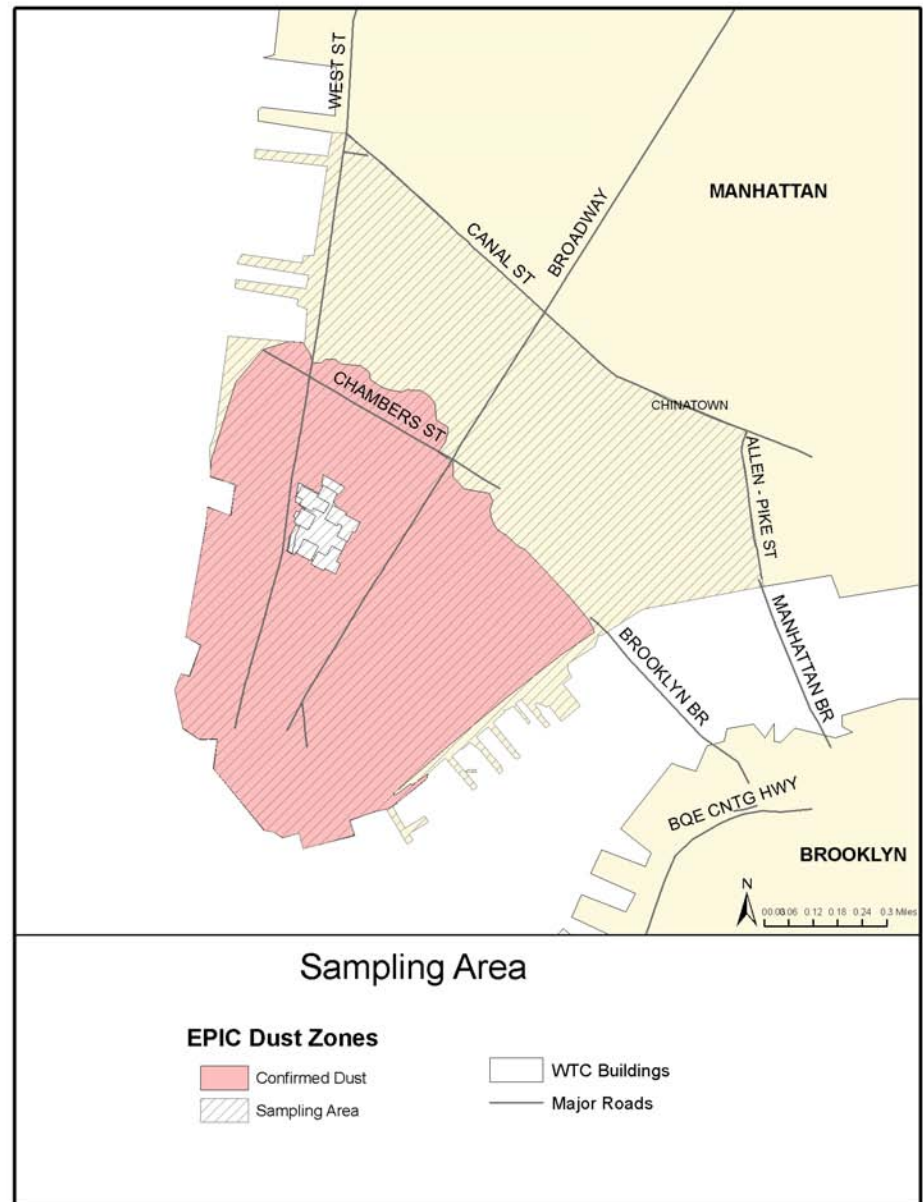
- The peer reviewers of the WTC Signature Study agreed that, from the data provided, the proposed analytical method has not demonstrated the utility of slag wool as a successful WTC signature constituent, nor was it able to distinguish between impacted and background locations.
- Based on the results of this peer review, we plan to move forward with second approach outlined in the June sampling plan.
- The final Test and Clean Program plan posted on the web site provides details on implementation.

Final Plan

- Voluntary Test and Clean Program for residential and commercial areas in lower Manhattan south and west of Canal, Allen and Pike Streets (same area as 2002-3 program).
- Limited to \$7M in remaining FEMA funding

The Sampling Area is shaded and is identical with area where clean and test services were provided in 2002-3.

The red area corresponds to the EPIC area of “confirmed dust.”



Eligibility

- A two-month period will be designated whereby volunteers can seek to have their unit and/or building tested.
- Residents can request testing of their individual apartments.
- Building owners or their representatives can request testing of common and other areas under their control and HVACs.
- Workers and employers can seek workplace evaluation through OSHA and NIOSH channels.

Sampling Locations

“Accessible” areas are defined as areas in which exposures readily occur including “soft” surfaces such as rugs and upholstered furniture, and “hard” surfaces such as doorknobs, walls and table tops. Three or more samples collected in each residence or common area.

“Infrequently accessed” areas are defined as areas in which dust may accumulate but which cause exposure infrequently such as on top of bookshelves, on top of refrigerators, chests of drawers or other tall objects. Three or more samples collected in each residence or common area.

“Inaccessible” areas are defined as areas in which dust may accumulate but which cause exposure rarely such as behind dishwashers or other large rarely moved objects. One composite sample will be taken.

Air samples collected in apartments and common areas. Three or more samples taken in each residence or common area.

Sampling Locations- continued

HVAC Samples

- Outdoor air inlets to HVAC – 1 composite per building
- Air mixing plenums or other spots where dust is likely to accumulate – 1 composite sample per floor
- HVAC outlets discharging to areas where contaminants of potential concern (COPC) are sampled – 1 composite sample per floor
- HVAC filters – 1 composite bulk sample per building

Building Characterization

- **Descriptive information:**
Age, type, cleaning and renovation history since 9/11, building construction, and similar information within units sampled;
- **Attribution information:**
COPC sources within unit (e.g., smokers, fireplace), within building (e.g., asbestos or MMVF insulation, lead based paint) or near building (fryer exhaust);
- **HVAC information:**
Cleaning and filter replacement history, filters and other cleaning devices in system.

Contaminants of Potential Concern

- Asbestos and MMVF sampled in air using modified aggressive sampling approach.
- “Accessible” and “infrequently accessed” areas will be sampled by both wipe (lead and PAH) and microvac (asbestos, MMVF).
- All four COPC sampled in inaccessible areas and HVACs by HEPA vacuum for potential contaminant reservoir identification.
- Different benchmarks for “accessible” and “infrequently accessed” will be used.

Cleanup Benchmarks

“Accessible,” “Infrequently accessed,” and “Air” sampling

| COPC | Accessible | Infrequently accessed | Air |
|---------------------------------|------------|-----------------------|--------------------------|
| PAH, $\mu\text{g}/\text{m}^2$ | 150 | 1,500 | NS |
| Lead, $\mu\text{g}/\text{ft}^2$ | 40 | 400 | NS |
| Asbestos, S/cm ² | 5,000 | 50,000 | 0.0009 S/cm ³ |
| MMVF, f/cm ² | 5,000 | 50,000 | 0.01 f/cm ³ |

Cleanup Decision Criteria

Residence:

- Cleanup will be offered if COPC exceeds cleanup benchmark in one dust or air sample.
- “Inaccessible” samples will not be used for cleanup decisions, but rather to evaluate the potential for these areas being potential sources of contamination, and to correlate with dust/air samples.

Cleanup Decision Criteria

Building:

- Cleanup of individual common areas will be offered if COPC exceeds cleanup benchmark in one dust or air sample.
- HVAC HEPA samples will not be used for cleanup decisions, but rather to evaluate the potential for these areas being potential sources of contamination, and to correlate with dust/air samples.
- HVAC cleaning will be offered if 95% Upper Confidence Level on the mean of all samples in common areas exceed a cleanup benchmark.

Clearance Criteria

- Dust or air sampling will be repeated after cleaning for any COPC that exceeds a benchmark.
- Retesting will not occur if building survey documents a source other than WTC.

Next Steps

- EPA/FEMA IAG will be finalized, allowing the use of the 7 million dollars for this program.
- Based on IAG, contractors will be secured as quickly as possible to implement plan with EPA oversight.
- Region 2 is developing a recruitment strategy to advertise and maximize participation in the program. We encourage the public to suggest ideas for recruiting participants.
- Field work could begin as early as Spring 2006.