

## EPA/NYC Indoor Air Approach - Request to FEMA

May 2, 2002 (1:32PM)

**DEP will procure and put in place the necessary contracts. EPA will administer and supervise the contracts.**

**Overarching Goal:** Reinforce NYC residents and worker populations' confidence and protection regarding any potential significant increased health risks which might result from the exposure in their indoor environments, on a long term basis, to potential compounds of concern resulting from the collapse of the WTC buildings and associated fires. This will serve to expedite and enhance the economic revitalization of Lower Manhattan.

### **Program Components:**

#### **A) Near-term:**

- ▶ Provide cleaning and sampling to residents of Lower Manhattan (south of Canal Street) upon request,
- ▶ provide additional indoor air sampling data for asbestos, collected on a broad geographic basis in Lower Manhattan locations, to evaluate qualitatively the effectiveness of clean up techniques,
- ▶ provide confirmation of effectiveness of the recommended clean up techniques, and
- ▶ assure removal of any remaining debris/dust outside of WTC ground zero area which may still remain, thereby eliminating potential for re-entrainment in the air.

***Timing of Near Term Efforts:*** Begin by early May with EPA hotline. Duration of all efforts may continue through December depending upon public response.

#### **1. Direct Assistance to Residents and Residential Buildings Owners**

***Objective:*** Provide residents and residential building owners, who are concerned that their apartments may have significant debris/dust from the WTC impacts remaining, a means of getting professional contractor clean up support, or other assistance, when requested.

***Program:*** EPA will solicit participation in this direct assistance program through public announcements. An EPA hotline will be established to receive requests from the public as soon as possible. This hotline will be coordinated with already existing hotlines in NYC and EPA to assure that members of the public who call in get properly directed and supported based upon the nature of their questions or concerns.

The assistance will include the following options:

- a) Cleaning within apartments and building open spaces, using trained, certified abatement contractors, followed by air asbestos testing. Contractors' employees

will not be required to use asbestos abatement protective clothing or respirators unless OSHA determines such use is required or unless sampling results exceed airborne standards. An oversight function will be designed into this initiative to assure that when large amounts of visible dust have accumulated in apartments, and/or no cleaning has been performed to date, or any other unexpected circumstance arises that puts employees at risk; no cleaning will take place, or cleaning will immediately be discontinued until EPA, OSHA and the City coordinate to ensure that the employees performing the cleaning use appropriate personal protective clothing and equipment commensurate with the potential for employee risk.

- b) Testing for airborne asbestos within residences or building areas. (Should testing results identify an airborne asbestos problem, arrangements can be made rapidly to have professional clean up done.)
- c) Providing HEPA vacuums to residences who request to perform their own cleaning on an ongoing basis.

*Projected Cost:* Needs to be determined. (The March 11 broad mission assignment submittal was for \$80 million based upon a gross estimate of 5,000 apartments requesting clean up and post testing.) Vacuums cost approximately \$400/each. Apartment cleaning is approximately \$14,000/apartment. Testing for asbestos is approximately \$3,000/apartment. Commercial space cleaning and testing is \$6-8 /sq. foot. Total costs will not be available until the information campaign is complete and EPA can determine the extent of what will be required.

## 2. Targeted Sampling to Determine if There are Occupied Locations Require Additional Cleaning

*Objective:* To determine whether there are levels of airborne asbestos in excess of benchmarked level in a geographic sample of indoor environments in Lower Manhattan.

*Program:* EPA will collect airborne asbestos samples within a variety of residential buildings in different geographic areas of Lower Manhattan, south of Canal Street. Based upon this data, and other data available, EPA and NYC expect to have a better ability to provide a qualitative reassurance that clean ups already conducted by building owners and residents are effective. EPA will identify the locales to be sampled and will work with building owners and residents to obtain access for this sampling. If sampling determines that cleaning is required, EPA, working with NYC, will ensure that the cleaning is undertaken as soon as possible. EPA will publically release the information collected from this sampling as it becomes available on a rolling basis, to keep the public informed of results.

*Projected Cost:* \$3000 per location sampled. Estimate 25- 50 locations.

## 3. Pilot Building Cleaning Effort to Confirm Cleaning Techniques

*Objective:* Evaluate the effectiveness of clean up techniques which have been recommended for apartment clean up, that is, wet wiping, wet moping and use of HEPA filtered vacuums, in preventing inhalation exposure to asbestos and other fibrous materials, as well as other potential indicator compounds.

*Program:* EPA will clean one unoccupied building to confirm and test the techniques.

*Projected Cost:* \$5 million. This cost is higher than in the above efforts because it will involve sampling for several potential indicators of WTC related contamination before work is commenced, will involve use of several modifications of cleaning techniques with post clean up sampling and re-cleaning if necessary.

#### 4. Cleaning of Debris-Laden Unoccupied, Uncleaned Buildings

*Objective:* Since the debris removal from the immediate areas of destruction in the WTC complex is nearing completion, the remaining unoccupied, uncleaned buildings must be cleaned. This will prevent debris/dust from being re-entrained in air and/or re-contaminating the nearby areas with debris/dust.

*Program:* NYC will clean the remaining unoccupied (residential and commercial), uncleaned buildings near the WTC site that contain WTC-debris. NYC will work with building owners to determine reasons that these buildings have not been cleaned yet. If building owners are not able to expeditiously clean their property, NYC will proceed.

*Projected Cost:* \$20 million, based upon estimates approximately \$2 million/building for 10 buildings. Inventory of buildings is being identified by NYC and may be decreased as a result of NYC's efforts to get building owners to conduct clean up.

*Status of Request for FEMA mission assignment:* Awaiting initial FEMA feedback

#### 5. Clean Up of Exteriors of Buildings with Residual Debris/Dust

*Objective:* To eliminate remaining debris/dust resulting from the WTC collapse on building exteriors in Lower Manhattan thereby assuring this material will not become re-entrained in the air at a future time, thus creating a potential exposure to the public.

*Program:* NYC DEP will contract for the cleaning of the exteriors of approximately 250 buildings in Lower Manhattan. EPA, NYCDEP and OSHA will oversee contractors.

*Projected Cost:* NYC \$10.28 Million

*Project Period:* April 2002 through November 2002

#### **B) Longer Term:**

- ▶ Identify potential compounds of concern, which resulted from the WTC collapse and subsequent fires and for which there is ambient data to suggest potential concern and which have not been evaluated in the indoor environments thus far.
- ▶ Conduct sampling of the potential compounds of concern to establish a NYC specific background data set.

- Create a Data system for Organizing Existing Information Collected by NYC from the Private Sector on environmental testing results and clean up activity .

***Timing of the Longer Term Actions:*** Initial Actions have been initiated by agency staffs. Actions listed here could begin by June 1 and continue through February 2003. These several steps are needed, including peer review, since there are no widely accepted indoor air benchmarks for the potential compounds of concern, and there is not a good data base for understanding the "background" levels of the compounds which were in the NYC urban environment prior to 9/11.

### 1. Sampling to Determine Background Levels of Potential Contaminants

***Objective:*** Establish a NYC specific quantitative data set which will enable a better evaluation of pre- 9/11 conditions likely to have existed in Lower Manhattan. This will assist in future evaluation of whether any further clean up advice or action will be necessary.

***Program:*** EPA will sample residences in areas of NYC unaffected by WTC-related debris to establish what may be considered pre-existing levels of potential compounds of concern. This sampling will occur in areas determined appropriate based upon improbability of any impacts from the WTC collapse and fire. This will assist EPA, ATSDR NYSDOH and NYCDOH in evaluating how the potential compounds of concern from the WTC disaster relate to pre-existing conditions. NYCDOH will obtain access agreements and prepare notifications to residents. Potential indicators of concern will be identified and air and debris/dust samples will be taken and analyzed for these compounds.

***Projected Cost:*** \$1.3 million

### 2. Creating a Data System with Existing Information Collected by NYC from the Private Sector on Environmental Testing Results and Clean Up Activity

***Objective:*** Organize private sector data submitted into a user friendly data system which will allow for a maximum amount of data to be considered in informing the public and in evaluating effectiveness and protectiveness of cleaning techniques and the potential for any increased long term risk to the public posed by indoor environments by the appropriate health agencies.

***Program:*** NYC has received information on clean up actions and air monitoring from the building owners of a significant portion of the buildings in Lower Manhattan. Other information may also be available on building status. Making all such data available in an organized and readily accessible way will enhance ability to assess potential concerns related to indoor air environment.

***Projected cost:*** \$500,000 has been discussed. NYC presently developing project specifics and cost estimate.

**Future Possible Action as Follow up to Above Action Plan**

**Identifying the Need for any further Potential Clean Up or Testing Support for Lower Manhattan**

*Objective:* Be prepared to establish any necessary further Action Plan items for clean up or testing or information on clean up techniques which may emerge out of the various data collection, analysis and organizational efforts

*Program:* Unknown at this time. Must await results of above efforts.