LMDC
Lower Manhattan Development Corporation

Ambient Air Monitoring Program at 130 Liberty Street

June 20, 2005

FACT SHEET No. 5

This fact sheet provides an update for area businesses and residents concerning LMDC's air quality monitoring in and immediately surrounding the 130 Liberty Street building before and during deconstruction activities.

*The **Ambient Air Monitoring Program for the 130 Liberty Street Deconstruction Program**, a document contained in the Deconstruction Plan released on June 14, 2005, incorporates previously released plans into a single, revised air monitoring plan that will be in place through all phases of the deconstruction project. Once implemented, the Air Monitoring Program will effectively monitor air quality 24 hours a day to ensure that the deconstruction does not adversely impact workers, residents, or the public.*

Background

On August 31, 2004, the Lower Manhattan Development Corporation (LMDC) took ownership of the building at 130 Liberty Street, previously owned by Deutsche Bank. In December 2004, LMDC submitted to federal, state, and local regulators and the public:

- The Phase 1 Deconstruction Plan in which the Ambient Air Monitoring Program was included as Section 2; and
- The Proposed Enhanced Exterior Air Monitoring Approach and Conceptual Design.

LMDC received numerous comments from regulators and the public. In response, in May 2005, LMDC provided a revised Draft Deconstruction Plan for regulatory approval. The Ambient Air Monitoring Program is included as Section 2 of the Revised Draft Deconstruction Plan. This Plan was updated further and released on June 14, 2005.

Purpose of LMDC's Air Monitoring Program

The objective of the program is to ensure that the deconstruction does not adversely affect local air quality by:

- Monitoring particulate matter $(PM)_{10}$ on a real-time basis, 24 hours a day, seven days a week;
- Collecting particulate matter on a time-weighted or integrated basis so that samples are available to monitor compounds associated with World Trade Center (WTC) dust;
- Comparing concentrations of each compound to target and trigger levels on a compound-specific basis; and
- Stopping work and notifying agencies and the public in the event sampling results exceed predetermined action levels.

Levels of Air Monitoring

Air monitoring is being conducted to determine if ambient concentrations of analytes exceed specified criteria. The Ambient Air Monitoring Program consists of three levels:

- Level 1: Air monitoring of personnel involved with deconstruction activities, as required by OSHA. This program is detailed in Section 5 of the Plan.
- Level 2: Area air monitoring in accordance with asbestos abatement rules in Industrial Code Rule 56. Area air monitoring will be performed inside and outside of active work areas. This program is detailed in Section 4 of the Plan.
- Level 3: Exterior ambient air monitoring adjacent to the building within deconstruction site boundaries and at specific elevated locations across the street from the site. This program is detailed in Section 2 of the Plan.

Exterior Air Monitoring Stations

Exterior air sampling will occur each day at four street-level locations and at three elevated stations. Meteorological monitoring will occur at one street-level location and one elevated location. Placement of the stations will follow U.S. Environmental Protection Agency (USEPA) and U.S. Army Corps of Engineers (USACE) siting criteria to the primary wind direction. Station locations are:

- Station 1: Southwest of the building at Washington St/Albany St at ground level.
- Station 2: Southeast of the building at Albany St/Greenwich St at ground level.
- Station 3: Northeast of the building at Greenwich St at ground level.
- Station 4: Northwest of the building at Washington St/Cedar St at ground level.
- Station 5: Fire Station (10-10 House) roof on Greenwich St; elevation of 40 feet.
- Station 6: 125 Cedar St rooftop; elevation of 160 feet.
- Station 7: 120 Greenwich St; elevation of 200 feet.

Parameters to be Analyzed

Daily sampling at each of the seven air monitoring stations includes air sampling and analysis for the following parameters:

- PM_{10} - respirable particulate
- Asbestos
- Crystalline silica
- Dioxins/furans
- Polycyclic aromatic hydrocarbons (PAHs)
- Polychlorinated biphenyls (PCBs)
- Metals, including antimony, barium, beryllium, cadmium, chromium, copper, lead, mercury (gaseous and particulate-bound), manganese, nickel, and zinc.

Meteorological monitoring at the site also will collect data on wind speed, wind direction, barometric pressure, ambient temperatures, and rainfall at the following locations:

- Meteorological Station #1: On-site, at ground level.
- Meteorological Station #2: On the rooftop of 130 Liberty Street.

Two-Tiered Action Level System

A two-tiered system that includes both Target Air Quality Levels and USEPA Site-Specific Trigger Levels will be used. Table 1 summarizes LMDC's two-tiered system.

Table 1 - Summary Action Levels

Analyte	Target Air Quality Levels	USEPA Site Specific Trigger Levels
Metals		
Antimony	5 $\mu g/m^3$	14 $\mu g/m^3$
Barium	5 $\mu g/m^3$	5 $\mu g/m^3$
Beryllium	0.02 $\mu g/m^3$	0.2 $\mu g/m^3$
Cadmium	0.04 $\mu g/m^3$	2 $\mu g/m^3$
Chromium	0.6 $\mu g/m^3$	60 $\mu g/m^3$
Copper	10 $\mu g/m^3$	100 $\mu g/m^3$
Lead	1.5 $\mu g/m^3$	5 $\mu g/m^3$
Manganese	0.5 $\mu g/m^3$	0.5 $\mu g/m^3$
Mercury	0.3 $\mu g/m^3$	3 $\mu g/m^3$
Nickel	0.2 $\mu g/m^3$	28 $\mu g/m^3$
Zinc	16 $\mu g/m^3$	160 $\mu g/m^3$
Particles and Dust		
Asbestos	0.0009 f/cc	70 S/mm^2
PM_{10} (24-hr avg)	150 $\mu g/m^3$	150 $\mu g/m^3$
Respirable Silica	10 $\mu g/m^3$	10 $\mu g/m^3$
Organics (semi-volatiles)		
Dioxins/Furans	0.00025 ng/m^3	0.025 ng/m^3
PCB	0.12 $\mu g/m^3$	12 $\mu g/m^3$
PAH	0.034 $\mu g/m^3$	3.4 $\mu g/m^3$

Is the Data Available for Review?

LMDC will provide air monitoring results on the LMDC website at www.renewnyc.com/130Liberty.

Monitoring Conducted by the Lower Manhattan Construction Command Center

Beginning in summer 2005, the Lower Manhattan Construction Command Center (LMCCC) will implement an air quality monitoring program (AQMP) for particulate matter PM_{10} and $PM_{2.5}$. The data will assist the LMCCC in managing overall construction in Lower Manhattan and in determining if construction-related activities are causing elevated concentrations of particulate matter. Air monitoring stations will be located in the following quadrants:

- Northwest: the vicinity of Battery Park City (BPC) and North and Tribeca residences
- Southwest: vicinity of BPC South residences
- Northeast: vicinity of Park Row/City Hall Park
- Southeast: vicinity of the Financial District

The program is expected to continue through 2008. The AQMP data will be shared with the New York State Department of Environmental Conservation and the USEPA and will be available for review at www.lowermanhattan.info.

FOR MORE INFORMATION

All project-related inquiries and written comments should be directed to:

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