UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NEW YORK 10007-1866

July 8, 2009

Mr. Edward A. Gerdts
Vice President
TRC Environmental Corporation
1430 Broadway – 10th Floor
New York, New York 10018

Re: July 8, 2009 Proposed Amendment #8 to Section 2 – Ambient Air Monitoring Program Plan for the 130 Liberty Street Abatement and Deconstruction Project, September 7, 2005, 130 Liberty Street, New York, N.Y.

Dear Mr. Gerdts:

This is to inform you that the U.S. Environmental Protection Agency (EPA) has completed its review of the July 8, 2009 "Proposed Amendment #8 to the September 7, 2005 Section 2 – Ambient Air Monitoring Program Plan of the 130 Liberty Street Abatement and Deconstruction Project" submitted by TRC Environmental Corporation (TRC) on behalf of the Lower Manhattan Development Corporation for 130 Liberty Street in lower Manhattan.

Based on our review, and in consultation with the New York State Department of Labor (NYSDOL) and the New York City Department of Environmental Protection (NYCDEP), EPA accepts the above-referenced proposed amendment.

EPA's review is not intended as a review and/or acceptance of structural engineering and safety matters or requirements for the protection of worker safety and health or for fire protection and safety at 130 Liberty Street. EPA is relying on the New York City Department of Building's, the U.S. Department of Labor Occupational Safety and Health Administration's and the New York City Fire Department's expertise in these areas, respectively.

EPA will continue to work with our regulatory partners to monitor the 130 Liberty Street activities throughout the execution of the project.

Sincerely,

Pat Evangelista
New York City Response and Recovery Operations

cc: Richard Mendelson, OSHA
Christopher Alonge, NYSDOL
Krish Radhakrishnan, NYCDEP
Christopher Santulli, NYCDOB
Thomas Kunkel, LMCCC
Michael Weinlein, FDNY

SECTION 2 – AMBIENT AIR MONITORING PROGRAM PLAN AMENDMENT FORM: ISSUE 8

DATE FORM SUBMITTED: 07/08/09

Title ***Section 2 – Ambient Air Monitoring Program Plan***
130 Liberty Street Abatement & Deconstruction Project
September 7, 2005

AMENDMENT #8

This Amendment describes air monitoring activities that will take place during deconstruction activities and other activities that remain at 130 Liberty Street. This amendment assumes that remnant fireproofing on floors 15-6 and 3-Basement A will be removed concurrently with the deconstruction of each floor. Currently there are eight (8) stations, including four (4) ground-level and four (4) off-site roof-level stations operating in accordance with the Ambient Air Monitoring Plan dated September 7, 2005. Monitoring pursuant to this amendment as described below will not commence until abatement is complete. Deconstruction will not begin until abatement is complete, except for certain preparatory activities specifically approved by DOB, FDNY and OSHA (e.g. – application of fire retardant material on existing plywood perimeter walls on floors 22-25, installation of infill scaffolding on the south side of the building, etc.). Regulators will be notified via email at least 24 hours prior to each transition of the monitoring network.

From the 26th floor through the 16th and the 5th floor through the 4th floor and Basement B:

Following the completion of abatement, eight (8) stations, including four (4) ground-level and four (4) off-site roof-level stations, will monitor for silica and PM_{10} continuously on a daily basis.

In the event that "pockets of contamination" are identified (i.e., sources of Contaminants of Potential Concern [COPCs] are newly discovered) as per Section V.D.25 of the May 14, 2009 Implementation Plan, deconstruction work will cease in the immediate area and all stations will immediately commence daily sampling for asbestos and metals (excluding mercury) in addition to silica and PM_{10} and weekly sampling for PAHs and PCDDs/PCDFs in accordance with the Ambient Air Monitoring Plan dated September 7, 2005 (analysis will be performed only on the sample collected at the one station with the highest PM_{10} measurement, as a 24-hour average) prior to the commencement of cleanup work. These monitoring activities will continue until the cleanup work has been completed. A site-specific variance reopening request and implementation plan amendment shall be submitted to address appropriate procedures for this potential cleanup scenario, including the scope and extent of any necessary work stoppage.

From the 15th floor through the 6th floor and from the 3rd floor through Basement A:

Eight (8) stations, including four (4) ground-level and four (4) off-site roof-level stations will continuously monitor for silica, asbestos, PM_{10}, and metals (excluding mercury). Sampling will be performed for PAHs and PCDDs/PCDFs once per week in accordance with the Ambient Air Monitoring Plan dated September 7, 2005 and analysis will be performed only on the sample collected at the one station with the highest PM_{10} measurement, as a 24-hour average. The use of the highest PM_{10} measurement as the basis for sample selection is consistent with the approach contained in the September 7, 2005 Air Monitoring Plan. These monitoring activities will be in place from before the first impact of a stair enclosure on the 15th floor until all fireproofing has been removed from the last stair enclosure on

the 6th floor and from before the first impact of a stair enclosure on the 3rd floor until all fireproofing has been removed from the last stair enclosure in Basement A. Upon completion of the removal of fireproofing on each of the 6th floor and basement A, TRC will conduct a visual inspection to verify that all fireproofing material has been removed. Deconstruction will be occurring on two floors at a time in a stepped sequence (stairwell deconstruction will be sequenced with deconstruction of the floor itself) and will continue downward during deconstruction of the building.

Reason for Amendment:

The original September 7, 2005 Ambient Air Monitoring Program Plan identified target compounds or COPCs on the basis of their association with contaminated materials (e.g., WTC dusts, 130 Liberty Street building materials, etc) to be handled and removed from the building during the abatement phase of the program. These COPCs included silica, asbestos, mercury, metals, PCDDs/PCDFs, PAHs, PCBs, $PM_{2.5}$ and PM_{10}. This Amendment, as a result, modifies the target compound or COPC list for use during the remaining phases of deconstruction monitoring as well as reduces the number of monitoring stations in operation.

Actual data collected during the period of prior deconstruction (March 14–August 18, 2007) at 130 Liberty Street indicate that concentrations of all analytes were unaffected by deconstruction activities with a few minor exceptions as noted below. While the building was under Phase 2 deconstruction concurrent with abatement, 158 days of sampling took place employing the twelve (12) station monitoring network in place at 130 Liberty Street. This resulted in over 1800 samples collected for each of silica, asbestos, metals, mercury, PM10 and PM2.5. From this 1800 sample set, one sample each (0.06%) recorded an exceedance of a Target Air Quality Level (TAQL) for asbestos and lead, two samples (0.11%) recorded an exceedance of the Trigger Level for silica and one sample recorded an exceedance of the Trigger Level for manganese (0.06 %).

Previous air sampling data for PAHs (March 14-August 18, 2007) at 130 Liberty Street indicated no exceedances of either the TAQL or Trigger Level and hence provide justification for removal of PAHs as a COPC of interest during deconstruction activities other than removal of fireproofing materials proposed for floors 15 through 6 and floors 3 through basement A. Results for PCDDs/PCDFs whilst detected were consistent with background concentrations characteristic of urban settings such as New York City. During the period of prior deconstruction (March 14-August 18, 2007) at 130 Liberty Street a total of seventy-nine (79) samples were analyzed for PCDDs/PCDFs. There were no exceedances of a TAQL or Trigger Level in any of these samples. These data, representing actual 130 Liberty Street deconstruction activities, provide further justification for the reduced monitoring frequency for these classes of compounds during deconstruction activities other than removal of fireproofing materials proposed for floors 15 through 6 and floors 3 through basement A.

While there were a number of exceedances of the $PM_{2.5}$ TAQL of 40 $\mu g/m^3$ (118 individual 24 hour exceedances taking place on 16 days total) in the period of prior deconstruction (March 14-August 18, 2007) at 130 Liberty Street, there were no exceedances of the EPA Trigger Level for this same parameter. None of the $PM_{2.5}$ TAQL exceedances were found to be attributable to activities at 130 Liberty Street. Therefore, $PM_{2.5}$ monitoring will also be eliminated from the monitoring network during the deconstruction phase. $PM_{2.5}$ monitoring during the period September 2005 to June 2009 has been problematic in that a large number of exceedances of the TAQL of 40 $\mu g/m^3$ have been observed. These exceedances in all cases were determined to be associated with regional air quality in the NY metropolitan area or localized weather conditions and were found not to be attributable to work activities at 130 Liberty Street. These regional air quality events resulting in exceedances of the $PM_{2.5}$ TAQL are expected to continue during the deconstruction phase of the program. $PM_{2.5}$, as a result, does not serve as

a useful surrogate parameter to monitor fugitive emissions from 130 Liberty Street and the ultimate effectiveness of emissions controls in place during the building deconstruction process. PM_{10} measurements, as has been the case historically since monitoring began in September 2005, serve as a surrogate for dust releases potentially associated with deconstruction activities at 130 Liberty Street. This provides justification for removal of $PM_{2.5}$ as a COPC of interest during deconstruction activities, including removal of fireproofing materials proposed for floors 15 through 6 and floors 3 through basement A.

Previous air sampling data for mercury provide justification for removal of total and gaseous mercury as a COPC of interest during deconstruction activities, including removal of fireproofing materials proposed for floors 15 through 6 and floors 3 through basement A. Actual sample data collected during the period of prior deconstruction (March 14–August 18, 2007) at 130 Liberty Street indicate that concentrations of mercury were unaffected by deconstruction activities, as all results were below the project specific TAQL and Trigger levels and total mercury was detected in only 0.43 percent of the samples collected (8/1855 samples collected and analyzed).

On all days where COPC organic samples were collected during the period of prior deconstruction (March 14-August 18, 2007) at 130 Liberty Street, a total of seventy-eight (78) samples were analyzed for PCBs all resulting in non-detected concentrations. Additionally, PCBs were removed from the list of candidate contaminants in the 2003 WTC COPC Benchmark document and thus were not identified as a COPC during subsequent programs involving sampling and analyses of fireproofing materials (Supplemental Investigation Fireproofing Sampling Summary Results TRC February 2005). These findings in concert with actual data from the 130 Liberty Street network provide justification for removal of PCBs as a COPC of interest during deconstruction activities, including removal of fireproofing materials proposed for floors 15 through 6 and floors 3 through basement A.

Since fireproofing is still present on the stairwell included in floors 15-6 and 3-basement A, sampling will be upgraded during the active deconstruction of this area to monitor daily for the metals (excluding mercury) and asbestos in addition to PM_{10} and silica and once per week for PAHs and PCDDs/PCDFs, since the fireproofing material may contain these COPCs.

Sections of Air Monitoring Plan Affected:

Section 4.0 (Target Parameters/COPCs): The list of target parameters selected for inclusion in the remaining deconstruction activities has been reduced, as described above.

Table 2 (Summary of Sampling and Analysis Methods): This section will be revised to show the change in target parameters and stations being monitored for the remainder of deconstruction based on the above discussions.

Section 5.1.2 (USEPA Reference Method PM_{10} and $PM_{2.5}$ Monitors): Requirements for $PM_{2.5}$ QA checks with Reference Samplers will no longer be required.

Section 5.4 (Mercury [Gas Vapor]): Gaseous mercury monitoring will be eliminated from the air monitoring program.

Section 5.7.2 (PCBs): PCB monitoring will be eliminated from the air monitoring program.

Section 6.4 (Phase II – Structural Deconstruction): This section will be revised to reflect the target

parameters and stations being monitored for the remainder of deconstruction based on the above discussions.

Table 5 (Phase II – Structural Deconstruction Phase Sampling and Analysis Summary): This table will be revised to reflect the target parameters and stations being monitored for the remainder of deconstruction based on the above discussions.

Date Implemented: July 2009