
ambient group inc.

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November 21, 2001

Mr. Elliott Zuckerman
 Director of Property Management
 Cushman & Wakefield a/a/f New York Mercantile Exchange
 One North End Avenue
 New York, New York 10282

Re: Environmental Monitoring for Combustion Byproducts

Dear Mr. Zuckerman:

In order to address additional environmental concerns raised by the prolonged combustion process that continues at the World Trade Center site, in early October we instituted additional analysis of environmental compounds that might be generated by the combustion process in the outdoor air. The equipment used and the analysis performed were chosen in accordance with *EPA Compendium of methods for the Determination of Toxic Organic Compounds in Ambient Air*. Samples were analyzed for chlorinated dioxins, PCBs, brominated dioxins and polycyclic hydrocarbons (PAHs). The four groups represent over 300 types and/or isomers of chemicals that are known to be hazardous substances associated with combustion.

Ambient air analysis, as opposed to occupational analysis, has many unique differences that make sampling, analysis and interpretation difficult. For instance, ambient sampling requires a very large sample volume for analysis, which in turn requires specialized equipment and a lengthy sampling period. In addition, each group of diverse compounds must be prepared separately and analyzed by distinct procedures. Finally, there are no reference standards with which to compare the results of airborne concentrations in order to determine the health risk to office workers.

One approach that is often used is to transform the air concentrations of all the different specific congeners of PCBs, dioxins and furans into Toxicity Equivalents (TEQs) of 2,3,7,8 tetrachloro-p-dioxins (2,3,7,8 TCDD). 2,3,7,8 TCDD is thought to be the most hazardous of this group of compounds and is given a weighting of 1, while other less toxic compounds are given a weighting of less than 1 relative to 2,3,7,8 TCDD.

With that said, our findings indicate that the levels found at One North End Avenue between October 16 and October 29, 2001 are as follows:

<i>Sampling Period 2001</i>			
<i>TEQs</i>	<i>10/16-10/23</i>	<i>10/23-10/29</i>	<i>13 Day Average</i>
PCBS	0.004 pg/m ³	0.001pg/m ³	0.002pg/m ³
Chlorinated Dioxins and Furans	0.27 pg/m ³	0.40 pg/m ³	0.33 pg/m ³
Total TEQ of all chlorinated cogenitors	0.27 pg/m ³	0.403 pg/m ³	0.33 pg/m ³

1 picogram (pg) = 0.00000000001 gram

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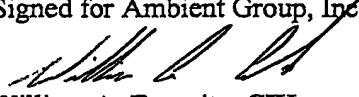
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These levels are very low and do not indicate that the combustion processes occurring at the World Trade Center site are causing hazardous concentrations of dioxins and PCBs in the outdoor the air at North End Avenue. The total TEQ is below the California chronic reference exposure level of 3.5 pg/m³, which is the only standard that we have encountered to date and is based on long term exposure. Additionally, the EPA estimates that an average daily exposure to TEQ is 119 pg/day. The major source of dioxin exposure is diet, due to its tendency to bioaccumulate up the food chain. In other words, a TEQ of 2 pg/day is thought to be from inhalation exposure and the other 117 pg/day is thought to be from meat, dairy and fish intake.

Please know that we are processing the data as diligently as possible and that we will offer updated reports as the information becomes available.

Should you have any questions, please feel free to contact me.

Sincerely,
Signed for Ambient Group, Inc. by:



William A. Esposito, CIH
President

WAEJ/sfm