NYC 9/11 Public Portal Document

OSHA SAMPLING RESULTS SUMMARY AS OF 11/14

Asbestos: A total of **642** air monitoring samples for asbestos have been taken. From 9/13 -9/21, 177 samples were taken in the financial district. They were taken on OSHA personnel as they walked within certain predetermined zones. Results revealed asbestos concentrations ranging from ND (none detected) to .037 f/cc., well below OSHA's permissible exposure limit (PEL) of .1 f/cc.

After 9/21, sampling focused on the rubble pile and those workers working on or immediately next to it. **63** of **465** samples exceeded OSHA's limit via PCM analysis. However, upon further analysis using discriminating counting methods and/or TEM analysis, the number of asbestos fibers found dropped dramatically to below detectable levels or well below .1 f/cc.

Carbon Monoxide: A total of **47** personal samples of workers on the rubble pile showed results ranging from 1 ppm to 34 ppm which are well below the OSHA 50 ppm permissible exposure limit.

Noise: OSHA has been conducting noise monitoring in the rubble pile. Twelve personal samples have been conducted on employees performing (or working near) various operations such as jack hammering. Employee's exposure to the noise range from 80.6 dBA to 89 dBA. OSHA's permissible noise exposure for construction is 90 dBA

Respirable Silica: The overwhelming majority of the **232** silica samples show no detectable levels of airborne silica. The highest sample result was approximately twice the OSHA limit, whereas the next highest level was less than half of this limit. Both of these levels were found on personnel working in the rubble pile; an area where OSHA continues to encourage the use of respiratory protection.

Volatile Organic Compounds: OSHA has taken **366** samples for (VOCs) such as acetaldehyde, acrolein, acrylonitrile, benzene, 2-butanone, carbofurans, chlorodiphenyl (PCB), ethyl benzene, formaldehyde, Freon R-22 (chlorodiflouromethane), hexone, isocyanates (e.g. MDI, TDI), perchloroethylene, phosgene, styrene, toluene, 1-3 butadiene, trichloroethylene, vinyl chloride, and xylene. Screening samples initially showed elevated levels of some organic chemicals resulting from the fires burning in the rubble pile. Subsequent personal and area samples show worker exposure levels to be below OSHA limits. However, one personal sample result for benzene was found to be at the 8-hr. OSHA Allowable Limit concentration of 1 ppm. This was found on a backhoe operator moving debris. See information below for polynucleated aromatics, Freon R-22, phosgene and dioxin.

Oxides of Nitrogen/ Sulfur: Sampling on grappler operators on the rubble pile, and on employees manning truck wash stations revealed trace levels of nitric oxide and nitrogen dioxide.

NYC-WTC_000205349