

OSHA SAMPLING RESULTS SUMMARY AS OF 12/11

Asbestos:

A total of 869 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. 82 of the samples analyzed 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 77 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. 18 personal samples have been conducted on employees performing (or working near) various operations such as jack hammering, drilling and equipment operations. Employee's exposure to the noise range from 73.7 dBA to 94.5 dBA. OSHA's permissible noise exposure for construction is 90 dBA. One personal sample and one area sample during core drilling operations exceeded the OSHA noise PEL of 90 dBA. OSHA continues to recommend the use of appropriate hearing protection for workers performing tasks where high noise levels are likely to be encountered.

Respirable Silica:

The overwhelming majority of the 341 silica samples show no detectable levels of airborne silica. However, nine exposures exceeded the PEL. The highest sample result was approximately nine times the OSHA limit (pre-drillers working on the slurry or "bathtub" wall). The other eight exposures were approximately one to six times the OSHA limit. These exposures occurred during: 1) rubble removal and loading operations near the Winter Garden; 2) during the breaking up of concrete in the pit; 3) while core drilling the concrete slurry wall, and 4) while chipping concrete with power tools during demolition activities at 7 WTC's parking garage. Most of the work areas where apparent overexposures to silica occurred were in the rubble pile; an area where OSHA continues to encourage the use of respiratory protection.

Volatile Organic Compounds:

OSHA has taken 558 samples for (VOCs) such as acetaldehyde, acrolein, acrylonitrile, benzene, 2-butanone, carbofurans, chlorodiphenyl (PCB), ethyl benzene, formaldehyde, Freon R-22 (chlorodifluoromethane), 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