NYC 9/11 Public Portal Document

Reports Health LM IH sampling

Liberty Mutual

Industrial Hygiene Measurements

Summary for Week of 03/15/02 to 03/22/02

Attached is a summary of the laboratory results completed during the week of March 15, 2002 to March 22, 2002. The air samples were collected by ATC associates at the World Trade Center site.

The majority of the samples collected by ATC are "personal samples", meaning that the worker wore the sampling device. In addition, the majority of results have shown exposure levels to be below shift adjusted occupational exposure limits. The exceptions were the following:

- Elevated **Quartz** concentrations were as follows:
  - **617%** of the shift adjusted OEL on a **laborer working near boring** machine in WTC 6.
  - **504%** of the shift adjusted OEL while **operating Brokk** in WTC 6, Level B5.
  - **408%** of the shift adjusted OEL while **Core Drilling** N. slurry wall in WTC 6, Level B4.
  - **342% and 54%** of the shift adjusted OEL on a **drill operator** in WTC 6, B5 level.
  - **163%** of the shift adjusted OEL while **Core Drilling** @ Path in WTC 6.
  - **142%** of the shift adjusted OEL on a **flagger** in WTC 6.
  - **50% and 75%** of the shift adjusted OEL on **jack hammer operators.**
  - **67%** of the shift adjusted OEL on a **carpenter** in WTC 6.

- Elevated **Diesel Exhaust Particulate** concentrations were as follows:
  - **581%** of the shift adjusted OEL on a **Laborer by boring machine** in WTC6.
  - **287%** of the shift adjusted OEL while **Core Drilling** N. slurry wall in WTC 6, Level B5.
  - **169%** of the shift adjusted OEL while **drilling** in WTC 6.
  - **127%** of the shift adjusted OEL on a **spotter** in the PATH tunnel.
  - **112%** of the shift adjusted OEL while **torch cutting** at WTC 6.
  - **110%** of the shift adjusted OEL while **torch cutting** in depression @ WTC 2.
  - **103%** of the shift adjusted OEL while **torch cutting** in depression @ WTC 2.
  - **98%** of the shift adjusted OEL on an **equipment (unspecified) operator** at the WTC 4 site.

- Elevated **asbestos** concentrations as follows:
  - **120%** of the shift adjusted OEL while **on an equipment (unspecified) operator** at the WTC 4 site. This sample has been sent for transmission electron microscope (TEM) analysis to determine the actual identification of the fibers counted.
  - **64%** of the shift adjusted OEL **on a water truck operator** in the pit.
  - **62%** of the shift adjusted OEL **on an equipment (unspecified) operator** in the pit.

- Elevated **respirable dust** concentrations as follows:
  - **68%** of the shift adjusted OEL on a **laborer working near boring** machine in WTC 6.

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- 8 Hour equivalent time weighted average **noise levels** above 90 dBA were as follows:
  - **95 dBA** on a **Bobcat Operator**, WTC 6 Path tunnel.
  - **93 dBA** on a **Boring Machine Operator**, WTC 6, B5, V9.
  - **93 dBA** on a **Spotter**, WTC 6 B3, cleaning debris.
  - **93 dBA** on a **Laborer** by Borakk 150 Machine, WTC 6, B3.
  - **92 dBA** on an **Asbestos Handler**, WTC 6 B5, breaking concrete wall.
  - **92 dBA** on a **Borakk 150 Machine Operator**
  - **92 dBA** on a **Core Driller**, WTC 6 B5.
  - **95 dBA** on a **Laborer** @ WTC 6 Path tunnel.
- Elevated **Carbon Monoxide** concentrations as follows:
  - **200%** of the Peak Max exposure limit on a **Laborer operating a Bobcat,** cleaning debris @ WTC 6, B4
  - **146%** and **110%** of the Peak Max exposure limit on a **Torch Cutter**, cutting rebar from broken up concrete@ WTC 6
  - **100%** of the Peak Max exposure limit on a **Spotter**, cutting conduit, cleaning debris
  - **60%** of the shift adjusted OEL on a **Spotter** for boring machine preparation, WTC 6, B5

Elevated exposures to **asbestos** are based on the results of analysis by phase contrast microscopy (PCM). This method counts all fibers detected that meet the criteria of "fiber". Materials that are not asbestos may be included in the reported analysis. These samples have been submitted for further analysis by transmission electron microscopy (TEM) to make a definitive determination of the fibers detected by PCM analysis.

Contractors: Please note that OSHA regulations require that results of IH measurements be communicated to exposed workers. This is covered by the Hazard Communication Standard as well as other standards for specific substances such as lead, cadmium, asbestos, and others. It has come to our attention that some contractors do not feel that they have an obligation to do this. Not only is it required, but it is the right thing to do.

We are continuing to follow up on measuring the silica and diesel exposure in WTC 6. We have not seen the extremely high silica results previously reported, but silica, diesel and noise exposures remain consistently high. Everyone is reminded that work in WTC basement levels requires the use of ½ face respirators unless you are associated with operations that may generate "significant dust levels". **Such tasks require the wearing of a full face respirator.**

If you have any questions concerning this information or would like further details about these results, feel free to contact the Liberty Mutual Industrial Hygienist on duty @ 917-566-2576.

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