NYC 9/11 Public Portal Document

Liberty Mutual

Industrial Hygiene Measurements

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

Some of the columns in the attached summary may require explanation:

Analyte Class - This column includes general category of the agents (substances) which were sampled.

# of Samples - This indicates how many individual samples were collected for the agent class listed.

# of Analysis - This is the number of individual analyses performed. If only one analysis is performed on each sample, then the number of analytes will equal the number of samples. However, most samples are analyzed for more than one agent as follows:

> **Metals:** Aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, selenium, silver, thallium, tin, titanium, vanadium, and zinc. Metal samples are sometimes also analyzed for total particulate.
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> **Silica:** Respirable dust, quartz, and cristobalite.
>
> **Acids:** Hydrobromic acid, hydrochloric acid, hydrofluoric acid, nitric acid, phosphoric acid and sulfuric acid
>
> **Sulfides:** Hydrogen sulfide and sulfur dioxide

OEL - Occupational Exposure Limit is the lower of the OSHA PEL or ACGIH TLV. PELs are established by an OSHA rule-making process and are the legal occupational exposure standards. TLVs are voluntary guidelines for occupational exposure which are established by the American Conference of Governmental Industrial Hygienists, a private professional organization.

Highest % OEL - This is the percentage of the occupational exposure limit (OEL) that the highest result represents. This is the value in the "Highest Result" column divided by the lower of either the PEL or TLV and converted to a percentage.

Shift Adjusted OEL - The OEL reduced to compensate for the reduced recovery time and longer exposure time posed by a 7 day per week , 12 hour shift work schedule.

Highest % of Shift Adjusted OEL - This is the percentage of shift adjusted OEL that the highest result represents.

#of NQs - This is the number of analyses that reported that concentration as "not quantifiable" (NQ).

% of NQ - This is the percent of the total analyses which were reported as "not quantifiable".

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