



Industrial Hygiene Noise Measurement Results

Contractor:

Dates Covered:

Enclosed are the results from industrial hygiene noise measurements recently collected in your area of the WTC recovery operation. These samples were collected by ATC Associates, Inc.

Eight hour equivalent noise exposures at or above the OSHA PEL of 90 dBA included the following:

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In addition, the following results are above an eight hour equivalent exposure of 85 dBA, the OSHA action level for implementing a hearing conservation program, but below 90 dBA.

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You should provide each worker whose exposure has been evaluated with a copy of their results and educate them about their work exposures. Exposures above 90 dBA should also be reviewed to determine if it is feasible to implement exposure reduction controls. Liberty Mutual is available to provide assistance in noise reduction efforts.

If you have questions concerning the enclosed sample results or any questions concerning occupational disease exposures or controls, feel free to contact the Liberty Mutual Industrial Hygienist on duty @ 917-566-2576.

Donald Weber, Sr., IHIT
Senior Industrial Hygienist
Liberty Mutual Insurance Group

Date

CC: Bovis - Ray Master
DDC - Bob Adams
LMIG - John Rabovsky
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Industrial Hygiene Noise Measurement Results

Key to Noise Measurement Terminology

The following explanations should help in reading the data chart.

1. **Dose (8)** - Refers to the noise dose for an eight hour shift based upon the average sound pressure level measured during the noise integration time period.
2. **Lavg** - Refers to the average sound pressure level (dBA) the worker was exposed to during the measurement time period.
3. **TWA (8)** - Refers to the eight hour time-weighted average noise exposure, based upon the shift length indicated. A twelve hour shift length is assumed unless otherwise indicated by the employee.
4. **Time > 115 dBA** - This indicates the duration of time the worker's noise exposure was above 115 dBA during the sample period.
5. **Occupational Exposure Limits** - OSHA 1910.95
 - **OSHA PEL or ACGIH TLV** - This refers to the Occupational exposure limit to which the result should be compared. OSHA establishes Permissible Exposure Limits (PELs) that have the force of law, through a rule-making process. The OSHA Permissible Exposure Limit for noise is 90 dBA for an eight hour TWA noise exposure.
 - **Exposures >90 dBA** for an eight hour TWA require inclusion in a hearing conservation program, mandatory use of hearing protective devices. Investigation of noise reduction techniques are warranted. **Exposures should also not exceed 115 dBA for > 30 seconds/day**
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6. **Action Level** - OSHA establishes Action Levels for exposures to serve as triggers for administrative actions such as implementation of medical surveillance or other administrative controls. The OSHA Action Level is 85 dBA for an eight hour TWA noise exposure.
 - **Exposures > 85 dBA** for eight hour TWA require inclusion in a Hearing Conservation Program. Key elements of the program included: exposure monitoring, audiometric testing, use of hearing protection, worker training and record keeping.
7. **Begin Date and End Date** - The date(s) on which the sample was collected.
8. **Begin Time and End Time** - The time the sample was collected. We use the 24 hour clock.