

**WTC INDUSTRIAL HYGIENE ELEVATED EXPOSURE NOTICE****Date:** 03/05/2002**To:** Ray Master**CC:** DDC- Bob Adams
LMIG- John Rabovsky
ATC- Mike Donovan
LMIG- IH File**From:** Mike Ramsey**RE:** Elevated Exposures

Ray,

Attached are Elevated Air Sample Result Notifications for samples analyzed on 3/1/02 and 3/4/02. Elevated exposures are defined as above 50 % of the shift adjusted time weighted average (TWA) Occupational Exposure Limit (OEL) for the purpose of this notification. These are provided to you for distribution. You indicated that you will provide these to the contractor involved. The contractors affected were:

- EROC
- Nicholson
- Safeway Environmental
- Tully

The following is a summary of the elevated exposure information that is attached:

- A **quartz** concentration of **15000%** and a **respirable dust** concentration of **204%** of the **shift adjusted OEL** on a **Brokk operator** in WTC 6, level B5. To my knowledge, this is the highest quartz exposure found so far on the site and it exceeds the protection of even full face-piece respirators, which have a nominal fit factor of 50.
- A **quartz** concentration of **117% of the shift adjusted OEL** on a worker cleaning up debris at the B1 level of WTC 6.
- A **quartz** concentration of **117% of the shift adjusted OEL** on a driver (Bobcat?) in WTC 6, Lvl B2.
- A **quartz** concentration of **958% of the shift adjusted OEL** on a driver (Bobcat?) in WTC 6, Lvl B2.

If future samples of Brokk operators indicate that the one sample result listed above is not an "outlier" and exposure can't be reduced by other means, **upgrading the respiratory protection** beyond full face-piece respirators will be necessary for this job. The Brokk machines are equipped with remote control boxes and one obvious control is to assure that workers stand as far away from the breaker as possible. When

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working in close quarters in basement levels it may not be possible to stand very far away and this may be why the result above was so high. **Additional methods of control, such as increased ventilation and, where feasible, wetting down should be implemented to minimize the dust exposure during use of Brokk machines in basement levels.**

I am available to consult on controls for this and other operations.

It is important that proper use of respiratory protection be enforced until such time as is feasible controls are identified and can be implemented to reduce exposures to levels below the shift adjusted OEL. Sampling records indicate that respiratory protection was in use by all workers during these exposure evaluations.

These notifications are provided to you to ensure that this information is provided to employees and that appropriate control, PPE, and training action is taken by the contractor.

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