

From: "Patricia M. Fritz" <pmf04@health.state.ny.us>
To: "Rodenbeck, Sven" <svr1@cdc.gov>
Date: 4/11/02 1:38PM
Subject: RE: Standing NYCDOH, NYSDOH, ATSDR WTC Residential Sampling Call

*WTC
file - Indoor Air
PM results
pendaflex + manilla
WTC Indoor Air
Project
PM Results*

Hi All,

I took a look at the XRD results as they were sent to us back in January (if my notes are correct, the original file was sent on 1/9). I sorted the data first by building, then by sampling location, and finally by sampling fraction. I then deleted samples with no mineral results, since I could not be sure whether results for those samples were below some detection limit or if they were not analyzed by XRD. What I came up with appears in the attached file.

As with the gravimetric results, the XRD results also do not follow a pattern we would expect. That is, on a mass per unit volume basis, results for a specific mineral should stay the same, or increase with increasing particle size with co-located samplers. As with the gravimetric results, greater mass per unit volume, this time of the specific mineral, was reported for smaller particle fractions at the same location. In addition, some minerals were detected in fine fraction samples, but were not seen in the larger fractions sampled at the same location. I do not know if there is some XRD methodologic explanation for this, but even with an explanation in hand, how can we interpret the results even qualitatively?

Some of the results show very similar results for a mineral in most fractions at a single location- which could be interpreted as the mineral being present in the smallest particle sizes, but without determining the reason for the other discrepancies, I would not have a great deal of confidence in that interpretation.

I also did some quick totals across the columns to give an idea of the mass/m3 of the minerals(column labelled: SUM in mcg/m3). Bolded sum values may be above or in the range of values that were discussed as screening values for generic particles in a size fraction, recognizing of course, that these "sums" only represent the specific mineral portion of the particulate collected.

(See attached file: XRD Dust.xls)

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