From: Taulbee, Timothy D. (CDC/NIOSH/DCAS)
Sent: Tuesday, January 16, 2018, 10:08 AM
To: Neton, Jim (CDC/NIOSH/DCAS) ; Allen, David (CDC/NIOSH/DCAS) ; Darnell, Peter A. (CDC/NIOSH/DCAS)
Cc: Calhoun, Grady (CDC/NIOSH/DCAS) ; Rutherford, LaVon B. (CDC/NIOSH/DCAS) ; DeBord, Gary W. (CDC/NIOSH/DCAS) (CTR)
Subject: Resuspension Factors during Excavation Activities

Jim et al.,

Yesterday after much searching through my old Mound files, I finally found the resuspension data that Gary DeBord and I collected during the Mound Canal Clean-up Project (excavation of plutonium-contaminated soils). During this effort, the hi-volume air samples were weighed before and after sampling to determine the dust loading. The volume flow rate when the sample was recorded as well as the ending flow rate. An average coupled with the duration was used to determine the total volume of air.

In total, we recorded data on 294 Hi-volume Air Samples to get a distribution of the resuspension factor (attached plot). From the plot, you can see that the geometric mean was 7.18 x 10^{-5} g/m^3 with a 95th percentile of 2.2 x 10^{-4} g/m^3.

Hope this helps,

Tim

P.S. I have the raw data if you want.

Measured Resuspension Factor from
High Volume Air Sample Data taken Spring 1997
during Mound Canal Project

Coefficients:
GM = 7.18 e-5 g/m3
GSD = 2.167
n = 294
r ² = 0.933
AIC -1415.66