NYC 9/11 Public Portal Document

Liberty Mutual / ATC Measurement Data

Weekly Summary

Week of:	Agent Class	# of Samples	# of Analyses	Highest Analyte	Highest Result	OSHA PEL	ACGIH TLV	Highest Result % of OEL	Job with Highest Exposure	# of NQs	% NQ	Comments
11/25/01	Total Dust/Metals	17	340	Cadmium	2.8 ug/m3	5 ug/m3	10 ug/m3	56% of PEL	Torch Cutter	198	58%	
11/25/01	Resp. Dust/Silica	13	39	Quartz	0.018 mg/m3	0.1 mg/m3*	0.05 mg/m3	36% of TLV	Spotter	27	69%	
11/25/01	Aromatics	7	28	Toluene	0.0038 ppm	200 ppm	50 ppm	0.0076% of TLV	Torch Cutter	26	93%	
11/25/01	Aldehydes	3	21	Formaldehyde	0.010 ppm	0.75 ppm	0.3 ppm (Ceiling)	1.3% of PEL	Backhoe Operator	15	71%	
11/25/01	PAHs	6	96	Total PAHs	6.8 ug/m3	200 ug/m3	200 ug/m3	3.4% of PEL	Grappler Operator	75	78%	
11/25/01	Asbestos	24	24	Fibers	0.033 f/cc	0.1 f/cc	0.1 f/cc	33% of PEL	Spotter	4	17%	
11/25/01	Acids	6	36	Hydrofluoric Acid	0.01 ppm	3 ppm	3 ppm (Ceiling)	0.33% of TLV	Grappler Operator	59	164%	
11/25/01	Ozone	2	2	N/A				All "Too Low to Quantify"		2	100%	
11/25/01	Carbon Monoxide (TWA)	26	26	Carbon Monoxide	33 ppm	50 ppm	25 ppm	132% of TLV (abbreviated sample - 2 hrs, 9 min)	Flagman	15	58%	1 peak over NIOSH Ceiling of 200 ppm (Grappler Operator)
	Totals:	104	612									
12/1/01	Total Dust/Metals	10	202	Arsenic	1 ug/m3	10 ug/m3	10 ug/m3	10% of PEL	Torch Cutter	122	60%	
12/1/01	Resp. Dust/Silica	8	24	Respirable Dust	0.34 mg/m3	5 mg/m3	3 mg/m3	11% of TLV	Equipment Operator	19	79%	
12/1/01	Aromatics	12	48	Benzene	0.0032 ppm	1 ppm	0.5 ppm	0.64% of TLV	Equipment Operator	31	65%	
12/1/01	Aldehydes	6	42	Formaldehyde	0.017 ppm	0.75 ppm	0.3 ppm (Ceiling)	2.3% of PEL	Equipment Operator	29	69%	
12/1/01	PAHs	6	96	Total PAHs	17 ug/m3	200 ug/m3	200 ug/m3	8.5% of PEL	Torch Cutter	52	54%	
12/1/01	Asbestos	26	26	Fibers	0.048	0.1 f/cc	0.1 f/cc	48% of PEL	Spotter	5	19%	
12/1/01	Acids	6	36	Sulfuric Acid	0.059 mg/m3	1 mg/m3	1 mg/m3	5.9% of PEL	Grappler Operator	31	86%	
12/1/01	Ozone	8	8	N/A				All "Too Low to Quantify"		8	100%	
12/1/01	Carbon Monoxide (TWA)	18	18	Carbon Monoxide	5 ppm	50 ppm	25 ppm	20% of TLV	Torch Cutter	14	78%	
12/1/01	Hydrogen Sulfide	8	8	Hydrogen Sulfide	16 ppm	20 ppm (Ceiling)	10 ppm	160% of TLV (Area Sample)	SW Corner, near south bridge	5	63%	
12/1/01	Diesel Fume	11	11	Inorganic Carbon	0.075 mg/m3	3.5 mg/m3	3.5 mg/m3	2.2 % of PEL	Torch Cutter	1	9%	
	Totals:	108	508									

Notes:

The PEL for quartz is determined by the formula PEL = 10 mg/m3 / (% quartz +2). For dusts with high quartz content this works out to be a quartz concentration of approximately 0.1 mg/m3.

"OEL" = "occupational exposure limit". A generic term encompassing PELs, TLVs and other workplace exposure limits.

"NQ" = "not quantifiable". Substance was was not present in sufficient quantity in the sample to report a firm value for the concentration. All quantification levels for the sampling methods used are well below occupational exposure limits.

The area samples for hydrogen sulfide were taken near suspected sources and were not representative of worker exposure.

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