

APR 13 1981

TO Distribution

AT

DATE April 8, 1981

FROM Mr. M. S. Bisesi

AT Piscataway

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SUBJECT Lead Sampling Results - Burlington Compound Plant
Memo #10-80-001 M

Personal and area sampling for lead dust was performed periodically at the Burlington Compound Plant from March 20, 1979 to November 11, 1980 by Sue Drost, Senior Laboratory Technician. A summary of the sampling results follows below (see attached sheets for details):

Personal Samples	Concentration Ranges For Time Sampled (mg/m ³)	8-Hour TWA Ranges (mg/m ³)	# Of Exposures Above OSHA-PEL	# of Different Exposures Represented
Mixers	<0.01 to 0.34	0.02 to 0.28	9	13
Line Operators	<0.01 to 0.10	0.01 to 0.08	2	5
Master Operators	<0.1 to 0.18	0.10*	1	1
Short Weight Operators	<0.01 to 3.12	0.09 to 0.34 Δ	2	3
Foreman	<0.01 to 0.16	0.05	1	1
Bagger (no bagging performed)	All <0.02	All <0.02	-	3
Shipping & Receiving	<0.01 to 0.02	0.01	-	1
Quality Control Technician	All <0.01	<0.01	-	1
Utility	0.01 to 0.07	0.03	-	1
Mill Operator	All <0.01	<0.01	-	1
Maintenance Mechanic	<0.01 to 0.31	<0.01 to 0.11 ⁺	2	3
Yards & Service	<0.02 to 0.04	0.02	-	1

*A minimum 0.10 mg/m³ 8-hour TWA was indicated (sampling result represents only part of shift).

+A minimum 0.11 mg/m³ 8-hour TWA was indicated (sampling result represents only part of shift).

Δ One 8-hour TWA not reported due to insufficient sampling time.

Area Samples	Concentration For Time Sampled (mg/m ³)	8-Hour TWA (mg/m ³)	# of Different Exposures Represented
Quality Control Lab	All < 0.01	< 0.01	1
Warehouse - Office	All < 0.01	< 0.01	1
Warehouse - Lead Storage	All < 0.01	< 0.01	2
Maintenance Shop	All < 0.01	< 0.01	1
Mixing Floor - Line 1	0.01 to 0.27	0.01 to 0.22	5
Short Weights Booth	0.49 to 1.04	0.50	1

These results indicate that 17 of 34 personal exposures to lead dust either equalled or exceeded the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) for lead dust of 0.05 mg/m³ as a 8-hour time weighted average (TWA). Of the 17 personal exposures to lead dust that were below the OSHA-PEL, 4 exposures either equalled or exceeded the OSHA-Action Level (AL) of 0.03 mg/m³ as an 8-hour TWA.

Results of the area sampling indicate that 5 of 11 area samples exceeded the OSHA-PEL for lead dust of 0.05 mg/m³ as an 8-hour TWA. Of the 6 area

samples that did not exceed the OSHA-PEL, 1 area sample exceeded the OSHA-AL.

All lead dust samples were collected on Millipore 0.8 micron mixed cellulose ester filters using MSA pumps at a flow rate of 1-3 liters per minute. The samples and blanks were then digested with high purity nitric acid and analyzed on a P-E 373 Atomic Absorption Spectrophotometer equipped with flame. The corresponding laboratory sample numbers are 1084 - 1099, 1114 - 1130, 1135 - 1153, 1162 - 1168, 1177 - 1194, 1202 - 1210, 1231, 1245, 1258, 1260 - 1262, 1282 - 1287, 1292 - 1294, 1302 - 1308, 1312 - 1315, 1791 - 1793, 2139 - 2143, 4564 - 2490 and 4022 - 4026.



Michael Bisesi

MSB:rp
Attach.

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