

This copy for: Dr. L. V. Cralley - Pittsburgh Office

January 21, 1957

FROM: J. J. MORONEY

TO: MR. L. C. GETSINGER

CONFIDENTIAL

RE: DUST COUNTS IN FOUNDRY

The results of the dust counts taken in the Foundry on December 20 - 21, 1956 and January 10 - 11, 1957 are as follows:

<u>Sample No.</u>	<u>M.P.P.C.F.</u>	<u>Sample No.</u>	<u>M.P.P.C.F.</u>
1	2.8	7	4.3
2	3.9	8	0.8
3	1.1	9	1.3
4	4.4	10	1.3
5	1.8	11	1.5
6	1.8		

M.P.P.C.F. = Millions of dust particles per cubic foot of air as determined by the light field technic.

As to the maximum allowable concentrations for foundry dusts, regulation 10-9.1.1 (page 20) of Industrial Code Rule No. 10 (Feb. 1, 1942) reads as follows: "All foundry operations shall be so conducted and the general conditions of the plants structure, equipment and working area shall be so maintained as to prevent the dissemination of dust, fume and gas in the breathing zone of the foundry workers in excess of the following average concentrations: 'Thirty million particles per cubic foot of air (30.0 M.P.P.C.F.) for any foundry operation except abrasive blast cleaning, in which process the concentration shall not exceed ten million particles per cubic foot (10.0 M.P.P.C.F.)'." There are no abrasive blast cleaning or grinding operations in connection with the foundry work.

The results are all low and show that the controls used to keep the atmospheric dust concentrations down are effective. The highest count

obtained was 4.4 M.P.P.C.F. at the Shakeout #1 when the sample was taken 5 minutes on the east side, and 6 minutes on the west side of the machine. This period of 11 minutes completed the operation at this Shakeout. It is noted that the value obtained was well below the maximum allowable concentration for foundry dusts.

A data sheet is attached which shows the time of sampling, a location and description of the sample, and the results obtained.

JOHN M. PLUNKETT

JMP:vb
Attach.

Copies to: Messrs. J. H. DeKlyn
A. J. Stewart
Dr. L. V. Cralley - Pittsburgh Office

Informational Copy to: Mr. A. C. Heath - Industrial Hygiene Committee

DUST COUNTS IN FOUNDRY

Samples Taken by Use of MSA Midget Impinger, Drawing
12" H₂O Vacuum, Sampled in Breathing Zone

<u>Sample No.</u>	<u>Date</u>	<u>Time</u>	<u>Location and Description</u>	<u>Dust Count</u>
1	12-20-56	9:31-9:51 A.M.	At East Side of Shakeout #2	2.8 M.P.P.C.F.
2	12-20-56	10:10-10:30 A.M.	At West Side of Shakeout #2	3.9
3	12-20-56	11:16-11:36 A.M.	Up and Down Passageway Between Molding Benches and Outside Wall	1.1
4	12-21-56	9:12-9:23 A.M.	At Shakeout #1, 5 Minutes on East Side, 6 Minutes on West Side	4.4
5	12-21-56	9:45-10:05 A.M.	At Molding Bench #6	1.8
6	1-10-57	9:46-10:06 A.M.	At Molding Bench #5	1.8
7	1-10-57	10:17-10:32 A.M.	At Shakeout #1, 10 Minutes on East Side, 10 Minutes on West Side	4.3
8	1-10-57	10:50-11:10 A.M.	Up and Down Passageway	0.8
9	1-11-57	9:17-9:35 A.M.	At Shakeout #2, 9 Minutes on East Side, 9 Minutes on West Side	1.3
10	1-11-57	10:14-10:24 A.M.	Up and Down Passageway When Man Was Sweeping Up the Accumulation of Sand, etc.	1.3
11	1-11-57	10:25-10:35 A.M.	Beside Man Sweeping Last Half of Passageway	1.5

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