



INTER-ORGANIZATION MEMO

file Ashtabula Safety

TO: J. Brumbaugh

ATTENTION: H. Jewett, D. Jeffrey, C.G. Lopez,
H. Graff, D. Jenkins, W. Staples,
R. Jackson

FROM: E. Kierstead

DATE: April 21, 1980

SUBJECT: Respirable Dust Levels --
Ashtabula PVC Plant

Introduction

A respirable dust program, requested by A. D. Jeffrey of Akron, was started in Ashtabula because a recent British study of workers exposed to PVC dust suggested that excessive exposure caused adverse effects on the lungs.

This report is a summary of 18 respirable dust samples. Seven (7) samples were taken by C. G. Lopez on 2-27-80 and the remainder by Ashtabula personnel.

Summary

All samples were well below 5 mg/M³, therefore we do not show a respirable dust problem at this time. Additional samples will be taken.

Discussion

The samples are taken utilizing cassettes with PVC filters, preweighed by the Akron Industrial Hygiene Laboratory; cyclone adapters and MSA Model S high flow pumps that are calibrated with a suitable flow meter.

The cassettes, with required flow data for calculations, are returned to Akron for the test results.

Most all of the samples were taken over an 8 hour workday.

The current OSHA limit regulates PVC dust as a nuisance and requires control of respirable dust to a level of 10 mg/m³. The American Conference of Governmental Industrial Hygienists (ACGIH) recommends 5 mg/m³.

With these limits as a guide the data obtained, Tables I, II and III, shows:

1. All samples are well below 5 mg/m³ limits.
2. The highest value of 2.14 mg/m³ was obtained from the #2 sifter platform in resin finishing. (All sifter platforms had a lot of settled PVC on the floor, equipment, etc., especially #2. Housekeeping may be a problem. Also the exhaust fans were off.)

GENC 23771

Respirable Dust Levels --
Ashtabula PVC Plant

-2-

Conclusions

We do not have a respirable dust problem in Ashtabula. However, additional data will be obtained.

E. S. Kierstead
E. S. Kierstead

Approval:

G. E. Brumbaugh
G. E. Brumbaugh

GENC 23772

TABLE I

RESPIRABLE DUST TEST DATA
(mg/M³)PERSONNEL DATA

<u>Resin Finishing Operators</u>	<u>Resin Finishing Helpers</u>	<u>AB Operators</u>	<u>Laboratory Technician</u>
.33 *	.12 *	.00 *	.12
.03 *	.08 *	.04	
.10	.10 *	.07	
.29	.08		
	.49		

* Sampled from 120 to 355 minutes --
all other samples 8 hours

GENC 23773

TABLE II

RESPIRABLE DUST TEST DATA
(mg/143)JCS DATA

<u>Routine Duties in Resin Finishing (Operator)</u>	<u>Bagging on AB</u>	<u>Bagging on Drier</u>	<u>Routine Duties AB Operator</u>	<u>Filling Tote Bin & Bagging</u>	<u>Lab Testing Drier Samples & Routine Duties</u>
.33 *	.12 *	.03 *	.00	.49	.12
.10	.08 *	.10 *	.04		
.29	.00 *	.08	.07		
	.08				

* Sampled from 120 to 355 minutes --

all other samples 8 hours

GENC 23774

TABLE III

RESPIRABLE DUST TEST DATA
($\mu\text{g}/\text{M}^3$)AREA DATA

<u>Resin Finishing</u>	<u>#1 Sifter Platform</u>	<u>#2 Sifter Platform</u>	<u>#3 Sifter Platform</u>	<u>Bulk Resin Transfer Room</u>
.00 *	.19	2.14	.26	.18

* Sampled from 120 to 355 minutes --

all other samples 8 hours

GENC 23775