



THE DOW CHEMICAL COMPANY

LOUISIANA DIVISION
PLAQUEMINE, LOUISIANA

March 9, 1971

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✓ J. A. Granier	

USE OF DUST MASK BY LABORERS

The attached letter from H. R. Hoyle of the Biochemical Research Lab in Midland points out levels of talc and PVC dust which might be considered harmful to persons working in such an area.

Extensive tests by R&D in cooperation with Joe Granier reveal that we have such a condition in our warehouse at certain times. When talc, PVC, or Nopak is being dumped into either the weigh feeder or the "Bar-B-Que Pit", levels of dust exceeding the limits outlined by Hoyle are present.

Effective immediately, all laborers (or operators) will be required to wear a respirator when dumping one of the dusty materials into either of the hoppers. I realize they will not like to do this, but they should be made to understand that it is in the interest of their own health. Signs will be posted in these areas as a reminder.

It should be added that this practice is already covered in the CPE Plant Safety Rules.

J. G. Barksdale
CPE Plant

shb

attachment

DO 083714
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THE DOW CHEMICAL COMPANY

MIDLAND, Michigan

December 7, 1970

J. A. Granier, Jr.
CPE Quality Control
LOUISIANA DIVISION

cc: R. G. Vaughn, Louisiana Division
A. M. Paradiso, Louisiana Division

If the SiO_2 present in your talc is all there as crystalline SiO_2 , the exposure of workmen must average, over the day, at less than 3.7 mppcf. In the information given me, you do not indicate how much total time during the day the concentration is above the 1 mppcf, nor what the concentrations above the 1 mppcf really measure. Therefore, I cannot answer positively whether the dust mask or other safety equipment would be required.

If, indeed, the time-weighted average is below 3.7 mppcf, then safety equipment would not be required. Even though the time-weighted average exposure is below 3.7 mppcf, I would suggest wearing approved dust respirators during the periods of peak exposure, if such practice does not impose too much of a problem on the man. Of course, if the average exposures are above 3.7 mppcf, we have no choice but to require a respirator, regardless of inconvenience.

The inhalation toxicity of fine particles of polyvinyl chloride has not been investigated. Although we can't say that PVC fine particles can be considered as a physiologically inert material on the basis of demonstrated fact, I feel that the chances are that this dust will offer less hazard than the talc dust which has been shown to contain SiO_2 . Concentrations in air on a weight by volume of air should not exceed 10 mg/m^3 .


H. R. Hoyle

Biochemical Research Laboratory
1701 Building
MEloose 6-2377 (Area Code 517)

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HRH:sjl

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THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION
RESEARCH AND DEVELOPMENT

REFERENCE NO. _____

DATE THIS REPORT 3/5/71CHARGE 238DEPT. CPE

REPORT OF ANALYSIS

DESCRIPTION Particles per Cubic Foot Air

DATE OF SAMPLE _____

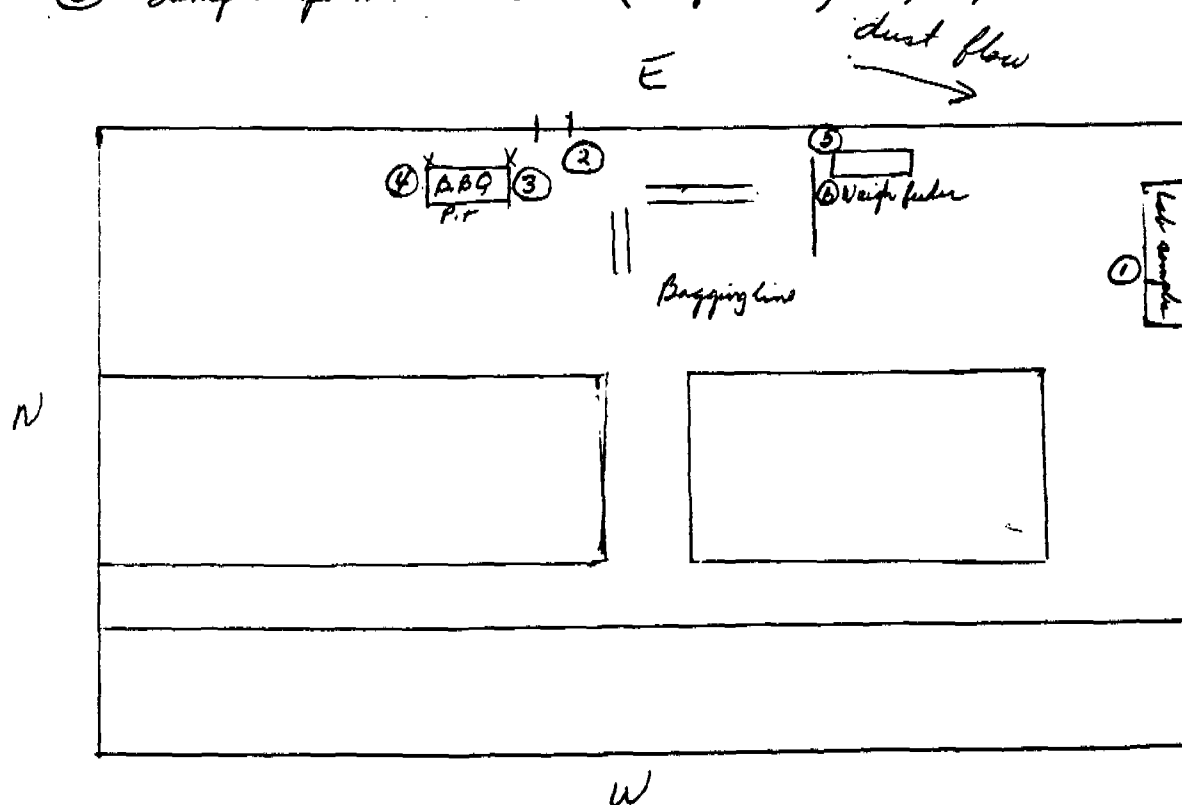
Sample	DATE	TOTAL FLOW (CU. FT.)	Particles CU. FT.	
Shelf in Lab Samples	2/1/71 - 2/2/71	6.99	52,217	
E. Wall Warehouse door to Control RM	2/1/71 - 2/2/71	6.08	226,151	
South wall BBQ pit	2/4/71	0.385	333,766,200	Dust marks required when going from these tests. (Dumping case in BBQ pit at airlock block in the weigh feeder)
North wall BBQ pit	2/4/71	0.364	195,288,446	
Weigh Feeder hopper (#1)	3/1/71	0.404	3,621,287	
Weigh Feeder hopper (#2)	3/1/71	0.331	6,797,583	

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BY: V. J.SIGNED EJ Brown

(Dust Study 2-1-71 to 2-4-71 + 3-1-72

<u>location</u>	<u>results</u>
① Sample point 1 ($16\frac{1}{2}$ hr.)	52,217 particles/cuft.
② Sample point 2 ($16\frac{1}{2}$ hr.)	226,151 particles/cuft.
✱ ③ Sample point 3 (1 hr.) (dust mask)	333,766,200 particles/cuft.
④ Sample point 4 (1 hr.) (required)	495,288,466 particles/cuft.
⑤ Sample point 5 (dust mask)	3,621,287 particles/cuft.
⑥ Sample point 6 (required)	6,797,583



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THE DOW CHEMICAL COMPANY
LOUISIANA DIVISION
RESEARCH AND DEVELOPMENT

REFERENCE NO. Envirocon. Health FileDATE THIS REPORT 11/16/71CHARGE 238DEPT. CPE plant

REPORT OF ANALYSIS

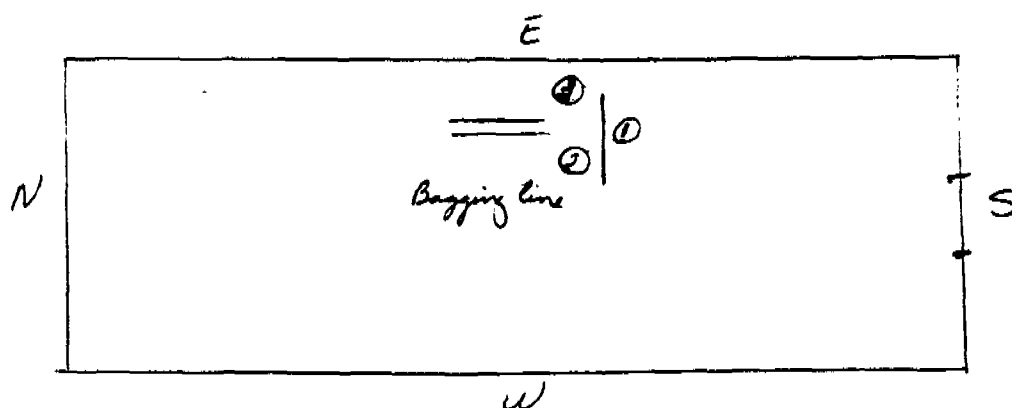
DESCRIPTION Particles PER Cu.Ft. Air CPE

Sample	DATE	Tot. Flow (Cu. Ft.)	DATE OF SAMPLING		
			Particles		
			Cu. Ft.		
South of Bagging in Warehouse	10-14-71	6.83	416,970		PVC
North of Bagging machine in Warehouse	10-14-71	6.83	217,733		PVC
East of Bagging machine in Warehouse	10-14-71	5.07	521,942		PVC
North side of Bagging line	11-3-71	2.56	266,797		Talc
East side of Bagging line	11-3-71	7.25	438,345		Talc

BY: 119DO 083718
CONFIDENTIALSIGNED EJ Brown

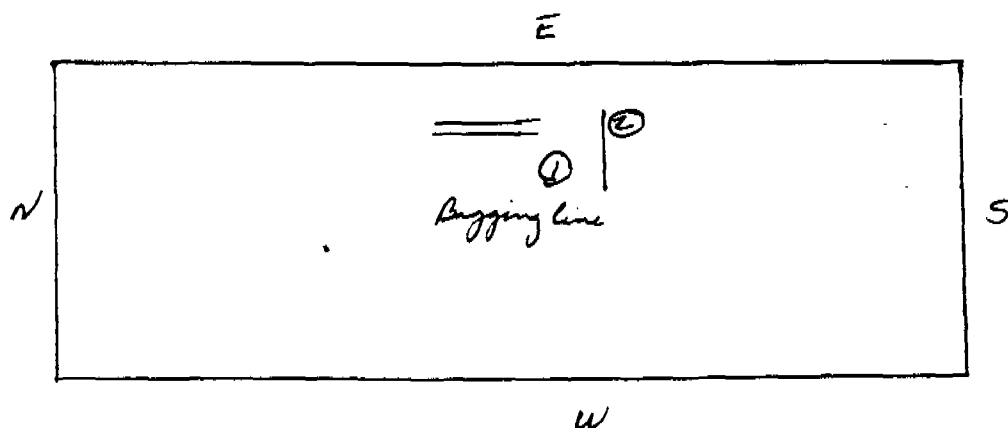
Dust Study 10-14-71

<u>location</u>	<u>result</u>
① Sample point 1	416,970 particles/cuft.
② Sample point 2	217,733 particles/cuft.
③ Sample point 3	521,942 particles/cuft.



Dust Study 11-3-71

<u>location</u>	<u>result</u>
① Sample point 1	266,797 particles/cuft.
② Sample point 2	438,345 particles/cuft.



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Dust Problem

Mistron Vapor Talc
in CPE Warehouse

① The concentration of Mistron Vapor Talc in the CPE Warehouse was studied.

② ^{One} ~~Two~~ areas ^{was} ~~were~~ found to contain excessive amounts.

③ The areas of excess Talc are worked in for 15 to 30 mins during the normal work day.

④ Dust masks are required when working in these areas.
(~~Casco No 90-F~~) (Scott-Acme # 8101R)

⑤ Talc was studied and found not to contain fiber, 7 bushels limit 20 mpp/cf.
(letter in this file)

I Dust respirator to be used

(a) ~~Casco No 90 F~~ Scott-Airco B101 R
U.S. Bureau of mine approved for
particles ~~to 10 to 10~~ ^{0.3} microns
a

(b) ~~a dust mask which will filter out
particles down to 0.3 microns is being
looked into.~~