UNION CARBIDE

INTERNAL CORRESPONDENCE

PLAINTIFF'S EXHIBIT
tabbies
UC-79

UNION CARBIDE CHEMICALS COMPANY • **INSTITUTE PLANT** P. O. BOX 2831, CHARLESTON, WEST VIRGINIA

To (Name) Mr. S. C. Giambruno
Company
Location Industrial Relations

Date 4 December 1962
Originating Dept. Medical Department - Plant 512
Answering letter date

Copy to
Mr. L. N. Dickinson
Mr. G. H. Daniels
Mr. N. S. Eastman
Mr. R. A. Huber
Mr. B. F. King
Mr. F. B. Snyder
Dr. E. M. Best, Jr.
Mr. E. G. Heinz
Mr. P. E. Henry
Mr. R. A. Neal
Mr. D. R. Matheny
Mr. N. H. Ketcham
Dr. C. U. Dernehl

Subject: Insulation Block Dust Survey
Construction Insulation Shop
Plant 511

Two reports by Mr. R. E. Peele have been issued on this subject (21 March 1962 and 20 July 1962) and sent out under my signature. On 16 May 1962, a copy of a letter from Doctor Nale to the UCC Central Purchasing Department in New York pertaining to this subject was sent to some of the people on the above distribution list. Undoubtedly, Johns Manville is extremely interested in having our Construction Department use their "Thermobestos" blocks. However, I believe that possibly unnecessary pressure is being applied to us from several sources.

The enclosed report by Mr. Peele includes information on an invitation for Mr. Peele to visit Manville, New Jersey, at Johns Manville's expense to evaluate their industrial hygiene studies. Mr. Peele points out in this report also that he has been contacted recently by the Design and Construction Department at the Technical Center who have implied that Mr. Peele should comply with Johns Manville's proposal.

It is my opinion that we should continue to do surveys, with limitations, on samples of "thermobestos" blocks that are of a new formula and are submitted to our Construction Insulation Shop at the Institute Plant for evaluation. However, I am not in favor of Mr. Peele accepting Johns Manville's invitation and would appreciate approval or disapproval for this trip from my supervision so that Mr. Peele can be informed accordingly.

Very truly yours,

R. J. Sexton, M.D.
Plant Medical Director

RJS:gh
Enclosure

Deposition Exhibit No 6
5-14-87

UNION CARBIDE INTERNAL CORRESPONDENCE

UNION CARBIDE CHEMICALS COMPANY • INSTITUTE PLANT P. O. BOX 2831, CHARLESTON, WEST VIRGINIA

To (Name) R. J. Sexton, M.D.
Company
Location Medical Department

Copy to

Date 3 December 1962
Originating Dept. Industrial Hygiene - Plant 512
Answering letter date
Subject Johns Manville "Thermobestos"

On 21 March 1962, an Industrial Hygiene Report, i.e., 62-IH-1-6-1, identified the existence of a hazard to health in the Construction Insulation Shop during such times as when insulation blocks manufactured by the Johns Manville Company are being fabricated with exhausted band saws. It was recommended at that time that 18" x 36" x 4" "Thermobestos" insulation blocks* should not be fabricated with the existing equipment unless --

(a) The atmospheric dust problem could be reduced to below 20 mppcf of air through the use of ventilation, etc., or

(b) The producer of this product begins manufacturing an insulation block which will not release upon fabrication with a band saw, dust concentrations in excess of 20 mppcf of air.

In accordance with these recommendations, the Construction Insulation Shop discontinued almost immediately the purchase of "Thermobestos" insulation blocks.

On 20 July 1962, a second Industrial Hygiene Report, i.e., 62-IH-2-G-1, was submitted subsequent to an evaluation of three new insulation materials supplied by the Johns Manville Company. This report concluded that these materials were improved over the original. However, the dust concentrations produced upon fabrication of these insulation blocks were substantially in excess of the recommended safe concentrations of 20 mppcf of air. Therefore, the recommendations contained in this report remained exactly as those stated in the initial report of March, 1962.

On 20 November 1962 the author was contacted by Mr. D. R. Matheny, General Foreman of the Insulation Shop, who stated that three Johns Manville representatives, i.e., Messers. F. E. Saxer, N. Gordon, and H. E. Kaufman, were present and had requested a meeting with the Plant Industrial Hygienist. This meeting was held in the lobby of Building 2, at which time Mr. Saxer produced the accompanying copy of portions of a report submitted by the Johns Manville Industrial Hygiene Laboratory located at Manville, N.J. Mr. Saxer stated that, in accordance with this report, they were not able to produce results which agreed with those contained in the reports submitted by this department. Therefore, they were concerned and interested in learning if their methods of reproducing

*The Johns Manville trade name for their insulation blocks

our environmental conditions, sampling and evaluating the dust concentrations contained therein were subject to question. At this point he stated also that this conclusion was promoted on the basis of their analysis of the atmospheric dust conditions produced by their competitors product, (i.e., Kaylo or Item # 5AT in the report) which in no way agreed with the data submitted in the Industrial Hygiene Report - IH-62-I-G-I.

It was explained at this point, that this department's interest in this problem is always confined solely to the environmental conditions as they effect the health of our workers, and that no part of the investigation should be construed as an attempt to arbitrarily promote the use of one company's product over that of another.

Upon completion of this statement, Mr. Saxer proposed that Mr. D. R. Matheny and the Plant's Industrial Hygienist make a trip to Manville, New Jersey, at Johns Manville's expense and at a time selected by Union Carbide. This visit would be for the specific purpose of observing, scrutinizing and comparing their method of atmospheric dust evaluation with that as utilitized by the Institute Plant's Industrial Hugiene Department. It was Mr. Saxer's opinion that such a visit would permit a more positive approach to the problem and remove the possibility of misunderstandings, etc., that results from written correspondence. At this point, Mr. Saxer was assured that there would be no personal objection on my part to the performance of such a service. However, a proposal of this nature would have to be submitted to the Plant Manager, Mr. L. N. Dickinson, through appropriate channels before a final decision could be made.

In conclusion, it should be stated that a phone call was received from Mr. F. G. Comerford of Design and Construction on the morning of 21 November 1962, who requested that he be brought up to date on this specific problem. This request was immediately satisified both by verbal explanation and by the promise that copies of both reports, i.e., 62-IH-I-G-I and 62-IH-2-G-1 would be mailed to him immediately. Mr. Comerford further stated that we should not back down on our requirements, but that it probably might be wise to consider their proposal in light of the many ramifications of the problem as it affects the whole company structure, i.e., purchasing, sales, manufacturing, etc.

Very truly yours,

Robert E. Peele

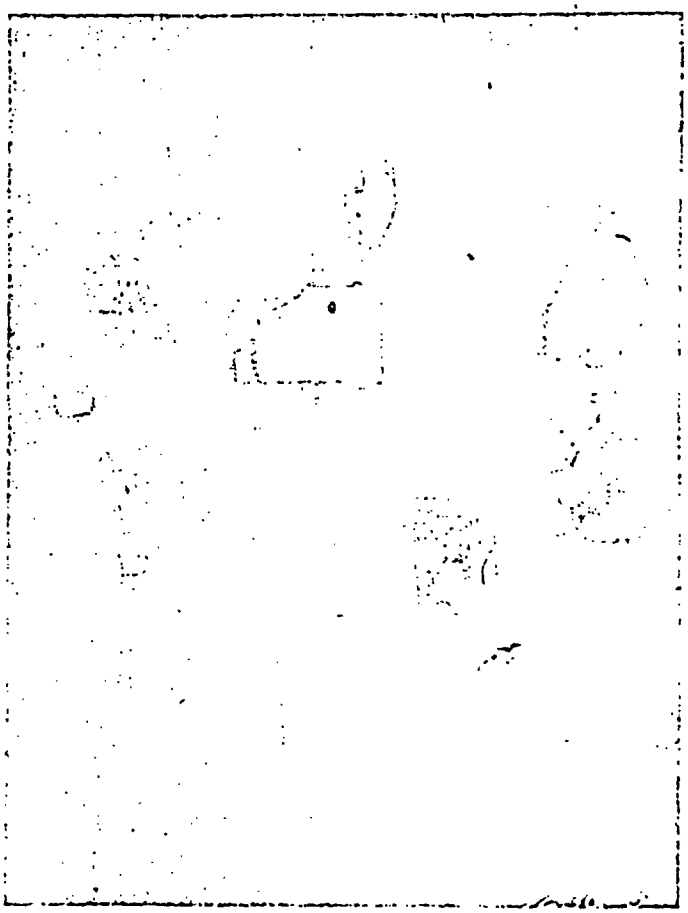
Robert E. Peele
Industrial Hygienist

REP:gh

Enclosure

DISCUSSION

Atmospheric dust concentration tests were made on October 30, 1962, during the fabrication of insulation blocks on the DO-ALL Model L-H-V band saw in the Research Center Materials Testing Laboratory sample preparation room. The National Conference of Governmental Industrial Hygienists Test Method was followed using the Greenburgh-Smith impinger. Tests were conducted by Mr. T. F. Bednarchuk of the J-M Industrial Hygiene Laboratory at Manville. To obtain comparative data, the room ventilation was adjusted to give more than the usual amount of atmospheric dust. The test set up is shown in the photograph below.



In addition to the room ventilating system, air was removed from directly above the block at a rate of 37 cu ft per min and from the metal housing surrounding the saw at a rate of 15 cu ft per min. The saw blade was standard and had six teeth per in. and a lineal speed of 2500 ft per min. The blocks were 18 x 11 x 4 or 6 in. and were cut so that the blade entered the 11-in. edge.

Five types of insulation were tested including standard Thermobestos, and three experimental pan cast blocks. Formulas are given in appendix I. Prior to testing, blocks of each were conditioned by: a) drying a minimum of seven days at 250F; b) drying at 250F and conditioning for 18 days at 70 per cent RH, 70F; c) drying at 250F and conditioning for 18 days at 95-100 per cent RH, 95F.

The test data are given in appendix II. The dust concentration tests were analyzed and indicated that the superiority reported by Union Carbide of over standard Thermobestos and the experimental pan cast blocks submitted to them is subject to question. The results also indicated that the slate dust composition, 2-AT, caused less atmospheric dust than the other types of blocks.

The effect that conditioning of the blocks had on the dust concentration in air was not apparent. This is attributed to the limited amount of material tested and the possibility that an equilibrium condition of dust concentration in the sampling area may not have been reached in some cases. In order to definitely establish the effect moisture content of the blocks had on atmospheric dust a more extensive series of tests would be required. Such tests would also serve to more definitely establish the relative dustiness of the formulas investigated.

APPENDIX II

TEST DATA

ATMOSPHERIC DUST CONCENTRATION DATA

	Experimental Pan Cast 6-in. Blocks			Std. 4-in. Tearmaster	Std. 4-in.
	1-AT	2-AT	3-AT*	4-AT	5-AT
Concentration in mppcf of Air					
Dried at 250F	110.8	19.9	16.4	34.2	52.0
Conditioned at 70% RH, 70F	39.3	14.8	47.1	15.8	36.4
Conditioned at 95-100% RH, 95F	99.6	10.6	81.4	104.0	97.6
Avg. of three conditions	83.2	15.1	31.6	51.3	62.0
Moisture Absorbed During Conditioning - %					
Dry to 70% RH, 70F	2.7	2.0	2.5	6.8	3.9
Dry to 95-100% RH, 95F	13.6	12.3	17.2	15.6	12.8

*This formulation was used for samples submitted to Union Carbide for evaluation. Refer to formula No. 58, samples 21, 22, 23, Research Report No. [illegible], p 1.

Bob. Peale