

OFFICIAL TRANSCRIPT PROCEEDINGS BEFORE

THE UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

- - - - -X
THE 3250 WILSHIRE BOULEVARD :
BUILDING, et al. :
Plaintiff, :
vs. : No. 87-06049 WMB (GHHX)
METROPOLITAN LIFE INSURANCE :
COMPANY, et al. :
Defendants. :
- - - - -X

Deposition of T. WALT PICKTHALL



Milpitas, California

December 14, 1988

ALDERSON REPORTING COMPANY
20 F Street, N.W.
Washington, D. C. 20001
(202) 628-9300
(800) 367-3376

1 IN THE UNITED STATES DISTRICT COURT
2 CENTRAL DISTRICT OF CALIFORNIA

3 - - - - - X

4 THE 3250 WILSHIRE BOULEVARD ;

5 BUILDING, ET AL., ;

6 Plaintiff, ;

7 V. ; 87-06048 WMB (GHKx)

8 METROPOLITAN LIFE INSURANCE ;

9 COMPANY, ET AL., ;

10 Defendants. ;

11 - - - - - X

12 Milpitas, California

13 Deposition of T. WALT PICKTHALL, a witness herein,
14 called for examination by counsel for Plaintiffs in the
15 above-entitled matter, pursuant to notice, the witness be
16 ing duly sworn by MICHAEL LYSAUGHT, a Notary Public in and
17 for the County of San Francisco, State of California, taken
18 at the residence of T. Walt Pickthall, 2234 Wellington
19 Road, Milpitas, California, at 10:00a.m., on Wednesday,
20 December 14, 1988, and the proceedings being electronically
21 reported by MICHAEL LYSAUGHT, and transcribed under his
22 direction.

1 APPEARANCES:

2 On behalf of the Plaintiff:

3 RAYMOND P. BOUCHER, ESQ.

4 Sayre, Moreno, Purcell & Boucher

5 10866 Wilshire Boulevard, Fourth Floor

6 Los Angeles, California 90024

7 (213) 475-0505

8 On behalf of the Defendant:

9 MARK J. HENDERSON, ESQ.

10 Dewey, Ballantine, Bushby, Palmer & Wood

11 333 South Hope Street

12 Los Angeles, California 90071

13 (213) 626-3399

14 Appearing for Metropolitan Life Insurance.

15 JOHN F. NYHAN and MARVIN BARTEL, ESQS.

16 Pillsbury, Madison & Sutro

17 515 South Flower Street, Suite 3300

18 Los Angeles, California 90071

19 (213) 612-7500

20 and

21

22

1 APPEARANCES (continued):

2 SIBLEY P. REPPERT, ESQ.

3 Goodwin, Procter & Hoar

4 Exchange Place

5 Boston, Massachusetts 02109

6 (617) 570-1474

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

1 C O N T E N T S
 2 WITNESS EXAMINATION BY COUNSEL FOR
 3 PLAINTIFFS DEFENDANT

4 T. WALT PICKTHALL

5 By Mr. Boucher 6

6 E X H I B I T S

7 EXHIBIT NO.	PAGE
8 Pickthall 2005	24
9 Pickthall 2006	28
10 Pickthall 2007	34
11 Pickthall 2008	37
12 Pickthall 2009	38
13 Pickthall 2010	40
14 Pickthall 2011	42
15 Pickthall 2012	45
16 Pickthall 1179 (referred to)	50
17 Pickthall 2013	55
18 Pickthall 2014	56
19 Pickthall 2015	60
20 Pickthall 2016	67
21 Pickthall 2017	69
22 Pickthall 2018(a)-2018(b)	71

1

E X H I B I T S

2 EXHIBIT NO.	PAGE
3 Pickthall 2019	73
4 Pickthall 2020	74
5 Pickthall 2021	80
6 Pickthall 2022	84
7 Pickthall 2023(a)	86
8 Pickthall 2023(b)	87
9 Pickthall 2024	88
10 Pickthall 2025	90
11 Pickthall 2026	92
12 Pickthall 2027	93
13 Pickthall 2028	95
14 Pickthall 2029	99
15 Pickthall 2030	100
16	
17	
18	
19	
20	
21	
22	

1 P R O C E E D I N G S

2 Whereupon,

3 T. WALT PICKTHALL

4 residing at 2239 Wellington, Milpitas, California, was
5 called as a witness by counsel for Plaintiff, and having
6 been duly sworn by the Notary Public, was examined and
7 testified as follows:

8 EXAMINATION BY COUNSEL FOR PLAINTIFF

9 BY MR. BOUCHER:

10 Q Let me ask you, if you could, please, to review
11 with us your work history with W. R. Grace beginning when
12 you first were employed by Grace to the present time.

13 A Grace acquired California Zonolite Company in
14 1967, so that was the beginning of my association with W.
15 R. Grace. As I recall it, it was September of 1967.

16 Q What was your job title or position?

17 A District manager.

18 Q What district?

19 A Northern California.

20 Q How long did you remain in that position?

21 A Until my retirement in 1976.

22 Q Have you consulted for Grace since 1976?

1 A Only on one occasion. It had nothing to do with
2 asbestos; as I recall, it had to do with insulation. I
3 attended a couple of meetings in Sacramento when they were
4 having insulation hearings.

5 Q Can you give me an outline of what your job
6 duties and responsibilities were as district manager?

7 A Both the sell and distribution of our products in
8 Northern California.

9 Q Who were you responsible for reporting to when
10 you first were employed by W. R. Grace?

11 A C. H. Wendel.

12 Q Did that ever change?

13 A No. Oh, I beg your pardon. It might have --
14 yeah, in the last six months of my employment Tom Felt came
15 to the West Coast and took the regional manager's position.

16 Q What was the organizational breakdown of the
17 sales and distribution network at W. R. Grace when you were
18 first employed there?

19 A I am not sure that I fully understand your
20 question.

21 Q Really, what I want to know is how was the sales
22 and distribution of products set up in W. R. Grace in the

1 division that you were employed in?

2 MR. REPPERT: In the Northern California district?

3 MR. BOUCHER: No, just in general.

4 MR. REPPERT: Throughout all of Grace?

5 MR. BOUCHER: Right.

6 MR. REPPERT: Then I object on the grounds that it
7 is beyond the scope of this witness' competence to answer
8 that. Grace has thousands and thousands of different
9 businesses.

10 MR. BOUCHER: We are just talking about Zonolite.

11 MR. REPPERT: Can you rephrase the question to
12 focus, at least?

13 BY MR. BOUCHER: (Resuming)

14 Q What types of products were you responsible for
15 when you were the district manager when you first were em
16 ployed by W. R. Grace?

17 A Fire protection products; plaster aggregate;
18 concrete aggregate; insulation; that pretty well covers it.

19 Q Did any of the products in any of the categories
20 where you had responsibility for sale and distribution
21 contain asbestos?

22 MR. REPPERT: As of when?

1 MR. BOUCHER: When he was first employed there.

2 THE WITNESS: Not to my knowledge. I beg your
3 pardon. One product did; it was an acoustical plaster.
4 Our terminology for it was Zonolite Acoustical Plastic and
5 it did contain asbestos.

6 BY MR. BOUCHER: (Resuming)

7 Q When did Grace stop selling the Zonolite
8 Acoustical Plastic which contained asbestos?

9 A I don't know that it was ever discontinued, per
10 se. There were other products that gradually supplanted
11 it: Mono-Kote, for one, and other types of acoustical
12 plaster.

13 Q Do you know when W. R. Grace stopped selling
14 Zonolite acoustical plaster?

15 A No.

16 Q Was it prior to 1970?

17 (Pause)

18 MR. REPERT: If you know; don't speculate.

19 THE WITNESS: I can't answer that.

20 BY MR. BOUCHER: (Resuming)

21 Q Was the fact that the Zonolite acoustical plastic
22 contained asbestos one of the reasons why they stopped

1 selling it?

2 A Not to my knowledge.

3 Q Were there ever any discussions that you were
4 aware of at Grace concerning any health hazard associated
5 with the Zonolite acoustical as a result of the fact that
6 it contained asbestos?

7 A At what point in time?

8 Q At any point in time?

9 A You have to understand that we didn't really
10 believe that there was a health hazard with any of these
11 products, after we had made the necessary tests on them.

12 Q Were there any discussions at Grace about the
13 Zonolite acoustical product and the fact that it contained
14 asbestos that you were aware of?

15 A No.

16 Q Were you responsible for the sale of Mono-Kote III
17 as part of your job responsibility when you were first
18 employed by Grace?

19 A Yes, it was available at that point.

20 Q Did it contain asbestos at that time?

21 A Yes. We are talking about the period of 1967; my
22 recollection is that the product was available at that

1 time.

2 Q It was available from 1967 until what year, do you
3 remember?

4 A It was discontinued entirely in 1973.

5 Q When you were first employed by W. R. Grace as
6 district manager, was that with the construction products
7 division of the Zonolite Corporation?

8 A Well, you were all right, I think, until you got
9 into the Zonolite part of it. I don't think that the name
10 Zonolite was used at that point. I think it was the
11 construction products division of W. R. Grace.

12 Q What was the sales and distribution organization
13 like at the time you were first employed by Grace with
14 respect to the construction products division, you know,
15 concerned with the fire protection products specifically?

16 MR. REPPERT: Objection. The question is vague
17 and overly broad.

18 You can answer if you can understand it.

19 THE WITNESS: To the best of my ability, if I
20 understand your question correctly, it moved from our
21 distribution points which were manufacturing plants to a
22 dealer network, and from a dealer network to individual

1 contractors and their various locations.

2 BY MR. BOUCHER: (Resuming)

3 Q What was Mr. Wendel's title when you were first
4 employed by Grace?

5 A Regional manager, Pacific Region.

6 Q How many people did you have under you working in
7 your district?

8 A Generally four to five.

9 Q What were their responsibilities?

10 A Sales.

11 Q Did you have a sales approach that the sales
12 people were expected to follow with respect to the sale of
13 Mono-Kcte III?

14 A Yes.

15 Q Can you explain that approach to me?

16 A Well, the primary area of responsibility was to
17 the architect and the engineer who were designing the
18 buildings where the product could be used. And from there
19 to the subcontractor who would bid a job on which our
20 material had been supplied, or had been specified, I should
21 say.

22 Q Would the sales person then be responsible for

1 interaction then with the applicators themselves to make
2 sure that the product was properly applied and to take care
3 of any problems that occurred in application?

4 A That was part of their responsibility; yes.

5 Q Was there a method of approach as to how the sales
6 people would interact with architects and engineers to
7 promote the sales of Mono-Kote?

8 A Yes.

9 Q Can you explain that to me?

10 A Generally the projects were first brought to our
11 attention in a publication which was called "The Daily
12 Pacific Builder". New projects were listed. The names of
13 the architects and engineers were normally in that same
14 announcement and then we would call on that architect or
15 engineer or both and get out product specified.

16 Q Was there any sales or promotional materials that
17 were used by the sales people to provide the engineers and
18 architects in order to help promote the sale or use of
19 Mono-Kote III?

20 A Yes, we had so-called brochures which described
21 the product, in some cases listed the ratings for various
22 parts of the structure.

1 Q Was there any regional or district-wide
2 advertising or promotions in trade magazines or
3 publications?

4 A My recollection is that we carried an
5 advertisement in the "California Plasterer", which was a
6 publication that went to plastering contractors in the
7 state. That was more or less of a general nature, just
8 more of an institutional type advertising than specific
9 product information.

10 Q Aimed for normally keeping the name out in front
11 --

12 A In front of the plastering contractors, yeah.

13 Q Was there any attempt to attend or participate in
14 any conferences or meetings that were held by any of the
15 trade associations or groups, such as engineers or
16 architects or stuff like that?

17 MR. REPPERT: Are you referring to attempts by Mr.
18 Pickthall?

19 MR. BOUCHER: Mr. Pickthall or those within his
20 jurisdiction or area.

21 THE WITNESS: On occasion I attended the
22 Structural Engineers Association meetings and the

1 California Plasterers Association meetings, and on rare
2 occasions the Architectural AIA meetings.

3 MR. BOUCHER: Let me move, then, to the question
4 of asbestos.

5 BY MR. BOUCHER: (Resuming)

6 Q When did you first hear that exposure to asbestos
7 was a potential cause of asbestosis in people?

8 MR. REPERT: I will object to no foundation.

9 THE WITNESS: My first recollection of the subject
10 at all was an article which was published in the New Yorker
11 magazine. My recollection is that it was 1968, '69. The
12 author of the article was Dr. Seilikoff.

13 BY MR. BOUCHER: (Resuming)

14 Q Do you recall how you came into contact with or
15 say the New Yorker article?

16 A No.

17 Q Do you remember somebody from W. R. Grace
18 forwarded it to you for your review?

19 A I just really can't answer the question; I don't
20 remember.

21 Q Do you recall whether you saw the article at or
22 about the time that it was published?

1 A It must have been shortly thereafter; yes.

2 Q At the time that the New Yorker article came out
3 -- Let me rephrase it.

4 At the time that you became aware of the New
5 Yorker article, W. R. Grace was producing and selling a
6 product that contained asbestos, namely Mono-Kote III,
7 correct?

8 A Yes.

9 Q What, if anything, did you do once you saw the New
10 Yorker article in light of the fact that Mono-Kote III was
11 being sold by Grace and it contained asbestos?

12 A I am not sure that I understand your question; you
13 want to give it to me again, please?

14 Q What, if anything, did you do once you saw the New
15 Yorker article as a result of the fact that Mono-Kote III
16 was being sold by Grace and it contained asbestos?

17 A One of the things that was pointed out in that
18 article was that there was tremendous amounts of sprayed
19 materials on the streets of New York City, and having been
20 around the industry long enough to know it was very easy to
21 get tarred with the same brush that the guilty guy was
22 being tarred with, we decided that we should find out

1 exactly where our product was in this matter of hazard. We
2 didn't think that we were contributing to the hazard, but
3 we didn't have any proof that we were not doing so.

4 So, I prevailed upon the regional manager who in
5 turn received authorization from Cambridge to have some
6 tests done by Tabershaw & Cooper. Those results are
7 available.

8 Q Do you recall, generally, what the results were?

9 A Yes, that we were, in all cases, as my
10 recollection goes, we were well under the threshold limits
11 which had been established by the federal government.

12 Q Was there still some concern in your mind that
13 there may be a health hazard associated with the use of
14 Mono-Kote III after you received the test results from
15 Tabershaw & Cooper?

16 A No. We didn't believe that there was any health
17 hazard.

18 Q Were you ever involved in any discussions with
19 anyone at W. R. Grace about developing an asbestos-free
20 substitute for Mono-Kote III?

21 A I don't recall any direct conversation with
22 anyone.

1 Q Were you ever aware, prior to 1973, that
2 W. R. Grace was in the process of developing an asbestos
3 free substitute for Mono-Kote III?

4 A Yes.

5 Q When did you first become aware of that?

6 A I am not sure of the date.

7 Q Do you recall whether it was prior to 1970?

8 A No, not really.

9 Q Do you recall the circumstances that surrounded
10 your finding out that Grace was in the process of
11 developing an asbestos substitute for Mono-Kote III?

12 A If I understand your question, you are asking me
13 if I recall the circumstances under which I learned this?

14 C Right.

15 A No, I don't recall.

16 Q What was your understanding as to why W. R. Grace
17 was developing an asbestos-free substitute for Mono-Kote
18 III?

19 MK. REPPERT: If you have any such understanding.

20 THE WITNESS: Anything I gave you on that part
21 would be a presumption on my part.

22 BY MR. BOUCHER: (Resuming)

1 Q You didn't have any understanding at that point in
2 time?

3 MR. REPPERT: Asked and answered.

4 BY MR. BOUCHER: (Resuming)

5 Q You didn't have any understanding when you first
6 learned?

7 MR. REPPERT: Objection, asked and answered.

8 BY MR. BOUCHER: (Resuming)

9 Q Do you remember when -- Let me rephrase that.
10 Do you remember what the name of the asbestos-free
11 substitute for Mono-Kote III was?

12 A It would have to have been Mono-Kote IV.

13 Q Do you remember when Mono-Kote IV was first
14 commercially available from W. R. Grace?

15 MR. REPPERT: In this district?

16 MR. BOUCHER: Anywhere.

17 THE WITNESS: No.

18 BY MR. BOUCHER: (Resuming)

19 Q Are you familiar with Mono-Kote V?

20 A Yes.

21 Q Do you remember when Mono-Kote V was first
22 commercially available from Grace?

1 A Not exactly; no.

2 Q Do you remember whether Mono-Kote IV was
3 commercially available prior to the 1973 EPA ban on the use
4 of spray-on asbestos fireproofing material?

5 MR. REPPERT: Will you focus that question as to
6 where, available where?

7 MR. BOUCHER: Anywhere in Grace.

8 THE WITNESS: Prior to 1973?

9 MR. BOUCHER: Prior to the time of the ban.

10 THE WITNESS: Yes, it was available.

11 BY MR. BOUCHER: (Resuming)

12 Q Do you have a recollection of approximately how
13 soon prior to the ban Mono-Kote IV was available?

14 A No.

15 Q Prior to the EPA ban on the use of spray-on
16 asbestos fireproofing material, did anyone at Grace
17 indicate to you an understanding that the EPA was going to
18 ban the use of spray-on asbestos fireproofing material,
19 including Mono-Kote III?

20 A I don't recall anything in that nature.

21 Q Prior to 1971, did you have any conversations with
22 Tom Egan about the development of an asbestos-free

1 substitute for Mono-Kote III?

2 A Not that I recall.

3 Q Prior to 1971, did you have any discussions that
4 you can recall with Mr. Bragg about the development of an
5 asbestos-free substitute for Mono-Kote III?

6 A Not that I recall.

7 Q You were, at one point in time, a member of the
8 Vermiculite Institute?

9 A Yes.

10 Q When did you first become a member of the
11 Vermiculite Institute?

12 A I don't remember exactly.

13 Q Do you remember when you stopped being a member
14 of the Vermiculite Institute?

15 A When it was disbanded.

16 Q Do you remember when that was?

17 A Not really; no.

18 Q Do you remember the reasons why the Vermiculite
19 MR. REPPERT: If you knew.

20 THE WITNESS: If I knew at that time, I can't
21 recall it now.

22 BY MR. BOUCHER: (Resuming)

1 Q At some point in time, you became the president
2 of the Vermiculite Institute?

3 A Yes.

4 Q What was the function, or purpose, of the
5 Vermiculite Institute?

6 A Primarily to keep the various people who were in
7 the Vermiculite business aware of developments in all
8 phases of the Vermiculite business; it was a typical, I
9 would say, trade association.

10 Q While you were a member of the Vermiculite
11 Institute, do you remember whether the Vermiculite
12 Institute had any discussions about the development of an
13 asbestos-free substitute for Mono-Kote?

14 A Not that I recall.

15 Q As president, did you generally attend the annual
16 meetings of the various committees of the Vermiculite
17 Institute?

18 A No.

19 Q Do you remember whether, in 1968, you attended
20 the Plastering and Fireproofing Committee meeting of the
21 Vermiculite Institute?

22 A No.

1 Q Do you recall, while you were a member of the
2 Vermiculite Institute, a request being made by the
3 Plastering and Fireproofing Committee of the Vermiculite
4 Institute to the Marketing Development Committee for
5 appropriation of money to look into the development of an
6 asbestos-free Mono-Kote product?

7 MR. REPERT: Objection. No foundation.

8 THE WITNESS: I don't recall any such request.

9 BY MR. BOUCHER: (Resuming)

10 Q Do you recall any request being made by the
11 Plastering and Fireproofing Committee that Mr. Felt, Tom
12 Felt, contacted the Underwriters Laboratories to determine
13 the testing requirements for an asbestos-free Mono-Kote
14 product?

15 A No.

16 Q Was there anyone connected with the Vermiculite
17 Institute who was responsible for reviewing or monitoring
18 the medical or scientific literature on issues of
19 importance or concern to the Vermiculite Institute?

20 MR. REPERT: If you know.

21 THE WITNESS: I don't recall any such person.

22 BY MR. BOUCHER: (Resuming)

1 Q Did the Vermiculite Institute maintain a medical
2 or scientific library of any sort?

3 A Not to my knowledge.

4 (Pause)

5 THE WITNESS: While you are doing that, can I be
6 excused?

7 MR. BOUCHER: Please take as many breaks as you
8 need, sir.

9 Off the record.

10 (Whereupon, a short recess was taken.)

11 MR. BOUCHER: On the record.

12 I am marking this document, a one page letter on
13 Vermiculite Institute letterhead from Leslie A. Barron to
14 members of the Board of Directors Plastering and
15 Fireproofing Committee and Marketing and Development
16 Committee Re: Article on Asbestos dated November 18, 1968.

17 (The document referred to was
18 marked Pickthall Exhibit No.
19 2005 for Identification.)

20 (The document was proffered to the witness.)

21 (Pause)

22 BY MR. BOUCHER: (Resuming)

1 Q Have you had an opportunity to review Exhibit 2005?
2 A Will you repeat the question?
3 Q Have you had an opportunity to review Exhibit
4 20005?
5 A Yes.
6 Q Do you recall receiving a copy of Exhibit 20005?
7 A No.
8 Q There is some handwriting on the top right-hand
9 portion of Exhibit 2005; is that your handwriting, by
10 chance?
11 A I don't -- No, I'm sure it is not.
12 Q On the second page of 2005 there is some
13 handwriting --
14 A I only have one page. Or is this the one you are
15 referring to?
16 Q That's --
17 A No, that's not mine.
18 Q The letter dated November 1968 discusses the New
19 Yorker magazine article. Do you recall any discussions
20 with any Vermiculite Institute members about the New Yorker
21 magazine article?
22 A No.

1 Q Do you recall, having reviewed Exhibit 2005,
2 having received a copy of the New Yorker magazine article
3 from Leslie Barron of the Vermiculite Institute?

4 A I don't recall.

5 Q Did you have any discussions, to the best of your
6 recollection with Mr. Culver about the New Yorker magazine
7 article at any point in time?

8 A Not that I recall.

9 Q Did you have any discussions with Mr. Culver
10 about the question of asbestos and potential health hazards
11 associated with exposure to asbestos?

12 A Not that I recall.

13 Q What is your understanding of the types of
14 diseases that have been associated with exposure to
15 asbestos?

16 MR. REPERT: If you have any such understanding.

17 THE WITNESS: I have no direct knowledge, of
18 course, of any value. My knowledge is only what I have
19 been told or what I have read on the subject, and that is
20 the fact that it is a carcinogenic.

21 BY MR. BOUCHER: (Resuming)

22 Q Have you heard that exposure to asbestos is a

1 potential cause of Mesothelioma?

2 A I can't know what that disease is.

3 Q You heard that exposure to asbestos is a cause of
4 lung cancer?

5 A Yes.

6 Q The second paragraph of Exhibit 2005 talks about
7 a glazing over fireproofing in certain areas of a
8 structure. Do you have an understanding, or did you have
9 an understanding, as to what the glazing over process was
10 talking about?

11 A None at all.

12 Q Did you have any conversations with anyone at the
13 Vermiculite Institute prior to 1973 of abatement type
14 procedures that could be used with spray-on asbestos fire
15 proofing products?

16 MR. REPERT: Do you understand words "abatement
17 type procedures"?

18 THE WITNESS: My interpretation of that word
19 would be a banning of the use of same.

20 BY MR. BOUCHER: (Resuming)

21 Q Do you know what the term "encapsulation" means?

22 A Something that would be enclosed.

1 Q Let me use that word instead. Prior to 1973, did
2 you have conversations with anyone from the Vermiculite
3 Institute about encapsulation procedures that could be used
4 with spray-on asbestos fireproofing materials?

5 A Not that I recall.

6 Q Did you have any conversations prior to 1973 with
7 anyone at Grace about encapsulation procedures that could
8 be used with spray-on asbestos fireproofing material?

9 A Not that I recall.

10 Q As you sit here, do you have any recollections of
11 having any conversations with anyone from either Grace or
12 the Vermiculite Institute about the subject matter that is
13 addressed in Exhibit 2005?

14 A Not that I recall.

15 MR. BOUCHER: Let me hand you what we will have
16 marked as Exhibit 2006. It is a two page letter with at
17 tached distribution list dated June 26, 1969 from Thomas
18 Egan to the distribution list.

19 (The document referred to was
20 marked Pickthall Exhibit No.
21 2006 for identification.)

22 (The document was proffered to the witness.)

1 (Pause)

2 BY MR. BOUCHER: (Resuming)

3 Q Have you had an opportunity to review Exhibit 2006?

4 A Yes.

5 Q Have you ever seen Exhibit 2006 before?

6 A Not that I recall.

7 Q You don't recall whether you received a copy of
8 it when it was distributed in or around June of 1969?

9 A No, I don't recall that I did or didn't.

10 Q The first paragraph talks about attacking fiber
11 competition and elimination of fiber specifications to get
12 architects to use straight Mono-Kote, or at least
13 cementitious specifications; do you see that?

14 A Yes.

15 Q Do you recall any conversations that you had with
16 Tom Egan concerning those issues?

17 A No.

18 Q The last paragraph of the first page talks about:
19 "Combine this with bad practice, sloppy work,
20 medical dangers with asbestos, poor quality materials
21 and you have a real program to go after the architect
22 and get him to remove fibers from his specs and to

1 refuse approval of it on the projects."

2 Do you see that?

3 A Yes.

4 Q Do you recall having any conversations with Mr.
5 Egan about that subject matter?

6 A No.

7 Q Did you have an understanding in June of 1969,
8 having reviewed Exhibit 2006, of the medical dangers
9 associated with asbestos?

10 MR. REPERT: He has testified that he does not
11 recall having seen this.

12 MR. BOUCHER: I understand that.

13 MR. REPERT: So, I object to the question on the
14 ground that the question implies that he did review this in
15 '69.

16 MR. BOUCHER: You may answer.

17 THE WITNESS: I don't recall that I had any
18 conversations with Mr. Egan on that subject.

19 BY MR. BOUCHER: (Resuming)

20 Q Having reviewed 2006, does it refresh your
21 recollection at all whether or not you understood in '69
22 that there were medical dangers associated with asbestos?

1 A As it related to our product or in general?

2 Q In general.

3 A In general, by what time I must have read about
4 the report from Seilikoff.

5 A Yes.

6 Q Aside from the New Yorker article, do you
7 remember whether, as of June of '69, you read any other
8 materials concerning health hazards associated with
9 asbestos?

10 A Not that I recall.

11 Q Do you recall ever being directed to discuss with
12 architects the medical dangers associated with exposure to
13 asbestos and the distinction between cementitious products
14 and spray-on products with respect to that issue?

15 A I believe your question asked me whether I was
16 ever directed.

17 Q Yes.

18 A Not that I recall.

19 Q Did you have any conversations with anyone at
20 Grace concerning whether you and your sales people should
21 talk to architects and engineers in your area about the
22 medical dangers associated with asbestos and the

1 distinction between cementitious products and spray-on
2 fiber products with respect to that issue?

3 A Not that I recall.

4 Q Did you in your work and capacity as a district
5 manager talk to architects and engineers prior to 1970
6 about medical dangers associated with asbestos?

7 A I don't remember.

8 Q Prior to 1973, do you remember whether you ever
9 talked to any architects or engineers about Mono-Kote III,
10 distinguishing it from spray-on fiber fireproofing products
11 with respect to dangers associated with exposure to
12 asbestos?

13 A That is a long question you have got for me
14 there.

15 MR. REPERT: Do you want to have it reread?

16 THE WITNESS: Yes.

17 MR. BOUCHER: Let me see if I can rephrase it as
18 closely as I possibly can.

19 BY MR. BOUCHER: (Resuming)

20 Q Prior to 1973, did you have any conversations
21 with any architects or engineers about the difference
22 between Mono-Kote III and spray-on asbestos fiber

1 fireproofing materials with respect to medical problems
2 associated with exposure to asbestos?

3 A I certainly don't recall any specifics.

4 Q Let me just ask you one more question in that
5 area. In other words, you don't ever recall trying to
6 distinguish Mono-Kote III from spray-on asbestos fireproofing
7 products insofar as dangers associated with asbestos expo
8 sure is concerned; would that be correct?

9 MR. REPPERT: Your prior question concerned con
10 versations with architects and engineers.

11 MR. BOUCHER: I am limiting this one to --

12 MR. REPPERT: This one is limited to architects
13 and engineers?

14 MR. BOUCHER: Yes.

15 MR. REPPERT: And the question is? Just to make
16 sure that I understand it myself, you are asking him
17 whether he recalls conversations with architects and
18 engineers; is the question in that context?

19 MR. BOUCHER: Right.

20 BY MR. BOUCHER: (Resuming)

21 Q Do you ever recall any conversations, prior to
22 1973, with any architects or engineers where you attempted

1 to distinguish Mono-Kote III from spray-on fiber
2 fireproofing products with respect to health hazards
3 associated with exposure to asbestos?

4 A No, I don't recall any such specific instances.
5 Boy, you are asking me for things that are 21
6 years ago.

7 MR. BOUCHER: I understand, sir, and you are
8 obviously not expected to remember everything that happened
9 back then.

10 Let me show you what we will have marked as 2007.
11 For the record, it is a two page letter from Thomas F. Egan
12 to Distribution List dated December 2, 1969 with an
13 attached distribution list.

14 (The document referred to was
15 marked Pickthall Exhibit No.
16 2007 for identification.)

17 (The document was proffered to the witness.)

18 (Pause)

19 MR. BOUCHER: Have you had an opportunity to
20 review Exhibit 2007?

21 THE WITNESS: Yes, I have.

22 BY MR. BOUCHER: (Resuming)

1 Q Do you recall receiving a copy of 2007 prior to
2 today?

3 A No.

4 Q The second paragraph of Exhibit 2007 talks about
5 the fact that Mr. Egan had heard an address by Dr.
6 Sellikoff. Did you ever have any conversations with Mr.
7 Egan about the address that Dr. Sellikoff gave at the CPLIA
8 convention, to the best of your recollection?

9 A Not that I recall.

10 Q Did you ever attend any seminars or meetings of
11 any sort where Dr. Sellikoff spoke?

12 A No, not that I recall anyway. I think I would
13 remember that if I had.

14 Q The next paragraph begins:

15 "His address was very factual about the extreme
16 dangers of the use, under current practices, of
17 sprayed fiber fireproofing."

18 Do you see that?

19 A Yes.

20 Q Do you have any understanding, based upon your
21 work at W. R. Grace, as to what Mr. Egan meant by that
22 phrase, by that sentence?

1 A Well, anything that I gave you as an answer on
2 that would be a presumption on my part. I don't know what
3 he had on mind when he put that down; really.

4 Q You never had any discussions with him about the
5 extreme dangers of the use of spray-on fiber fireproofing
6 products, to the best of your recollection?

7 A Not that I recall.

8 Q The second page, the first sentence:

9 "why not use this data on major projects
10 regardless of their stage of design ...,"

11 Do you recall ever using any of the data that is
12 discussed in Exhibit 2007 with any architects with respect
13 to major projects?

14 A No.

15 Q The next paragraph talks about architects and
16 engineers being touchy about liability in approving a
17 product with inherent dangers.

18 Did you ever have any conversations with any
19 architects or engineers about potential liability
20 associated with the specification of spray-on fiber
21 fireproofing products?

22 A Not that I recall.

1 Q The last paragraph talks about an article that
2 appeared in the Wall Street Journal November 7, 1968. Do
3 you have any recollection of seeing any articles that
4 appeared in the Wall Street Journal prior to 1970 that
5 discussed health hazards associated with asbestos?

6 A No.

7 Q Do you recall whether you had any conversations
8 with any plaster contractors who attended the CPLIA
9 convention in 1969?

10 A No.

11 Q Do you recall whether you had any conversations
12 with any plastering contractors about Dr. Seilikoff in that
13 some of the data Dr. Seilikoff had discussed in any of his
14 publications?

15 A No.

16 (Pause)

17 MR. BOUCHER: I am going to hand you what we will
18 have marked as Exhibit 2008. It is a one page letter from
19 Tom Egan dated April 17, 1970 to the Distribution List with
20 an attached article from Progressive Architecture.

21 (The document referred to was
22 marked Pickthall Exhibit No.

1 2008 for identification.)

2 (Pause)

3 BY MR. BOUCHER: (Resuming)

4 Q Have you had an opportunity to review Exhibit
5 2008?

6 A Yes, I have.

7 Q Do you recall receiving a copy of the article
8 entitled Controlling Construction Pollution from
9 Progressive Architecture dated February 1970 prior to
10 today?

11 A No.

12 Q Do you recall receiving a copy of the letter
13 dated April 17, 1970 from Thomas Egan?

14 A No.

15 Q Just as a follow-up question, you don't recall
16 having any conversations with Mr. Egan about the substance
17 of the letter, Exhibit 2008?

18 A No, I do not.

19 MR. BOUCHER: I am going to hand you what will be
20 marked as Exhibit 2009.

21 (The document referred to was
22 marked Pickthall Exhibit No.

1 2009 for Identification.)

2 THE WITNESS: It is very difficult to read.

3 MR. BOUCHER: Yes.

4 Have you had an opportunity to review Exhibit 2009?

5 THE WITNESS: Yes, I have.

6 BY MR. BOUCHER: (Resuming)

7 Q Do you recall whether you have seen a copy of
8 Exhibit 2009 prior to today?

9 A Not to my knowledge.

10 Q Mr. Egan discusses in Exhibit 2009 the potential
11 that Mono-Kote will be caught up in the same category as
12 spray-on fireproofing. Did you ever have any conversations
13 with Mr. Egan about the potential that Mono-Kote would be
14 caught up in the same category as spray-on fireproofing?

15 A Not that I recall.

16 Q Did you have any of those kinds of conversations
17 with Mr. Wendel?

18 A Again, nothing specific that I recall.

19 Q Was there any point in time when you felt, based
20 up on your interaction with architects and engineers, that
21 Mono-Kote was given a bad label with architects as a result
22 of the problems associated with spray fireproofing

1 products?

2 A I don't recall ever having that subject thrown in
3 our teeth.

4 Q The last paragraph says:

5 "Go back to fundamentals and sell the pluses of
6 Mono-Kote. Get your plan for 100% of the
7 fireproofing in your town in high gear today."

8 The first sentence -- "Go back to fundamentals
9 and sell the pluses of Mono-Kote" -- do you have an
10 understanding of what was meant by the pluses of Mono-Kote?
11 What are the pluses of Mono-Kote back in 1970, if you can
12 recall, over spray-on fireproofing products?

13 A Basically it was just a superior product in that
14 it was cementitious, it was harder, less subject to damage;
15 everything about it was a plus.

16 MR. BOLCHER: Let me hand you what we will have
17 marked as Exhibit 2010. It is a one page letter dated May
18 14, 1970 from Mr. Egan to the Distribution List.

19 (The document referred to was
20 marked Pickthall Exhibit No.
21 2010 for identification.)

22 (Pause)

1 BY MR. BOUCHER: (RESUMING)

2 Q Have you had an opportunity to review Exhibit No.
3 2010?

4 A Yes, I have.

5 Q Have you seen Exhibit 2010 prior to today?

6 A No, I have not, to my recollection.

7 Q Do you recall having any conversations with anyone
8 at Grace about the subject matter discussed in Exhibit 2010?

9 A No.

10 Q Do you recall whether, in or around 1970, there was
11 some concern at Grace that some of the other manufacturers
12 would be developing and putting for sale asbestos-free
13 fireproofing products prior to the time that Grace would be
14 able to market its asbestos-free fireproofing products?

15 A I don't recall any such specifics; no.

16 Q Do you recall whether in 1970 there was any
17 discussion amongst architects and engineers who you were in
18 contact with about the need for an asbestos-free fireproofing
19 product?

20 A No.

21 Q Did you believe in 1970 that there was a
22 distinction in the potential health hazard associated with

1 exposure to Mono-Kote as opposed to spray-on fiber
2 fireproofing products?

3 MR. REPERT: Objection. There is no foundation
4 for that question in the sense that it implies there was a
5 health hazard associated with Mono-Kote III.

6 THE WITNESS: Now, I have forgotten the question.

7 BY MR. BOUCHER: (Resuming)

8 Q It was basically do you recall whether in 1970
9 you felt there was a distinction between any potential
10 health hazard associated with exposure to asbestos between
11 Mono-Kote III and spray-on fiber fireproofing products?

12 MR. REPERT: Same objection. You may answer if
13 you can.

14 THE WITNESS: I can't answer that; it is too far
15 back.

16 MR. BOUCHER: Let me hand you what we will have
17 marked as Exhibit 2011. It is a May 20, 1970 letter from
18 Thomas Egan to Distribution List.

19 (The document referred to was
20 marked Pickthall Exhibit No.
21 2011 for identification.)

22 BY MR. BOUCHER: (RESUMING)

1 Q Have you had an opportunity to review Exhibit No.
2 2011?

3 A Yes, I have.

4 Q Do you recall receiving a copy of Exhibit 2011
5 prior to today?

6 A No, I can't.

7 Q Do you recall anyone from Grace ever explaining
8 to you that the fact that at least one other company was in
9 the process of developing an asbestos-free -- Let me re-
10 phrase that.

11 Do you recall whether anyone from Grace ever had
12 any discussions with you indicating that you should not
13 explain to architects in the field that at least one
14 company was obtaining Underwriters Laboratory equivalency
15 tests on asbestos-free products?

16 MR. REPPERT: By whom?

17 THE WITNESS: I don't recall any such
18 conversations.

19 BY MR. BUCHER: (Resuming)

20 Q The last paragraph of Exhibit 2011, do you recall
21 having any conversations with anyone at Grace or being
22 directed in any manner from anyone at Grace not to talk to

1 architects about the substance of what is discussed in that
2 paragraph?

3 A No.

4 Q Or about the substance of what is discussed in
5 Exhibit 2011 in general?

6 A No.

7 Q Is there any reason that you can think of that
8 you would not mention to architects that a competitor had
9 developed an asbestos-free fireproofing product?

10 MR. REPERT: Objection. No foundation. He has
11 already testified that he does not recall the document.

12 THE WITNESS: May you repeat the question?

13 BY MR. BOUCHER: (Resuming)

14 Q Is there any reason that you can think of why you
15 would not tell an architect that a competitor had developed
16 an asbestos-free product?

17 MR. REPERT: Objection. Hypothetical question;
18 no foundation.

19 THE WITNESS: My answer is no.

20 BY MR. BOUCHER: (Resuming)

21 Q Do you recall ever being a party to any
22 conversations with anyone at Grace where the discussion

1 came up of obtaining a waiver in any districts that you are
2 aware of for the use of Mono-Kote III from jurisdictions
3 where the use of spray-on asbestos containing fireproofing
4 products have been banned?

5 A No.

6 Q Do you recall having any conversations with
7 anyone at Grace where you were told to, or directed to,
8 have legal department review any advertising or other
9 statements made regarding Mono-Kote and asbestos?

10 A No.

11 Q Do you recall receiving any memorandum or other
12 letter of any type from anyone at Grace indicating that any
13 advertising or promotional material should be reviewed with
14 the legal department whenever discussed as Mono-Kote and
15 the question of asbestos?

16 A No.

17 MR. BOUCHER: Let me hand you what will be marked
18 as Exhibit 2012. It is a one page letter from Thomas Egan
19 to R. F. Chaney dated June 1, 1970.

20 (The document referred to was
21 marked Pickthall Exhibit No.
22 2012 for identification.)

1 (The document was proffered to the witness.)

2 (Pause)

3 BY MR. BOUCHER: (RESUMING)

4 Q Have you had an opportunity to review Exhibit No.
5 2012?

6 A Yes, I have.

7 Q have you seen Exhibit 2012 prior to today?

8 A Not to my recollection.

9 Q Do you have any knowledge of who Mr. Whittaker
10 from Winnipeg was, or is?

11 A well, Mr. Whittaker was a plastering contractor
12 in San Francisco, and it would appear from this that he had
13 attended a meeting of some kind in Winnipeg.

14 whittaker was the approved applicator for a
15 competitive material called Cafco.

16 Q Did you have any interaction with Mr. Whittaker
17 in your capacity as district manager for Grace?

18 A No.

19 Q Do you know what Mr. Whittaker's first name is?

20 A No.

21 Q Do you remember the name of his company or the
22 company he worked with?

1 A No.

2 Q Do you have any recollection of talking to Mr.
3 Egan or Mr. Chaney about the substance of what is discussed
4 in Exhibit 2012?

5 A No.

6 Q Do you recall talking to anyone else at Grace
7 about the substance of what is discussed in 2012?

8 A No.

9 Q Do you recall having any conversations with Mr.
10 Whittaker about Mono-Kote and asbestos?

11 A No.

12 Q What was Mr. Chaney's job responsibilities or
13 capacity in 1970?

14 A Mr. Chaney worked in the Newark office for me and
15 he was, as I recall, at that time he was product manager
16 for architectural products.

17 Q Do you know where he resides?

18 A I think in Marin County.

19 Q Do you know if he is still employed in any
20 capacity?

21 A No, I can't answer that; I don't know. The last
22 I heard of him, he had his own business, but it has been a

1 long time since I had any contact with him?

2 Q Do you recall seeing a New York Times article in
3 or around 1970 that mentioned suspicion of all fibers,
4 including rock wool and mineral fibers?

5 A No, I don't.

6 Q The last paragraph of Exhibit 2012, in the text
7 of the letter, it says:

8 "Seriously, the fiber boys are really worried
9 about this situation and as soon as we have the new
10 Mono-Kote, lay it on them in your area."

11 Do you have an understanding of what was meant by
12 that paragraph?

13 A Not really; no.

14 Q Was it your understanding that as soon as Mono
15 Kote IV or V was available that you would attempt to sell
16 it and its advantages within your area?

17 MR. REPERT: Objection. Compound question.

18 THE WITNESS: Well, it was my job to sell Mono
19 Kote, so, yes, we would have attempted to sell Mono-Kote.

20 MR. REPERT: Mono-Kote IV?

21 THE WITNESS: No, or V.

22 BY MR. BOUCHER: (Resuming)

1 Q As soon as it was available?

2 A Yes.

3 Q In selling Mono-Kote IV or V, was it your
4 understanding that one of the advantages of Mono-Kote IV or
5 Mono-Kote V was that neither contained asbestos?

6 MR. REPPERT: Objection. Compound.

7 THE WITNESS: I don't know how to answer that
8 question.

9 BY MR. BOUCHER: (Resuming)

10 Q Was it your understanding that one of the selling
11 points of Mono-Kote IV and V was the fact that neither of
12 them contained asbestos?

13 A Sitting where I am today, my answer would be yes;
14 what my thinking was at that point, I am not sure.

15 Q Do you know who Mr. Egan is referring to when he
16 says "the fiber boys" in the last paragraph of the text of
17 the letter?

18 A It would be an assumption on my part.

19 Q Based upon --

20 A The fiber boys were generally anybody who was in
21 the sprayed fireproofing business using fibrous materials.

22 MR. BOUCHER: Let me hand you what we will

1 have marked as Exhibit 2013. It is a two page letter dated
2 June 19, 1970 from A. W. Dambros regarding recent
3 developments in asbestos problems.

4 MR. BOUCHER: Let me hand you what we will have
5 marked as Exhibit 2013. It is a two page letter dated June
6 19, 1970 from A. W. Dambros regarding recent developments
7 in the asbestos problems.

8 Let me rephrase it. That has been previously
9 marked as Exhibit 1179, so leave it at that Exhibit No.
10 1179.

11 BY MR. BOUCHER: (Resuming)

12 Q Do you recall receiving a copy of Exhibit 1179?

13 A No, I don't.

14 Q The subject matter references recent developments
15 in asbestos problems. Did Mr. Dambros attempt to keep you
16 abreast of problems or developments with respect to asbes
17 tos problems?

18 MR. REPERT: If you know.

19 THE WITNESS: I would have to assume that he did,
20 but I am not sure that he did.

21 BY MR. BOUCHER: (Resuming)

22 Q Do you recall receiving any other updates or in

1 formation from Mr. Dambros -- Strike that.

2 Do you recall receiving any updates or
3 information from Mr. Dambros about asbestos problems?

4 A No.

5 Q Do you recall in 1970 the State of California was
6 looking at the question of asbestos containing fireproofing
7 materials and whether there should be some regulations
8 connected with the use of those materials?

9 A Again, this is an assumption, but everybody was,
10 so I assume that California was, too, at that particular
11 moment.

12 Q Do you have any recollection of whether or not
13 Mono-Kote III was being placed in the same category as
14 spray-on fireproofing products during the course of any
15 discussions that took place in the State of California that
16 you were aware of with respect to asbestos containing
17 fireproofing products?

18 MR. REPPERT: Objection to the form of the
19 question; it is ambiguous.

20 THE WITNESS: You want to break it down for me,
21 please, and I will answer it one part at a time?

22 MR. BOLCHER: If I can.

1 BY MR. BOUCHER: (Resuming)

2 Q I guess the crux of my question really just goes
3 to whether you have any recollection of Mono-Kote being
4 placed in the same -- I think you said earlier "painted
5 with the same broad brush" -- as spray-on fireproofing
6 products in the State of California when it came to
7 discussions about regulating asbestos fireproofing products?

8 A I think --

9 MR. REPERT: Same objection.

10 THE WITNESS: I think the result was that danger,
11 yes; people didn't understand the basic differences.

12 BY MR. BOUCHER: (Resuming)

13 Q Did you, in your capacity as district manager,
14 have any discussions with any health officials at the state
15 level concerning potential regulations of spray-on asbestos
16 containing fireproofing products?

17 MR. REPERT: Time frame?

18 MR. BOUCHER: Any point in time.

19 THE WITNESS: I would have to answer that
20 question by saying that I probably did, but I don't recall
21 any specifics.

22 BY MR. BOUCHER: (Resuming)

1 Q The last -- On the last page of Exhibit 1179, the
2 third paragraph indicates:

3 "This letter should not in any way stop us from
4 continuing with our most pressing immediate problem,
5 namely, the elimination of asbestos from our present
6 product."

7 Do you see that?

8 A Yes.

9 Q Do you have any understanding, based upon your
10 work at W. R. Grace at that point in time, as to why it was
11 Grace's most pressing immediate problem, the elimination of
12 asbestos from the product?

13 MR. REPERT: Objection. Mr. Pickthall does not
14 speak for Grace, nor does Mr. Dambros, and I do not think
15 it is appropriate for you to characterize what Dambros said
16 as being Grace's most pressing problem, even though he may
17 have used those words himself.

18 MR. BOUCHER: You may answer.

19 THE WITNESS: I would have to agree with that
20 statement.

21 BY MR. BOUCHER: (Resuming)

22 Q That is fine, but do you have any understanding

1 of what is meant there that "this is the most pressing
2 immediate problem"?

3 MR. REPERT: In other words, do you know what
4 Mr. Dambros meant; is that the question?

5 MR. BOUCHER: Right.

6 THE WITNESS: Specifically, I don't know what he
7 meant; no.

8 BY MR. BOUCHER: (Resuming)

9 Q What about generally? Do you have an
10 understanding?

11 A Well, people were at that point considering the
12 use of asbestos, regardless of how it was used, as being a
13 dangerous thing.

14 Q Did you understand at that time that as a result
15 of that feeling amongst people that one of the objectives
16 at W. R. Grace was to eliminate asbestos from Mono-Kote?

17 A Yes, they were in the process of trying to
18 develop products which didn't contain Mono-Kote. I think
19 it was in that time frame; it was in 1970.

20 Q That did not contain asbestos?

21 A That did not contain asbestos. I should qualify
22 that to the extent that really everything that we had done

1 up to that point indicated that we didn't have a hazard;
2 but that didn't mean that the general public didn't think
3 we had a hazard.

4 MR. BOUCHER: I would like to have marked as
5 Exhibit 2013 a one page letter from Thomas Egan dated June
6 25, 1970 to Distribution List.

7 (The document referred to was
8 marked Pickthall Exhibit No.
9 2013 for identification.)

10 (Pause)

11 BY MR. BOUCHER: (RESUMING)

12 Q Have you had an opportunity to review Exhibit
13 2013?

14 A Yes.

15 Q Do you recall receiving a copy of Exhibit 2013?

16 A No.

17 Q Do you have any recollection of talking with Mr.
18 Egan or anyone else at Grace about any heat radiating from
19 asbestos problem?

20 A No.

21 MR. BOUCHER: I am going to hand you what will be
22 marked as Exhibit 2014. It is six page document entitled

1 "GENTLEMEN;" which appears to be an address to somebody or
2 group of people from Mr. Pickthall.

3 (Pause)

4 (Asides)

5 MR. BOUCHER: The one that I handed you was date
6 stamped 109256 through 109262. Let's have substituted in
7 and remarked as 2014 what is date stamped 108274 through
8 108281; that does appear to have page five.

9 (The document referred to was
10 marked Pickthall Exhibit No.
11 2014 for identification.)

12 BY MR. BOUCHER: (RESUMING)

13 Q Have you had an opportunity to review Exhibit
14 2014?

15 A Yes.

16 Q Have you seen Exhibit 2014 prior to today?

17 A Well, it has been a long time since I have seen
18 it, but I have seen it.

19 Q Do you recall what the purpose of -- Let me
20 rephrase it.

21 Did you draft Exhibit 2014?

22 A Yes, I did.

1 Q Do you recall the purpose behind you drafting
2 Exhibit 2014?

3 A Yes, I do.

4 Q Can you explain to me the circumstances?

5 A Actually, I didn't make this presentation.
6 Something came up which prevented me from actually making
7 the presentation. It was prepared and was delivered to the
8 Board of Examiners in San Francisco at a hearing concerning
9 the use of asbestos-containing materials in the City of San
10 Francisco.

11 Does that answer your question?

12 Q Was that at a time when the City of San Francisco
13 was contemplating formulating some restrictions or
14 regulations with respect to the use of asbestos in The
15 City?

16 A Yes.

17 Q Do you remember the approximate year that that
18 took place?

19 A It would be supposition on my part, but that
20 number is available I am sure. It would be in the records
21 of the Building Department of San Francisco.

22 Q Did anyone else from Grace, other than yourself,

1 review the text of 2014 prior to the time that it was
2 delivered?

3 A No to my knowledge.

4 Q Did you discuss the substance of the text of 2014
5 with anyone at Grace prior to the time it was delivered?

6 A No, I am sure I did not.

7 Q Having reviewed Exhibit 2014, is there anything
8 in there that you feel is inaccurate or that you would
9 change?

10 A No.

11 Q Do you remember who delivered the -- was it at a
12 speech that was delivered to the Board of Examiners?

13 A Yes.

14 Q Do you remember --

15 A Yes, Bob Chaney.

16 Q Was, then Mister now Doctor, Fowler present at
17 the Board of Examiners hearing?

18 MR. REPERT: He was a doctor then.

19 MR. BOUCHER: No, he was still in the process of
20 --

21 THE WITNESS: I can't testify to that accurately
22 because I was not at that meeting.

1 BY MR. BOUCHER: (Resuming)

2 Q was it your intent to have him --

3 A Yes, yeah.

4 MR. REPERT: Oh, you said Fowler, not Cooper.

5 MR. BOUCHER: Right.

6 THE WITNESS: Fowler was an employee of
7 Tabershaw-Cooper.

8 BY MR. BOUCHER: (Resuming)

9 Q He was the one who actually conducted some of the
10 tests on the buildings?

11 A Yes, he and another man named Leroy Balzer; that
12 I do remember.

13 Q Were you present when the tests were conducted?

14 A No.

15 Q The last page, page eight, indicates:

16 "We intend to reduce the already low hazard of
17 the directly involved workmen by using...,
18 Respirators"

19 When you say "we" were you talking about -- who
20 did you mean by "we"?

21 A The people in my organization.

22 Q Referring to Grace?

1 A Yeah.

2 Q The last couple of sentences in that first
3 paragraph say:

4 "Beyond that we do not honestly see that anything
5 can be done to materially improve the situation short
6 of asbestos elimination. we are working on this and
7 will accomplish it."

8 There, again, you are talking about W. R. Grace?

9 A Yes.

10 Q Was there a Mr. Farmer who was involved in the
11 regulation of fireproofing products back in the '70's that
12 you can recall?

13 A There was a Mr. Farmer with the State of
14 California; is that what you are referring to?

15 MR. BOLCHER: I think so.

16 Let me hand you what will be marked as Exhibit
17 2015, which is a two page letter from A. W. Dambros dated
18 July 17, 1970 to O. M. Favorito with eight pages of
19 attachments.

20 (The document referred to was
21 marked Pickthall Exhibit No.
22 2015 for identification.)

1 (The document was proffered to the witness.)

2 THE WITNESS: Are we going to talk about all of
3 this?

4 MR. BOUCHER: Well, I think that is you read the
5 letter that you are just about to look at now and then the
6 --

7 THE WITNESS: The one that is signed by Farmer?

8 MR. BOUCHER: Right. And then the two pages of
9 the report that you can clearly read, which is skipping
10 that page (indicating). Those two pages there, that one
11 and the next one (indicating).

12 (Pause)

13 THE WITNESS: I have read the letter that Farmer
14 wrote and two pages of a report that are legible.

15 BY MR. BOUCHER: (Resuming)

16 Q Do you recall receiving a copy of Exhibit 2015?

17 A No, not really.

18 Q Do you recall having any conversations with Mr.
19 Dambros --

20 A No.

21 Q -- about the Division of Industrial Safety in the
22 State of California formulating any regulations respecting

1 the use of spray-on asbestos fireproofing products?

2 A I don't recall any conversations with Dambros on
3 that subject; no.

4 Q Do you recall any conversations with Mr. Farmer
5 on that subject?

6 A It is a little vague in my mind, but it seems to
7 me that at some point along the line I did go and see this
8 Mr. Farmer in San Francisco.

9 Q The fourth paragraph of the front page of Exhibit
10 2015 --

11 A (Counting) One, two, three, four --

12 Q Where it says "In recent conversation" --

13 A Oh, yeah, okay.

14 Q Do you recall having any conversations with Mr.
15 Farmer where you attempted to get him to make the
16 distinction, or at least understand the distinction,
17 between spray asbestos-type fireproofing and cementitious
18 type fireproofing?

19 A I don't recall specifically, but that was a
20 common approach, to try to make that distinction. So, I
21 am not objecting to that paragraph, if that is what you
22 mean.

1 Q That was a common approach with who, people in
2 general, architects, engineers, people in the state?

3 A People who didn't understand that there was a
4 difference.

5 Q Whoever that might be?

6 A Whoever it might be.

7 Q The next paragraph under that indicates that
8 there was a fiber job in Southern California at the Bank of
9 America-Richfield project which required some additional
10 protective measures. Were you ever made aware of that or
11 do you recall any conversations to that effect?

12 A No.

13 Q Were you, or any of your sales people,
14 responsible for the Hayward State College job?

15 A No.

16 Q Was Mono-Kote used on that job?

17 A No.

18 Q Going to the second page, the first paragraph
19 indicates that you had a conversation with Mr. Farmer where
20 he indicated there would be no changes in the June 8
21 standards and he turned down your request to have a meeting
22 between yourself, Mr. Farmer and Mr. Cooper; do you see

1 that?

2 A Yes, the first paragraph.

3 Q Do you have a recollection of discussing with Mr.
4 Farmer a request that he meet with you to talk about the
5 potential of modifying the June 8 standards?

6 A No, not really.

7 Q Do you have a recollection of when the standards
8 were first discussed in the State of California for the
9 regulation of spray-on asbestos fireproofing products
10 whether Mono-Kote III was included within the regulations?

11 A I don't recall.

12 Q Did you have any conversations with Mr. Clay
13 Johnston, the executive secretary of the California
14 Plastering Contractors Association?

15 A Not that I recall.

16 Q The June 8, 1970 letter of Mr. Farmer, subject:
17 safety standards to be applied in asbestos spray
18 operations, do you remember when you first became aware of
19 that letter from Mr. Farmer?

20 A No.

21 Q Do you believe it was at or about the time of
22 this letter, July 7, 1970?

1 A That would be an assumption on my part. I assume
2 that is probably what prompted my visit to Mr. Farmer.

3 Q What, if anything, do you remember about your
4 visit with Mr. Farmer in terms of what was talked about,
5 what his understanding was about asbestos, and so forth?

6 A Nothing really.

7 Q Then, going to the two pages that are legible, it
8 addresses some changes that have to be made to bring the
9 Mono-Kote fireproofing operation into standards, or, in
10 order that they meet the minimum safety requirements.

11 Did you ever see these two pages before, or do
12 you have any understanding of the jobsite that they are
13 talking about or anything?

14 A No.

15 MR. REPPERT: Objection to the form of the
16 question.

17 BY MR. BOUCHER: (Resuming)

18 Q Number four says:

19 "The waste asbestos shall be stored only in
20 labeled closed containers until disposed of."

21 Do you see that?

22 A Yes.

1 Q Do you have a recollection of there being a
2 requirement to store asbestos, or waste asbestos, in
3 labeled containers?

4 A I don't ever recall any such regulation. Let's
5 go back to this letter and see if it said anything in
6 Farmer's letter; did it, or do you recall?

7 Yeah, it says here -- This letter was strictly a
8 letter, and the fourth paragraph of the standards says:

9 "waste asbestos shall be stored only in labeled
10 closed containers until disposed of."

11 Q But you do not have any independent recollection
12 of that?

13 A No.

14 Q As part of your efforts, with respect to the sale
15 of Mono-Kote, did you attempt to keep applicators abreast
16 of changes in the regulations with respect to the use of
17 fireproofing products?

18 A As it applied to their specific operations?

19 Q Or in general?

20 A I can't recall that we did anything in general.
21 I think we tried to encourage these people to use
22 reasonable precautions and not go hog-wild and spray the

1 whole city.

2 Q When you say "reasonable precautions," are you
3 talking about the use of tarpaulins?

4 A Yeah.

5 Q What about the use of respirators?

6 A Yes, I think that most of them are using
7 respirators after -- at some point in time, but I don't
8 remember exactly when that point came.

9 Q And that is something that you encouraged?

10 A Yes.

11 MR. REPPERT: Do you need a break?

12 THE WITNESS: I could use one while he is
13 looking.

14 MR. BOUCHER: Off the record.

15 (Whereupon, a short recess was taken.)

16 MR. BOLCHER: On the record.

17 This will be marked as Exhibit 2016, which is a
18 two page letter from Mr. Egan to Mr. Beveridge dated August
19 11, 1970 and attached to which is the minutes of the
20 meeting of July 21, 1970 Board of Examiners.

21 (The document referred to was
22 marked Pickthall Exhibit No.

1 2016 for Identification.)

2 (The document was proffered to the witness.)

3 (Pause)

4 BY MR. BOUCHER: (RESUMING)

5 Q Have you had an opportunity to review Exhibit

6 2016?

7 A Yes, I have.

8 Q Do you recall seeing Exhibit 2016 prior to today?

9 A No.

10 Q Do you recall having any conversations with

11 anyone about -- after the City of San Francisco special

12 meeting on asbestos hazards -- about how the meeting went?

13 A I don't recall any specific conversations.

14 Q Do you recall anyone telling you that during the

15 course of the meeting somebody from Mineral Products

16 Company indicated to the group that they had an asbestos

17 free fireproofing product available?

18 A Do I recall anybody having told me that?

19 Q Right.

20 A No, I don't.

21 Q Do you recall seeing any documents which led you

22 to understand that somebody from the U. S. Mineral Products

1 Company had developed an asbestos-free product as of July
2 1970 and that they discussed it during the course of the
3 San Francisco meeting?

4 A I don't recall any such conversation.

5 Q Do you recall ever seeing a copy of the minutes
6 of the meeting that took place in San Francisco?

7 A No.

8 MR. BOUCHER: Let me hand you what will be marked
9 as Exhibit 2016 --

10 MR. REPERT: Twenty seventeen.

11 MR. BOUCHER: I'm sorry, you are right, 2017. It
12 is a one page August 20, 1970 letter from Thomas Egan to
13 Distribution List.

14 (The document referred to was
15 marked Pickthall Exhibit No.
16 2017 for identification.)

17 (The document was proffered to the witness.)

18 (Pause)

19 THE WITNESS: I don't see the distribution list.
20 Is there one or is it just not attached to this?

21 MR. BOUCHER: No.

22 THE WITNESS: Okay, I have reviewed this.

1 BY MR. BOUCHER: (Resuming)

2 Q Have you seen Exhibit 2017 prior to today?

3 A No to my knowledge.

4 Q Did you have any conversations with anyone at
5 Grace about Mr. Bragg in his research efforts with respect
6 to Mono-Kote III?

7 A Again, not to my knowledge.

8 Q Do you recall having any conversations with
9 anyone at Grace about the belief that the company that
10 develops the asbestos-free product first will get the
11 order, will be at an advantage over other products?

12 MR. REPERT: Objection to the form of the
13 question.

14 THE WITNESS: I don't recall any conversations of
15 that kind.

16 MR. BOLCHER: Let me hand you, then, what will be
17 marked as Exhibit 2018. It is a three page letter to Buzz
18 Wendel dated November 19, 1970 from Ray Rothfelder. I am
19 going to have two copies of it, so it will be a six page
20 exhibit. What we will do is mark as Exhibit 2018(a) the
21 exhibit that has Bates stamp numbers 111853 through 111855,
22 and as 2018(b) Bates stamp numbers 098436 through 098438.

1 The reason for that, for the record and for the
2 witness, is that, as you look at the documents, although
3 they are the same, they have different Bates stamp numbers
4 and they are legible, alternatively, at different places in
5 the documents.

6 THE WITNESS: But it is all there?

7 MR. BOUCHER: For the most part, it looks like it
8 is mostly all there.

9 (The documents referred to
10 were marked Pickthall Exhibit
11 Nos. 2018(a) and 2018(b) for
12 identification.)

13 (The document was proffered to the witness.)

14 (Pause)

15 BY MR. BOUCHER: (RESUMING)

16 Q Have you had an opportunity to review Exhibits
17 2018(a) and 2018(b)?

18 A Yes, to the best of my ability.

19 Q Do you recall receiving a copy of Exhibit 2018?

20 A No.

21 Q Do you have any understanding as to why you would
22 be receiving copies of 2018 or updates concerning the tests

1 being run on Mono-Kote III and Mono-Kote IV back in 1970?

2 A why I would have been included?

3 Q Right.

4 A Only as a general thing that this kind of
5 information was usually passed around.

6 Q You, at that point in time, were not involved in
7 any input back into the reformulation process itself, were
8 you?

9 A No.

10 Q The date of 2018 is November 1970. Having
11 reviewed Exhibit 2018, does it place in mind a time for you
12 when Mono-Kote IV was commercially available? Does it
13 place it any better in your mind?

14 A No.

15 Q Do you recall the tests, or having any knowledge
16 of the tests, which were run and which are reflected in
17 Exhibit 2018?

18 A No.

19 Q Do, you would not have any recollection or
20 understanding as to how far in the reformulation process
21 they were at the time that 2018 was written?

22 A No.

1 (A document was proffered to the witness.)

2 (The document referred to was
3 marked Pickthall Exhibit No.
4 2019 for identification.)

5 BY MR. BOUCHER: (RESUMING)

6 Q Have you had an opportunity to review Exhibit
7 2019?

8 A Yes, I have.

9 Q Have you seen Exhibit 2019 prior to today?

10 A Not that I recall.

11 Q when you say that, you are not saying that you
12 did receive it; you are simply saying that you do not
13 recall one way or the other whether you received it?

14 A Right.

15 Q what was Mr. Campbell's responsibility --

16 A I can't remember Mr. Campbell.

17 Q Do you recall discussing with anyone the
18 substance of what is addressed in 2019?

19 A No.

20 Q The second paragraph discusses a pollution
21 subject and then goes further to say "your pollution
22 problem." Do you have any understanding as to what is

1 being referred to there?

2 A Not the slightest.

3 MR. BOUCHER: (To Mr. Reppert) You guys produced
4 about three copies of this thing and two of them contained
5 1970 publication on Vermiculite.

6 MR. REPERT: It beats me.

7 MR. BOUCHER: Let me hand you what we will have
8 marked as Exhibit 2020. It is a 6/10/71 document to
9 Distribution List and it appears to be a recap of some sort
10 of the various regions with attached a one page article,
11 newspaper story, on sprayed asbestos being banned in the
12 City of Chicago. It is approximately 22 pages long.

13 (The document referred to was
14 marked Pickthall Exhibit No.
15 2020 for identification.)

16 MR. BOLCHER: you do not have to read it all, but
17 you might want to glance at it briefly to see if you recall
18 receiving it.

19 (The document was proffered to the witness.)

20 MR. BOUCHER: Pay particular attention to the
21 pages which are marked by Bates stamp number 094474, the
22 indented portions at the bottom. The section under

1 Regional Manager C. H. Wendel, which is 094477 Bates stamp.

2 (Pause)

3 MR. BOUCHER: The only other thing that might be
4 of particular interest would be 094483, which is the
5 newspaper article.

6 (Pause)

7 BY MR. BOUCHER: (Resuming)

8 Q While you were the district manager, did you
9 receive updates such as the one reflected in Exhibit 2020
10 of what was happening at other regions around the country?

11 A I don't recall that they were a continuing thing,
12 but it seemed to me that on occasion they came through.
13 But I don't remember this one in particular.

14 Q Looking at page 094474, it is the last paragraph
15 that I am mostly concerned about. It says:

16 "We were successful in getting MK IV accepted
17 over sprayed-on in the Memorial Hospital in New York,
18 which should result in over \$60M in MK IV this spring
19 and summer."

20 Do you see that?

21 A I see the sentence.

22 Q Do you recall having any discussions or being

1 made aware of by anyone at Grace the fact that MK IV was
2 being used in New York in 1971?

3 A No.

4 Q Does reviewing that paragraph refresh your
5 recollection at all as to whether MK IV was commercially
6 available as of June of 1971?

7 A No.

8 MR. BOUCHER: Then, if we could go over to the
9 section entitled April Monthly Excerpts Regional Manager -
10 C. H. Wendel, which is on 094477, so far as we are
11 concerned.

12 THE WITNESS: Okay, I have it.

13 MR. BOUCHER: The second paragraph says:

14 "We are still fighting the battle on asbestos.
15 The Division of Industrial Safety is maintaining
16 severe requirements for protection and disposal of
17 Mono-Kote fireproofing which is costly to the
18 contractor. The day may not be too far off when we
19 will have to go to the asbestos-free material."

20 Do you see that?

21 THE WITNESS: Yes.

22 BY MR. BOUCHER: (Resuming)

1 Q Do you recall having any discussions or
2 conversations with anyone at Grace in or around 1971
3 concerning what is reflected in that paragraph?

4 A It is an assumption on my part, but it has to do,
5 I think, with that letter that was written by Farmer.
6 Isn't that the same time frame?

7 Q Do you recall whether you were still dealing with
8 Farmer in June of 1971 on the issues of asbestos and Mono
9 Kote?

10 A No. To the best of my recollection, I only had
11 one exposure with the man.

12 Q Do you --

13 A So why I don't know whether, you know, there
14 might have been others but I just don't know.

15 Q Prior to -- In or about June of 1971 had you had
16 any conversations with Mr. Wendel or anyone else at Grace
17 about the possibility that San Francisco or California
18 would adopt requirements that would not permit the use of
19 fireproofing materials that contain asbestos?

20 A I must have had because all of that documentation
21 about that board meeting, that was common conversation
22 between us.

1 Q As a result of that understanding -- or perhaps
2 fear or belief, however you want to phrase it -- did you
3 have conversations with people at Grace concerning when the
4 asbestos-free Mono-Kote product would be available for use
5 in California?

6 MR. REPERT: Objection to the form of the
7 question.

8 THE WITNESS: Well, I don't recall any such
9 conversations; no.

10 BY MR. BOUCHER: (Resuming)

11 Q Did you have any conversations with anyone at
12 Grace that indicated that they did not want to introduce
13 asbestos-free Mono-Kote into the San Francisco or
14 California markets until they were required to do so?

15 MR. REPERT: Objection. No foundation.

16 THE WITNESS: I don't recall any such
17 conversations; no.

18 BY MR. BOUCHER: (Resuming)

19 Q Do you recall any conversations with anyone at
20 Grace indicating a desire to hold back on the introduction
21 of asbestos-free Mono-Kote into the California or San
22 Francisco markets until there was a ban on the use of

1 asbestos-containing fireproofing products?

2 A Isn't that the same question?

3 Q I think it is a little bit different, but --

4 A Well, I certainly don't recall any specific
5 conversations on that subject.

6 Q Did you have any understanding in 1971 whether
7 Mono-Kote IV was introduced into other regions of the
8 country prior to it being introduced into the California
9 market?

10 A No.

11 Q You don't know one way or the other?

12 A No.

13 Q And then, finally, the newspaper article -- at
14 least it appears to be a newspaper article -- that is on
15 Bates stamp page number 094483, do you recall seeing that
16 newspaper article before discussing the contents of the
17 article with anyone?

18 A No.

19 MR. BOUCHER: Let me have marked as Exhibit 2021
20 a two page letter from B. R. Williams to Distribution List
21 -- Distribution List is not attached -- along with two
22 attached pages.

1 (The document referred to was
2 marked Picktnall Exhibit No.
3 2021 for Identification.)

4 (The document was proffered to the witness.)

5 BY MR. BOUCHER: (RESUMING)

6 Q Have you had an opportunity to review Exhibit
7 2021?

8 A Yes.

9 Q While you were the district manager at W. K.
10 Grace, did you receive periodic updates of sales results?

11 A I don't recall that I did as a general thing, no.
12 I can't dispute the fact that that is what this is.

13 MR. BOUCHER: Have you had a chance to look at
14 the two attachments? That is how we got them. They do not
15 appear to relate necessarily --

16 MR. REPERT: I can't tell from the numbers, if
17 they are sequentially numbered at the bottom. It looks
18 like they start at "007"-something, so it doesn't look like
19 they are part of the same document and form the content
20 they do not seem to relate to the cover memo.

21 THE WITNESS: Although the one from spray-on is
22 dated considerably after --

1 MR. REPPERT: One says November memo, dated -- It
2 could not possibly be connected.

3 MR. BOUCHER: So, why don't we take off the two
4 attachments; it does appear that they are numbered the
5 same, or, sequentially, I should say. So, the Exhibit
6 which has been marked 2021 shall now be a two page letter,
7 or update, from Mr. Williams to Distribution List.

8 BY MR. BOUCHER: (Resuming)

9 Q Do you have a recollection in 1971 or during that
10 period of time where the Northwest -- was San Francisco in
11 the Northwest region?

12 A No.

13 Q What region was it in?

14 A Northwest was Oregon, Washington, part of Idaho,
15 and maybe a little section of Montana. You are talking
16 about Northwest, now?

17 Q Right. What region was San Francisco in?

18 A The Northern California region. We were all part
19 of the Pacific region -- I am not doing this right -- we
20 were all part of the Pacific region. What I had described
21 to you first about Northwest was Bill Culver's area as a
22 district. Mine was Northern California, which included a

1 little slice of Nevada and down as far as Bakersfield area;
2 there was a line across there slightly below Fresno where I
3 broke off. The rest of it was Southern California. And
4 then there was Arizona.

5 Q So, in terms of the Pacific region, do you have a
6 recollection in 1971 where the Pacific region ranked with
7 respect to the other regions in terms of sales?

8 A Generally speaking, we were far ahead of all of
9 them. But at that specific point in time, I have no direct
10 knowledge; no.

11 Q The third paragraph -- well, the paragraph that
12 is numbered number three on the first page where it is
13 underlined Mono-Kote; do you see?

14 A Yes.

15 Q (Reading)

16 "Thank God for Mono-Kote! Let's be certain that
17 we service the new Mono-Kote business effectively so
18 that we keep our competition out for the long term."

19 Do you have any understanding as to why Mr.
20 Williams would say "Thank God for Mono-Kote" at that point
21 in time?

22 A I guess Mono-Kote was a good product; everybody

1 Iiked Mono-Kote.

2 Q This seems to be a sales document, or discusses
3 sales results. In 1971, do you have a recollection of how
4 Mono-Kote compared with the other products, such as
5 concrete aggregate, masonry fill, glass fiber and
6 polystyrene in terms of overall sales?

7 A It had made a difference in what region you are
8 talking about. The results in the Eastern region would be
9 entirely different than the Midwest or the South.

10 Q Let's take, then, the Pacific region. How
11 important a product was Mono-Kote as compared to the other
12 products in terms of sales?

13 A In total -- My educated guess would be that it
14 was probably, in dollars, was the leading product we had.

15 MR. BOUCHER: Let me hand you -- Let me give you
16 the formal document as we received it and see if you agree
17 that the front page does not relate to the next three
18 pages.

19 MR. REPPERT: I think it does.

20 MR. BOUCHER: Do you? I guess some of the
21 caption -- Okay, never mind, then. I'm sorry.

22 Let's go ahead and leave it the way it is, then.

1 Twenty twenty-two, then.

2 (The document referred to was
3 marked Pickthall Exhibit No.
4 2022 for identification.)

5 (The document was proffered to the witness.)

6 BY MR. BOUCHER; (RESUMING)

7 Q Have you had an opportunity to review Exhibit
8 2022?

9 A Yes, I have.

10 Q Do you recall receiving a copy of 2022 prior to
11 today?

12 A No.

13 Q Do you recall any discussions with anyone
14 concerning the substance of 2022?

15 A At some point along the line, I made a
16 presentation to the Board of Examiners in Sacramento and I
17 think, yeah, this is what it was about. Undoubtedly, you
18 have information on that.

19 Q Did you have any conversations with anyone about
20 the scare tactic that was addressed in 2022?

21 A No.

22 MR. BOUCHER: Let's this marked as Exhibit 2023 a

1 one page memo from A. W. Dambros to Mr. Burnham, Culver and
2 Pickthall dated February 21, 1972 and attached to it, a
3 statement for delivery before the Environmental Protection
4 Agency in Los Angeles, California. I am not sure of the
5 attachments starting at 11109 are part of the document, but
6 that is sequentially numbered.

7 Let's leave it the way it is for now and at some
8 point in time we may modify --

9 MR. REPERT: I can tell you that there are other
10 copies of this that have the exhibits to the presentation
11 as attached to the document and the exhibits are referred
12 to in the text.

13 MR. BOUCHER: Exhibits other than what is --

14 MR. REPERT: Yeah, and this article is not --

15 MR. BOUCHER: -- attached.

16 MR. REPERT: -- the exhibits --

17 MR. BOUCHER: We do not have a copy of that. Can
18 you get us a copy of that, by chance?

19 MR. REPERT: I will if you will remind me, I
20 will dig one up for you. I don't think I have one here,
21 but there were five or six different attachments which were
22 labeled A through E, or something like that.

1 MR. BOLCHER: Then let's have the exhibit -- The
2 entire exhibit will be Bates stamps numbers 111095 through
3 111108.

4 (The document referred to was
5 marked Pickthall Exhibit No.
6 2023(a) identification.)

7 THE WITNESS: Do you want the whole thing read?

8 MR. BOLCHER: You might just glance through it.
9 You don't have to read it, but just kind of glance through
10 it to see if it looks familiar to you.

11 (The document was proffered to the witness.)

12 (Pause)

13 BY MR. BOLCHER: (RESUMING)

14 Q Have you had an opportunity to review Exhibit
15 2023?

16 A Yes.

17 Q Do you recall receiving a copy of Exhibit 2023
18 prior to today?

19 A No.

20 Q Do you recall Mr. Thomas Feit making a copy of
21 2023 available to you and indicating that it was the
22 national position of W. R. Grace with respect to Mono-Kote

1 III?

2 A Are you talking about this Exhibit 2023?

3 Q Yes, sir.

4 A No, I don't recall that.

5 MR. BOUCHER: Let me have marked as 2023 -- what
6 is now marked as 2023 will be 2023(a) and we will have
7 marked as 2023(b) a February 23, 1972 letter from Thomas
8 Feit to a number of individuals, subject: Environmental
9 Protection Agency hearing. And attached to it appears to
10 be a carbon copy of the attachment to Exhibit 2023(a),
11 other than some handwritten changes or modifications to it.

12 (The document referred to was
13 marked Pickthall Exhibit No.
14 2023(b) identification.)

15 (The document was proffered to the witness.)

16 BY MR. BOUCHER: (RESUMING)

17 Q Have you had an opportunity to look at at least
18 the front page of 2023(b)?

19 A Yes.

20 Q Do you recall receiving a copy of the letter from
21 Thomas Feit which is attached as 2023(b)?

22 A No, but from the markings on the -- the hand

1 penciled notes on there, it would appear that I received it
2 from Wendel. I don't recall having received it.

3 MR. BOUCHER: Let me hand you what will be marked
4 as Exhibit 2024. It is a memo from J. L. Wright dated
5 November 22, 1972 regarding subject requirements for a
6 Mono-Kote Cracking to Distribution List.

7 (The document referred to was
8 marked Pickthall Exhibit No.
9 2024 for identification.)

10 (The document was proffered to the witness.)

11 MR. BOUCHER: You might want to look at the last
12 page. I am not sure it should be attached.

13 BY MR. BOUCHER: (RESUMING)

14 Q Have you had an opportunity to review Exhibit
15 2024?

16 A Yes, I have.

17 Q Do you recall having seen 2024 prior to today?

18 A No.

19 Q Do you recall having any conversations with
20 anyone regarding any cracking problems on Mono-Kote in the
21 Pacific region, or in your district?

22 A I don't recall any specific conversations.

1 Q Do you recall there being any cracking problems
2 in any of the jobs in your district?

3 A Cracking problems could occur and it was usually
4 the fault of -- or the reason was usually faulty
5 application techniques; somebody didn't follow the rules
6 and the directions.

7 It was a product that was very hard to destroy,
8 but plastering contractors could do a lot of things.

9 Q Do you have any recollection of having any
10 conversations with anyone at Grace about corrective
11 measures, in-house corrective measures, that could be taken
12 to correct or fix any cracking problems with Mono-Kote?

13 A No.

14 Q The attachment, which I am not sure belongs with
15 the Exhibit 2024, have you seen the attachment prior to
16 today?

17 A No. Is there any other reference to Super Mono
18 Kote anyplace?

19 Q I don't know.

20 A I have never heard of that one.

21 Q Do you have any understanding as to where the
22 attachment to Exhibit 2024 would have come from? Do they

1 look familiar to you in any respect?

2 A That portion that says "REFORMULATION AND
3 EVALUATION (Project 2659)"?

4 Q Right.

5 A No.

6 Q Okay.

7 A When I read it, I didn't find anything in there,
8 really, that said that they were working on the it, the
9 cracking.

10 MR. BOUCHER: No, I do not think that it belongs
11 attached, but it came attached.

12 Then, let me give you what we will have marked as
13 Exhibit 2025.

14 (The document referred to was
15 marked Pickthall Exhibit No.
16 2025 for Identification.)

17 (The document was proffered to witness.)

18 (Pause)

19 THE WITNESS: I haven't read this in detail, but
20 I do recall the article. Do you want me to read it all
21 very carefully?

22 MR. BOLCHER: No, no, that is not necessary.

1 BY MR. BOUCHER: (Resuming)

2 Q You do recall the article?

3 A Yes.

4 Q Do you recall receiving the letter that is
5 attached to the article, Exhibit 2025?

6 A This letter that is on the first page?

7 Q Right.

8 A Not specifically, no.

9 Q There is handwriting in the top left-hand portion
10 of the paper "file: asbestos," is that your handwriting, by
11 chance?

12 A No.

13 Q Do you recall writing the weekly excerpt that is
14 summarized in 2025, or reprinted in 2025?

15 A Do I recall having written that?

16 Q Yes.

17 A No.

18 Q It says "Bob is a bum." Who does "Bob" refer to?

19 A I don't know.

20 Q It says "Gene is a nice guy and used MK-4 on his
21 job." Reviewing that, does it refresh your recollection at
22 all that prior to May of '73 MK-4 was available

1 commercially in California?

2 A No.

3 Q Do you remember the wells Fargo bank job that is
4 reflected?

5 A Yes.

6 Q Do you --

7 A It was not our job.

8 Q Was the Tishman Building your job?

9 A Yes.

10 Q Do you remember whether MK-4 was commercially
11 available in California prior to the Tishman job?

12 A No, I don't recall. That time frame is -- They
13 all come pretty close together as far as I am concerned.

14 Q Was MK-4 used in the Tishman Building?

15 A I don't remember.

16 MR. BOUCHER: Let me hand you, then, what will be
17 marked as 2026.

18 (The document referred to was
19 marked Pickthall Exhibit No.
20 2026 for identification.)

21 (The document was proffered to the witness.)

22 (Pause)

1 BY MR. BOUCHER: (RESUMING)

2 Q Have you had an opportunity to review Exhibit
3 2026?

4 A Yes, I have.

5 Q Do you remember drafting 2026?

6 A Not specifically; no.

7 Q Do you remember receiving from Thomas Feit the
8 April 17, 1973 bulletin that is attached?

9 A No.

10 Q Do you remember whether you continued to sell
11 Mono-Kote III up until the July 4, 1973 cutoff date?

12 A No, I think we discontinued it before that date,
13 but I couldn't give you the specifics of when we stopped
14 shipping the MK-3.

15 MR. BOUCHER: Let me hand you what will be marked
16 as 2027.

17 (The document referred to was
18 marked Pickthall Exhibit No.
19 2027 for identification.)

20 (The document was proffered to the witness.)

21 (Pause)

22 BY MR. BOUCHER: (RESUMING)

1 Q Have you had an opportunity to review Exhibit
2 2027?

3 A Yes.

4 Q Do you remember writing to Mr. Bill Culver the
5 document which is reflected as 2027?

6 A No, but obviously I did.

7 Q Do you recall what is meant by "your memo of
8 5/9/73 re: Stanford Research & Asbestos"?

9 A No, I don't. I don't know what that has to do
10 with any --

11 Q Is that your handwriting that appears in the
12 upper left-hand portion of the page?

13 A No.

14 Q The second paragraph talks about a "gal reporter
15 on a subject that she knew nothing about" and appearing in
16 a very yellow rag. Is that the article that was attached
17 to the previous --

18 A That's the one that we are talking about, yes.

19 Q That would be from the -- is it the Californian
20 or the Bay Guardian?

21 A The Bay Guardian. To the best of my knowledge,
22 that was the only article that was ever written in that

1 vein, in that area.

2 Q The last sentence says that you understand that
3 the test results that they got with respect to asbestos was
4 not something that they wanted publicized. Do you have a
5 recollection today as to what you meant there?

6 A No, it would be an assumption; if you want to
7 hear that, I will give it to you.

8 Q If it is based upon your experience and reasoning
9 and so forth, yes.

10 A My educated guess would be that the job was done
11 with fiber and that they had obviously gone in there at
12 some point along the line and tested the plant area for
13 asbestos content --

14 Q And it came up with asbestos?

15 A -- and it came out with something that they
16 didn't like very well. Now, where I got this information,
17 I have no idea. I don't even know for a fact that it was
18 true information.

19 MR. BOLCHER: I am going to hand you what we will
20 mark as 2028.

21 (The document referred to was
22 marked Picktnall Exhibit No.

1 2028 for identification.)

2 (The document was proffered to the witness.)

3 (Pause)

4 THE WITNESS: These attachments, in my opinion,
5 don't appear to belong. It says "Enclosed are Sweet's
6 Catalog Technical Data" -- which are not there -- and there
7 is a long job list.

8 MR. BOUCHER: It happens twice.

9 THE WITNESS: Well, a data sheet would have been
10 just on an ordinary technical bulletin coming out of
11 Sweet's.

12 MR. BOUCHER: Why don't we take the duplicate,
13 which is 102649 and 102650, and detach it.

14 THE WITNESS: Which ones?

15 MR. REPPERT: The last two pages.

16 THE WITNESS: The last two pages? Three, I have.

17 MR. REPPERT: Keep the first two.

18 MR. BOUCHER: Keep the jobsite as --

19 THE WITNESS: This list?

20 MR. BOUCHER: Yes.

21 BY MR. BOUCHER: (Resuming)

22 Q Have you had a chance to look at 2028?

- 1 A Yes, I have.
- 2 Q Do you recall dictating 2028?
- 3 A Not really; no.
- 4 Q Do you recall the substance of 2028?
- 5 A The subject matter, the P G & E Embarcadero
6 Substation?
- 7 Q Right.
- 8 A Only that there was such a job; yeah.
- 9 Q Do you recall whether you had any -- It talks
10 about using MK-4 in place of MK-3; do you recall whether
11 that was done or that you had any problems doing that in
12 any jobsites?
- 13 MR. REPERT: Objection to the form of the
14 question; it is compound.
- 15 THE WITNESS: Come back with the question, if you
16 will, please.
- 17 BY MR. BOUCHER: (Resuming)
- 18 Q Were there circumstances in or around June or
19 July of 1973 where MK-4 was used in place of MK-3 on jobs
20 where MK-3 was spec'd?
- 21 A I don't recall any such jobs.
- 22 Q Do you recall --

1 A If MK-3 had been spec'd and we couldn't use it,
2 then somebody would have had the right to ask for the basis
3 for our change, and I would assume that that is what this
4 is about.

5 Q Do you recall whether that happened where MK-4
6 was used in the Embarcadero Substation instead of MK-3?

7 MR. REPPERT: Objection. Asked and answered.

8 THE WITNESS: I would have no direct knowledge of
9 what finally transpired on this. Does that answer your
10 question?

11 MR. BOUCHER: Yes.

12 BY MR. BOUCHER: (Resuming)

13 Q Do you recall whether Grace -- Strike that.

14 Do you recall whether Mono-Kote was used in the
15 Embarcadero Substation? Was that one of your jobs?

16 A I can't really tell you that I know for sure.

17 Q Do you have a belief?

18 A From the basis of this letter? Yes.

19 Q Attached to the letter is a number of jobsites
20 with lists. Do you recall whether those were all sites
21 where Mono-Kote products were used?

22 A I have no idea.

1 Q Do you have any idea whether Mono-Kote was used
2 at any of the sites?

3 A Oh, possibly on the --

4 MR. REPPERT: You don't know. Don't speculate,
5 Mr. Pickthall.

6 THE WITNESS: I really don't know; I just don't.

7 MR. BOUCHER: Let me hand you what will be marked
8 as 2029. It is a four page memo to B. R. Williams and
9 Division Management Distribution from Tom Egan re: Monthly
10 Report - Midwest Region May 1973, and it has a one page
11 attachment.

12 (The document referred to was
13 marked Pickthall Exhibit No.
14 2029 for identification.)

15 (The document was proffered to the witness.)

16 MR. BOUCHER: The only section that is of
17 interest to me that you need to review is the section
18 entitled "Mono-Kote" which appears on the second page,
19 other than simply looking at the document to see if you
20 have seen it before.

21 (Pause)

22 THE WITNESS: I have reviewed the document as you

1 have specified.

2 BY MR. BOUCHER: (Resuming)

3 Q Do you recall whether you received a copy of 2029
4 at any point?

5 A No.

6 Q As of June of 1973, do you remember whether or
7 not Mono-Kote V was being used on any jobs in your area?

8 A No, I don't recall.

9 Q When Mono-Kote IV was first -- Let me rephrase
10 it.

11 When Mono-Kote IV was made commercially available
12 in your market area, was there a problem with sales of
13 Mono-Kote IV for any reason?

14 A Not that I recall.

15 MR. BOUCHER: And last, probably not least, is a
16 one page letter from Thomas Feit dated January 24, 1972
17 regarding minutes of a meeting held on December 1 and 2,
18 1971 of the Plaster and Fireproofing Committee with the
19 attached minutes, and then the cover is a Distribution
20 sheet. It will be marked as 2030.

21 (The document referred to was
22 marked Pickthall Exhibit No.

1 2030 for Identification.)

2 (The document was proffered to the witness.)

3 (Pause)

4 MR. BOUCHER: The only thing I am concerned about
5 is, or, that I will be asking questions about is the
6 section two under NON-ASBESTOS MONC-KOTE - REVIEW AND
7 STATUS.

8 THE WITNESS: Okay.

9 BY MR. BOUCHER: (Resuming).

10 Q Do you remember receiving a copy of 2030 prior to
11 today?

12 A No.

13 Q Do you have any recollection of what is set out
14 in section two under the minutes of the meeting entitled
15 NON-ASBESTOS MONC-KOTE -- REVIEW AND STATUS?

16 A No.

17 Q Have you had your deposition taken before?

18 A Yes.

19 Q Approximately how many occasions?

20 A Two.

21 Q Do you remember when they were?

22 A One was in July -- a year ago, or was it this

1 year? -- the one in Seattle -- My best recollection is that
2 one of them, the one in Seattle, was in 1987 and the one in
3 San Francisco was in '88; is that close enough?

4 Q Sure. Do you remember the names of either of the
5 cases?

6 A One had to do with a school in Alaska, and the
7 other was a hospital in Tennessee.

8 Q The school in Alaska, was that the one taken in
9 Seattle?

10 A Yes.

11 Q Do you remember the name of the Plaintiff's
12 attorneys?

13 A No.

14 Q In either of the two times?

15 A No.

16 Q Do you remember what state the attorneys were
17 from?

18 A The Plaintiff's attorney in the first case, in
19 the Alaska case, was from Alaska. And my recollection is
20 that the hospital job that is referred to, the man was from
21 Tennessee.

22 Q Does Dan Speights sound familiar as one of the

1 attorneys?

2 A No.

3 Q What about a Mr. Harris?

4 A No.

5 MR. BOUCHER: All right, sir, I think I have no
6 further questions. Thank you very much for your time and
7 hospitality.

8 MR. REPPERT: I have no questions.

9 MR. HENDERSON: No questions.

10 (Thereupon, at 2:50 p.m., the taking of the
11 instant deposition ceased.)

12 T. WALT PICKTHALL

13 SUBSCRIBED AND SWORN to before me this day of
14 , 19 .

15 NOTARY PUBLIC

16 My Commission expires

17

18

19

20

21

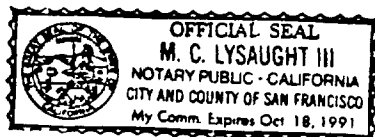
22

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

CERTIFICATE OF REPORTER

STATE OF CALIFORNIA)
)
City and County of San Francisco) ss

I, MICHAEL C. LYSAUGHT, the officer before whom the foregoing deposition was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me; that the testimony of said witness was taken by Michael C. Lysaught, Electronic Reporter, and thereafter reduced to typewriting under my direction; that I am neither counsel for, related to, nor employed by and of the parties to the action in which this deposition was taken, and further that I am not a relative or employee of any attorney or counsel employed by the parties thereto, nor financially or otherwise interested in the outcome of the action.



M. C. Lysaught III
Notary Public in and for the

City and County of San Francisco

State of California

My Commission expires:\\October 18, 1991



1-4-57 OR 1-4-18
FILE COPY

208 S. LASALLE STREET • CHICAGO, ILLINOIS 60604 • DEARBORN 2-0121

November 18, 1968

3572C

To the Members of the
BOARD OF DIRECTORS

T.W. Pickthall, President
C.R. Babb
N.F. Bushell
C.E. Conry
A.D. Webster

PLASTER & FIREPROOFING COMMITTEE

A.W. Dambros, Chairman
R.F. Chaney
T.E. Egan, Jr.
J.H. Greer

MARKET DEVELOPMENT COMMITTEE

C.R. Babb, Chairman
D.J. Boone
J.H. Greer
R.B. Moran
T.W. Pickthall
R.L. Upchurch
A.E. Wise

Re: Magazine Article on Asbestos

Gentlemen:

We are indebted to Bill Culver of Vermiculite-Northwest, Inc. for bringing our attention to the enclosed article on Asbestos from the October 12 issue of the NEW YORKER MAGAZINE. It is a lengthy article, but it is well worth your time and study. We should all be watchful so that our vermiculite Type-MK is not tarred with the same wide brush that asbestos is being tarred with.

Additionally, you will note enclosed a copy of a letter from an architect in Bill's area advocating a glazing over fireproofing in certain areas of a structure, largely because of the article in the NEW YORKER MAGAZINE.

Sincerely,

Leslie A. Barron
Executive Secretary

LAB:ms

Encs.

cc: Mr. J.C. Ottlinger

87-06048

Ex. - 2005

12-14-88

092123

24

SEE MDC FILE FOR
MAGAZINE ARTICLE
ATTACHMENT MENTIONED ^{3572A1}

TO: See Distribution List

DATE: June 26, 1969

FROM: T. F. Egan

Gentlemen:

As I noted to some of you recently, I advocate attacking our fiber competition. One of our primary targets, of course, is with the architect. We must eliminate the fiber specification and get them to straight Mono-Kote or at least a cementitious specification. One of the strongest tools is to use the architects own organization as a creditable witness for proper selection of materials, e.g. Construction Specifications Institute (CSI).

I've attached a copy of the CSI document on specifying sprayed fireproofing.

First, you should read and, indeed, study it, because it does a good job of explaining the two basic types of spray. Secondly, since our major concern with fiber is the way they apply the product, I direct you to page G5, under G. Installation Methods, Paragraph G1, last two sentences:

"With fibrous materials, accurate water measurement is highly important. A common way to cheat on the application is to reduce the water flow at the nozzle, thus decreasing density and increasing coverage per pound of fiber."

This should be pointed out strongly to the architect as a warning from his own specification group that it's very likely he will not get what he needs. What he needs is fire protection and that's based on thickness and density, which we give him automatically.

Combine this with bad practice, sloppy work, medical dangers with asbestos, poor quality materials and you have a real program to go after the architect and get him to remove fibers from his specs and to refuse approval of it on the projects.

87-06048

Ex. 2006

12-14-88

ML

If we've done our job on the quality of Mono-Kote - then remove the fibers last hope which is price - he get's most jobs based on knowing he can cheat on density and use less than is required according to the tests.

Good hunting.

Sincerely yours,

T. F. Egan
T. F. Egan

TFE:dlc

JUN 30 1967

Distribution List

C. R. Babb
James Cintani
John C. Ottinger
Rohn J. Anderson
Philip P. Farrell
Norman T. Burns
Gerold W. Schwartz
Edwin Van Vliet
Norman Moss
Richard C. LaRue
J. S. Titus
J. R. McLeod
Richard A. Feddeck
E. D. Bossier
G. R. Taylor
R. L. Asher
R. G. Hartman
Patrick F. Riegner
Paul P. Benditz
Vern G. Monroe
L. P. Hollis
R. E. Dunham
C. H. Wendel

C. R. Lowe
E. D. Kerr
Stephen J. Sheeran
Jud N. McDougall
Richard F. Spencer
Robert O. de Bastian
Charles W. Guenther
W. J. Bourke
William A. Garrison
Allan Mann
W. T. Dingler
S. K. Kerr
Duane Gehring
T. W. Pickthall
Robert F. Chaney
Ron Hodges
A. W. Dambros
Doyle D. Nigh
W. V. Culver
Ralph Burnham
R. L. Asher
W. G. Gray
J. A. McEachern

THIS COPY FOR

SECRET

INSTRUCTION PRODUCTS DIVISION

TO: See Distribution List

DATE: December 2, 1969

FROM: Thomas F. Egan

SUBJECT: Asbestos

Gentlemen:

Many, if not all of you, have heard to varying degrees of the studies being conducted on the medical hazards of asbestos inhalation.

On November 4 past, at the CPLIA Convention, I heard an address by Dr. Irving J. Selikoff, Director, Environmental Sciences Laboratory, Mount Sinai School of Medicine, New York City. He has been the spearhead of the clinical and field studies into asbestos and has a large staff in his program.

His address was very factual about the extreme dangers of the use, under current practices, of sprayed fiber fire-proofing. After noting the widespread concentration of fibers around major office structures, with emphasis on the large amounts distributed blocks from the site, he stressed the hazards to the general public of this pollution of the air. Also, he noted the concern of possible long-term danger to building occupants from prolonged minute dusting of fibers through the building's air distribution systems. His use of medical charts, job photos, on-site readings and expert commentary gave the maximum impact.

He stated that based on his experience and studies and watching numerous applications the methods and conditions were the worst he could have imagined.

In summary, his speech was the strongest attack on sprayed fibers and was made before the plastering contractors and international union officials. The charge is very serious, and responsible people are listening all across the country.

For a very long time most of us have been complaining about sprayed fibers, untamped, low density, no sealer, etc., but from a fire rating and economic outlook. Now that factual testimony by an eminent medical man and his staff has been heard, responsible architects, public health and building officials are reacting.

107834

87-06048
Ex. 2007

12-14-88

ML

December 2, 1969

I did not want to hold this information back, but I also want to caution you not to make this an indiscriminate attack on fibers. Why not use this data on major projects regardless of their stage of design or bidding and speak squarely and honestly to those people responsible for a decision in our favor.

The architect and engineer are very touchy on liability, so don't you agree they would be very concerned about danger of law suits by specifying or approving a product with these inherent dangers.

We must be very careful that there are no misquotes or enlargements of this as to Dr. Selikoff's statements, from a legal position. However, there are articles from THE NEW YORKER magazine, October 12, 1968, and THE WALL STREET JOURNAL, November 7, 1968, attached. Also, your local plastering contractors who attended the CPLIA Convention will be aware of his speech.

I'll keep you well informed as I gather more data. Meanwhile, let me know where I can help on particulars.

Yours truly,

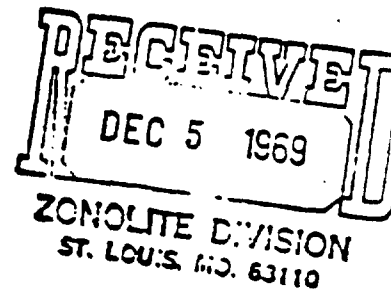


Thomas F. Egan

TFE/jac

DISTRIBUTION LIST

R. L. Asher - Zono/Boca Raton Poly.
C. R. Babb
P. P. Benditz
E. D. Bossier - Zono/New Orleans
W. J. Bourke - Zono/Chicago Plant
R. K. Burnham - Ari-Zonolite
N. T. Burns - Zono/Beltsville (Muirkirk)
Norm Bushell - Grant Industries
R. F. Chaney
J. Cintani - Zono/Trenton
W. V. Culver - Zono/Auburn
A. W. Dambros - Zono/Los Angeles Office
R. O. de Bastian - Zono/St. Louis
W. T. Dingler - Zono/Denver
R. E. Dunham - Zono/Minneapolis Office
P. P. Farrell
R. A. Feddeck
W. A. Garrison
Floyd Gebert - Robinson Insulation Co.
D. G. Gehring - Zono/Milwaukee
W. G. Gray - Zono/Dearborn
J. H. Greer - Vermiculite Products, Inc.
C. W. Guenther
R. G. Hartman - Zono/New Castle
R. Hodges
L. P. Hollis, Jr. - Zono/High Point
L. K. Irvine - Vermiculite-Intermountain, Inc.
R. P. Johnson
R. C. LaRue
C. R. Lowe - Zono/Atlanta Verm.
Jack Lyall - Southwest Vermiculite Co.
A. H. Mann - Zono/Minneapolis Plant
J. N. McDougall - Zono/Omaha
J. A. McEachern - Zono/St. Louis
J. R. McLeod - Zono/Atlanta Verm.
E. E. Miller - Zono/Dearborn
V. G. Monroe - Zono/Wilders
R. B. Moran - Texas Vermiculite Co.
N. R. Moss - Zono/High Point
D. D. Nigh - Zono/Los Angeles Plant
J. C. Ottinger
T. W. Pickthall - Zono/Newark, Calif.
P. F. Riegner
G. W. Schwartz
S. J. Sheeran
R. F. Spencer
G. R. Taylor - Zono/Little Rock
J. S. Titus - Zono/Trenton
E. VanVliet
Drew Webster - F. Hyde & Co., Ltd.
C. H. Wendel - Zono/Los Angeles Office
L. A. White - Zono/Nashville





67405

TO: See Distribution List DATE: April 17, 1970
FROM: Thomas F. Egan

Gentlemen: C

The attached article is very topical to say the least. This is sent to you for two-fold purposes: First of all, it is important that you be alert to the many changes taking place constantly in the field of direct-to-steel fireproofing.

Secondly, since this effects our competitors--(sprayed fibers) directly, it is important that you use these facts with architects who have used or are contemplating specifications for sprayed fiber fireproofing. For the present, please sell the inherent advantages of a cementitious product.

This article, having been written by Mr. Rosen, would be an ideal piece to distribute or at least use as a point of reference with all architects and engineering firms.

Keep in touch on particulars.

Yours truly,

Thomas F. Egan

TFE/jac

Attachment

87-06048
Ex. 2008
12-14-98
mL



092281

DISTRIBUTION LIST

07404

R. L. Asher/Zono-Boca Raton Poly.
P. P. Benditz
J. N. Beveridge
E. D. Bossier/Zono-New Orleans
W. J. Bourke/Zono-Chicago Plant
R. K. Burnham/Ari-Zonolite
N. T. Burns/Zono-Beltsville (Muirkirk)
Norm Bushell/Grant Industries
R. F. Chaney
J. Cintani/Zono-Trenton
W. V. Culver/Zono-Auburn
A. W. Dambros/Zono-Los Angeles Office
R. O. de Bastian/Zono-St. Louis
W. T. Dingler/Zono-Denver
T. E. Dietrick/Zono-Atlanta (Verm.)
R. E. Dunham/Zono-Minneapolis Office
P. P. Farrell
R. A. Feddeck
T. P. Feit
Floyd Gebert/Robinson Insulation Co.
D. G. Gehring/Zono-Milwaukee
W. G. Gray/Zono-Dearborn
J. H. Greer/Vermiculite Products, Inc.
C. W. Guenther
R. G. Hartman/Zono-New Castle
R. Hodges
L. P. Hollis, Jr./Zono-High Point
L. K. Irvine/Vermiculite-Intermountain, Inc.
R. P. Johnson
R. C. LaRue
C. R. Lowe/Zono-Atlanta Verm.
Jack Lyall/Southwest Vermiculite Co.
A. H. Mann/Zono-Minneapolis Plant
J. N. McDougall/Zono-Omaha
J. A. McEachern/Zono-St. Louis
J. R. McLeod/Zono-Minneapolis Office
W. E. McNally
E. E. Miller/Zono-Dearborn
V. G. Monroe/Zono-Wilders
R. B. Moran/Texas Vermiculite Co.
N. R. Moss
D. D. Nigh/Zono-Los Angeles Plant
J. C. Ottinger
T. W. Pickthall/Zono-Newark, Calif.
G. W. Schwartz
S. J. Sheeran
R. F. Spencer
G. R. Taylor/Zono-Little Rock
J. S. Titus/Zono-Trenton
E. VanVliet
Drew Webster/F. Hyde & Co., Ltd.
C. H. Wendel/Zono-Los Angeles Office
L. A. White/Zono-Nashville

092282

Controlling Construction Pollution

67-08

This column concludes that due to its contribution to air pollution, asbestos-sprayed insulation must be eliminated in future construction. Rosen is Chief Specifications Writer of Skidmore, Owings & Merrill, New York.

The hazards of air and water pollution are slowly being recognized as more statistical information on their effect on the human environment is coming to the attention of a concerned citizenry. Since the publication of *Silent Spring*, by Rachel Carson, people have begun to question the dangerous side effects that result from chemical pesticides, automobile fumes, and raw sewage dumped into our streams and rivers. Industrial and human wastes, carelessly or innocently disposed of into the atmosphere or into rivers, have an effect on nature's biological balance that governs the production of oxygen and the growth of marine and animal life. In addition, as architects, we should decry the despoilation of our environment resulting from the accumulation of physical mounds of garbage, junked cars, and industrial waste products.

We should also take a closer look at our construction practices to determine whether we are a party to this pollution as a by-product of our designs, and whether we can reduce or eliminate some of our own contributions to this problem area.

Certainly in demolition of existing structures in urban centers, we should restrict the amount of dust that develops. In some European cities, barriers consisting of plastic envelopes are utilized around demolition sites to confine the dust resulting from these operations. Perhaps our Building Departments and our Air Pollution Control Departments should institute stricter controls over such procedures.

A more striking example of how architects can reduce pollution that actually contributes to fatalities is in the selection of certain sprayed-on fire proofing and insulating products.

In 1900, a London physician, in performing an autopsy upon the

body of an asbestos-textile worker found asbestos particles in the lungs and attributed this death to the worker's occupation. Several isolated instances occurred subsequently where an examination of the lung tissue of deceased asbestos workers indicated the presence of asbestos. In 1924 an English physician, Dr. Cooke, after an extensive autopsy and subsequent search of medical literature, concluded that the death of a patient resulted solely from the inhalation of asbestos fibers and assigned the name asbestosis to this disease.

An investigation of some 363 asbestos-textile workers in Great Britain in 1928 disclosed that 95, or about 25 per cent, showed evidence of asbestosis. As a result, legislation was enacted in Great Britain to require improvements in ventilation and exhaust systems in asbestos-textile plants and periodic examination of workers. Although this improvement in working conditions lengthened the life expectancy of these workers, it was learned in 1935 by Dr. Lynch in this country that asbestos workers were dying of cancer as a result of their association with asbestos. Independent investigators in many parts of the world were likewise coming to the same conclusion based on their studies of the association of workers with asbestos.

Dr. Selikoff, of New York's Mount Sinai Hospital, had an opportunity to examine the records of members of the Asbestos Workers Union. The study covered a total of 1822 insulation workers between 1942 and 1962. It was found that the death rate from cancer among these asbestos workers was about seven times greater than that of the general white male U. S. population. These observations are staggering. In addition, one must conclude that

not only are people who actually work with asbestos exposing themselves to asbestosis and cancer, but also the allied tradesmen in the building construction industry, closely associated with this work, are subjected to the exposure. Steam fitters, electricians, carpenters, acoustical workers, masons, structural steel erectors, and others employed on projects using spray-asbestos insulation in the area of this contamination, and who inhale these asbestos particles, are exposing themselves and are likely candidates for this disease.

Equally disturbing is the fact that asbestos is practically indestructible while it may disintegrate, it is an everlasting contaminant in the atmosphere. It has been estimated that during its application as fireproofing to structural steel members and metal decks, about 10 per cent overaboot and is projected into the atmosphere. On high-rise structures in urban areas, spray-asbestos fireproofing has been found three and four blocks from the construction site, so that the unsuspecting general public is likewise subjected to this hazard as well as the tradesman directly involved in its application. While this relationship between a casual encounter with asbestos and possible development of disease in the public has not been established, it behooves the architectural profession to consider other materials to perform the work of sprayed-on fireproofing and insulation.

Not only is there a clear and present danger in the initial application of asbestos on the health of the installers, but 30 or 40 years hence when these buildings are torn down the demolition operations, if not properly controlled, will add more asbestos fibers to the atmosphere. The time to use substitutes for asbestos sprayed insulation is now.

E. J. Barker/Insulation Products
 E. J. Barker/Insulation Products
 E. J. Barker/Insulation Products
 W. T. Burns/Zono-Beltsville (Muirkirk)
 Norm Bushell/Grant Industries
 R. F. Chaney
 J. Cinti/Zono-Trenton
 W. V. Culver/Zono-Auburn
 A. W. Dambros/Zono-Los Angeles Office
 R. O. de Bastian/Zono-St. Louis
 W. T. Dingler/Zono-Denver
 T. E. Dietrick
 R. E. Dunham/Zono-Minneapolis Office
 P. P. Farrell
 R. A. Feddeck
 Floyd Gebert/Robinson Insulation Co.
 D. G. Gehring/Zono-Milwaukee
 W. G. Gray/Zono-Dearborn
 J. H. Greer/Vermiculite Products, Inc.
 C. W. Guenther
 R. G. Hartman/Zono-New Castle
 R. Hodges
 L. P. Hollis, Jr./Zono-High Point
 L. K. Irvine/Vermiculite-Intermountain, Inc.
 R. P. Johnson
 R. C. LaRue
 C. R. Lowe/Zono-Atlanta Verm.
 Jack Lyall/Southwest Vermiculite Co.
 A. H. Mann/Zono-Minneapolis Plant
 J. N. McDougall/Zono-Omaha
 J. A. McEachern/Zono-St. Louis
 J. R. McLeod/Zono-Minneapolis Office
 E. E. Miller/Zono-Dearborn
 V. G. Monroe/Zono-Wilders
 R. B. Moran/Texas Vermiculite Co.
 N. R. Moss
 D. D. Nigh/Zono-Los Angeles Plant
 J. C. Ottinger
 T. W. Pickthall/Zono-Newark, Calif.
 G. W. Schwartz
 S. J. Sheeran
 R. F. Spencer
 C. R. Taylor/Zono-Little Rock
 J. S. Titus/Zono-Trenton

THIS COPY FOR

J. Webster/F. H. & Co., Ltd.
 J. Webster/F. H. & Co., Ltd.

87-06048
 Ex. 2009
 12-14-88

096329

MONOLITE

TO: See Distribution List

DATE: March 13, 1970

FROM: Thomas F. Egan

I was given a jolting reminder recently of a problem that you may have and are not aware of - that is allowing Mono-Kote to be caught in the general category "Spray-on Fireproofing."

One of the largest architectural offices called for support data on Mono-Kote. When I started my presentation by describing that Mono-Kote was cementitious and how it differed from sprayed fiber, they were very relieved. However, had this been explained earlier, as it should have, the architect would have been able to handle his problem easily, saved his time and felt better about our ability to present a product.

In summary, stop assuming that architects know the differences between Mono-Kote and fibers. There's a lot of negative comment about sprayed fiber, and we must be very careful that Mono-Kote is not given a bad label when architects generalize "Sprayed Fireproofing."

Go back to fundamentals and sell the pluses of Mono-Kote. Get your plan for 100% of the fireproofing in your town in high gear today.

Yours truly,

Tom
Thomas F. Egan

TFL/jac

ZONOLITE
CONSTRUCTION PRODUCTS DIVISION

TO: See Distribution List

DATE: May 14, 1970

FROM: Thomas F. Egan

Gentlemen:

U. S. Minerals Company has developed a new asbestos-free sprayed fiber "Cafco Type D/CF. The CF stands for "Ceramic Fiber". This does not mean that this product can be sold with UL label service.

Our information, as of this date, is that one test has been passed at UL and was a roof deck assembly similar to our RC-5-1 1/2hr. or RC-10-1hr. It has not been listed by UL, and they do not have equivalency with the new product for their other fire tests.

There have been recent ads in trade journals stating "U.L. Approved", which may be correct in the strictest interpretation, since they ran a fire test.

Be alert and keep selling cementitious Mono-Kote and all its advantages.

Yours truly,


Thomas F. Egan

TFE/jac

P.S. Pretty reliable sources state this new material will demand a 25% price increase and has a higher tested density.

87-06048

Ex. 2010

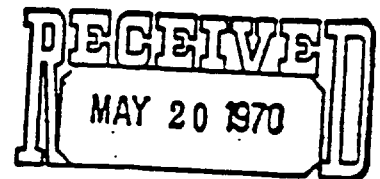
12-14-88

ML

004425

DISTRIBUTION LIST

R. L. Asher/Zono-Boca Raton (P)
J. N. Beveridge
E. D. Bossier/Zono-New Orleans
W. J. Bourke/Zono-Chicago Plant
R. K. Burnham/Ari-Zonolite
N. T. Burns/Zono-Beltsville (Muirkirk)
Norm Bushell/Grant Industries
R. F. Chaney
J. Cintani/Zono-Trenton
W. V. Culver/Zono-Auburn
A. W. Dambros/Zono-Los Angeles
R. O. deBastian/Zono-St. Louis
W. T. Dingler/Zono-Denver
T. E. Dietrick/Zono-Atlanta (V)
R. E. Dunham/Zono-Minneapolis Office
P. P. Farrell
R. A. Feddeck
T. P. Feit
Floyd Gebert/Robinson Insulation Co.
D. G. Gehring/Zono-Milwaukee
W. G. Gray/Zono-Dearborn
J. H. Greer/Vermiculite Products, Inc.
C. W. Guenther
R. G. Hartman/Zono-New Castle
R. Hodges
L. P. Hollis, Jr./Zonc-High Point
L. K. Irvine/Vermiculite-Intermountain, Inc.
R. P. Johnson
R. C. LaRue
C. R. Lowe/Zono-Atlanta (V)
Jack Lyall/Southwest Vermiculite Co.
A. H. Mann/Zono-Minneapolis Plant
J. N. McDougall/Zono-Omaha
J. A. McEachern/Zono-St. Louis
J. R. McLeod/Zono-Minneapolis Office
W. R. McNally
E. E. Miller/Zono-Dearborn
V. G. Monroe/Zono-Wilders
R. B. Moran/Texas Vermiculite Co.
N. R. Moss
D. D. Nigh/Zono-Los Angeles Plant
J. C. Ottinger
T. W. Pickthall/Zono-Newark, Calif.
G. W. Schwartz
S. J. Sheeran
R. F. Spencer
G. R. Taylor/Zono-Little Rock
J. S. Titus/Zono-Trenton
E. VanVliet
Drew Webster/F. Hyde & Co., Ltd.
C. H. Wendel/Zono-Los Angeles Office
L. A. White/Zono-Nashville



ZONOLITE DIVISION
ST. LOUIS, MO. 63110

THIS COPY FOR

ZONOLITE
CONSTRUCTION PRODUCTS DIVISION

67461

TO: See Distribution List
FROM: Thomas F. Egan

DATE: May 20, 1970

NEWS FLASH

Gentlemen:

Cafco Type D C/F has gotten equivalency from U. L., Inc. on most of their floor assemblies, beams and columns. I do not have the specific numbers, but operate under the fact that they have what is necessary.

How this will effect you in the weeks to come, you know best, however, I strongly urge that you start selling strong specs to control in-place density. This new C/F product is tested at 18 P.C.F. and 15 P.C.F. so it is denser.

This is not street knowledge, so please don't you be guilty in spreading it. Let the architect or other find out for himself but stress the fact that with or without asbestos, fibers are a poor application without strict density control by spec or better codes.

Yours truly,



Thomas F. Egan

TFE/jac

87-06048
Ex. 2011
12-14-88
ML

096220

DISTRIBUTION LIST

C7460

R. L. Asher/Zono-Boca Raton (P)
J. N. Beveridge
E. D. Bossier/Zono-New Orleans
W. J. Bourke/Zono-Chicago Plant
R. K. Burnham/Ari-Zonolite
N. T. Burns/Zono-Beltsville (Muirkirk)
Norm Bushell/Grant Industries
R. F. Chaney
J. Cintianni/Zono-Trenton
W. V. Culver/Zono-Auburn
A. W. Dambros/Zono-Los Angeles
R. O. deBastian/Zono-St. Louis
W. T. Dingler/Zono-Denver
T. E. Dietrick/Zono-Atlanta (V)
R. E. Dunham/Zono-Minneapolis Office
P. P. Farrell
R. A. Feddeck
T. P. Feit
Floyd Geber/Robinson Insulation Co.
D. G. Gehring/Zono-Milwaukee
W. G. Gray/Zono-Dearborn
J. H. Greer/Vermiculite Products, Inc.
C. W. Guenther
R. G. Hartman/Zono-New Castle
R. Hodges
L. P. Hollis, Jr./Zono-High Point
L. K. Irvine/Vermiculite-Intermountain, Inc.
R. P. Johnson
R. C. LaRue
C. R. Lowe/Zono-Atlanta (V)
Jack Lyall/Southwest Vermiculite Co.
A. H. Mann/Zono-Minneapolis Plant
J. N. McDougall/Zono-Omaha
J. A. McEachern/Zono-St. Louis
J. R. McLeod/Zono-Minneapolis Office
W. R. McNally
E. E. Miller/Zono-Dearborn
V. G. Monroe/Zono-Wilders
R. B. Moran/Texas Vermiculite Co.
N. R. Moss
D. D. Nigh/Zono-Los Angeles Plant
J. C. Ottinger
T. W. Pickthall/Zono-Newark, Calif.
G. W. Schwartz
S. J. Sheeran
R. F. Spencer
G. R. Taylor/Zono-Little Rock
J. S. Titus/Zono-Trenton
E. VanVliet
Drew Webster/F. Hyde & Co., Ltd.
C. H. Wendel/Zono-Los Angeles Office
L. A. White/Zono-Nashville

R. F. Chaney

June 1, 1970

67473

T. F. Egan

T. W. Pickthall/Zono-Newark, Calif.

Dear Bob:

Went to Winnipeg and met Whittaker. He can't understand why you fellows have been so quiet about asbestos? I made no comment, and he proceeded to tell me what an unethical competitor Bob Chaney is. I stated you hate to lose, but agreed completely on your scruples.

Stay unscrupulous, unethical, mean and selling Mono-Kote.

Seriously, the fiber boys are really worried about this situation and as soon as we have the new Mono-Kote, lay it on them in your area.

Sincerely,

Thomas F. Egan

TFE/jac

Attachment

Note: Attached New York Times article and the mention of suspicion of all fiber such as rock wool and mineral fibers.

87-06045

Ex 2012

12-14-88

mk

092319

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

10000 GRAFT ST. 5500 COLORADO BOULEVARD LOS ANGELES CALIFORNIA 90022

June 19, 1970

TO: R. Sterrett, Cambridge
T. Egan, Cambridge
W. Pickthall, Newark
B. Culver, Auburn
R. Burnham, Phoenix
C. Wendel, Los Angeles
D. Nigh, Los Angeles
J. Greer, Houston
J. Ottinger, Trenton
T. Feit, Cambridge
B. Chaney, Newark

Subject: Recent developments in Asbestos problems

The last two days Doyle Nigh and I have had interesting, lengthy conversations with the State of California's Division of Industrial Safety and the Department of Public Health. Our conversations were based on following through after a recent directive from the Division of Industrial Safety dated June 8, 1970.

While in our minds the directive very obviously applied to sprayed asbestos, it was in isolated areas used on Mono-Kote operations. The background for the directive everyone is certainly aware of.

The interesting points that came out of our conversations with Mr. Paul Kaplan, Department of Public Health, State of California and Mr. M. Bart, Division of Industrial Safety, State of California, are listed below.

In November of 1968, Mr. Kaplan along with a Mr. Jerry Eisen (Division of Industrial Safety) ran an industrial hygienic study at the Beverly Hills High School where Mono-Kote was being applied. In summary, the test rather conclusively proves that Mono-Kote as it presently exists is well below the recommended guide standards set by the American Conference of Governmental Industrial Hygienists (ACGIH). This is a nationwide group as the name implies located at 1014 Broadway, Cincinnati, Ohio 45202. The State of California happens to follow the standards as I believe most other large municipalities would also follow.

Page 19 of the 1969 Standard indicates a notice of intended change. The most important to us being a change in asbestos particles. For simplicity, I will refer to the allowable limits as threshold limit values with the existing unit of 5 million particles per cubic foot (MPPCF). The proposed change in standard for asbestos will be down to 2 MPPCF.

106681

97-06045
Ex. 1179
12-14-85

The test run by Mr. Kaplan and Mr. Eisen independently and simultaneously indicate that Mono-Kote will very probably even meet the more severe new standards.

At the present time the Chief Medical Office of the Health Department is attending a seminar being conducted by Dr. Selikoff. The final status of the new standard will undoubtedly be predicated on the results of this seminar and the observations based on the tests run by Mr. Kaplan and Mr. Eisen.

This letter is intended to keep you abreast of what we feel are important recent developments in this entire picture. This letter should not in any way stop us from continuing with our most pressing immediate problem, namely, the elimination of asbestos from our present product. However, I personally feel until this does occur we can both morally and honestly continue promoting Mono-Kote without fear.

While Doyle and I both consider Mr. Kaplan as knowledgeable a man as we have talked to recently regarding the asbestos hazard, we were both rather amazed that even after running a test on Mono-Kote, Mr. Kaplan honestly did not know the difference between sprayed fiber and cementitious products. Doyle and I learned one thing. Do not assume your building officials knows the difference between products (one wet, one dry). We are making sure everyone in our area really knows the difference.

Specific mention should be given to the excellent job done by Doyle Nigh in establishing the initial contacts with Mr. Kaplan and Mr. Eisen. Without his quiet insistence on seeing these people, we might have overlooked a great deal of what seems to be useful documented information.

Sincerely,


A. W. Dambros


AWD:lp

GRACE
LONGLITE

CONSTRUCTION PRODUCTS DIVISION

TO: See Distribution List

DATE: June 25, 1970

FROM: T. F. Egan

Gentlemen:

The heat from the asbestos problem is radiating in many directions. One which is becoming widespread is a sudden concern by previously unconcerned building officials over ratings and UL design conformance.

Please be extremely careful on all projects that you secure local building official approval on the use of Mono-Kote for specific projects. We have several situations now where the official has started to question lightweight concrete fill used on designs showing structural sand gravel fill after contractors were finished or over half complete.

In other words, don't take approvals for granted, get with your building officials and be sure of approvals on designs. Be very careful that your fireproofing applicator has written approval based on submitted UL designs BEFORE he starts.

Many of you do this all the time. However, if you've been working with officials who were lax and "Show me any UL test - okay," get some approval in writing for design submitted on a project. They may suddenly wake up and start demanding all kinds of validation from the contractor.

You should know your own local conditions, but all of you, please don't take anything for granted. Check closely with your contractors that they are not spraying on some verbal order from the general contractor. Worse yet, spraying on your verbal approval.

Be careful and be right.

Yours truly,



Thomas F. Egan

TFE/jac

87-06048

Ex. 2013

12-14-88

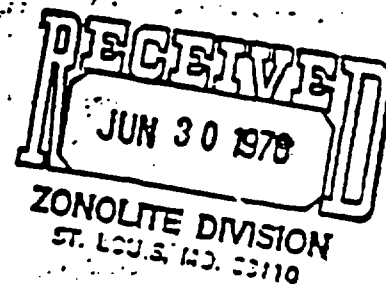
ML

096644

DISTRIBUTION LIST

R. L. Asher/Zono-Boca Raton (P)
J. N. Beveridge
E. D. Bossier/Zono-New Orleans
W. J. Bourke/Zono-Chicago Plant
R. K. Burnham/Ari-Zonolite
N. T. Burns/Zono-Beltsville (Muirkirk)
N. F. Bushell/Grant Industries
R. F. Chaney
J. Cintani/Zono-Trenton
W. V. Culver/Zono-Auburn
A. W. Dambros/Zono-Los Angeles Office
R. O. de Bastian/Zono-St. Louis
W. T. Dingler/Zono-Denver
T. E. Dietrick/Zono-Atlanta (V)
M. F. Driver
R. E. Dunham/Zono-Minneapolis Office
P. P. Farrell
R. A. Feddeck
T. P. Feit
F. E. Gebert/Robinson Insulation Co.
D. G. Gehring/Zono-Milwaukee
R. H. Gilchrist/Grant Industries
W. B. Gray/Grant Industries
W. G. Gray/Zono-Dearborn
J. H. Greer/Vermiculite Products, Inc.
C. W. Guenther
R. G. Hartman/Zono-New Castle
R. Hodges
L. P. Hollis/Zono-High Point
L. K. Irvine/Vermiculite-Intermountain, Inc.
R. P. Johnson
E. G. Ladd/Grant Industries
R. C. LaRue
C. R. Lowe/Zono-Atlanta (V)
Jack Lyall/Southwest Vermiculite Co.
A. H. Mann/Zono-Minneapolis Plant
J. N. McDougall/Zono-Omaha
J. A. McEachern/Zono-St. Louis
J. R. McLeod/Zono-Minneapolis Office
W. R. McNally
E. E. Miller/Zono-Dearborn
V. G. Monroe/Zono-Wilders
R. B. Moran/Texas Vermiculite Co.
N. R. Moss
D. D. Nigh/Zono-Los Angeles Plant
J. C. Ottinger
T. W. Pickthall/Zono-Newark, Calif.
G. W. Schwartz
R. F. Spencer
G. R. Taylor/Zono-Little Rock
J. E. Taylor
J. S. Titus/Zono-Trenton
E. VanVliet
A. D. Webster/F. Hyde & Co., Ltd.
C. H. Wendel/Zono-Los Angeles Office
L. A. White/Zono-Nashville
B. R. Williams

THIS COPY FOR



07454A /H

GENTLEMEN:

My name is Pickthall. I am District Manager, Zonolite Construction Products Division. W. R. Grace & Company.

Our interest in this matter, for the benefit of those people in the room who don't know us, is occasioned by the fact that we are the manufacturers of a cementitious fire-proofing material sold under the trade name Mono-Kote. It contains some asbestos and like other responsible people we have been concerned.

Concerned for our in plant people, for the workmen who apply our materials and for the general environment of the communities in which our materials are used.

In the face of overwhelming evidence to the contrary it would be something short of intelligent for anyone to discount the possible health hazard related to uncontrolled and indiscriminate exposure to asbestos dust and fiber.

Before we go any further with this discussion I want to make it exceedingly clear that the Zonolite Construction Products Division is totally committed to the complete elimination of asbestos from the product line.

87-06048
Ex. 2014
12-14-88
ML

108274

Unfortunately, no one knows with absolute certainty just where the danger point is, in the level of exposure. Lacking this knowledge we think the sound approach is complete elimination of asbestos, and this is what we are going to do.

We have made considerable progress in this direction in the last 18 months but there are 15 years of development, testing, field experience and code approval work involved in the present product. We feel that the responsibility for providing equivalency in fire protection is just as great, if not greater, than the possible hazard of asbestos exposure.

It would be nice if we could sweep all this under the rug and announce to you that we now have the panacea for the dilemma. We simply took out the asbestos and there is nothing to worry about. Sorry, but as you all know it's not that simple.

We are not alone in this approach to the problem. All the major factors in the industry are working in this direction and the good old American competitive system will make it certain that no one goes to sleep.

So in truth, the matter under consideration here tonight is an interim thing. What should be done to control this possible hazard until Industry can remove the offending ingredient.

in late 1968 when the New Yorker Article was published. few of us were aware of the hazards of asbestos. It came as quite a shock. Asbestos had been considered a very useful and important ingredient in many building material products. Floor tile, ceiling tile, water pipe, wall panels, all contained asbestos. It is contained in sprayed fireproofing, simply because it is economically sound and performs well under fire exposure.

Following the New Yorker article, in rapid succession came a rash of magazine articles on the same subject. Most, if not all of them, pointing the finger at the sprayed fire protection industry as being bad guys. All of these articles, some of which bordered on being irresponsible, had one thing in common. Complete absence of factual data on sprayed fireproofing. They related in unpleasant detail the high mortality rate among asbestos workers and then by inference claimed the same fate for the sprayed fireproofing workmen and even worse for the public in general. All of this without one published iota of test data relating to sprayed fireproofing.

The indictment was based solely on association. You use asbestos! Asbestos Workers have a high mortality rate. So.

You too are going to die. Not only you but everyone around you. Complete disregard of the amount of asbestos involved, the tools being used or the conditions of application. All of which has considerable bearing on the hazard level.

The other thing which all of these articles had in common with the New Yorker Original was that they all referred to the intolerable conditions created by spraying operations in New York City.

I think it's only fair to point out that New York is not San Francisco and neither are the conditions created by fireproofing operations.

Some of you on this Board will remember the long tedious hours in the early 1960's spent in thrashing out density and damageability requirements for directly applied fireproofing. Those of us in Industry still have scars on our psyches to attest to our bouts with Mr. Goldberg's scratch test. Some of us had a name for that infernal contraption which can't be repeated in public. I'll tell you in private if you haven't heard it. Seriously, San Francisco has not had the problems referred to in these magazine articles simply because of the damageability requirements which this Board passed in 1961. ♦

It's as simple as this. Any material which passed that damageability criteria had to have a minimum in place density of 18 to 20 pounds per cubic foot. You can't put fluff on a spandrel on the 50th floor of the Bank of America Building in a 30 knot wind. That material has got to have some substance or it won't pass the density tests which are taken on every floor.

We have been using drapes in San Francisco on building perimeters since the Wells Fargo job. They became mandatory then and we've been using them ever since.

So what I'm saying is this: First we have been 10 years ahead of New York in our regulations, and secondly, we have had better inspection. These two things alone have spared us ankle deep fire proofing materials in our streets. We don't have New York's problem. If we've got a problem, it's a San Francisco one and I'm sure we can take care of it. We always have.

We are not objecting to the New Yorker article or Dr. Selikoff's warnings. As a matter of fact they were things that should have been said. We heard and we are doing something about it. But we certainly don't want to be convicted of what has been going on in New York or be convicted on evidence that was gained from an unrelated industry.

In all the thousands of words that have been written on this subject by the journalistic fraternity I have yet to find a single reference to an asbestos exposure count on either the journeymen doing fireproofing, other tradesmen on the job, or the general public. One would think that at least one of these enterprising individuals would have taken the trouble to get the facts.

To the best of my knowledge up to this moment no one has completed such a study.

When I appeared before this Board in May I told you that we were going to get the truth and that win, lose or draw, this Board would get the results. We have done so and we have the report available for you tonight. I'm certain you realize that a study of this kind requires a high degree of technical skill to gather the data and long years of scientific training and experience to interpret it. We were most fortunate in being able to secure the consultant services of two outstanding authorities on the subject. Drs. Tabershaw and Cooper. Both medical men with long and significant contributions to Public Health.

Our only conditions were that they get the truth and present it in a manner which would be meaningful to non-medical people. We think they did the job well and we appreciate it.

We believe that this report clearly indicates that we are not creating the health hazards to either workmen or the public with which we have been charged.

The actual sampling and microscopic work was done by Mr. LeRoy Balzer and Mr. Doug Fowler. Both of these men are highly qualified and soon to be Doctors in their own right.

Since this report is of medical significance I certainly do not feel qualified to present it.

Mr. Fowler

He will go over the report with you and answer any questions you care to ask.

When you are through with him I would appreciate a few more moments to conclude our presentation.

GENTLEMEN - we realize that this report deals with only one product of the several which are available. We can say only that we have reviewed it with Drs. Tabershaw and Cooper and we do not feel that we are contributing significant amounts of asbestos to the San Francisco environment. We intend to reduce the already low hazard of the directly involved workmen by using Bureau of Mines Approved Respirators and reducing nozzle velocities. We are certainly going to be more diligent in clean up and disposal procedures. Beyond that we do not honestly see that anything can be done to materially improve the situation short of asbestos elimination. We are working on this and will accomplish it.

We have tried to the best of our ability to give you truth and not fiction, facts and not supposition. If your deliberations indicate to you that this product needs further regulation during the interim period, we will cooperate in any way we can to assist in arriving at practical solutions.

Thank you sincerely for hearing our story. We appreciate your time and patience.

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

07433

W. R. GRACE & CO., 958 COLORADO BOULEVARD, LOS ANGELES, CALIFORNIA 90041 - 213-254-5111

July 7, 1970

O. M. Favorito
W. R. Grace & Co.
62 Whittemore Avenue
Cambridge, Massachusetts 02140

Dear Mr. Favorito:

As requested by Mr. C. H. Wendel, we are giving you background information on the asbestos story in Southern California.

The problem started with issuance of the June 8, 1970 directive from the Division of Industrial Safety, copy enclosed. Three jobs in Southern California have been officially stopped, copies of the stop orders and corrective requirements are enclosed. The job locations are:

1. Veterans Administration Hospital, La Jolla
2. Treasury Store, Long Beach
3. Brookshire Medical Center, Downey

In the case of the Veterans Administration Hospital job and the Treasury Store, work has resumed and the only exception to the required corrective measures is that a fresh air supply is not required. The applicator is wearing a Bureau of Mines type respirator.

In recent conversation with Mr. Pickthall, who is our Northern California District Manager, he indicates that Mr. Farmer is not making any apparent distinction between the sprayed asbestos type of fireproofing and the cementitious type of fireproofing (Mono-Kote). In Northern California verbal corrective measures were given on the P.G. & E. Office building. Apparently, a fiber job at Hayward State College was stopped until some corrective measures were made.

In Southern California the only fiber job that we are aware of that required additional protection is the Bank of America-Richfield project in which additional protective tarpaulins were required.

Enclosed is a copy of my June 19th progress report which might also give you some background as to the requirements of ACGIH. The letter is reasonably self-explanatory.

47-06048

Ex. 2015

12-14-48

JUL 10 1970

743
O. M. Favorito
July 7, 1970
Page 2

Since your conversation with Mr. Wendel, the following events have occurred. Mr. Pickthall yesterday had conversation with Mr. Farmer. Mr. Farmer indicated no change in the June 8th standards were contemplated and he turned down Mr. Pickthall's request for a joint meeting between Mr. Pickthall, Mr. Farmer and Mr. Cooper (who is running another test on Mono-Kote Fireproofing).

A Mr. Clay Johnston, the executive secretary of the California Plastering Contractors Association, is pursuing the question of additional requirements for safety with the local Southern California office of the State Division of Industrial Safety.

Enclosed also is a report from the July 2nd issue of Engineering News Record indicating the California State's stand on asbestos fiber. Regardless of the article's wording as concerning asbestos, we are considered equal product.

Mr. Farmer's address is Division of Industrial Safety, 455 Golden Gate Avenue, San Francisco. The Los Angeles office is located at 3460 Wilshire Boulevard, Los Angeles. There is also a San Diego office, address unknown.

In lieu of the rapidly changing events, may we suggest that prior to mailing your letter to Mr. Farmer you have one more phone contact with Mr. Wendel. If we can provide any further information please let us know.

Yours very truly,



A. W. Dambros
District Manager
Southern California

AWD:lp

cc: C. H. Wendel, Los Angeles
R. W. Sterrett, Cambridge
T. F. Egan, Cambridge
T. W. Pickthall, Newark

P.S. We are enclosing the existing Construction Safety Orders Book. Please return to this office.

Since dictating the letter, we have been informed that the Brookshire Medical job is also back in operation with a nozzle man wearing a respirator. We still feel the restrictive measures of tarping open field areas are unnecessarily severe where Mono-Kote is concerned and we still feel the lack of distinction between the two products is unreasonable.

STATE OF CALIFORNIA
HUMAN RELATIONS AGENCY
DEPARTMENT OF INDUSTRIAL RELATIONS

7434

DIVISION OF INDUSTRIAL SAFETY

625 GOLDEN GATE AVE., SAN FRANCISCO
3400 WILMINGTON BLVD., LOS ANGELES

NOTICE TO EMPLOYER TO REMEDY UNSAFE CONDITIONS OF PLACE OF EMPLOYMENT

Division 8 of the Labor Code of California requires that all places of employment be safe, and charges the Division of Industrial Safety with enforcing this. Violation of this provision is a misdemeanor.

Legal Name E.F. Brady

Address for mail 1515 Broadway, San Francisco, Calif.

Person to be notified Robert W. Murphy Title Chief Engineer

Send copy to California Address San Francisco Zip Code 94102

Type of business Pharmaceutical

Located at Veterans Hospital Street Address of Location San Diego Phone 534-1111

Requirements or call discussed with _____ Title _____

First Survey	Resurvey	Request	Special
	☒		
Reason For Call			

SAFETY REQUIREMENTS

To be complied with on or before IMMEDIATELY

Agri.	L. No.
CHECK APPROPRIATE	
County	<u>SN</u>
Territory	
Number	
Number of Employees	<u>6</u>
Date of Orig. Survey	<u>6/1</u>
Date of this Resurvey	
Number of Unsafe Conditions	
Insurance Carrier	
For Coding Only	
Firm Code No.	
Industry Code	

In future operations continue
hazardous substances in the
existing; this safety provisions of
the provided to the present best
conflict with.

07435

DIVISION OF INDUSTRIAL SAFETY
(Intercommunication)

San Francisco
June 8, 1970

TO: All Senior and
Construction Safety Engineers

SUBJECT: Safety Standards to be Applied in
Asbestos Spray Operations

The hazards to the workmen when applying asbestos to ducts and steel-frame buildings have been brought to the Division's attention. Those asbestos fibers and dust particles that are inhaled by the workmen can cause permanent damage to the lungs.

For uniformity in applying standards to correct this hazard in our safety surveys where we contact an asbestos spray operation, the following guidelines shall be applied:

1. An effective means to enclose areas where asbestos is being sprayed shall be provided.
2. All workers in the enclosed area shall be provided with and use fresh-air-supplied hoods in asbestos contaminated areas.
3. Material containing asbestos which falls to the floor or accumulates on other surfaces must be cleaned up as the job progresses. This is best accomplished by keeping floors wet and handling only wet material. After it has been shoveled up, floors must be washed and scrubbed using lots of water. Where wet cleaning is not practical, a suitable dry industrial vacuum cleaner may be used.
4. The waste asbestos shall be stored only in labeled closed containers until disposed of.

The Division is continuing to study the hazard of applying asbestos in the construction industry and if additional standards are found necessary, they will be established in the future.

C. W. Farmer
C. W. Farmer
Supervising Engineer
Construction Section

07436

STATE OF CALIFORNIA
HUMAN RELATIONS AGENCY
DEPARTMENT OF INDUSTRIAL RELATIONS

DIVISION OF INDUSTRIAL SAFETY

1500 GATE AVE., SAN FRANCISCO
400 WILSON BLVD., LOS ANGELES

NOTICE TO EMPLOYER TO REMEDY UNSAFE CONDITIONS OF PLACE OF EMPLOYMENT

Division 5 of the Labor Code of California requires that all places of employment be safe, and charges the Division of Industrial Safety with enforcing this. Violation of this provision is a misdemeanor.

Legal Name

Munery-Thomason Co.

Address for mail

Person in charge

Send copy to

Type of business

Located at

Requirements or call discussed with

First Survey

Resurvey

Request

Special

SAFETY REQUIREMENTS

To be compiled with on or before

Reason for Call

all other surfaces must be cleaned up as the job progresses. This is best accomplished by keeping floors wet and handling only wet material. After it has been shoveled up, floors must be wet and scrubbed using lots of water. When wet cleaning is not practical, a suitable dry industrial vacuum cleaner may be used. The waste asbestos shall be stored only in labeled closed containers with labeled AS. 7/15/11 Labor Code 6410

Agri. ☐ L.H. ☐

CHECK APPROPRIATE

County

Territory

Number

Number of Employees

Date of Orig. Survey

Date of this Resurvey

Number of Unsafe Conditions

Insurance Carrier

For Coding Only

Firm Code No.

Industry Code

STATE OF CALIFORNIA
HUMAN RELATIONS AGENCY
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF INDUSTRIAL SAFETY

7437

555 GOLDEN GATE AVE., SAN FRANCISCO
3400 WILMINGTON BLVD., LOS ANGELES

NOTICE TO EMPLOYER TO REMEDY UNSAFE CONDITIONS OF PLACE OF EMPLOYMENT

Division 8 of the Labor Code of California requires that all places of employment be safe, and charges the Division of Industrial Safety with enforcing this. Violation of this provision is a misdemeanor.

Legal Name Mowatt-Thomason Co
Address for mail 2727 Knox Ave. LA 90054
Person in charge Mark Mowatt's Owner
Send copy to _____
Type of business Const - Fireproofing
Located at Fire-Kalita Hotel Building Down
Requirements or call discussed with _____

Agile	L. H.
CHECK APPROPRIATE	
County	<u>LA</u>
Territory	<u>5</u>
Number of Employees	
Date of Orig. Survey	<u>9</u>
Date of this Resurvey	
Number of Unsafe Conditions	
Insurance Carrier	
For Coding Only	
Firm Code No.	
Industry Code	

First Survey	Resurvey	Request	Special	SAFETY REQUIREMENTS
				To be complied with on or before _____

See Conditions
Fireproofing operation in progress.
Minimum requirements for asbestos spraying operation not being complied with.
All asbestos spraying operations.
1. An asbestos analysis to analyze the asbestos content of the material is being done.
2. All workers in the enclosed area should be provided with and use fresh air supplied hoses in asbestos containment.
3. Material containing asbestos should be sealed off from the area.

STATE OF CALIFORNIA
HUMAN RELATIONS AGENCY
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF INDUSTRIAL SAFETY

C7438

455 GOLDEN GATE AVE., SAN FRANCISCO
3400 WILSHIRE BLVD., LOS ANGELES

NOTICE TO EMPLOYER TO REMEDY UNSAFE CONDITIONS OF PLACE OF EMPLOYMENT

Division 8 of the Labor Code of California requires that all places of employment be safe, and charges the Division of Industrial Safety with enforcing this. Violation of this provision is a misdemeanor.

Name Orange County Plastering
Address for mail Rosemead - Santa Ana
Person in charge Bob Smith Owner
Send copy to W Kilde Hunt 115 W Washington - LA
Type of business Plastering
Insured at Los Angeles
Street Address or Location Los Angeles
Phone 5-1-1

Agile	L. H.
CHECK APPROPRIATE	
County	<u>LA</u>
Territory	<u>LA</u>
Number	<u>1</u>
Number of Employees	<u>1</u>
Date of Orig. Survey	<u>1/1</u>
Date of this Resurvey	<u>1/1</u>
Number of Unsafe Conditions	<u>1</u>
Insurance Carrier	<u>LA</u>
For Coding Only	
Firm Code No.	<u>LA</u>
Industry Code	<u>LA</u>

First Survey	Resurvey	Request	Special	SAFETY REQUIREMENTS
Reason For Call				To be complied with on or before

Job Conditions

Monocote fireproofing operation on job does not meet minimum safety requirements. Floors have not been cleaned & properly, men not wearing respirators, work areas not screened off, waste materials not being stored in separate closed and labeled containers.

Safety Requirements

Asbestos Spray Operations

Discontinue all further work on this fireproofing operation until the following requirements are complied with:

1. An effective means to enclose areas where asbestos is being

STATE OF CALIFORNIA
HUMAN RELATIONS AGENCY
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF INDUSTRIAL SAFETY

833 GOLDEN GATE AVE., SAN FRANCISCO
3400 WILSON BLVD., LOS ANGELES

NOTICE TO EMPLOYER TO REMEDY UNSAFE CONDITIONS OF PLACE OF EMPLOYMENT

Division 6 of the Labor Code of California requires that all places of employment be safe, and charges the Division of Industrial Safety with enforcing this. Violation of this provision is a misdemeanor.

Legal Name Quincy Plumbing & Heating

Address for mail _____

Person in charge _____

Send copy to _____

Type of business Plumbing

Located at _____

Requirements or call discussed with _____

First Survey	Resurvey	Request	Special	SAFETY REQUIREMENTS
				To be complied with on or before _____

Reason for Call _____

sprayed shall be required.

2. All workers in the enclosed area shall be provided and use fresh air supplied hoods in asbestos contaminated areas.

3. Overspray on floors shall be cleaned up immediately while wet and some areas shall fine broomed again as soon as film has dried. It may be necessary to vacuum same area to eliminate all possibility of flying dust.

4. The waste asbestos shall be stored only in labeled closed containers until disposed of. #1511

Note: When ready to resume work call for

The numbers following the requirements listed refer to sections of the California Administrative Code Title 8, Title 24 (T24) or the Labor Code (LC) of the State of California.

Reinspection

SURVEY BY

Key A

Engineer's Signature

April	1	1974
CHECK APPROPRIATE		
County _____		
Territory _____		
Number _____		
Number of Employees _____		
Date of Orig. Survey _____		
Date of this Resurvey _____		
Number of Unsafe Conditions _____		
Insurance Carrier _____		
For Coding Only		
Firm Code No. _____		
Industry Code _____		

STATE OF CALIFORNIA
HUMAN RELATIONS AGENCY
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF INDUSTRIAL SAFETY 7440

435 GOLDER GATE AVE., SAN FRANCISCO
3400 WILSON BLVD., LOS ANGELES

NOTICE TO EMPLOYER TO REMEDY UNSAFE CONDITIONS OF PLACE OF EMPLOYMENT

Division 8 of the Labor Code of California requires that all places of employment be safe, and charges the Division of Industrial Safety with enforcing this. Violation of this provision is a misdemeanor. PH 663 3296

Legal Name: Mouney-Thompson Co
Address for mail: 2729 Knox Ave LA 90059
Person in charge: Mr. Mowery, Owner
Send copy to: _____
Type of business: Const - Fireproofing
Located at: 11111 Wilshire Blvd
Requirements or call discussed with: Bill Dinkins

Agre	LA
CHECK APPROPRIATE	
County	<u>LA</u>
Territory Number	<u>5</u>
Number of Employees	<u>1</u>
Date of Orig. Survey	<u>9/12</u>
Date of this Resurvey	
Number of Unsafe Conditions	<u>1</u>
Insurance Carrier	
For Coding Only	
Firm Code No.	
Industry Code	

First Survey	Resurvey	Request	Special
☒			

SAFETY REQUIREMENTS

To be complied with on or before _____

Safe Conditions
Fireproofing operation in progress.
Minimum 6-foot distance from asbestos
spraying operation and being complied
with all safety requirements.
Asbestos spraying operations.
An asbestos abatement is being performed.
All workers in the enclosed area shall be provided with and use fresh air
supplied while in asbestos environment.
Material containing asbestos shall be
sealed to the floor or removed.

STATE OF CALIFORNIA
HUMAN RELATIONS AGENCY
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF INDUSTRIAL SAFETY

1400 GATE AVE., SAN FRANCISCO
400 WILSON BLVD., LOS ANGELES

NOTICE TO EMPLOYER TO REMEDY UNSAFE CONDITIONS OF PLACE OF EMPLOYMENT

Division 8 of the Labor Code of California requires that all places of employment be safe, and charges the Division of Industrial Safety with enforcing this. Violation of this provision is a misdemeanor.

Mowery-Thomason Co. **C7441**

Legal Name _____

Address for mail _____

Person in charge _____

Send copy to _____

Type of business _____

Located at _____

Requirements or call discussed with _____

First Survey	Resurvey	Request	Special

SAFETY REQUIREMENTS

To be complied with on or before _____

on other surfaces must be cleaned up as the job progresses. This is best accomplished by keeping floors wet and handling only wet material. After it has been shoveled up, floors must be wet and scrubbed using lots of water. When wet cleaning is not practical, a suitable dry industrial vacuum cleaner may be used. The waste asbestos shall be stored only in labeled closed containers until disposed of. #1511 Labor Code 640

April	May	June
CHECK APPROPRIATE		
County _____		
Territory _____		
Number _____		
Number of Employees _____		
Date of Orig. Survey _____		
Date of this Resurvey _____		
Number of Unsafe Conditions ☒		
Insurance Carrier _____		
For Coding Only		
Firm Code No. _____		
Industry Code _____		

The numbers following the requirements listed refer to sections of the California Administrative Code Title 8, Title 24 (724) or the Labor Code (LC) of the State of California.

SURVEY BY King A. Smith
Engineer's Signature

RECEIVED

AUG 12 1970

CONSTRUCTION PRODUCTS DIVISION
H. A. B.

TO: J. N. Beveridge
FROM: T. F. Egan
cc: R. M. Vining
K. W. Harrison
R. W. Sterren
H. A. Brown
D. G. Powell
T. P. Feit
P. Kostic
C. H. Wendel
T. W. Pickthall

DATE: August 11, 1970
SUBJECT: City of San Francisco
Special Meeting
Asbestos Hazards
July 21, 1970

THIS COPY FOR

Dear Nelson:

Attached is the following information completely covering the official comments at this meeting.

Some non-recorded comments were:

- (1) Question by Secretary Goldberg why no data was submitted on fiber type fireproofing - only cementitious. This is what prompted comments under tape 060 in minutes.
- (2) Comment at end by Harry S. Grapp of U. S. Mineral Products Co. that they had an asbestos-free UL approved product and also, that it had been examined by Mellon Institute and contained no
 - (a) Crystalline Silica
 - (b) Mica
 - (c) Other known harmful elements

This was definitely intended to arouse question on vermiculite. It did not at this meeting, but it showed me that we can expect some questions from competitors on mineral content of vermiculite. They have been researching or had recent tests performed.

87-06048
Ex. 2016
12-14-88

J. N. Beveridge

- 2 -

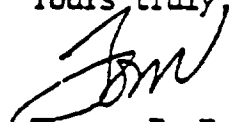
August 11, 1970

The meeting was very orderly and objective. Walt Pickthall and Bob Chaney are to be commended for a fine presentation and preparation of facts and data. The Cooper-Tabershaw reports will be a great help.

The outline by Dr. Cooper will aid in understanding the development of asbestos and its medical investigation.

We are waiting for the date of the September meeting to cover preliminary regulations.

Yours truly,



Thomas F. Egan

TFE/jac

Attachments

BOARD OF EXAMINERS
SPECIAL MEETING - ASBESTOS HAZARDS
MINUTES OF MEETING

July 21, 1970

MEMBERS PRESENT: Messrs. Oliphant, Merrill, Degenkolb, and
Guttman. Secretary Goldberg, Fire Insp. Jebe

MEMBERS ABSENT: Mr. Raffin

(TAPE 870) Meeting called to order by Chairman Oliphant at
7:10 PM.

Mr. Goldberg reviewed history of the problem, beginning with first available information in San Francisco in 1968. He noted the previous meetings of the Board considering the possible hazard and briefly reviewed actions by some Eastern cities as well as by the California State Division of Industrial Safety. He defined the several areas of possible hazard to construction workers as well as to the general public.

(TAPE 920) Dr. W. Clark Cooper, School of Public Health, University of California at Berkeley, introduced himself at the request of the Chairman, and outlined his experience with the insulating trades. He submitted an "Outline - Asbestos and Human Health." He concurred with the general view that a hazard exists and defined his presentation as a review to bring the problem into clear perspective with the present state of knowledge:

1. Controls and safeguards are needed to protect workers who are in contact with asbestos.
2. There is probably no significant special hazard to the general public.
3. Each of the five different types of asbestos require different safety techniques.
4. Knowledge of the subject is incomplete.
5. Asbestos bodies and similar bodies are found extensively in lungs of the general public. The extent to which asbestos is a significant factor is difficult to determine.

Board of Examiners
Special Meeting - Asbestos Hazards
Minutes of Meeting
July 21, 1970
Page Three

(PAGE 1280)

Mr. Robert Chaney, California Zonolite Company, appeared for Mr. Pickthall (who could not appear due to a personal emergency). He stated that the company is committed to complete elimination of asbestos from its product "Monokote". Thus the Board's consideration should be considered only as an interim measure pending elimination of asbestos from fireproofing. He said that in San Francisco conditions are far better controlled than in New York. Tabershaw-Cooper was engaged to gather needed data.

SIDE 2

(TAPE 000)

Mr. Chaney summarized by citing steps his company is taking to achieve safety in application of fireproofing material.

Dr. Dritz cited measurements at Wells Fargo Building during spraying operations (this report is contained in asbestos file furnished Board previously).

Measurements at other sites were noted, and are available from the State Division of Industrial Safety.

Dr. Dritz cited 2.0 million per cubic foot as threshold limit and peak acceptable as 5.0 million per cubic foot.

(TAPE 020)

Dr. Cooper pointed out difficulty of distinction between particle counts and asbestos fiber counts. Smallest particles are probably asbestos.

Mr. Fowler submitted July 17, 1970 report of Tabershaw-Cooper Associates, "Preliminary Examination of Air Moving Systems Lined with Cementitious Fireproofing Materials."

(TAPE 060)

Mr. Harry S. Gropp, United States Mineral Products Company, stated that measurements are being made at plenums where their products have been used.

Mr. Whittaker, Fireproofing and Acoustical Contractor, stated that this was his first meeting on subject and he objected to stating of any test criteria for control without having been consulted.

Board of Examiners
Special Meeting - Asbestos Hazards
Minutes of Meeting
July 21, 1970
Page Two

He concluded:

1. Asbestos fibers in sufficient doses certainly cause diseases.
2. It is not known how low a dose is safe.
3. Many bodies (other minerals, asbestos, etc.) can cause hazard. To sort them out is difficult.
4. Asbestos exposure must be reduced.
5. Dr. Cooper is working on study projects to define safety controls in asbestos-using industries.

(TAPE 1120)

Dr. Selma Dritz, San Francisco Department of Public Health, defined the presently existing possibility of preventing further spread of severe effects of asbestos-caused diseases, and urged the Board to take necessary steps to control the industries.

(TAPE 1140)

Mr. Douglas Fowler, University of California at Berkeley, cited measurement of number of asbestos fibers in ambient air at different locations at and near a construction site using asbestos materials. Measurements are stated in time-weighted averages over an 8-hour day. He submitted copies of report, "Asbestos Fiber Concentrations in Air From Spray Fireproofing Operations Using Zonolite Products" by Tabershaw-Cooper Associates, dated July 15, 1970.

(TAPE 1200)

Mr. John Fisher, American Institute of Architects, cited use of insulating materials during many years, with no knowledge of the existence of any hazard. He stated that measurement of fibers in ambient air of a completed building has been made recently (at Bechtel Building).

(TAPE 1230)

Mr. Goldberg asked for source of the figure of 5⁺ fibers per milliliter.

Dr. Cooper stated source was textile industry, particularly in England. He considered 5000 fibers per liter as high, 1000 per liter as reasonably safe, 100 per liter as virtually undetectable.

Board of Examiners
Special Meeting - Asbestos Hazards
Minutes of Meeting
July 21, 1970
Page Four

Mr. Oliphant pointed out that the Board has made no determination of criteria, only discussion has occurred thus far.

Mr. Goldberg reviewed previous Board considerations of subject to verify that no decisions made.

(TAPE 100)

Mr. Oliphant emphasized that this was first time Board was considering the subject with possible expectation that action may occur.

Mr. John Fisher stated that Bechtel has engaged Abbot Hanks to gather data in plenum air.

Mr. Dalton, Abbot Hanks, stated that work has been begun in the gathering of fiber counts, no reports available as yet. He emphasized that he had not been engaged by any fireproofing industry segment but was objectively gathering data at this time.

(TAPE 130)

Messrs. Whittaker, Fisher and Goldberg discussed possible numbers of buildings with supply air plenums; conclusion that there were very few such systems.

Mr. Douglas Fowler stated measurements taken at various points in or near plenums are low - no significant differences between the two types of fireproofing material. Oldest system where measurements taken was constructed in 1962. He cited difficulties in correlating measurements where different sampling techniques and different equipment is used. Use of electron microscope in measurement is new.

Mr. Degenkolb pointed out inference that asbestos fibers were only a small portion of total particle count.

Dr. Dritz emphasized that the asbestos fibers were the ones causing this particular hazard.

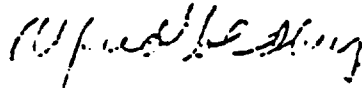
Mr. Fisher noted problem of aluminum pitting due to use of cementitious products in vicinity.

Board of Examiners
Special Meeting - Asbestos Hazards
Minutes of Meeting
July 21, 1970
Page Five

Mr. Yosick, United States Gypsum Company, cited discontinuance of use of Firecode Plaster in San Francisco on January 1, 1970.

(TAPE 210) Mr. Oliphant closed the meeting at 9:15 PM.

The Board recommended that the Superintendent prepare an outline of preliminary construction regulations to limit the "public nuisance" as well as the effect on construction workers. That preliminary set of regulations are to be forwarded to all persons at the hearing as well as all others on the asbestos mailing list. A hearing will be held on those preliminary regulations in September at a date to be set at the next regular meeting of the Board on August 10, 1970. No discussion of the regulations other than setting of the date of the next hearing will take place at the August 10 meeting and all persons will be immediately notified of the date of the September meeting.



Alfred Goldberg, Secretary
Board of Examiners

Attachment - Attendance List
Tabershaw-Cooper Associates Report

BOARD OF EXAMINERS
ASBESTOS HAZARDS - SPECIAL MEETING
JULY 21, 1970

ATTENDANCE

<u>NAME</u>	<u>REPRESENTING</u>
Randolph Finn	National Gypsum Company
K. S. Oleson	National Gypsum Company
Marvin Smith	Gypsum Association
Lawrence Emery	United States Gypsum Company
Dennis Yosick	United States Gypsum Company
Bob Walker	United States Gypsum Company
Sam Kirkes	Bay Area Rapid Transit District
James L. Whittaker	James L. Whittaker
Leonard M. Michaels	United States Mineral Products Company
Harry S. Gropp	United States Mineral Products Company
Robert D. Dalton, Jr.	Abbot A. Hanks, Testing Labs.
Rudy Meiswinkel	Fred Meiswinkel, Inc.
John S. Sheahan	Kaiser Gypsum Company
Robert F. Chaney	Zonolite - W. R. Grace Company
Thomas F. Egan	Zonolite - W. R. Grace Company
Milson Beveridge	W. R. Grace Company
William E. Fitch	Owens Corning Fiberglas Corp.
Thomas C. Campbell	Owens Corning Fiberglas Corp.
Richard Persoff	Hartford Insurance Group
Douglas P. Fowler	University of California
W. Clark Cooper, M.D.	University of California
John Fisher, A.I.A.	Skidmore-Owings and Merrill
Dr. Selma Dritz	Department of Public Health San Francisco



TO: Sec Distribution List

DATE: August 20, 1970

FROM: T. F. Egan

SUBJECT: Research and Development
Program for Asbestos-Free
Mono-Kote

The attached program prepared by Ralph Bragg is to some extent a status report on research efforts outlined from the meeting in Cambridge on July 28th and 29th.

It is important to note that this report will be revised regularly as our test program develops and the work will be documented and written in a comprehensive manner.

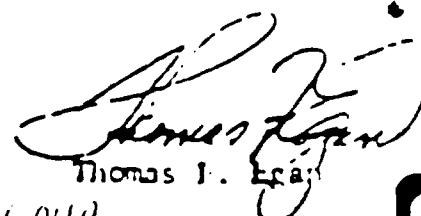
The research work is involved in the most emotional and controversial area of construction pollution. Remember that not only are the charges unproven, but methods or limit values of control have not been established. Therefore, as the data becomes fact we must be able to adjust or correct our research effort.

Recent discussion with Johns-Manville personnel - Dr. Sidney Spiel and Mr. Ed Fenner - confirm my earlier comments that, barring some alarming medical fact to the contrary, the health hazard of asbestos will require the ban on loose asbestos particles to the atmosphere, and probably within one year.

Already we have lost a major project in Philadelphia; and I'm sure it may follow across the country. The asbestos-free product will get the order.

Knowing this, I again want to emphasize the importance of the "Long development program discussed in our July meeting. Reference can be to my letter of August 10th - "Fireproofing Products Research". The market belongs to the firm that provides a new "pollution-free" spray-on cementitious product.

Your attention to this situation, comments and inquiries are expected. Please contact me or others at once on a regular basis.



Thomas F. Egan

TFL:dle

Attachment

87-06048

Ex. 2017

12-14-88



A. E. Hanzel

November 19, 1970

A. E. Rothfelder

MX-4 Yield Test

Tom Egan
Bob Erlason
Al Dambros
Walt Pickthall
Bill Culver

Dear Boss:

Tests were run on the MX-4 formula (made with #3 Vermiculite) and compared with MX-3 at the Irvine Towers job on November 18 & 19.

The equipment used was an Easick KM-30 and 4" pipe to the 17th floor where the pipe was divided to supply two nozzles. While spraying the MX-4 one nozzle was shut down. The air was supplied by a separate compressor. There was no gauge that showed the exact air pressure but it was considerable when both nozzles were in operation. When only one was in use it sounded like there was even more. This is important as you will see by the following data. Since only one nozzle was operating to spray MX-4 the pump was put from high gear into low.

The material was mixed in three bag batches. Quick fill tanks were used for MX-3 but one workman had used a 5 gal pail earlier and the rate being used was approximately 12 gal per bag.

The MX-4 weighed 43.5 lbs per bag. Water was added by pail. A constant rate of 10.8 gal per bag was used for seven batches. The product was looser at the mixer than MX-3 but it sprayed and hung well. The gun operator felt it pumped faster and the scratch coat could be applied thicker. I am not sure about pumping faster but MX-4 is stickier than MX-3. After spraying it does not come out of a pail as clean as MX-3.

87-06048
Ex. 2018(a)
12-14-88

111853

Following are the vital statistics:

	gal/45 lbs	Mixer Dens.	Nozzle Dens.		Yield bd. ft./45 lbs
			Air	No Air	
ME-3	11.0	56-57 lbs	64-65	56	27
ME-4	11.2	47-47.5	61-62	49	27

For the benefit of Bob Kriszen's quality control program following are Visc measurements on ME-3:

In mixer - 20,23,23

In hopper (3min) - 17,15,17

At nozzle (no air) - 4,3,3

At nozzle (with air) - 1 to 2

These yield figures compare well with Bob Chaney's test run in Sept. (40 stories).

Three facts are apparent:

1. ME-4 will yield as much on a weight basis as ME-3 under high air pressure at the nozzle.
2. ME-4 exhibits greater variation in density from pump to nozzle indicating greater "take-up".
3. ME-4 is affected more by variation in air pressure than ME-3.

It is interesting to note the actual loss caused by the air pressure used on this job. ME-3 increased 1% in density causing a loss of 4 bd ft/bag. ME-4 increased 2% in density for a loss of 5.5 bd ft/bag.

Since these yield figures do not compare well with those from a job test made in July, I went back and found the following:

1. In July we made a 500 lb. batch of approximately the same formula and the dry density was 13.25 lbs/cu.ft. as opposed to 14.5 lbs/cu.ft. for this 973 lb. batch. The volumetric in both cases was 3.25 lbs/cu.ft.
2. The mixer density was 45 lbs as opposed to 47.
3. The sprayed density was 35 lbs as opposed to 61.5 lbs.
4. The water ratio was identical.

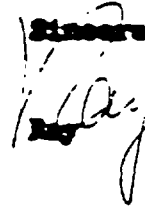
In the July test we pumped only two stories high and the air used was from the plaster machine rather than a separate source. It was considerably less. The material was softer going on the beam but there was still no problem with pattern or drop-out.

In conclusion, we can make MK-4 go substantially further on a weight basis than this last test indicates if we:

1. Reduce our dry density at the plant through careful mixing.
2. Get the applicator in the habit of spraying a softer mix.
3. Get the applicator to reduce & carefully control his air pressure.

Since MK-4 does "atomize" easier the applicator should be satisfied with lower air pressures. If the mix is low enough in density a soft mix will hang as well as a stiff one.

Sincerely,



MR:js

INVESTIGATIVE DIVISION

TO: J. H. Wendel
FROM: R. E. Rothfelder

DATE: November 19, 1970

SUBJECT: MK-4 Yield Test

CC: Tom Egan
Bob Ericson
Al Dambros
Walt Pickthall
Bill Culver

Dear Buzz:

Tests were run on the MK-4 formula (made with #3 Vermiculite) and compared with MK-3 at the Irvine Towers job on November 18 & 19.

The equipment used was an Esick EM-30 and 4" pipe to the 17th floor where the pipe was divided to supply two nozzles. While spraying the MK-4 one nozzle was shut down. The air was supplied by a separate compressor. There was no gauge that showed the exact air pressure but it was considerable when both nozzles were in operation. When only one was in use it sounded like there was even more. This is important as you will see by the following data. Since only one nozzle was operating to spray MK-4 the pump was put from high gear into low.

The material was mixed in three bag batches. Quick fill tanks were used for MK-3 but one workman had used a 5 gal pail earlier and the rate being used was approximately 12 gal per bag.

The MK-4 weighed 43.5 lbs per bag. Water was added by pail. A constant rate of 10.8 gal per bag was used for three batches. The product was less sticky than MK-3 but it sprayed and hung well. The gun operated fairly smoothly. The MK-4 is stickier than MK-3 but it can be sprayed out of a pail as clean as MK-3.

PACIFIC REGION

GRACE

87-0604098436
Ev. 2018/1

Following are the test results:

	Dry Density	Mixer Density	Nozzle Density		Yield
			air	no air	
MK-3	12.0	55-57 lbs	64-65	50	27
MK-4	11.2	47-47.5	61-62	49	27

For the benefit of Bob Ericson's quality control program following are Vicat measurements on MK-3:

- In mixer - 20,23,23
- In hopper (3min) - 17,15,17
- At nozzle (no air) - 4,3,3
- At nozzle (with air) - 1 to 2

These yield figures compare well with Bob Chaney's test run in Sept. (40 stories).

Three facts are apparent:

1. MK-4 will yield as much on a weight basis as MK-3 under high air pressure at the nozzle.
2. MK-4 exhibits greater variation in density from pump to nozzle indicating greater "take-up".
3. MK-4 is effected more by variation in air pressure than MK-3

It is interesting to note the actual loss caused by the air pressure used on this job. MK-3 increased 15% in density causing a loss of 4 bd ft/bag. MK-4 increased 25% in density for a loss of 5.5 bd ft/bag.

Since these yield figures do not compare well with those from a job test made in July, I went back and found the following:

1. In July we made a 500 lb. batch of approximately the same formula and the dry density was 13.25 lbs/cu.ft. as opposed to 14.5 lbs/cu.ft. for this 373 lb. batch. The variation in both cases was 5.25 lbs/cu.ft.
2. The mixer density was 45 lbs as opposed to 47.5 lbs.
3. The sprayed density was 55 lbs as opposed to 61.5 lbs.
4. The water ratio was identical.

In the last test we pumped only two stories high and the air was not strong enough to make the material rather than a soft mix. It was not strong enough to make the material was better going on the seam but there was still a lot of material or drop-out.

In conclusion, we can make MK-4 go substantially further on a weight basis than this last test indicates if we:

1. Reduce our dry density at the plant through careful mixing.
2. Get the applicator in the habit of spraying a softer mix.
3. Get the applicator to reduce & carefully control his air pressure.

Since MK-4 does "atomize" easier the applicator should be satisfied with lower air pressures. If the mix is low enough in density a soft mix will hang as well as a stiff one.

Sincerely,

Ray

BER:jb

TO: T. W. Pickthall
FROM: D. G. Campbell

DATE: April 1, 1971
SUBJECT: Plaster Display

It was good talking with you yesterday relative to your request for a display and I am enclosing a xerox copy of a picture of our most recent plaster display.

As we discussed, it is primarily on the pollution subject which is not conducive to your area. However, after talking this over with Phil Strand, he mentioned that there are two new Mono-Kote advertisements being prepared by our New York agency. One deals with a job in Los Angeles and another in San Francisco. Neither of these ads refer to your pollution problem but are more or less straight-forward, product-oriented ads.

Phil's feeling was that perhaps these could be blown up or used in some manner as back-wall copy. When I was talking with the agency yesterday, I mentioned this request and they informed me that one ad was in the layout stage and the second ad had not been put into the layout stage because it wasn't due for exposure in "Walls and Ceilings" magazine until July.

However, let's see what we can pull together for you so that you have a more positive posture at your show. I'll keep in touch with you and should you have any further thoughts or suggestions, please let me know.

Thanks very much.

D. G. Campbell

DGC:ms

Enc.

87-06048

EX-2019

12-14-88

ml

DISTRIBUTION

(Zonolite)

C. R. Love/Atlanta
R. L. Asher/Boca Raton
W. G. Gray/Dearborn
C. H. Wendel/Los Angeles Of.
W. K. Rogers
T. P. Egan
J. L. Westbrook/Atlanta
G. R. Taylor/Little Rock
E. D. Bossier/New Orleans
L. A. White/Nashville
G. L. Myrick/Atlanta
R. G. Hartman/New Castle
V. G. Monroe/Wilders
J. S. Titus/Trenton
L. P. Hollis/High Point
W. J. Sinacore/Chicago
J. N. McDougall/St. Louis
J. R. McLeod/Minn. Of.
A. W. Dambros/Los Angeles Pt.
T. W. Pickthall/Newark
W. V. Culver/Auburn

K. W. Harrison
H. A. Brown
R. W. Sterrett
R. J. Anderson
T. P. Feit
R. M. Kazimer
H. W. Reynolds
T. E. Darling
P. R. Strand
W. R. Wright
D. G. Povell
J. L. Wright

rv
6/10/71

87-06048
Ex. 2020
12-14-88
094469

Regional Manager - R. E. Dunham

We have lost the majority of our Glass Fiber volume to our competitor, B. F. Nelson Company, who markets Certain-Teed glass and was just recently purchased by the Certain-Teed Company. The Nelson representative, a former Zonolite District Manager, doesn't sell much but does give a lot away. They toplod truckloads of roofing materials with any quantity of glass at the truckload price. We cannot beat this competition and their representative spends full time calling on our customers, giving away glass primarily. We have been able to mitigate this competitive advantage to some extent by various means but our profits on glass do not justify much additional effort. This influence has probably leveled off and we may get some of this business back during the year or their salesman may have a heart attack giving away so much glass, or someone in their management who figures out how much profit is involved. Minneapolis District profits should equal or exceed budget for the year.

District Manager - W. J. Sinacore

Our greatest potential in the Chicago District for 1971 lies in our sales of polystyrene products which have previously been extremely small in this area. In addition to our specification work on polystyrene in the cold storage and metal building fields, we have made it a major program to obtain as much polystyrene business which is used as insulation and packaging. We are finding that we are in a favorable position to capitalize on this commodity type business since the products required can be shipped from our Milwaukee Plant. Our competitors are located in Iowa, Ohio and Indiana.

The major threat to the Mono-Kote sales in our district appears to be the promotion efforts put on by Universal Firebar, Inc. out of Arlington, Virginia. We are presently working with our fireproofing applicators to combat Firebar's efforts to secure major fireproofing jobs in the Chicago area. We are continuing to obtain specifications and orders on a number of fireproofing projects which are in the range of 3,000 to 5,000 bags per project. These projects are the direct result of our specification efforts on Mono-Kote with small architects in outlying areas in the district.

Regional Manager - C. R. Love

All major roof deck applicators were advised of our agreement to sell Concrete Products Division to the local group of people in Brunswick. I had no extreme adverse situations indicated by any of our applicators. Most of them seemed very appreciative of our frank and honest approach to them as to why we are getting out of this business. We have solicited their continued business not only so long as this business belongs to us but also have requested that they give every consideration to the new management, and I feel that in nearly every case our roof deck applicator customers will continue doing business with the new management group in Brunswick.

The personnel situation in the Southern Region has changed in the last 30 days. As you know, we have replaced Ted Dietrick as the Atlanta District Manager and Julian Westbrook from Kentucky will come in and take over the job of Atlanta District Sales Manager. As of today, it is official that Dick Feddeck will be leaving us as a representative in the Atlanta Metropolitan Market and Bob Megaw, formerly with Concrete Products in Brunswick, will be replacing Dick Feddeck in this important Atlanta Metropolitan Market. It is always unfortunate to find it necessary to make a personnel change, but in both these instances I personally feel that we are far ahead in our important Atlanta District looking towards the future. As you know, I feel that both these men are well qualified and capable of doing the required job in this district. I hope that this will take care of any personnel changes in the region for the balance of this year. In all other areas, and now in the Atlanta District, I feel that we are well equipped with qualified loyal and capable people.

All Districts have been actively working on programs and plans that will increase our polystyrene business. We have been active in each and every sales territory in soliciting specifications on our Key-Lok and Thermostud systems. We are experiencing success in most areas on this promotional program and this will be continued until all architects are covered that can utilize these new systems in their specification work. One other bright outlook seems to be the potential increase in the need of cold storage warehouses throughout the area. Cold storage projects have been delayed and the market is now demanding that more cold storage warehouses be constructed. I certainly feel that we will have a definite increase in this type business during the latter part of 1971 and 1972. As always, we expect to get our share of this important business. We have signed up one 200,000 square foot job this year with Covil Engineering Company, who are a new customer with us. We also have a 200,000 square foot job in South Carolina that will be a use of Dyfoam for plaster base in a hospital under construction. All in all it looks as if we will come close to our Dyfoam budget in April, which is close to 900,000 board feet in the total regional area.

District Manager - L. A. White

Actually, during the latter part of 1970 and first quarter of this year, there has been a very real lack of projects of any kind being bid, especially in Middle Tenn. There are now signs of improvement along this line, however, as these fairly large school projects with Zonolite decks are now out for bids: Liberty Bell school complex, Johnson City, Dickson High School, Dickson, Tenn., and Monterey Elem. School, Monterey, Tenn.

The Chattanooga office of Tenn. Rating Bureau had assessed an insurance penalty on the Key-lok mechanical system. After discussions in Chattanooga and the office here in Nashville, this was rescinded and there will be no penalty with SE grade Dyfoam Key-lok is being promoted continually and this has to further our Dyfoam sales.

E. We advised Owens Corning Contracting in Grand Rapids, Mich. of pricing on our new ceiling tile. They informed us they would bid it on one project of 6,000 sq. ft.

G. On metal building insulation we received an order for 10,000 sq. ft. from Keyser Co., Somerset, Pa. We have a commitment on an 80,000 sq. ft. job in Morgantown, W. Va. with Coons & Heyman Co. Valput Const. of Wheeling, W. Va. secured an order for 10 metal buildings with Quaker State Oil Co. They figured and will use Tufhide on these buildings. Sollitt Const. Co., South Bend, Ind. have bid 40,000 sq. ft. of Tufhide on an Armco Metal Bldg. in South Bend. We have a number of contractor commitments to bid Tufhide on jobs coming up throughout the region. Activities in Tufhide look good for spring.

Our cold storage contractor, AIRCO in Indianapolis, Ind. advised that competition is getting exceedingly hungry and aggressive. AIRCO had four national manufacturers calling on them the week of March 5, 1971, with revised pricing as follows:

Falcon Foam-Grand Rapids, Mich.	\$57.50 MBM del. truck
Engineered Foam Plastics, Elkhart, Ind.	58.50 MBM del. truck
Johns-Manville, Milwaukee, Wis.	62.50 MBM del./15,000 BM
Southeast Foam	60.00 MBM del. truck

We signed up a new approved cold storage contractor applicator this month--Brand Insulation Co. in Cleveland, Ohio.

Of the total number of Approved Cold Storage Contractors throughout the nation, our region now has the distinction of having 25% of them.

Reg. Sales Mgr. - R. L. Upchurch

Even though the economy has been touted as improving, unemployment statistics in Detroit are at the 14% level. There is an uncertainty about the economy which reflects on sales generally. The fact that our Attic Insulation sales were up in March (+3.5% YTD) is a direct result of the "select-a-gift" program at the various state lumber dealer conventions and coop advertising, as is true for the almost 300,000BF of Panelfoam sold YTD. These are consumer items and we have filled some pipelines, so to speak. Our 50% increase in Dy-foam products is an accomplishment which reflects our aggressive attitude toward obtaining new accounts at the dealer level and does not include Tufhide and Ventboard sales.

S. S. Kresge Company has given us Panelfoam orders for fifteen K-Marts as a test. If the product moves expeditiously it could lead to many more stores being added. There are over 1,000 K-Marts in the United States.

District Manager - R. U. Hartman

WE HAVE ABOUT FOURTEEN TRUCKLOADS OF S.C.A. AWAITING SHIPMENT; THE HOLD-UP IS THE WEATHER. IF APRIL IS WARM, CONCRETE BUSINESS LOOKS GOOD.

District Manager - V. G. Monroe

Foamed Concrete is becoming more widespread. We now have an applicator in Cincinnati. Their main business is floors but the decks with our specification are getting their attention. Service there is a difference of \$4.46 per yard on cost of materials, we are put in a very competitive situation. With money tight, construction costs high and work slow, the difference seems even greater.

Regional Manager - R. L. Asher

Our one day sales meeting held in March, produced some enthusiastic reports from all the salesmen, on future business, with Dyfoam being somewhat reserved due to competition from the sprayed urethane application. We have just learned that we lost a one million board foot job which we had already counted on, to these people and Jack reports that they are bidding this work so cheap our applicators cannot compete. We will just have to wait it out and see if these people are financially stable and if the products works as they say.

Perltex has shown some strength with Mr. Retterath's help and feel that in a short period of time will see substantial growth in this product. We are having to overcome a product liability due to a flashing problem but feel John now has a solution that will enable us to sell a product acceptable to Florida conditions. We are, presently, adding an additional material to our inventory to counteract this flashing problem.

Regional Manager - W. K. Rogers

1. Positive Factors:

- a. Concrete Aggregate began to move upward slightly in March, despite the general bad weather and low construction activity throughout the Region. Sales are still some (\$14) to budget, but one or two job starts should reduce this variance before the end of May. There is no indication from our present contracts or immediate future readings that our forecast of 12% above budget performance in Concrete Aggregate should be changed.

After our meeting with Rohn Anderson in High Point with the District Managers, we decided that a positive program approach is needed to turn around the somewhat negative thinking of our A & E men. The programs which are to go into effect immediately but will be further discussed at our meeting in Philadelphia on May 17-18 are:

1. Nailer Campaign

2. Reroof Campaign to tie in Applicators and Roofers
3. Redi-Mix Campaign on Zonolite and Perlite
4. Swimming Pool Campaign

The latter three programs are, at best, somewhat limited in nature but are designed basically to make our Architectural men (on the Reroof Campaign) and our Dealer men (on Redi-Mix and Swimming Pools) more positive in their thinking on Concrete Aggregate. The Nailer Campaign by our Architectural men will allow them to recall on key architects, who have either lost interest in ZIC or who have had roofing problems with it and will be the start of a new approach by the A & E men, which could carry through the accelerator and/or low water ZIC Programs. I think the District Managers and Rohn Anderson left High Point with a more positive and optimistic attitude regarding the ZIC Program in general, and I felt it was the beginning of a program to lift us out of the Doldrums in the Eastern Region with Concrete Aggregate.

The Northeast District continues to be the strong point on Concrete Aggregate and anticipates sales of \$500,000 in ZIC this year through cooperative Applicators, such as Miorelli, Eurell in Pennsylvania; Henderson-Johnson; Dermody, Faltz, and Pray; and Gypsum of New England.

The Washington District is picking up sales and interest through Eurell of Baltimore and Anning-Johnson. I am meeting with George Andrews in New York City the last week in April, to go over some Mono-Kote. Anning-Johnson in Virginia already has two negotiated jobs in the Washington area on which they bid Mono-Kote and have put in a requisition for an Essick machine. I would like to get George Andrews to tie Mono-Kote and ZIC together in his promotions and will discuss this with him at our New York City meeting.

We were successful in getting MK IV accepted over sprayed-on in the Memorial Hospital in New York, which should result in over \$60M in MK IV this spring and summer.

Regional Manager - W. K. Rogers (cont.)

Glenboro Plastering has submitted 12 major jobs to us, either in contract or in bids in the New York area, the total of which should be over 200,000 bags of Mono-Kote.

In the last four weeks, we have secured approvals in New York City from the Board of Standards and Appeals and/or MEA on nine sections, including both MK III and MK IV for columns, beams, and decks.

We are planning a major seminar at the Plaza in New York on May 14, to discuss Mono-Kote Fire and Air Safety with an invited list of 200 people representing all City, State, and Insurance Company Fire and Air Safety Departments and Building Departments, as well as the major architects and engineers. Underwriters' Laboratories (Russ Parks) will participate in this meeting, as well as Tom Egan, Tom Feit, and John Ottinger.

Sales - D. DeGraff (Northern Region)

GENERAL SITUATION

CC:

Looking up. Increase trend noted on overall project volume throughout the Region.]

Architectural Program in full bloom with all sales account turnovers completed March 1 (Toledo excepted). All A/R's in place, following functional action plans, with full work schedules, excellent attitudes, and building both their proficiency and lasting relationships. All but a few national accounts contacted with sparse results immediately evident (Expected).

Lansing-State Fire Marshall to call for density tests on sprayed fireproofing.

Indianapolis-Anning-Johnson will buy 15,000 bags MK for St. Vincents Hosp-test job-important to us.

MK meeting set for State and PC next month.

Dayton-PC tableTop on DriPac & MK. Appears situation here will sweeten with additional work.

APRIL MONTHLY EXCERPTS

Regional Manager - C. H. Wendel

Our new prices on Mono-Kote went into effect April 1st and, as usual, we had many jobs which were under protection, but were not completed April 1st. We have refused to allow the old price to continue on these jobs since everyone has had almost a year's notice of the price increase. The new price should have a very beneficial effect on our profits.

We are still fighting the battle on asbestos. The Division of Industrial Safety is maintaining severe requirements for protection and disposal of Mono-Kote fireproofing which is costly to the contractor. The day may not be too far off when we will have to go to the asbestos-free material.

Dated 6-10-71

Walt Pickthall found out about a meeting of building officials and code authorities in Chicago where the subject of fireproofing on high-rise buildings was to be aired. He passed the word on to Egan and Feit, and, hopefully, they will be able to attend the meeting. The Chicago meeting will be followed by one in Washington sponsored by federal authorities. One of the main purposes is to reduce the amount of fireproofing by two hours if a building is sprinklered. This would have a disastrous effect on our fireproofing volume since most buildings would then only require one hour on primary members and two hours on spandrels and exterior columns, with nothing on the floors and secondary members. You can realize what this would do to our Mono-Kote sales. We can only hope that our cause will be ably presented by Feit and Egan.

A bill was introduced in the House of Representatives in the State of Washington to eliminate the use of asbestos on any construction jobs. Bill Culver has worked with his friends, and they now have an architect friend in the legislature who has agreed to amend the bill so that it reads "which subjects any individual to asbestos fiber counts in excess of the threshold limit value as defined by American Conference of Governmental Industrial Hygienists." Since Mono-Kote presently meets these requirements, we should be all right. Bill Culver has done a good job of keeping on top of this.

April was one of the strongest months for the year 1971 with the dollar volume nearing the 1970 figure.

Our main concern with the polystyrene market is the sprayed urethane business. This has also been a very strong potential problem in the roof deck business in the South Florida Market. They have been bidding more of our specs both in low temp and roof deck and are somehow coming up with a very inexpensive system.

Perltex is showing a sign of life in that we have been moving a substantial volume with a much larger volume booked for the next quarter. I believe, with the attention John Retterath is able to give this product and the corrections in the formula, we should be able to capture a percentage of the market in a shorter period of time than expected. We have been a bit "gun-shy" about promoting this material in the Central and Northern part of Florida due to failure but with Retterath's help we feel we now have a product suitable for those markets.

Regional Manager - W. G. Gray

Elasticell is quite common. We now have a new competitor on the horizon, Lite-Crete. Elasticell, through A-J of Indianapolis, took \$37,500 worth of business away from us, or approximately 25,000 bags. Lite-Crete out-bid H-W-Z of Detroit on the Free Press Building by a considerable margin. There was 13,800 bags of Zonolite CA and it was a closed specification to begin with.

MF and Roof Decks will highlight the promotional situation with the architectural representatives in May and June. We have revived the peanut butter theme. All of our people in the Mid-West Region are supplied with 6 oz. jars of peanut butter to promote with the architectural firms on the basis of the number of firms they call on.

Two new salesmen, Dick Laub and Jack White; it appears from all indications that they have thrown themselves into this business. They are eager and willing to learn and are coming along very rapidly. I think we have two very fine young men that will be an asset to our business.

District Manager - R. G. Hartman

I HEAR THAT ATLANTIC PERLITE COMPANY OUT OF WASHINGTON, D.C., AREA, NOW HAS PERLITE CONCRETE AGGREGATE AVAILABLE MILL-MIXED IN BULK AND BAGS, ACCORDING TO JOE SNYDER OF ROOFINGS, INC. THIS INFORMATION I DID PASS ON TO ROHN ANDERSON. NOTHING ELSE NEW TO REPORT.

Regional Sales Manager - R. L. Upchurch

Dealer sales volume in AI, MF, GF and Dyfoam appears to be holding well. Specification items, CA & MK, were the deterrents to an otherwise reasonable sales volume. The problem appears to be an optimistic budget in the early months of 1971. There's no doubt that 1971 will show significant improvement over 1970 by year end, but some adjustments may have to be made, ie. Monokote and perhaps SCA.

The 1/2" Ceiling tile gives me some cause for concern. Past experience indicates that over a period of time humidity can cause this item to deflect. A safe-guard, and simple hold down suggestion is to supply enough pressure sensitive tape in each carton to allow all four corners of the tile to be stuck to the grid. A piece of tape 1/2" wide and 1-1/2" long would probably be sufficient to hold the tile rigid and in place. Consideration should be given to this suggestion so as to alleviate any future problems and complaints on product performance.

District Manager - V. G. Monroe

The latest word from the "grapevine" is that the glass price won't hold. One good source said it will stay at the old

Southern Ohio Foam is pricing foam in the middle to high \$50 dollar range. They have the M.D.I. account.

Dorvon is selling dealers in the Kalamazoo, Mich. area for as low as \$55.00/M.B.F. for S.E. material. Falcon Foam is in the same area at approx. the same price.

Architectural Product Sales - D. DeGraff

Pittsburgh-Cleveland. Celramic proving too expensive-see comparison bid attachments.

Dyfoam Sales - J. Alcock

This month's activity has been directed toward the farm market and flotation. Direct mailing campaigns are running behind because of lack of adequate mailing lists. I am working on revitalizing these lists. We developed a new regional price sheet for flotation and made a packet promotional mailing to all district salesmen this month with a covering letter concerning the flotation market.

Regional Manager - W. K. Rogers

Mono-Kote - Mono-Kote sales continue to be the major positive factor, with sales of \$116 for April, which were \$52 to budget for the month and \$71 to April 1970 sales.

Indications now are that we were successful in obtaining a change of materials on two Tishman Realty office buildings in New York, which could total over 150M Bags or \$350 in dollar sales. This was a change-over from Firebar and will be done by Mario and Di-Bono Plastering.

In the Washington District, Norm Burns and Jerry Schwartz were successful in getting Mono-Kote approved by the City of Baltimore as the only spray-type fireproofing allowed in the City for structural steel protection. They are currently starting the Garfield School, with 7M Bags of Mono-Kote or \$20.

Industrial Fill - Industrial Fill and Petro-Pac from Easthampton and continued good growth in Weedsport have us \$20 to budget YTD, and we expect this trend to continue with the added emphasis we are putting on Cryogenic applications.

Attic Insulation - The seasonal slump in Attic Insulation continued through April, with sales for the month (\$10) to budget and (\$2) to April, 1970. We are, however, still \$64 to YTD budget and \$59 to YTD, 1970 sales. We anticipate sales of 20M Bags to the mushroom industry this early summer, which, together with our start up of fall campaign, puts us well over budget for the year.

Pete Hollis is seeking a new use for Attic Insulation as an underlayment for floor tile in place of Perlite. This has already proved successful in the Florida Region.

We are working on a write up for consideration, together with Cort Lowe, of an exclusive distributorship on underlayment with a North and South Carolina floor tile company.

W. K. Rogers (cont.)

Our Regional Product Meeting in Philadelphia, May 17 and 18, will have its major emphasis on Concrete Aggregate and will initiate definite programs for the Nailer Campaign, the Reroof Campaign, the Swimming Pool Campaign, and the Redi-Mix Campaign, which should add to the above sales projections or, at the very least, assure that they are made.

Bonitz Insulation apparently has signed franchise agreements with Dycon on Roof Decks and Firebar for fireproofing. Whether or not these are the same loose agreements as was the case with Anning Johnson, we don't know as yet. We have, however, secured Bonitz' agreement to do a major ZIC and Vent Board promotion the last week in May and first two weeks in June, at which time I'll meet, along with Pete Hollis, with John Bonitz to clarify matters.

Atlantic Perlite, working with Renshaw Roofing, challenged our policy of selling Vent Board only to approved ZIC Applicators. We were forced to agree to sell to Renshaw. However, since there have been no official tests run by us or by the Perlite Institute to certify Vent Board with Perlite, we believe their strategy backfired. The latest word is that the Architect and the General Contractor (Glenn Constg.) have taken this job away from Renshaw and will give it (on May 20, 1971) to Eurell of Richmond, who is an Approved ZIC Applicator and who will use both Vermiculite and Vent Board.

Regional Manager - R. E. Dunham

Price increases for all major products were mailed May 15. All sales personnel were given the responsibility of explaining in person the increases to major customers and at the same time to use this opportunity for increased business during the month of June. The July 1 effective date should give ample time for orders before the increase. Judging from the reaction to date, and price increases elsewhere, customers will accept the increases with much pain and suffering, and finally go along with the tide of our time.

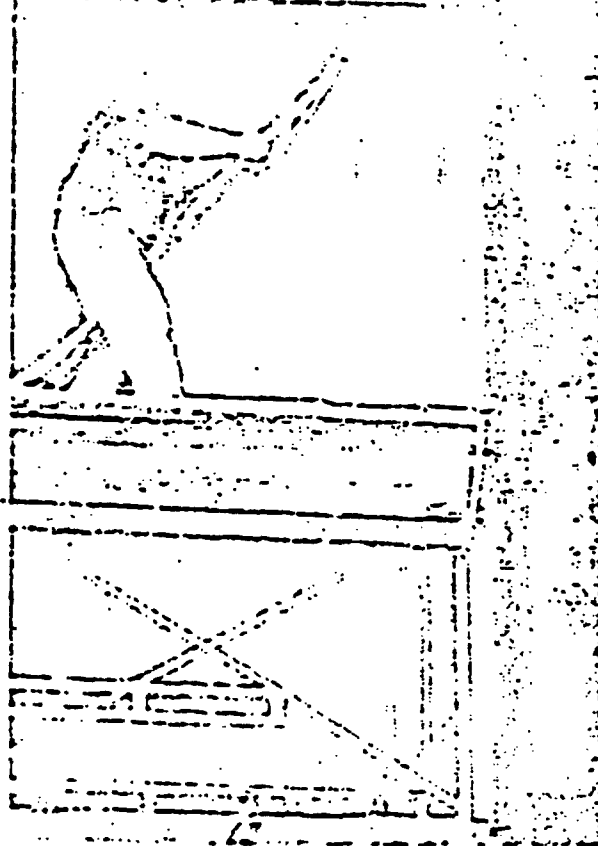
District Manager - J. R. McLeod

Our Roof Deck sales show signs of picking up now that the weather is not a negative factor. One of the contributing factors in our decreased bag sales is the decrease in concrete aggregate through the first quarter of this year. Most of the Applicators report jobs coming up that should change this picture considerably and, thereby, give us increased total dollar volume in the months to come.

District Manager - W. J. Sinacore

The Chicago District had an extremely favorable sales increase during the month of April, 1971. Sales for the month of April totaled \$192,609.00 as compared to \$122,655.00 for the same period of the previous year. The improved sales picture for the month lifted the District's year to date sales figure to \$647,535.00 as compared to \$578,884.00 for the first four months of 1970.

Another area of our business which is showing improvement is our polystyrene product line. A program to change our methods of distribution and greater emphasis by our field salesmen, with the fine assistance of Bob Jacobson, has resulted in sales of \$49,445.00 for April, 1971 as compared to April, 1970 sales which amounted to \$26,692.00. On a year to date basis, our polystyrene business is 20% ahead of what it was last year at the same time. This area of our business has a great potential, and we are making every effort to capitalize on the polystyrene business that is available.



Construction worker sprays asbestos fireproofing on girders.

Sprayed asbestos banned by city

The City Council, by a unanimous 42-0 vote, Friday enacted the nation's first ban against the use of sprayed asbestos in construction.

The new ordinance, effective next Jan. 1, forces contractors to switch to asbestos-free substitutes for fireproofing the framework of buildings.

The ordinance was recommended by the Council's Environmental Control Committee, which heard Dr. Murray C. Brown, Chicago health commissioner, label sprayed asbestos as a health hazard to the general public. He said there is clear evidence of a link between exposure to asbestos and certain types of lung cancer.

It marked the second time

Chicago has led the nation in pollution bans. Previously the Council prohibited the use of phosphates in detergents.

Paris talks aide in new post

WASHINGTON (AP) — Army Lt. Gen. Julian Ewell is leaving as military adviser to the U.S. delegation at the Paris peace talks on Vietnam, the Pentagon announced Friday.

Ewell will become chief of staff, Allied Forces Southern Europe. Army Maj. Gen. Charles P. Brown will replace Ewell.

Regional Manager - C. R. Love

The Southern Division, during April 1971, set a new record in total dollar sales. You will note from the sales report and forecast that we went considerably over budget on concrete, masonry, fire and home-note. You will note also that I have revised our 12 month forecast up from our budget by some \$100,000. Other product forecasts are close in line with our

Numerous meetings have been held in the last 30 days throughout the region. Dallas Barkley and Roy Navy held a series of architectural meetings in South Georgia promoting our Zonolite Roof Deck Systems. An excellent reception was evident at each of these meetings. We have just completed a roof deck applicator superintendent meeting at our Travelers Rest facility. Five of our major roof deck applicator firms were represented and a total of nine superintendents were in attendance. This meeting was the first of its type and I feel that we got some excellent information and background to hold additional roof deck applicator superintendents meetings. As you know, I feel that this is one of the most important educational programs that we must approach

With increasing costs in all facets of our application business it becomes increasingly important to see that the applicators receive yields and good costs on jobs. This, in the long run, will permit them to remain competitive in this highly competitive market.

One of our major projects during May will be an attempt to get approval for our Zonolite Vent Board Systems from the Georgia Board of Regents office here in Atlanta. We were recently turned down on these systems by Mr. Frank Dunham, who handles the construction for the Board of Regents. I have a meeting set up next week to review this situation with Mr. Dunham and plan to bring in Bob Stafford, Roofing Consultant from Charlotte, who has assisted us with this type problem previously with the the City of Atlanta school construction. Another point of interest is that the local manager for Annings-Johnson is showing increasing interest in our Home-Note product. We feel that they are not happy with the Fire-bar product that they are presently applying.

[Also, the roofers and laborers in the New Orleans market are expected to go out on strike. This can damage our business volume in that important market until this strike situation is cleared up.]

All districts have been placing a high priority on Dyfoam sales. We had a flotation blitz in Tennessee and all districts have been promoting our Key-lock and Thermo-strike systems with the

Regional Manager - C. R. Love (cont.)

specifying groups throughout their districts. This will be followed with meetings with the power company officers throughout the region promoting all our insulation products, but putting emphasis on polystyrene. We expect to have an architect visit to Nashville during May and will plan to promote Key-lock and Marbry Wall during his promotion. The Atlanta Plant has permitted the cube scrap to be put in flotation billets. This should enable us to be more competitive throughout this important flotation market. We are pleased to see new customers coming in each week as a result of the aggressive sales work done by Jim Harbes and others in the Nashville and Atlanta District on Dyform.

One unusual order was for Union Carbide Company that we supplied in a special polyvinyl chloride bag that will be used to fireproof special cables at the Oak Ridge, Tennessee facility. We got an excellent price for this product of \$2.65 per bag plus freight from Travelers Rest where the product was manufactured.

Regional Sales Manager - G. L. Myrick

District Manager - L. A. White

Bohn Anderson - Roof Deck Systems Market

Results in April:

1. I attended the Portland Cement Association's Meeting in Chicago regarding lightweight concrete. Most of this meeting dealt with the problems and properties of structural lightweight concrete (80-110 lbs./cu. ft.). There were three sessions regarding insulating lightweight concrete. The main points that were detailed are as follows:
 - a. General knowledge of insulating concrete on the part of Redi-Mix firms was limited. Most firms stated that they were not familiar with mix proportions, water content, and mixing time. Of particular concern was the high amount of water necessary to make the mix workable. These points were cleared by me from the floor.
 - b. It appears that in many areas, lightweight structural is substituted for ZIC, again due to the lack of knowledge on the part of the Redi-Mix firms. Also, they are familiar with structural lightweight.
4. Meeting with E. S. Nail people to discuss time tables for events leading to formal announcements of our distributing the Zonolite nail. This project is progressing smoothly. Contracts are in the rough draft stage and are being reviewed by O.M. Favorito.
6. Meeting with Cook-Challenge Co., manufacturers of concrete pumping equipment. Explained that we are looking for a better method of placing ZIC. They stated that they would be willing to work with us on developing such a unit. Cook-Challenge will attempt to have a unit available for demonstration within two weeks.
7. Meeting with Factory Mutual. Have established testing program for wind uplift and fire resistance. F. M. will submit proposal for our approval.

Dated 6-10-71

Top Floorboard - Dealer Sales Market

Results in April:

Attic Insulation

1. Bemis Bag came in with an 11¢ per bag price (represents 4¢ cost reduction), and we have ordered 280,000 bags to be split among the plants in North/Central, Mid-West, and the Northeast District. They will be delivered in early June, so that each plant can overcome possible packaging problems before the fall rush begins. The Regions have been advised that they must work off their inventories of paper bags by the end of the year.
3. Summer promotional stuffers and banners will be sent to the salesmen on May 24.

Glass Fiber

April sales were 17% above April, 1970. This is the first monthly increase in more than 12 months. All Regions show improvement. District sales figures and an evaluation of our problem areas and recommendations are included in my memo of May 10. Announced 6% price increase, effective immediately.

Dyfoam

Reports from the field indicate that the anticipated summer season slack-off in do-it-yourself paneling projects has affected dealers' interest in taking on Panelfoam at this time. However, the "1001" uses aspect of the product may be strong enough to maintain or increase sales in the next few months.

The Dyfoam "Pool Pad" ad mats and posters will be mailed to the salesmen on May 24.

Tom Teit - Technical Services

Results in April:

1. Meeting at the Vermiculite Institute's Chicago office with Mario Favorito to discuss plans of dissolution. Since that meeting, the VI files in Cambridge have been catalogued.
2. The fire hazard (flame spread) testing of Tufhide, utilizing a heretofore untested BASF bead, has been initiated with Underwriters' Laboratories. The actual testing is contemplated for June.
3. Initiated program with UL for "approval" of 1" Dyfoam at all of our expanding plants. The usual requirement for flame spread testing has been waived by UL at a considerable dollar savings to us (approximately \$1,000 per each of the 10 plants). George Bonhach has arranged with BASF for them to pay for one half of the total costs. Our cost, therefore, will be approximately \$1,400.
4. Dyfoam ceiling tile tests have been scheduled at Factory Mutual for May 22. The successful outcome of this testing will result in FM approval of 1" maximum thick 2 X 4 ft. and smaller tiles for installation beneath sprinklers. With the recent recommendations for sprinklers in high-rise buildings, this might be a new market at which we should give consideration.
5. Meeting in New York City with representatives of the New York Board of Fire Underwriters, the New York Fire Insurance Rating Organization, the American Iron and Steel Institute, Tom Egan and John Ottinger to discuss the use of Mono-Kote in New York City and field inspection procedures.
6. Attended the GSA sponsored International Conference on Firesafety in High-Rise Buildings. Spray applied fireproofing and its alleged shortcomings were discussed, as was the possibility of substituting a completely supervised sprinkler system for some or all of the required fire protection. Because I attended this meeting, I was able to have all unfavorable references to spray fireproofing deleted from the report resulting from this meeting.
8. Fire test at UL on an assembly built and sponsored by Reeves-Bowman Steel Co. The assembly was 100% fluted and protected with MK-3. The assembly achieved a 3-hour rating to the delight of Reeves-Bowman. This gives us MK approval on all Reeves-Bowman work.

Objectives in May:

1. ASTM Task Group meeting (in Chicago) to discuss and finalize "Proposed Methods of Test For Sprayed Fireproofing Material".

(2) Marketing

(a) Petro-Pak Usages: Customers have been finding a number of new uses and reasons to use Petro-Pak:

- A refinery has bought some to place on the ground under habitually leaking pipes.
- A furniture factory is using them to absorb oil in their waste water that is pumped into a nearby river.
- Petro-Paks were strung together and floated at the mouths of a number of estuaries to prevent JP-4 spreading into a marsh.
- An outfit in the Northwest wants to use them to be placed in bilges of tugs and barges to clean this water which is normally discharged.
- A barge operator in Florida wants to stock some on each of his barges. After a spill he normally has to wait for a clean-up crew and their equipment to arrive which is costly. With Petro-Pak on board he can just service the spill with the barge crew when it happens.

A couple of ideas generated here are:

- Due to current restrictions on bilge water being oil-free, a 55-gallon drum with holes in the bottom, filled with Petro-Paks for bilge water to be pumped through will be suggested as an inexpensive filtering method for the pleasure and light commercial marine market.
- Bags half the size of Petro-Pak with grommets and a poly-rope looped between will be sold through distribution to the marina market. A prototype has been made and photographed for promotion and test selling. I'm sure folks at the Wiano Yacht Club on the Cape will be more than willing to spend \$6 to do their part by hanging our "Boat Bag" over the stern of their docked craft.

These all sound interesting and a considerable amount of time could be spent getting deeper into the industrial waste water and custom design of bilge water filters, but my current objective is to further develop the spill clean-up market which we are into now. There is a lot of ground to cover like convincing the Pacific Region to start-up, starting up the Mid-West, surveying Central and Eastern Canada, and making arrangements with licensees.

4. Attend New York City hearing of the Administrative Code (Building Code). The amendment before the board, if successfully passed, would have the effect of eliminating so-called unprotected (exposed) steel floor units and requiring some minimum "fireproofing" protection.

General Comments:

I am observing the beginnings of a growing national concern regarding the fire safety problems associated with high-rise buildings. Most high-rise buildings are steel frame and are protected with some type of spray-applied "fireproofing". In those meetings that I have attended and of those I am aware, two subjects, among others, keep coming up; namely

1. Reference to incidents that sprayed-on-type fireproofing has not entirely been effective in providing the intended protection for structural members,
2. Discussions concerning the degree that the presence of automatic sprinkler protection in a high-rise building offset the need for other fire protection features, such as fire resistance requirements for structural members.

Eliminator Department - R. W. Reynolds, Jr.

The marketing of Petro-Pak has taken an interesting turn, one which is typical of the lip-service being paid to clean up. A lot of effort was spent in designing a pallet load which would be weather-proof for on-site storage outdoors. Another consideration is the cost of indoor storage even if it were easily accessible. Coastal's Petro-Pak customers to date have not bought and stocked but have depended on Coastal to stock the item and then raised hell in their panic to get Petro-Pak when they need it. This delay in usage has obvious ramifications to the environment in jeopardy. Quantities stocked by customers are less than 50 bags and are being stored inside.

An interesting insight into the current situation in spill clean up is exemplified by the following sad state of affairs. A southeast clean up contractor who is being frustrated by government agency lax enforcement on clean up has contracted with an ex-newspaperman to make tips to the press agencies when spills occur in the contractor's business territory. The subsequent press service follow-ups, by arriving on site with a photographer or telephoning for details, has been quite successful in increasing the amount of clean up work within his territory.

(c) Advertising and Promotion: Desk top demo kits are nearing completion and an initial batch will be completed by 5/19. Supplies will be shipped to Coastal, Pacific Region, and Vancouver.

Booth design has been finalized for the June Oil Spill Control and Prevention Show in Washington, D. C. Display assembly will commence immediately.



ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

JUL 19 1971

TO: Distribution

DATE: July 14, 1971

FROM: B. R. Williams

SUBJECT: First Half 1971
Sales Results

At the half year mark, the Eastern Region remains in first place in sales of budget and sales over 1970 sales.

There has been no change in the ranking at mid-year in sales vs. last year. Note, however, that the three Regions that are behind last year have closed the gap. Let's hope this trend can be continued.

In looking at results by products:

1. Concrete Aggregate sales are in bad shape. These results are having their effect at the mine, as well as in our profits. We need everyone's best effort to squeeze every last bag we possibly can from the market.

The Eastern Region, for example, has started a strong push to get some Redi-Mix business that may be going to competitive products because our people have not made calls on the Redi-Mix companies. Does anyone else have any approaches to get our Concrete Aggregate sales up this year?

2. Masonry Fill is up and down. A strong push on this product could help our 1971 sales. Perhaps the Eastern and North-Central Regions should check with the Southern and Mid-West Regions to see just what they are doing to gain their Masonry Fill increases. The Mid-West Region, in particular, has launched an all-out effort to sell all the values and benefits of Masonry Fill to architects.
3. Mono-Kote - Thank God for Mono-Kote! Let's be certain that we service the new Mono-Kote business effectively so that we keep our competition out for the long term.

87-06048
Ex. 2021

12-14-88

mc

4. Glass Fiber is another up and down product. There are various factors that have affected our sales. The key to improvement, it seems to me, is to develop new sales approaches, particularly with the high volume key accounts.
5. Polystyrene, with the exception of Florida, looks great! Florida has a combination of tough competition and lack of major jobs under construction versus last year. The Regions have proven a point that integrating this business into the Regional sales programs pays off. Nice going! If we could continue the growth for the remainder of the year and pick up the profits from the volume spreading of the plants fixed costs (in addition to the sales margins), we could make a significant contribution to our profits.

1971 is a tough year in many respects with economic factors against us and with stronger competition in many areas. Mono-Kote sales are an offset to some tough problems. If we can find some new, smart approaches for quick business this year, we can come out in good shape.

Good luck for the second half!



B. R. Williams

BRW/rw

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

INTER-OFFICE CORRESPONDENCE

TO: Walt Pickthall
Ralph Burnham
Bill Culver

DATE: December 15, 1971

FROM: A. W. Dambros

SUBJECT: Assembly Bill No. 314

CC: C. H. Wendel
D. Nigh

While fighting with sprayed fiber on the recent multi-story job, we came across the following scare tactic used by sprayed fiber. They indicated to the owner that effective February 15, 1972 all Mono-Kote installations would have to be covered with a sealant to comply with the new ordinance No. 314. Rather intensive checking with the State Department of Health, the Assemblyman's office, and several contractors brought out in essence that this new bill was really aimed at the flexible duct competition of sheet metal duct installers. Also, the dictionary definition of a duct does not seem broad enough to include the plenum area of a typical building. In any event, the owner was quite perturbed until some leg work was done on researching this item. You may also be faced with the same kind of scare story.

AWD/pb
Encl.

47-06048

Ex. 2022

12-14-84

ML

PACIFIC REGION



111200

*I am pleased to
forward you the
enclosed material*



L. E. TOWNSEND
ASSEMBLYMAN, SIXTY-SEVENTH DISTRICT

STATE CAPITOL
SACRAMENTO 95814
TEL.: 445-7278

DISTRICT OFFICE
18225 SO. WESTERN AVENUE
SUITE 201
GARDENA, CALIFORNIA 90249
TEL.: (313) 327-5920



ASSEMBLY BILL

No. 314

Introduced by Assemblyman Townsend

February 1, 1971

REFERRED TO COMMITTEE ON ENVIRONMENTAL QUALITY

An act to add Chapter 17 (commencing with Section 25999) to Division 20 of the Health and Safety Code, relating to air duct systems.

LEGISLATIVE COUNSEL'S DIGEST

AB 314, as amended, Townsend (Env. Qual.). Air duct systems.

Adds Ch. 17 (commencing with Sec. 25999), Div. 20, H. & S.C.

Prohibits installation of asbestos or fiberglass lining in interior of air duct system in any building in state on or after effective date of act and in any public building and hospital regardless of date of installation. Permits use of such material as exterior covering of system.

Requires that asbestos-containing materials used in air duct systems in buildings after the effective date of this act be overcoated with a sealant adequate to preclude erosion of asbestos fibers.

Vote—Majority; Appropriation—No; Fiscal Committee—No.

The people of the State of California do enact as follows:

- 1 SECTION 1. Chapter 17 (commencing with Section 25999)
2 is added to Division 20 of the Health and Safety Code, to read:

3

4

CHAPTER 17. AIR DUCT SYSTEMS

5

6

7

8

9

10

11

12

13

25999. If either asbestos or fiberglass is used for insulating an air duct system which is installed in any building in the state on or after the effective date of this chapter or in any public building or hospital in the state regardless of the date of installation, such insulating material may be used only as an exterior covering for such duct system. Asbestos or fiberglass insulation shall not be used as a lining in the interior of the system.

Signed by Gov July 28, 1971

- 1 25699. If asbestos-containing materials are used in an air
- 2 duct system which is installed in any building in the state on
- 3 or after the effective date of this chapter, such material shall
- 4 be encased with a sealant adequate to preclude emission of
- 5 asbestos fibers.

O

7001348

Ralp Burnham
Bill Culver
Walt Pickthal

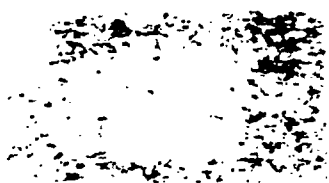
February 21, 1972

A. W. Dambros

Enclosed is the report given by Bruce Williams at the recent EPA hearing. It was an excellent presentation and could not have been more effective. The report was prepared by Bruce Williams, Tom Felt and Mario Favorito. I am only sorry I can't take credit for the wording.

AWD/pb
Encl.

11
10
9
8
7
6
5
4
3
2
1



Copies to GAO, Bobt Gary 2/28/72

97-06048
EX-2023 (47)
12-14-83
ML
25000000

W. R. GRACE & CO.
CONSTRUCTION PRODUCTS DIVISION

STATEMENT

FOR DELIVERY BEFORE:

ENVIRONMENTAL PROTECTION AGENCY HEARING

CONCERNING:

NATIONAL EMISSION STANDARDS FOR HAZARDOUS
AIR POLLUTANTS

TO BE HELD:

COMMENCING THE 15TH DAY OF FEBRUARY 1972 IN
LOS ANGELES, CALIFORNIA

PURPOSE

The purpose of W. R. Grace & Co., Construction Products Division ("Grace") in submitting this statement at this hearing of the Environmental Protection Agency ("EPA") is to request the EPA to clarify its proposed National Emissions Standards for Hazardous Air Pollutants relating to asbestos published in the December 7, 1971 issue of the Federal Register so as to clearly establish that the spray application of plaster fireproofing containing less than 12% asbestos by weight is not a prohibited activity.

It is Grace's belief that proposed standard Section 61.22(e) prohibiting "the spraying of any product which contains asbestos on any portion of a building or structure" or "in an area directly open to the atmosphere" is in reaction to growing concern relating to asbestos emissions from spray-applied asbestos fireproofing.

Grace shares this concern, a concern which it has long had. Grace believes, however, that the proposed standard prohibiting the "spraying of any product which contains asbestos" is much broader than necessary to protect the public from the hazards said to be posed by asbestos

emissions and is based on the assumption that "spray-applied asbestos fireproofing" and "the spraying of any product which contains asbestos" mean the same thing. It is therefore important to clearly differentiate between plaster fireproofing containing asbestos and spray-applied asbestos fireproofing.

SPRAY-APPLIED ASBESTOS FIREPROOFING

Spray-applied asbestos fireproofing at which in Grace's judgment the proposed standard is aimed is commonly 33% asbestos by weight. The asbestos is generally combined with mineral wool fibers and inorganic binders. The fibrous mix is then dumped dry into a hopper which fluffs the dry material. This dry material is then blown in a dry state to the point of application where it emerges from a nozzle which may be 2-3" in diameter. At the nozzle a water spray is introduced and the dry fibrous material is blown through the spray causing the mix to be wetted and propelled to the surface to be coated.

Because of this spray method, the fact that the wetted fibers are lightweight and the spray pattern quite broad, the opportunity for emission of asbestos fiber into the atmosphere in the application of spray-applied asbestos fireproofing is high.

In addition, not only can overspray and rebound of spray-applied asbestos fireproofing become airborne in application, but overspray quickly dries out and it too can become airborne. Attached hereto are pictures showing the application of spray-applied asbestos fireproofing.

(Exhibit A)

PLASTER FIREPROOFING

For about 10 years Grace has been promoting a method of fireproofing buildings with a process in which the fireproof materials are premixed in a slurry form prior to application.

This plaster fireproofing basically is composed of vermiculite, gypsum, and less than 12% asbestos by weight in each 50-lb. bag. Each bag is then placed into a hopper with about 50 quarts of water. The mix is blended into a wet plaster slurry and pumped through a hose to the point of application where it is sprayed in a tight pattern by use of air pressure from a nozzle having a 3/8" to 1/2" diameter orifice onto the surface to be fireproofed. This wet material then sets to a hard plaster having a density of 20 pounds per cubic foot. Likewise because this wet material is three times heavier than spray-applied asbestos fireproofing, any overspray or rebound does not become airborne

but falls to the floor and hardens. Attached are photographs showing the application of plaster fireproofing. (Exhibit B)

In this regard we would like to call attention to the "Background Information -- Proposed National Emissions Standards for Hazardous Air Pollutants" published by EPA in December, 1971 (EPA Background Information). On page 7 it is stated that: "The proposed ban on the spray application of products that contain asbestos is based upon experience with spray-fireproofing operations wherein efforts to control emissions by the use of containment and good housekeeping practices have repeatedly failed."

It is our belief that the above statement refers to spray-applied asbestos fireproofing (see Exhibit A). The reason for our belief is that the rebound and overspray from plaster fireproofing lend themselves to good housekeeping methods because the hardened overspray can simply be gathered into a pile for proper disposal.

A more concise comparison of spray-applied asbestos fireproofing and plaster fireproofing is attached to this statement as Exhibit C.

ASBESTOS FIBER EMISSIONS
FROM PLASTER FIREPROOFING

On the same day that EPA published its proposed

National Emissions Standards for Hazardous Air Pollutants, there appeared in the Federal Register an emergency standard for exposure to asbestos dust published by the Department of Labor pursuant to the Occupational Safety and Health Act of 1970 ("OSHA"). This standard which is Section 1910.93a states in part: "The 8-hour time-weighted average airborne concentration of asbestos dust to which employees are exposed shall not exceed 5 fibers per milliliter greater than 5-microns in length, as determined by the membrane filter method at 400-450 X magnification (4 millimeter objective) phase contrast illumination." In order to determine concentrations of airborne asbestos fibers during and after the application of plaster fireproofing in the fireproofing of structural steel, observations were made at three construction sites in the San Francisco, California area on May 26, May 28, and June 4, 1970. Consideration was given to the actual and potential exposure of (a) workmen carrying out the spray operation, (b) workers in allied trades nearby, and (c) the general public. These observations were made by the highly respected Tabershaw-Cooper Associates and a report of their air sampling findings appears as Exhibit D. Substantially the same methods of asbestos fiber detection recommended by Section 1910.93a of the OSHA emergency standard for exposure to asbestos dust quoted above were employed.

The Tabershaw-Cooper observations indicated that the occupational exposures to workmen who were operating the spray nozzles applying plaster fireproofing were not above the recommended threshold limit values for asbestos published in Section 1910.93a. In fact, of the numerous samples taken, only one sample higher than this level was found. Concentrations dropped off rapidly in the adjacent areas. Tabershaw-Cooper reported that expressed uniformly as fibers per liter, exposures of spray crews in all except the one case mentioned above were well below the threshold limit values; workers in adjacent areas of the same buildings were exposed to concentrations from 1/10 to 1/5000 of this value; individuals on other floors of the buildings and in the building vicinities had transitory exposures ranging from 1/100 to 1/5000 of the threshold limit value, ambient air levels in the Bay Area were from 1/500 to less than 1/5000 of this value.

In addition, Grace itself has taken similar asbestos fiber detection observations at construction sites where plaster fireproofing was being applied. These observations were taken during July and September 1970 at Omaha, Nebraska; Bethpage, New York; and here in Los Angeles, California, using the same recommended membrane filter method. Samples from these locations were analyzed for Grace by Werby Laboratories Inc. of Boston, Massachusetts. The results are attached. (Exhibit E)

A review of these results clearly shows that in all cases the fiber counts were considerably below the threshold limit values for asbestos established pursuant to OSHA. We would like to further point out that the fiber count data in the Werby analysis consists of all fibers and is not limited to asbestos alone.

In your proposed "National Emission Standards for Asbestos", Section 61.22(e)(3), it is stated that fibers may be emitted to outside air if a fabric filter of the type described in Section 61.23(d) is in use. We have been advised that this filter would limit fibers' emissions to the atmosphere to approximately 0.5 to 1.5 fibers greater than 5 microns in length per milliliter of air sampled. You will note that in both the Tabershaw-Cooper and the Werby findings set out in Exhibits D and E, all observations corresponding to outside air sampling are below the fabric filter standards and this in cases where no filters were in use.

As to the question of whether or not there are fiber emissions of asbestos from plaster fireproofing after it has been put in place, we would like to refer you to an analysis of air samples taken by Tabershaw-Cooper Associates at the request of the Bechtel Corp. in San Francisco in September, 1970, in which it is concluded:

"The conclusion of the above test program was that the maximum concentrations of asbestos fibers found in the sampling locations were approximately 2 1/2 fibers per liter. As a comparison reference, the normal atmospheric concentration of fibers in the Bay Area varies from 0 to 10 fibers per liter.

"Based upon the enclosed report the concentrations of asbestos fibers in your building are on the low side of the normal ambient concentrations found throughout the Bay Area."

This report upon which the conclusion is based is attached to this statement as Exhibit F.

As to the durability of plaster fireproofing, you will note in a test performed by the Boyle Engineering Laboratory for us in April, 1964, plaster fireproofing was exposed to a high velocity air stream (over 100 miles per hour) for 87 consecutive hours and no erosion occurred. A report of this test is attached as Exhibit G.

AVAILABLE SUBSTITUTES

In the EPA Background Information it is stated that asbestos-free substitute materials are available for sprayed asbestos fireproofing for a cost no higher than 15% of asbestos-containing fireproofing materials. Grace does not deny that such materials are available. In fact, Grace itself manufactures and sells substitute materials. However, Grace wishes to point out to you that at least as of this date none

of the nonasbestos fireproofing materials approved by Underwriters' Laboratories, Inc. have achieved full equivalency with the asbestos-containing materials previously approved by UL.

The area where full equivalency has not been obtained is in the ability of nonasbestos-containing fireproofing materials of the type here under discussion to remain in place during fire exposure as long as the asbestos-containing materials. This bonding ability is an essential parameter of this type of fireproofing. ~~However, in making this statement Grace wishes to make absolutely clear that the ability of non-asbestos containing fireproofing to stay in place during fire exposure for a length of time equal to asbestos containing fireproofing materials is necessary only in a limited number of construction designs. Nevertheless,~~ In our judgment, the ability of asbestos-containing materials to bond to the structure for a longer period of time than nonasbestos-containing materials gives asbestos-containing materials a certain margin of safety which even if only once required would be worth their use.

At this time we and others are in the process of experimenting with, and researching for, substitutes which will be fully equivalent to asbestos-containing fireproof materials. Grace's efforts will continue until such time as fully equivalent non-asbestos containing substitute materials are developed.

asbestos available for use. Especially is this so in a context where there is no data that defines the excess risk, if any, to the public from exposure to asbestos fibers in ambient air and where asbestos fiber emissions attributable to the use of plaster fireproofing are in our judgment less than the point of references presently established by EPA and OSHA.

Accordingly, Grace hereby proposes the following modification to Subpart B - National Emission Standards for Asbestos:

"A new subparagraph (n) shall be added to §61.21 as follows:

"(n) 'Plaster fireproofing' means any direct-to-steel fireproofing product containing less than 12% asbestos by weight which is mixed, pumped and spray-applied in slurry form and which after application hardens into a plaster with a density of 18# per cubic foot or more."

Section 61.22(e)(1) shall be modified by inserting the phrase "except plaster fireproofing" after the word "product".

Section 61.22(e)(2) shall be modified by adding the phrase "except plaster fireproofing" after the word "product".

Section 61.22(e)(3) shall be modified by inserting the phrase "except plaster fireproofing" after the word "product".

GENERAL OBSERVATION

Earlier in this statement Grace alluded to the broad scope of the proposed National Emission Standards and in this connection Grace would like at this time to make a general observation.

The aim of the proposed standards as they concern asbestos is the prohibition of asbestos fiber emissions. EPA activities in this area are appropriate. However, we strongly feel that the way in which EPA has chosen to do this, i.e., by singling out and prohibiting the use of only one or two products out of the thousands of products containing asbestos, is not appropriate. As we have stated, even if EPA finalizes this approach the prohibition should not apply to plaster fireproofing.

CONCLUSION

Grace recognizes and approves of the general desire to limit asbestos fibers in the ambient air. This desire should be weighed in each instance against the benefit to be gained by prohibiting a specific activity. In our judgment the benefit to be gained by prohibiting the use of plaster fireproofing is not commensurate with the continued benefits to the public in having a plaster fireproofing containing

7001361

We wish to thank you for the opportunity you have given us to make our views known. If there is any other information which you may require we will be pleased to provide it.

RACE
ZONOLITE
TRUCTION PRODUCTS DIVISION

TO:

Pickstool
Burman
Culver
Wendel
C. R. Love
R. L. Asher
T. F. Egan
W. K. Rogers
C. H. Wendel

DATE: February 23, 1972

R. B. Moran
A. D. Webster
J. B. Robinson
J. Lyall
L. K. Irvine
J. H. Greer

FROM: T. P. Feit

SUBJ: Environmental Protection
Agency Hearing

cc: B. R. Williams
J. V. McKague
J. L. Wright
O. M. Favorito

In response to the EPA's proposed standards for use of asbestos, we appeared in Los Angeles at their February 15 hearing, and Bruce Williams gave the statement which is enclosed. The proposed standards would have prohibited the spraying of any materials that contained asbestos. In my opinion, the EPA received our data quite favorably, and said they would have to reconsider their position in banning all materials that contained any amount of asbestos.

The enclosed statement represents our national position with respect to MK-3. Should you encounter local proposed banning of asbestos, you may refer to the statement. For obvious reasons, the distribution of this document has been limited as indicated above.

Best regards,

Tom

Thomas P. Feit

TPF/rv
Enclosure

87-06048
Ex. 2023 (6)
12-14-88

ML

W. R. GRACE & CO.
CONSTRUCTION PRODUCTS DIVISION

STATEMENT

FOR DELIVERY BEFORE:

ENVIRONMENTAL PROTECTION AGENCY HEARING

CONCERNING:

NATIONAL EMISSION STANDARDS FOR HAZARDOUS
AIR POLLUTANTS

TO BE HELD:

COMMENCING THE 15TH DAY OF FEBRUARY 1972
IN LOS ANGELES, CALIFORNIA

*I will read our statement and this will include
a few revisions to our written submission which
you have.*

PURPOSE

The purpose of W. R. Grace & Co., Construction Products Division ("Grace") in submitting this statement at this hearing of the Environmental Protection Agency ("EPA") is to request the EPA to clarify its proposed National Emissions Standards for Hazardous Air Pollutants relating to asbestos published in the December 7, 1971 issue of the Federal Register so as to clearly establish that the spray application of plaster fireproofing containing less than 12% asbestos by weight is not a prohibited activity.

It is Grace's belief that proposed standard Section 61.22(e) prohibiting "the spraying of any product which contains asbestos on any portion of a building or structure" or "in an area directly open to the atmosphere" is in reaction to growing concern relating to asbestos emissions from spray-applied asbestos fireproofing.

Grace shares this concern, a concern which it has long had. Grace believes, however, that the proposed standard prohibiting the "spraying of any product which contains asbestos" is much broader than necessary to protect the public from the hazards said to be posed by asbestos

OF

emissions and is based on the assumption that "spray-applied asbestos fireproofing" and "the spraying of any product which contains asbestos" mean the same thing. It is therefore important to clearly differentiate between plaster fireproofing containing asbestos and spray-applied asbestos fireproofing.

SPRAY-APPLIED ASBESTOS FIREPROOFING

Spray-applied asbestos fireproofing at which in Grace's judgment the proposed standard is aimed is commonly 33% asbestos by weight. The asbestos is generally combined with mineral wool fibers and inorganic binders. The fibrous mix is then dumped dry into a hopper which fluffs the dry material. This dry material is then blown in a dry state to the point of application where it emerges from a nozzle which may be 2-3" in diameter. At the nozzle a water spray is introduced and the dry fibrous material is blown through the spray causing the mix to be wetted and propelled to the surface to be coated.

Because of this spray method, the fact that the wetted fibers are lightweight and the spray pattern quite broad, the opportunity for emission of asbestos fiber into the atmosphere in the application of spray-applied asbestos fireproofing is high.

In addition, not only can overspray and rebound of spray-applied asbestos fireproofing become airborne in application, but overspray quickly dries out and it too can become airborne. (Attached hereto are photographs showing the application of spray-applied asbestos fireproofing.) (Exhibit A)

PLASTER FIREPROOFING

For about 10 years Grace has been promoting a method of fireproofing buildings with a process in which the fireproof materials are premixed in a slurry form prior to application.

This plaster fireproofing basically is composed of vermiculite, gypsum, and less than 12% asbestos by weight in each 50-lb. bag. Each bag is then placed into a hopper with about 50 quarts of water. The mix is blended into a wet plaster slurry and pumped through a hose to the point of application where it is sprayed in a tight pattern by use of air pressure from a nozzle having a 3/8" to 1/2" diameter orifice onto the surface to be fireproofed. This wet material then sets to a hard plaster having a density of 20 pounds per cubic foot. Likewise because this wet material is up to three times heavier than the wet spray-applied asbestos fireproofing, any overspray or rebound does not become airborne

but falls to the floor and hardens. [Attached are photographs showing the application of plaster fireproofing. (Exhibit B)]

In this regard we would like to call attention to the "Background Information -- Proposed National Emissions Standards for Hazardous Air Pollutants" published by EPA in December, 1971 (EPA Background Information). On page 7 it is stated that: "The proposed ban on the spray application of products that contain asbestos is based upon experience with spray-fireproofing operations wherein efforts to control emissions by the use of containment and good housekeeping practices have repeatedly failed."

It is our belief that the above statement refers to spray-applied asbestos fireproofing [(see Exhibit A)] The reason for our belief is that the rebound and overspray from plaster fireproofing lend themselves to good housekeeping methods because the hardened overspray can simply be gathered into a pile for proper disposal.

A more concise comparison of spray-applied asbestos fireproofing and plaster fireproofing is attached to this statement as Exhibit C.

ASBESTOS FIBER EMISSIONS
FROM PLASTER FIREPROOFING

On the same day that EPA published its proposed

C 5

National Emissions Standards for Hazardous Air Pollutants, there appeared in the Federal Register an emergency standard for exposure to asbestos dust published by the Department of Labor pursuant to the Occupational Safety and Health Act of 1970 ("OSHA"). This standard which is Section 1910.93a states in part: "The 8-hour time-weighted average airborne concentration of asbestos dust to which employees are exposed shall not exceed 5 fibers per milliliter greater than 5 microns in length, as determined by the membrane filter method at 400-450 X magnification (4 millimeter objective) phase contrast illumination." In order to determine concentrations of airborne asbestos fibers during and after the application of plaster fireproofing in the fireproofing of structural steel, observations were made at three construction sites in the San Francisco, California area on May 26, May 28, and June 4, 1970. Consideration was given to the actual and potential exposure of (a) workmen carrying out the spray operation, (b) workers in allied trades nearby, and (c) the general public. These observations were made by the highly respected Tabershaw-Cooper Associates and a report of their air sampling findings appears as Exhibit D. ^{air sampling} Substantially the same methods of asbestos fiber detection recommended by Section 1910.93a of the OSHA emergency standard for exposure to asbestos dust quoted above were employed.

Thurs 10/10/70
as Tel. to G. P. Cooper

The Tabershaw-Cooper observations indicated that the occupational exposures to workmen who were operating the spray nozzles applying plaster fireproofing were not above the recommended threshold limit values for asbestos published in Section 1910.93a. In fact, of the numerous samples taken, only one sample higher than this level was found. Concentrations dropped off rapidly in the adjacent areas. Tabershaw-Cooper reported that, expressed uniformly as fibers per liter, exposures of spray crews in all except the one case mentioned above were well below the threshold limit values; workers in adjacent areas of the same buildings were exposed to concentrations from 1/10 to 1/5000 of this value; individuals on other floors of the buildings and in the building vicinities had transitory exposures ranging from 1/100 to 1/5000 of the threshold limit value, ambient air levels in the Bay Area were from 1/500 to less than 1/5000 of this value.

In addition, Grace itself has taken similar asbestos fiber detection observations at construction sites where plaster fireproofing was being applied. These observations were taken during July and September 1970 at Omaha, Nebraska; Bethpage, New York; and here in Los Angeles, California, using the same recommended membrane filter method. Samples from these locations were analyzed for Grace by Werby Laboratories Inc. of Boston, Massachusetts. The results are attached. (Exhibit E) *part of our submittal.*

CF

A review of these results clearly shows that in all cases the fiber counts were considerably below the threshold limit values for asbestos established pursuant to OSHA. We would like to further point out that the fiber count data in the Werby analysis consists of all fibers and is not limited to asbestos alone.

In your proposed "National Emission Standards for Asbestos", Section 61.22(e)(3), it is stated that fibers may be emitted to outside air if a fabric filter of the type described in Section 61.23(d) is in use. We have been advised that this filter would limit fibers' emissions to the atmosphere to approximately 0.5 to 1.5 fibers greater than 5 microns in length per milliliter of air sampled. You will note that in both the Tabershaw-Cooper and the Werby findings set out in Exhibits D and E, ^{from submission} all observations corresponding to outside air sampling are below the fabric filter standards and this in cases where no filters were in use.

As to the question of whether or not there are fiber emissions of asbestos from plaster fireproofing after it has been put in place, we would like to refer you to an analysis of air samples taken by Tabershaw-Cooper Associates at the request of the Bechtel Corp. in San Francisco in September, 1970, in which it is concluded:

"The conclusion of the above test program was that the maximum concentrations of asbestos fibers found in the sampling locations were approximately 2 1/2 fibers per liter. As a comparison reference, the normal atmospheric concentration of fibers in the Bay Area varies from 0 to 10 fibers per liter.

"Based upon the enclosed report the concentrations of asbestos fibers in your building are on the low side of the normal ambient concentrations found throughout the Bay Area."

This report upon which the conclusion is based is attached to this statement as Exhibit F.

As to the durability of plaster fireproofing, you will note in a test performed by the Boyle Engineering Laboratory for us in April, 1964, plaster fireproofing was exposed to a high velocity air stream (over 100 miles per hour) for 87 consecutive hours and no erosion occurred. A report of this test is attached as Exhibit G.

AVAILABLE SUBSTITUTES

In the EPA Background Information it is stated that asbestos-free substitute materials are available for sprayed asbestos fireproofing for a cost no higher than 15% of asbestos-containing fireproofing materials. Grace does not deny that such materials are available. In fact, Grace itself manufactures and sells substitute materials. However, Grace wishes to point out to you that at least as of this date none

of the nonasbestos fireproofing materials approved by Underwriters' Laboratories, Inc. have achieved full equivalency with the asbestos-containing materials previously approved by UL.

The area where full equivalency has not been obtained is in the ability of the nonasbestos-containing fireproofing materials of the types here under discussion to remain in place during fire exposure as long as the asbestos-containing materials. This bonding ability is an essential parameter of these types of fireproofing products. In our judgment, the ability of the asbestos-containing materials to bond to the structure for a longer period of time than the nonasbestos-containing materials gives asbestos-containing materials a certain margin of safety which even if only once required would be worth their use.

At this time we and others are in the process of experimenting with, and researching for, materials which will be fully equivalent to the present asbestos-containing fireproof materials, but having even less asbestos emissions and in some cases no asbestos emissions. Grace's efforts will continue until such time as fully equivalent new plaster type materials are developed.

GENERAL OBSERVATION

Earlier in this statement Grace alluded to the broad scope of the proposed National Emission Standards and in this connection Grace would like at this time to make a general observation.

The aim of the proposed standards, as they concern asbestos, is to control the level of asbestos emissions. Emission limits are specified for the numerous uses and applications of asbestos. We feel that EPA activities in this are appropriate.

However, we feel strongly that the absolute prohibition of spray application of "any product which contains asbestos" is arbitrarily severe and inconsistent with the objectives of EPA.

This is because the proposed regulation would prohibit materials otherwise acceptable simply because they contain asbestos; even though the use of the material would result in airborne asbestos far below the level acceptable for all other products formulated with asbestos. Moreover, by specifying "asbestos" instead of "commercial asbestos", the regulation could even be interpreted as prohibiting the spraying of materials containing minute traces or stray amounts of asbestos.

We feel that it is not the intention of EPA to establish a standard so arbitrarily severe. We believe the regulation was written in its proposed form because of the failure to differentiate between spray-applied asbestos fireproofing and plaster fireproofing.

CONCLUSION

Grace recognizes and approves of the general desire to limit asbestos fibers in the ambient air. This desire should be weighed in each instance against the benefit to be gained by prohibiting a specific activity. In our judgment, the benefit to be gained by prohibiting the use of plaster fireproofing is not commensurate with the continued benefits to the public in having a plaster fireproofing containing asbestos available for use. Especially is this so in a context where there is no data that defines the excess risk, if any, to the public from exposure to asbestos fibers in ambient air and where asbestos fiber emissions attributable to the use of plaster fireproofing are in our judgment less than the point of references presently established by EPA and OSHA.

Accordingly, Grace hereby proposes the following modification to Subpart B - National Emission Standards for Asbestos:

"A new subparagraph (n) shall be added to Section 61.21 as follows:

"(n)" 'Plaster fireproofing' means any direct-to-steel fireproofing product.

by weight which is mixed, pumped and spray-applied in slurry form and which after application hardens into a plaster with a density of 18 lbs. per cubic foot or more."

Sections 61.22(e)(1) and 61.22(e)(2) shall be modified by deleting the phrase:

"The spraying of any product which contains asbestos" and inserting in lieu thereof in each case the phrase:

"The spraying of any product, except plaster fireproofing, which contains commercial asbestos."

Section 61.22(e)(3) shall be modified by deleting the phrase:

"Emissions of particulate matter from spraying of any product which contains asbestos."

and inserting in lieu thereof the phrase:

"Emissions of particulate matter from spraying of any product, except plaster fireproofing, which contains commercial asbestos."

We wish to thank you for the opportunity you have given us to make our views known. If there is any other information which you may require, we will be pleased to provide it.



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION
National Institute for Occupational Safety & Health
550 Main Street Room 7017 FOB Cincinnati, Ohio 45202

February 28, 1972

RECEIVED

MAR 2 1972

CONSTRUCTION PROJECTS DIVISION
H. A. B.

Grace Construction Materials
62 Whittemore Avenue
Cambridge, Massachusetts 02140

Attention: Plant Manager

Dear Sir:

The National Institute for Occupational Safety and Health has undertaken a research project to determine the level of airborne asbestos exposure to which resilient floortile workers are exposed. In order to better evaluate the results which we obtain, we need to know the compositions of the various floortiles which may be encountered. Of major interest is the percentage of asbestos by weight in the final product. It would be most valuable in our efforts if you could list the brand names of your products and the approximate composition of each. An example of the list is enclosed.

We assure you that any information supplied to us will be held in the strictest confidence. Your assistance in this project will be greatly appreciated.

Very truly yours,

John M. Dement

John M. Dement
Assistant Sanitary Engineer
Environmental Investigations Branch

Enclosure

106371

C7270A-C

TO: Distribution

DATE: November 22, 1972

FROM: J. L. Wright

SUBJ: Action Requirements
Re. MONOKOTE Cracking

I am seriously concerned that some of us are not taking an objective view of the data concerning Monokote cracking. This has limited our planning to the extent that the problem may be unnecessarily extended. The effects of such an occurrence following last year's performance is something that we should be willing to go to some extremes to avoid.

Please review this memo and the action requested and let me or Tom Feit know immediately if you do not agree or will not accomplish the actions requested of you.

1. Problem Description

Monokote is again cracking on at least three major job sites being serviced from the Trenton plant. So far, we have continued to supply material with no knowledge that the cracking will not continue. This material is being applied at a rate of about 100,000 board feet per week. Repair costs of 25 cents per board foot for removal and repair of cracked material makes it important that we not continue our state of ignorance about the material we are supplying.

2. Probable Causes

Two probable causes have been advanced. Those concerned with solving the problem hold varying opinions as to what the real cause is. Because of these different opinions, a clear-cut course of action to cover the necessary contingencies has not been agreed to. These probable causes are briefly discussed below:

- a. Gypsum set time is considered by some to be the only reasonable cause to investigate. This position is taken primarily because the only way that WRC has been able to produce cracking in the laboratory is by using material that has been partially set prior to casting in the sample mold. However, it should be recognized that many parameters were not varied in this study. Some of these are vermiculite size, vermiculite character (including water capacity and friability) and the effects of vermiculite attrition.

87-86048
EX. 2024

Two other factors concerning this study that must be recognized are; (1) the partial set material was placed by adding more water and remixing, so that the pre-set material was also overwatered material, and (2) the equipment used does not simulate the action of field equipment.

- b. Vermiculite characteristics are considered by others to be the only reasonable cause to investigate. The prime reasons for this position is that there are differences observed in the vermiculite fineness currently being used at Trenton, compared to that used earlier in the year and that last year's problems coincided with the use of No. 4 vermiculite, rather than No. 3. However, it should be recognized that no laboratory evidence has been developed to show that one ore is more likely to produce cracks than another ore. In spite of this lack of laboratory confirmation, several reasons for suspecting a change in vermiculite characteristics could cause the problems which do exist.

- (1) A different appearance of vermiculite is reported at the Trenton plant.
- (2) An air handling system has been in use for the last several months at Trenton. This system produced 18% attrition on material used in an evaluation test. It would be logical to reason that different levels of breakdown would occur with different vermiculite feed stock and that at some level the Monokote quality could be effected.
- (3) It has been empirically concluded on the West Coast that fines need to be removed to produce good Monokote.
- (4) Tests run to evaluate the effects of attrition in the air handling system were limited to yield and did not include a measure of cracking tendency.

- c. The combination of these two factors is believed to be more likely by others involved. But, no other major influence has been suggested.

3. Investigation

Current investigation includes both laboratory testing and field changes. These can be summarized as follows:

- a. Evaluation of retarder addition in field application is being accomplished by Eastern Region personnel to give a side-by-side comparison of different set times. Responsibility for this evaluation rests with Bill Rogers.

- b. The effect of temperature on set time over the range of ambient temperatures is being determined in the laboratory. Arnie Rosenberg is responsible for the determination.
- c. Field comparison of different vermiculite characteristics is being made by comparative use of Libby #3 aggregate with Trenton/S.C. #3 aggregate. Bill Rogers is responsible for this evaluation.
- d. Other effort can be characterized as general observation and search for new clues.

4. Corrective Actions

The important consideration that should be emphasized now is to get prepared to take the course of action indicated by the investigation when it is completed on Tuesday, November 28. We must be prepared to take any one of the following actions:

- a. Supply retarder with all Monokote and provide instructions concerning its proper use. Manufacturing is to make any necessary preparations for supply of the retarder and Research is to prepare operating instructions for its use.
- b. Supply Monokote manufactured from vermiculite known to be relatively free from fines. Manufacturing is to make contingency plans for supplying Libby #3 aggregate for Monokote manufacture at Trenton if the aggregate is found to be at cause.
- c. Limit our exposure to damage claims in the event of no answer. Eastern Regional Management is to develop a contingency strategy to cut back supply or otherwise limit our cost exposures in the event that we have no answer as to how the problem can be corrected.


John L. Wright

Copies of Section A-2
to Harrison, Dolloff, Duecker

JB
12/3/71

A-4 VERMICULITE BASED MONO-KOTE

The purpose of this project is to assist CPD in increasing vermiculite sales by developing a group of silicate based vermiculite products and finding means of producing these at acceptable costs for both field and shop fabrication methods. An experimental program has been carried out for the past several months using a design prepared by the Mathematical Department with a sodium silicate-sodium silicofluoride cement as a binder. The purpose has been to obtain physical and chemical properties of a sufficient number of samples to determine whether or not additional research work in this area is warranted. The work planned under the design has now been completed. Data are being assembled in preparation for a meeting with CPD in Cambridge, Mass., on November 18, 1971, to discuss possible commercial uses and applications of the products made thus far. Future program is dependent on the consensus of CPD's marketing organization.

(Legal & Kolbe)

A-5 REFORMULATION AND EVALUATION OF MONO-KOTE (Project 2659)

The purpose of this project is to assist CPD in their marketing problems with Mono-Kote. Mono-Kote, a fireproofing material, is manufactured in two types, MK-3 containing asbestos which is a health hazard, and MK-4 containing a wood fiber which has not proved to be satisfactory. The specific purpose of this project is the development of a non-asbestos formula with 100% total equivalency to MK-3 fire rating.

When Super Mono-Kote studies were completed recently at WRC the tests results showed sufficient reproducibility and predictability of bond performance to warrant further testing on pilot scale panels (4' x 4'). Subsequently, 7 candidate formulations were recommended to CPD for testing. Using the recommended formulations, CPD prepared 7 test panels at Traveler's Rest which are scheduled for fire testing November 15. Once the pilot scale fire tests are complete, the best of the surviving Super Mono-Kote compounds will be tested at U.S. Gypsum Co. Laboratory, in Des Plaines, Illinois, on 7' x 9' blend decks.

Besides Super Mono-Kote work, WRC has begun to explore other binders or additive binders in the gypsum-vermiculite base matrix for their effects on bond performance. Among the additives under consideration are lignin sulfonate salts and silicate salts. Results from 4 tests reveal that 0.5% to 1.0% ammonium lignin sulfonate (ALS) enhances both internal cohesive and adhesive bond properties of Mono-Kote to galvanized steel; test scores of 70 are obtainable when 0.5% ALS, basis dry weight of gypsum, is used which compared to MK-3 (Tbond = 51) is a sizable increase in bond performance. Substitution of 0.1% calcium lignin sulfonate (CLS) in a portland cement based system produced a marked increase in

ZONOLITE

07540

CONSTRUCTION PRODUCTS DIVISION

INTER-OFFICE CORRESPONDENCE

RECEIVED

MAY 4 1973

TO: B. R. Williams

DATE: May 1, 1973

FROM: C. H. Wendel

SUBJECT:

CAMBRIDGE

CC: ~~T. P. Felt~~
~~T. W. Pickthall~~

The following is an excerpt from Walt Pickthall's weekly report:

"I wrote you about the gal that was writing the story on the asbestos being used in the Tishman Building. Dr. Cooper sent me the enclosed. Alberta made a couple of extra photo copies so you can send to Bruce and Tom.

"There are also two letters enclosed which Cooper wrote as the result of the story. One is to the gal that wrote it covering a few of the discrepancies (there are many more). The other letter is to the Wells Fargo Bank data processing department who will occupy part of the Tishman Building. They got upset about the hazardous occupancy they were about to move into and contacted Dr. Cooper. Note where they are presently located. Remember Jack Smith's famous excursion with Cafco? Wells Fargo Bank Building.

"Don't see that we have any legal responsibilities or that we can do anything about the story but knowing how these things go these days I'm sending all along.

"Note that Gene is a nice guy and used MK-4 on his job. Bob is a bum. Gene said yesterday that it was nice to wear a white hat."

CHW:me

PACIFIC REGION

GRACE

87-06048
Ex. 2025
12-14-88

107311

BUNDED KNEE p.12

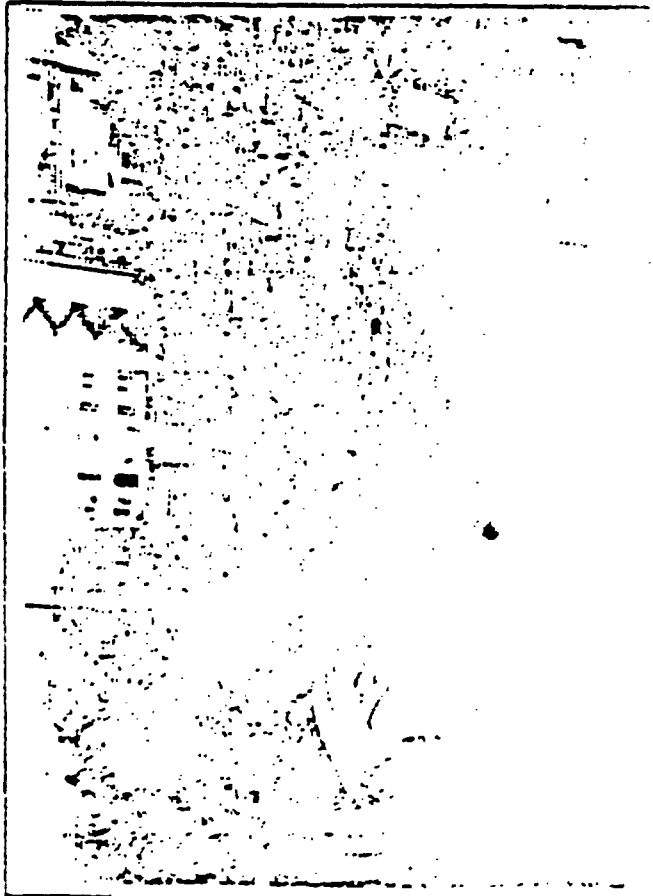
ASBESTOS: AIR POISON p.6

Introducing the Guardian Literary Supplement

With extracts from unpublished Bay Area
writing, plus reviews, specialty bookstores,
small press newsletters and literary gossip...

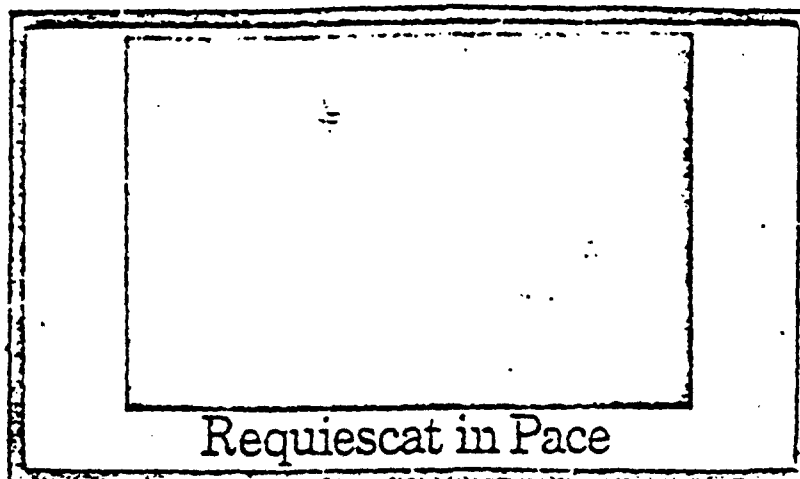
Since 1966--The largest circulation alternative newspaper in Northern California. Published fortnightly on Thursdays.
L. 7 NO. 12, APRIL 12 THROUGH APRIL 25, 1973

GROW YOUR OWN FOOD!



How to plan, cultivate,
harvest a City Garden,
inside or out. An urban
farmer's guide to seeds,
tools, pest control,

6754



Requiescat in Pace

THE SAN FRANCISCO BAY GUARDIAN

EDITOR & PUBLISHER: Bruce B. Bruggmann

ASSOCIATE PUBLISHER: Jean Dibble

CITY EDITOR: William Ristow

UTILITIES EDITOR: Peter L. Petrakis

POETRY EDITOR: Bill Anderson

URBAN AFFAIRS EDITOR: Chester Harman

COPY EDITOR: Merrill Shindler

NEWS STAFF: Marcy Kates, Vicki Sufian, Julia Cheever, Jeanette Foster, Madeline Nelson, Joel Kotkin

ART DIRECTOR: Louis Dunn

ART ASSISTANT: Kim Gale

ADVERTISING ART: Barbara Garza, George Koch, Kathy McLean, Elise Overzill

TYPESETTING: Steve Severson, Naomi Schiff, Uni Wheelock, Marsha Stern

EDITORS AT LARGE: Marlon Bullin, Gregg Slettenland, Creighton M. Churchill, Wilbur Wood, Alan Velle, Marvin Breslow, Jess Brownell, Wilbur Gaffney, William Kelsay, Theodore Rasmussen, Roger Hankle

ADVERTISING: Elsie Wolff, Barbara Freeman, Nancy Destefanis, Elena Rogova, Joyce Sunila

CIRCULATION: Sylvia Terrell, Charlie Lichtman

BUSINESS MANAGER: Paul Sherlock

OFFICE MANAGER: Cecily Murphy

BOOKKEEPER: Sharon Mack

COLLECTION: S.H. Leon Gelman

DISTRIBUTION MANAGER: Barbara Shaw

DISTRIBUTION: Denny Smithson, Jean Ulbricht, Cory Migneault, Geoff Goldstein, Katherine Mazur, Elliot Rosenblatt, Al McCann

"It is a newspaper's duty to print the news and raise hell."

(Wilbur F. Storey: Statement of the aims of the Chicago Times, 1861)

THE GUARDIAN: Published fortnightly every other Thursday except one issue in August and one issue in December. Copyright © 1973 by the Bay Guardian Co., Inc. All rights reserved. Reproduction or use without permission is strictly prohibited. Second class postage paid at San Francisco, California. Complete file of back issues in main San Francisco library.

ADDRESS ALL CORRESPONDENCE TO: 1070 Bryant St., San Francisco, Calif. 94103. UN 1-9600. Postage and self-addressed envelope must accompany all submissions if return desired. However, no responsibility whatever assumed by Guardian for unsolicited material.

ADVERTISING: 1070 Bryant St., San Francisco, Calif. 94103. UN1-9632.

SUBSCRIPTION RATES: 25 cents per copy. \$9 for 48 issues, \$5. for 24 issues. 1070 Bryant St., San Francisco, Calif. 94103.

CHANGE OF ADDRESS: Four weeks advance notice. Enclose your mail label or old address and your new mailing address.

THIS ISSUE: Vol. 7 No. 13

April 12 through

April 25, 1973

Printed at Waller Press, a Union shop

ALL RIGHTS RESERVED BY THE PUBLISHERS

CONGRESSIONAL P

I have just seen a copy of your excellent article on drug prices. Congratulations on a fine job.

Earlier this month, I received the results of an 18-month study on retail drug price competition (copy enclosed). It shows that consumers are overcharged \$1 billion a year for prescriptions. Rx drugs are the only commodity on the market today for which there is no retail price competition. It is a serious problem on the wholesale level.

Here's hoping work sessions will introduce retail drug prices to a revolutionary concept in doing business — the free enterprise system.

Benjamin S. Rosenthal
8th District, New York
U.S. House of Representatives

ED. NOTES: Here are excerpts from Congressman Rosenthal's excellent study, "Retail Drug Price Competition."

"Prescription drugs happen to be the only major product on the market for which there is no retail method of retail price competition. This is a serious problem. Over the years, the consumer has been conditioned to believe that there can be no object where there is no competition; but in fact, at least as far as prescription drugs are concerned, the consumer bears little or no responsibility to quality. The idea can cost \$1 or \$10 more, depending on the manufacturer and the pharmacist. Independent neighborhood pharmacies and chain stores by now have filled more than the prescriptions of

Our Lethal Asbestos

By Madeline Nelson

Back in February, construction workers on the big new Tishman Building, going up at First and Market in SF, noticed that they were spraying an asbestos material called Mono-Kote 3 in spaces which would later be used to recirculate air throughout the entire building. They knew that the asbestos could be extremely harmful to health, and that it could end up permeating the air of this 38 story building, and that spraying in such areas violates California's one serious anti-asbestos law in the Health and Safety Code. And so they complained.

They complained to the California Department of Industrial Safety, which refused to step in because the asbestos poison wouldn't affect the construction workers themselves, it would just affect the people who work in the building after completion (Wells Fargo will be the major tenant, filling 20-22 stories with computer workers.)

They complained to the State Building Standards office, which refused to step in since the law is part of the Health and Safety Code, not the building standards.

They complained to the State Health Department, which could only admit that, well, actually the law doesn't say anything about enforcement. And that's about all they were able to get out of official governmental and regulatory agencies.

Finally, they complained to the Guardian. And after our investigation of the effects of asbestos and the ways it is used in the Bay Area, we discovered a very simple fact: regulation is virtually non-existent here, or in the state of California. With a construction boom in full swing and scores of new buildings going up, the Tishman story is being repeated over and over; and despite 65 years of accumulated medical knowledge about the dangers of asbestos, almost nothing is being done locally to curtail its use.

Asbestos is one of the miracles of modern construction. Most buildings erected in the last half-century use it, in some form, for its fire-resistant qualities.

But asbestos is also a killer. It is one of the most deadly air pollutants in existence, the proven cause of crippling respiratory diseases and cancer: it is so deadly that New York City, Boston, Chicago, Philadelphia and the state of Illinois have all passed laws strictly forbidding the spraying of asbestos. This is a step the Bay Area and California have yet to take. The result: construction workers, asbestos workers, office workers are inhaling poisonous asbestos fibers daily—all because nobody, from the building contractors to the highrise corporations to the Governor and the legislature is doing anything about it.

Here's what asbestos can do to people:

► Asbestos workers (40,000 nationwide) and construction workers (5,000,000), who are exposed to asbestos in their daily work, risk getting asbestosis, a crippling and sometimes fatal scarring of the lungs, that makes it hard for the victim to breathe and is impossible for him to engage in any physical activity for more than a few minutes.

In a study of 392 people who had worked with asbestos for more than 20 years, 339, or 86%, had asbestosis. Reducing the period of exposure may increase the time before a person comes down with the disease, but there are cases of workers with as little as six months exposure who, 20 years later, are crippled by asbestosis.

Exposure to asbestos makes a person who smokes much more susceptible to lung cancer than the non-smoker—and 92 times more susceptible than a person who neither smokes nor works with asbestos.

► Within the past 15 years, researchers have discovered the most frightening effect of asbestos on people not engaged in asbestos-related work: mesothelioma, a cancer which, until recently, was considered a medical curiosity. Dr. Clark Cooper, who headed the National Academy of Science panel on asbestos and is now a consultant to West Coast unions, explains that asbestos fibers in your lungs work their way out of the lung lining. Once there, 10 or 20 or even 50 years later, they may cause a cancer which will kill, probably within a year.

"You know, we have damn near as many deaths or more, people who work with asbestos as there are coal miners in the country. But nobody cares about us, because we don't have any disasters. The miners have a disaster and a picture shows up on the front pages with pretty faces and everybody feels sorry. So they put a black lung bill through Congress. We have a higher percentage of people dying from respiratory trouble but nobody gives a damn about it." —William Bernard, Secretary-Treasurer of the Asbestos Workers Union, quoted in the New York Times.

Environment

Long or even direct exposure seems unnecessary. A Massachusetts woman who worked in an asbestos factory for six weeks during World War II died of mesothelioma more than 20 years later. A woman in South Africa who played in an asbestos dump on her way home from kindergarten died of it 50 years later. Asbestos workers have died of it. So have their wives, who clean their clothes, and their neighbors in the asbestos mill towns.

Because of the long latency, nobody is sure how many people who work in cities with asbestos pollution will die of mesothelioma—but what is known is that increasing numbers of people have asbestos in their lungs. In New York, a random sample of autopsies showed 48% of the people had asbestos in their lungs; in Pittsburgh the rate was 98%. With asbestos in the air from building construction, with it in the air circulating systems of some buildings, chances are that a large percentage of Bay Area residents who work downtown already carry asbestos fibers in their lungs.

Asbestos is used in homes, cars, factories, shops, planes, trains; it has been sprayed on such SF buildings as the Bank of America, Embarcadero Center, Federal Building, Hilton Tower and PG&E. Whenever it escapes into the air, as it does from spraying buildings or hosing out brake linings or cutting up floor tiles, someone breathes it—and keeps fibers in his lungs. It does not biodegrade in the body. "Once you get it in your lungs," says Dr. Irving Selikoff of Environmental Sciences Laboratory, Mount Sinai Hospital, the nation's top asbestos researcher, "it stays forever and as years go by your lungs continue to be exposed—even though you may be out in the Rockies."

This is the kind of danger that California and local governments are blind to when they fail, again and again, to take the responsibility to challenge the manufacturers of asbestos and impose strict rules and bans. What about situations like the Tishman Building, where the only real anti-asbestos law was evidently violated? William Steffen, of the Dept. of Industrial Safety, could only remark that "the whole thing is all screwed up."

That won't help the people who will work and do business in the Tishman Building. The first time a repairman goes into those asbestos-lined passages and knocks off some dust, and the air circulating system takes it around the building, they will all add a little more asbestos to their lungs.

near the buildings now standing contain tons of asbestos, and when they need repair or are torn down, those tons of asbestos will be released into the air. New regulations from the US Environmental Protection Agency (EPA) demand asbestos be wetted down during demolition (to prevent dust) and that it be dropped to the ground in airtight chutes.

The obvious problem in the Bay Area, of course, is that the next big earthquake is unlikely to find the city ready with airtight chutes and hoses to keep all that asbestos out of the air.

What can be done to get the asbestos out of the air? R. Cooper, the consultant to the asbestos workers union, has concluded that asbestos spraying should be banned, as in many eastern cities. Four years ago, he told me, he thought the poisoning of the air could be controlled short of abolishing spraying, but he has changed his mind for the simple reason that the asbestos level in the air all around the city is now similar to the level right around construction sites.

"We must have a timetable for abolishing asbestos," Cooper argues. "There is no place for ambient air standards." Ambient air standards, which set an "allowable level" of asbestos in the air, were adopted by San Francisco in 1971; beyond these standards, efforts in the city and California have centered on cutting the asbestos level by better ventilation, clean-up procedures, special clothing and respirators—and yearly checkups to see how bad a worker's lungs have gotten.

Nationally the record of asbestos control isn't much better. The U.S. Dept. of Labor, after consulting a committee of "experts" (31 of 34 drawn from the asbestos industry), left the acceptable level of asbestos at very high 5 fibers per cubic centimeter of air. Selikoff argues that the ruling has thrown "50,000 more lives in the drain," and the AFL-CIO has taken the Dept. of Labor to court for failing to protect workers.

... , recommending the banning of all asbestos spraying. But the agency then failed to issue final regulations until environmentalists went to court to demand them, and EPA finally released the rules this April 6.

The rules are considerable weakened. Spraying is still allowed, just with sprays of less than 1% asbestos content which will help, but not solve the problem. In demolition of buildings every pipe, boiler and structural member must be wetted and stripped of asbestos and the debris must be wet to prevent dust. The hitch is that most buildings with sprayed asbestos are relatively new and won't come down soon, so the asbestos fibers could be seeping into the buildings' air systems for a long time.

Meanwhile, California is stuck with an anti-asbestos provision of the Health and Safety Code which doesn't even have an enforcement clause, and which confuses matters further by barring asbestos technically only if it is not coated with a sealant which would keep the asbestos from coming off.

The State Dept. of Public Health states that no such sealant does or could exist, so no asbestos should be sprayed in air circulation areas at all; manufacturers argue the point, and nobody enforces the law.

What are the alternatives? Right now, since safety has not been accepted as an important issue by the government, the manufacturers or building contractors, everybody points to the lower cost of asbestos as a major argument in its favor. But right down the street from the Tishman Building (with its asbestos spray), the new Metropolitan Building is using Mono-Kote 4, an asbestos-free fireproofing.

SF Building Inspector Alfred Goldberg claims that he can do nothing because "the state has preempted the

... safety; but banning asbestos spray doesn't just protect the workers, it protects every person who ever comes near the construction site or the finished building.

Until more stringent controls go into effect, building architects can control the problem by specifying non-asbestos material. This almost happened, in fact, on the Tishman Building: architect J. C. Warnecke's office specified either Mono-Kote 3 (asbestos) or Mono-Kote 4 (non-asbestos), whichever met all legal requirements, and the contractor went ahead and picked Mono-Kote

3. While asbestos spraying continues, it becomes crucial that the workers in direct contact with it follow at least elementary precautions. Workers on the Tishman Building, for example, were observed spraying and cutting asbestos by hand, without wearing masks.

Like the current strike against Shell for more healthy working conditions, the asbestos issue is one on which the unions and the environmentalists can fight together. Instead of the union standing alone as it has up to now. Banning asbestos will clean up the air for everyone, it will save lives in the construction industry and it will not, even according to union officials, throw union workers out of jobs, because asbestos substitutes do exist and will have to be used.

Action: Every level of government can act to ban asbestos spraying, though a federal law is the most desirable since it protects everyone. Write your Senators and Representatives asking for such legislation, letting them know that the new EPA rules aren't enough.

In California, write legislators, telling them the same things. On the local level, ask Building Inspector Goldberg and the Supervisors to enact a ban now. Ask them why San Francisco is dragging its heels when New York, Boston, Philadelphia, and Chicago have already acted. □



STANDARD
SPECIALTIES

IRANIANA RECORDS

San Francisco - Suller & Grant
Oakland - Grand & Harrison

the score
that says

7642

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

V. R. GRACE & CO., 6851 SMITH AVENUE, NEWARK, CALIFORNIA 94560

415-793-9111

May 7, 1973

Mr. Robert Murphy
Atlas Plastering, Inc.
3250 E. Olive Avenue
Fresno, California 93702

Dear Mr. Murphy:

This letter will confirm our telephone conversation this date concerning Zonolite fire protection products.

Mono-Kote® type IV will replace Mono-Kote® type III as the result of certain rulings by the Federal Government.

On April 6, 1973, the Environmental Protection Agency's "National Emissions Standards for Hazardous Air Pollutants" became effective with the publication of these regulations in the Federal Register. These regulations affect the continued use of MK3.

Effective 90 days from date of publication - July 4, 1973 - sprayed materials used to insulate or fireproof buildings, structures, pipes, and conduits will be limited to those materials which contain less than one percent asbestos on a dry-weight basis. Therefore, MK3 spray operations now in process or about to begin will be permitted subject to a changeover to conforming materials by July 4, 1973.

Mono-Kote® Type IV meets the requirements of the Environmental Protection Agency regulations. It has been fire tested at Underwriters Laboratories and is under U/L Re-examination and Label Service. A photocopy of the U/L label is attached.

Very truly yours,

ZONOLITE - CONSTRUCTION PRODUCTS DIVISION

T. W. Pickthall

We hope the information given here will be helpful. It is based on our best knowledge, and we believe it to be true and accurate. Please read all measurements, recommendations or suggestions herein in conjunction with our conditions of sale which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions, nor do we warrant them as a recommendation for any use which would infringe any patent or copyright.

TWP:am
Attachment

GRACE

87-06043
EX-2026
12-14-88
097903

BULLETFIN FIREPROOFING

SUBJECT: Environmental Protection Agency

DATE: April 17, 1973

- spec 11 This out

④ On April 6, 1973, the EPA's "National Emissions Standards" for Hazardous Air Pollutants" became effective with the publication of these regulations in the Federal Register. These regulations affect the continued use of MK3.

Effective 90 days from date of publication - July 4, 1973 - sprayed materials used to insulate or fireproof buildings, structures, pipes, and conduits will be limited to those materials which contain less than one percent asbestos on a dry-weight basis. Therefore, MK3 spray operations now in process or about to begin will be permitted, subject to a changeover to conforming materials by July 4, 1973.

Thomas P. Feit

Thomas P. Feit - Manager
Fire Protection Products

TPF/rv

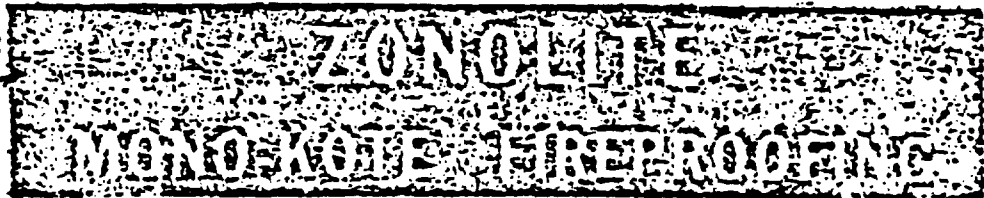
097904

W. R. GRACE & CO



ZONOLITE

CONSTRUCTION PRODUCTS DIVISION



R-4337-N

TYPE IV

UNDERWRITERS' LABORATORIES, INC.

**CLASSIFIED
CEMENTITIOUS MIXTURE**

ISSUE No. 654

FIRE RESISTANCE CLASSIFICATION

**DESIGN NOS. A702, D704, D705, D707, D710, D715, D716, D725, D726, D727, D728,
D905, D909, E701, P701, P703, P938, N401, N404, N706, X701, X704, and X703.**

SEE U. L. FIRE RESISTANCE INDEX



ZNOLITE
CONSTRUCTION PRODUCTS DIVISION
INTER-OFFICE CORRESPONDENCE

RECEIVED

MAY 18 1973
7001400

AUBURN, WASH.

Hester
TO: Bill Culver
FROM: Walt Pickthall
CC: C. H. Wendel

DATE: May 14, 1973
SUBJECT: Your memo 5/9/73 re:
Stanford Research &
Asbestos

Dear Bill:

Sounds like another idiot that doesn't know what he is talking about is mouthing off again.

The only thing that I can think of that has happened down here is the enclosed story which was written by a very poorly informed gal reporter on a subject about which she knew nothing for what appears to be a very yellow rag.

Have also enclosed two letters from Dr. Cooper which resulted from the story. One letter tried to straighten the gal reporter out the other tried to quiet down a tenant who is going to occupy part of the Tishman job. What Dr. Cooper didn't explain in the letter was that the poor boob is now in the Wells Fargo Building which was done, as you know, with Cafco. I understand the results they got when that job was tested for asbestos in the return air system were not anything anyone wanted to publicize.

TWP:am
Enclosures

87-06048

Ex. 2027

12-14-88
ACL

PACIFIC REGION

GRACE

25002488

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

W. R. GRACE & CO., 16851 SMITH AVENUE, NEWARK, CALIFORNIA 94560 TEL 415-793-9111

July 3, 1973

Mr. Leonard Chaban
Swinerton & Walberg Company
22nd Floor
100 Pine Street
San Francisco, California 94111

Subject: P.G. & E.
Embarcadero
Substation

Dear Mr. Chaban:

This letter will confirm our telephone conversation this date concerning the use of Mono-Kote type IV in lieu of Mono-kote type III on subject project.

The change was necessitated by the publication of National Emission Standards for Hazardous Air Pollutants in the Federal Register April 6, 1973. Effective date is 90 days from publication, July 4, 1973. These regulations affect the continued use of Mono-Kote type III.

Mono-Kote type IV is acceptable for application under the new standards. It has been fire tested by Underwriters Laboratories and is under U/L reexamination service. Hazard classification (Fire) Cementitious Mixtures (40 U8.4½) BLPR..It is approved for use in the City and County of San Francisco under Bureau of Building Inspection Approval #100V1.9.

Job production experience in this area is still limited but there are indications that on high volume jobs (300 bags per day) there has been some loss in daily production.

Enclosed are Sweet's Catalog Technical Data Sheets covering application.

Please advise if we can be of any further assistance.

Very truly yours,

ZONOLITE - CONSTRUCTION PRODUCTS DIVISION

T. W. Pickthall

We hope the information given here will be helpful. It is based on our best knowledge, and we believe it to be true and accurate. Please read all statements, recommendations or suggestions herein in conjunction with our conditions of sale which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions, nor do we intend them as a recommendation for any use which would infringe any patent or copyright.

TWP:am

bcc: Meiswinkel Plastering



87-060
Ex 2028
12-14-88

ACL

Unolite Construction Products Division
W. R. Grace & Co.
Mono-Kote Fireproofing Job & Applicator List

-2

JOBS:

HIGH SCHOOL #8
Castle Rock Road
Walnut Creek, California

ANZA PACIFIC
433 Airport Boulevard
Burlingame, California

SERRAMONTE SHOPPING CENTER
Daly City, California

OHLONE COLLEGE
812 San Antonio Avenue
Fremont, California

ALTA BATES HOSPITAL
Webster & Colby
Berkeley, California

SECURITY PACIFIC BANK BUILDING
East 14th & Callan Avenue
San Leandro, California

HARTNELL COLLEGE
Homestead Avenue
Salinas, California

BULLOCK'S DEPARTMENT STORE
Mt. Diablo Boulevard & Broadway
Walnut Creek, California

LEVI STRAUSS BUILDING
Front & Clay Streets
San Francisco, California

MARSHALL BUILDING
19th Avenue & El Camino
San Mateo, California

APPLICATOR:

Matson Plastering
1236 North Sierra Vista
Fresno, California

ANNING-JOHNSON COMPANY
1728 Gilbreth Road
Burlingame, CA 94010

Anning-Johnson Company
Burlingame

Jones Plastering
45568 Mission Boulevard
Palo Alto, California

J. F. McDermott Plastering
1350 Cedar Avenue
Berkeley, California

J. F. McDermott

E. F. Brady Co.
15002 Mesa Oak Way
Salinas, California

Beaton Plastering
Post Office Box 295
San Lorenzo, California 94580

Frank D. Smith Company
860 Hurlingame
Redwood City, California

San Francisco Lathing
1515 Griffith
San Francisco, California

V. MONROE

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

Write E on this

TO: B. R. Williams &
Division Management Distribution

June 13, 1973

FROM: Tom Egan

CC: Regional Managers
J. V. McKague

SUBJECT: Monthly Report - Mid-West Region
May 1973

COPY

Gross Sales Results

We did not meet our goals or budget due to a continuation of rain and extreme flooding through the entire mid-west. Construction was at a standstill.

Estimate for Next Month

The last week has been very warm and dry which has construction moving again. However, Chicago was shut down for a week over Laborer's Strike, but it is settled. All indications are for a return to sales exceeding budget by 10%.

Previous Month's P & L

Gross sales were very low due to record rains and floods the entire month. Most items were in line with budget and factory overhead was favorable. Freight continues to run high, although I expect to see a favorable adjustment in the months ahead.

MARKET AND PRODUCT REPORT

Attic Fill

Sales continue to be high and all indications are for continued high volume for June.

Concrete

Our efforts continue on strong specification selling. The volume is improving and more slotted metal specs appear each week. I am very concerned over the almost total lack of this product available in the market and comments from manufacturers' that, little if any, will be available in the short term.

87-06048

EX 2029

12-14-88

ACL

GRACE



ZONOLITE

- 2 -

Concrete (continued)

We finalized and are mailing our re-roofing sales piece "We can solve your ROOFING PROBLEM - NOW". This is being sent by each district to a prepared list of school districts and industrial owners. There are also a supply for mailing by our applicators.

Mailings have also been sent to prime general contractors and development firms on rigid insulation shortage and how to handle change over from painted metal and rigid. I am expecting June to be a start of increasing concrete sales for the remainder of 1973.

Masonry Fill

Sales are up, but would have been higher except for weather. June should be very good. All men continue to promote with our slide program "Conservation through Insulation". We are also working very close with utility companies on promotion of our insulations.

Mono-Kote

Need to explain

More Mono-Kote 5 jobs are developing and our sales in all districts with Mono-Kote 3, Mono-Kote 4, and now Mono-Kote 5 are good. Were behind budget and last year, simply because of lack of major jobs. We have a problem developing in Indianapolis with some major work being bid low by "Spraydon" with thin application.

We're meeting with State Code people to discuss proper material approvals. Our major concern now is stabilizing the product performance on Mono-Kote 5 as to production and yield. We need a consistent bag weight at all plants that give a positive variance in yield to the applicator. The same weight should be set for all Region plants. Further, every effort must continue so as to eliminate Mono-Kote with foreign matter, light bags, and other plant problems from reaching our applicators.

Styrene Foam

Sales continue strong particularly in plain board. The low competitive pricing is sporadic and is not consistent in any district. When one seems to firm up, another will get a rash of low quotes. We're encouraged by our progress with Thermo-Stud specifications and by dealer sales of Panelfoam and Ceiling Tile. The brand identification ad was very well received and we're making re-print mailings in some areas.



Personnel

The changes in the Minneapolis and Chicago Districts are in motion. Pinske and Ruble are taking over Carpenter's territory: Lyons is assuming Architectural duties. Brian Rugg has been hired for Lyon's territory and Gehring and Berentson are handling Hart's territory. Pat Hart has accepted a position with Rice Co. in Madison, Wisconsin. They are one of our jobbers.

Profit Improvements and Cost Savings

Our new price lists, effective June 15, have 3 or 4 zones in each district for bag goods. This will improve our freight situation for the last six months.

We are continuing our strong effort to force price increases on all products. We expect a steady increase each month in our selling price and gross margin.

Work Plan Achievements and Future Objections

Our program on concrete specifications with major firms through use of cost and function studies is proving very successful. It should continue to gain specs for a long time.

We are implementing a real program on design-build and major development firms on all spec items with particular emphasis on concrete.

Other

We held very successful district meetings finishing with Minneapolis on May 30. The men, including our plant managers, all took an active part and we plan them on a regular basis to review our major products and business approaches as we did in these.

Plans are being finalized for the Fall Campaign meeting in Detroit on July 30. Bob Upchurch has worked closely with Stan Titus and they have a fine program prepared.

Progress on the new Chicago Plant continues on an agonizingly slow pace. It is a shame that additional money must be spent to maintain the old plant with the new one so far behind schedule. It seems unlikely that it will be in operation this year. Meanwhile, the old plant continues to be a source of aggravation with contaminated Mono-Kote and bag weight variations.

GRACE

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

- 4 -

Other (continued)

The need for bulk expanded vermiculite storage for concrete applications, in particular, continues. We are investigating bulk facilities and cost for evaluation.

I have made another proposal on the Kentucky territories for Cort and Al to evaluate.

Tom
Tom

TFE:cf

SUMMARY OF RESULTS

M.O. West
MAY 1973

GROSS SALES RESULTS (To Nearest 000)

	Current Month			Year-To-Date			Year-End		
	Actual	Budget	Prev. Year	Actual	Budget	Prev. Year	Est.	Budget	Prev. Year
Attic Ins.	62	37	37	521	389	346	1530	1262	1185
Conc. Agg.	58	75	57	246	245	195	1100	932	789
Mas. Fill	97	88	88	362	309	278	1250	1144	961
Industrial	28	36	24	147	160	131	384	384	324
Perlite Total	29	41	57	135	162	104	346	538	494
Monokote	163	187	200	642	610	733	1750	2107	1950
Glass Fiber	43	57	55	494	403	362	481	481	662
Zono. Styrene	155	172	158	825	754	640	2400	2638	1897
Other	50	62	44	244	268	255	534	647	544
TOTAL REGION	737	754	721	3622	3298	3158	10324	11442	1126

ESTIMATE FOR NEXT MONTH June

	Estimate	Budget	Previous Year
Total Region	880	804	769

AVERAGE SELLING PRICE

	Current Month			Year-To-Date		
	Actual	Budget	Prev. Year	Actual	Budget	Prev. Year
Attic Ins.	1.174	1.192	1.129	1.180	1.187	1.132
Conc. Agg.	1.551	1.537	1.444	1.545	1.517	1.478
Mas. Fill	1.719	1.643	1.630	1.708	1.689	1.660
Industrial	1.514	1.463	1.365	1.469	1.461	1.387
Monokote	2.591	2.592	2.447	2.567	2.547	2.447
Plainboard	.063	.061	.064	.062	.067	.064

PREVIOUS MONTH'S APRIL

	Current Month			Year-To-Date		
	Actual	Budget	Prev. Year	Actual	Budget	Prev. Year
Gross Sales	634	759	678	2889	2546	2460
Gross Margin %	25.4	28.3	24.7	26.2	27.7	27.8
Freight	58	61	67	251	231	287
Policy Allowances	2	1.8	2	8	7.1	5
Other Sales Deductions	-	-	-	-	-	-
Selling Expenses <u>Acc.</u>	45	45.6	115	402	402	397
Operating Profit	(55)	(18)	(34)	(51)	(176)	(128)



ZONOLITE
CONSTRUCTION PRODUCTS DIVISION

To the Members of the
PLASTER & FIREPROOFING COMMITTEE

A. W. Dambros/Zono-LA Office
T. F. Egan/Zono-Wilmette
J. H. Greer
J. C. Ottinger

cc: ZONOLITE MAILING LIST B & F

C. R. Lowe/Zono-Atlanta
R. L. Asher/Zono-Boca Raton (P)
W. K. Rogers
C. H. Wendel/Zono-LA Office
R. B. Moran/Zono-Dallas
E. D. Bossier/Zono-New Orleans
G. L. Myrick/Zono-Atlanta
J. L. Westbrook/Zono-Atlanta
L. A. White/Zono-Nashville
T. O. Burruss/Zono-Boca Raton (P)
R. E. Getz/Zono-Dearborn
J. Cinciani/Zono-Trenton
R. G. Hartman/Zono-New Castle
L. P. Hollis/Zono-High Point
J. S. Titus/Zono-Trenton
J. N. McDougall/Zono-St. Louis
J. R. McLeod/Zono-Minneapolis
V. G. Monroe/Zono-Wilders
W. J. Sinacore/Zono-Wilmette
R. L. Upchurch/Zono-Dearborn
R. K. Burnham/Ari-Zonolite
W. V. Culver/Zono-Auburn
T. W. Pickthall/Zono-Newark
J. L. Wenzler/Zono-South Gate
N. F. Bushell/Vancouver
J. V. McKague/DHS-Scarborough
J. D. Wright/DHS-Edmonton

A. D. Webster/F. Hyde & Co., Ltd.
J. B. Robinson/Robinson Insulation Co.
J. Lyall/Southwest Vermiculite Co.
L. K. Irvine/Vermiculite-Intermountain
M. Fernandez/The Placco Co. of Puerto Rico
B. R. Williams
J. L. Wright
R. F. Chaney/Zono-Newark
R. T. Frohlich
P. R. Strand

87-06048
EX 2030
12-14-88
mcl
(20307

090698

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

R. GRACE & CO., 62 HILTEMORE AVENUE, CAMBRIDGE, MASSACHUSETTS 02140, 617-876-1700

January 24, 1972

To the Members of the
PLASTER & FIREPROOFING COMMITTEE

A. W. Dambros
T. P. Egan
J. H. Greer
J. C. Ottinger

Gentlemen:

Re: Minutes of Meeting Held On
December 1 & 2, 1971

Enclosed is a copy of the minutes of the Plaster & Fireproofing Committee Meeting held on Wednesday and Thursday, December 1 and 2, 1971 in Cambridge, Massachusetts.

Sincerely,

Tom

Thomas P. Feit

TPF/jaj

Enclosure

GRACE

MINUTES OF MEETING
PLASTER & FIREPROOFING COMMITTEE
CAMBRIDGE, MASS.

A meeting of the Plaster & Fireproofing Committee was held in Cambridge, Massachusetts, on Wednesday and Thursday, December 1 and 2, 1971.

The following members were present:

A. W. Dambros
T. F. Egan
T. P. Feit
R. B. Moran (for J. H. Greer)
J. C. Ottinger

(1) MINUTES

The minutes of the September 14-15, 1970, meeting that was held at the Fenway Hotel in Cambridge, Massachusetts, and distributed under the letter dated November 30, 1970, were accepted.

(2) NON-ASBESTOS MONO-KOTE - REVIEW AND STATUS

The research and testing program was reviewed. Discussion followed relative to the testing of assemblies at Underwriters' Laboratories. Recommendations were as follows:

- (a) MK-III - continue to use where possible.
- (b) MK-IV - obtain additional necessary ratings. (Since meeting, MK-4 has been UL approved for 3-hour blend system with light-weight and regular weight concrete and trench headers, per UL letter dated January 5, 1972.)
- (c) MK-V - continue with research effort. (Since meeting, two formulations have been sprayed to fire test assemblies at UL for testing on February 4, 1972.)

(3) REVIEW OF ASTM E-119 REVISION

The new E-119 criteria was briefly reviewed along with affected Mono-Kote ratings. In general, where existing floor designs were in jeopardy of having their ratings reduced, the ratings were

maintained simply by increasing the Mono-Kote thickness on the beam. (Since meeting, T. Egan and T. Feit together visited UL and reviewed all revised UL ratings. Where necessary and where possible, the ratings were revised to incorporate the recommendations of the committee.)

(4) FIRE TESTING

It was agreed that fire tests should be conducted on assemblies:

- (a) Utilizing large member trusses
- (b) Utilizing open-web steel joists
- (c) Consisting of a more competitive RC 5-1 1/2Hr. (RC 10-1Hr.) system
- (d) Utilizing a spandrel beam protected on one face with rigid board
- (e) Utilizing 100% flat plate cellular deck
- (f) Similar to RC 7-2Hr. to maintain the 2-hour rating in the not restrained condition. (Since meeting, ASTM Committee E-5 has proposed to eliminate the not restrained temperature requirement on "steel floor or roof units having spans equal to or less than those tested." Because we are now presently limited to 8 ft. spans, the acceptance of this by ASTM would result in our achieving the required 2-hour not restrained rating without experiencing any hardship or limitation to what we currently have approved.)
- (g) Consisting of a more competitive RC 7-2Hr. system; that is, at a reduced concrete thickness, with approval for use with joists.
- (h) Utilizing an unprotected floor system with Mono-Kote applied to the beam and directly below the trench headers. (Since meeting, Mono-Kote has been sprayed onto such an assembly at UL.)
- (i) Cooperating with the Prestressed Concrete Institute to provide the fireproofing to prestressed single and double tees.
- (j) Sponsored by various steel deck manufacturers and others when we are asked to provide the fireproofing.

It was agreed that more information was needed before recommending fire tests on assemblies:

- (a) Utilizing a column section less than W 10 X 49 (10 WF 49).
- (b) Utilizing a wall assembly with Mono-Kote applied directly to the interior face of brick.

5) COMPETITIVE FIREPROOFING SYSTEMS

There was a general review of competitive products and systems.

6) ASBESTOS

There was a general review of the asbestos situation and the growing list of municipalities that have banned the spraying of all asbestos containing fireproofing materials.

(7) FIELD INSPECTION PROCEDURES

The field inspection procedures (thickness, density, bond, ease of damagability, etc) of the New York Fire Insurance Rating Organization and the testing procedures before ASTM Committee E-6 were reviewed. It was concluded that more field controls of spray-applied fireproofing by regulatory agencies should be expected.

(8) ASTM COMMITTEES

The memberships on the various ASTM committees were reviewed:

- (a) E-5 (fire tests): T. Feit and T. Egan
- (b) E-6 (building construction): T. Feit
- (c) C-9 (lightweight concrete): (Since meeting, Bob Frohlich has accepted responsibility for membership on this important committee.)
- (d) C-11 (gypsum): W. R. Grace & Co. Research Personnel
- (e) C-20 (acoustical): Walt Pickthall
- (f) D-16 (insulation): Tru Bjorklund

(9) MONO-KOTE MANUALS

It was agreed to continue with the present applicator manual. It was suggested that a single architectural manual to include all

architectural products was needed. Further, a separate technical manual for salesmen's use was needed.

(10) APPLICATION INSTRUCTIONS

There was agreement that data sheet "Job Set-Up" was sufficient. If local conditions require additional information, such information should be prepared by that local office to fit their individual needs.

(11) APPROVED MONO-KOTE APPLICATOR PROGRAM

Although there may be reasons on a local level to adopt a so-called approved Mono-Kote applicator program, it was agreed that this should not be attempted on a national basis.

(12) ADVERTISING

It was felt that magazine advertising should be more topical.

(13) LITERATURE

The 1972 Mono-Kote sweets catalog was reviewed with general agreement as to its suitability. The priority for future updating of literature is the "Comparison Chart" (after release of UL's 1972 "Building Materials List") and following that an updating of "Fire Resistance Ratings."

(14) MEMBERSHIPS AND ASSOCIATIONS

Membership has been retained on the three national building code congresses (Southern, BOCA, and ICBO), but there has been no participation at their code changes meetings. It was pointed out that our heretofore close relationship with national governmental organizations and associated industries was inactive.

(15) MISCELLANEOUS

R. B. Moran accepted the responsibility to prepare a "white paper" on the subject of fire losses in multistory buildings protected with sprayed fireproofing.

(16) ADJOURNMENT

The Committee adjourned at approximately noon of the second day.