

1 NO. 83-46309

2 LEE EATON, ET UX : IN THE DISTRICT COURT OF
3 VS. : HARRIS COUNTY, T E X A S
4 CLEMTEX, INC., ET AL : 55TH JUDICIAL DISTRICT

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8 DEPOSITION OF KENNETH SCHEEL

9 COPY

10 taken on the 21st day of March, 1985, beginning at
11 11:15 a.m., in the offices of Williams & Blizzard,
12 Lyric Centre Building, 440 Louisiana, Third Floor,
13 Houston, Texas, before Karen J. Ingram, a Certified
14 Shorthand Reporter and Notary Public in and for the
15 State of Texas, pursuant to Notice and the Texas Rules
16 of Civil Procedure.

17 IT WAS AGREED by and between counsel that the
18 original of the deposition of Kenneth Scheel shall be
19 sent to Mr. Edward Blizzard for the purpose of
20 obtaining the signature of the witness thereon before
21 any Notary Public.
22
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24

organization and into or to people that are in the corporate structure of 3M? What's the chain of reporting?

A It's through various levels of vice-presidents going up to the president of the corporation.

Q As far as you know from working in your -- with pressure-sensitive tape, did that division have a research and development arm?

A The tape one you're talking about?

Q Yes.

A Yes, it did.

Q They had people who were hired specifically to do research and develop new products that were made into pressure-sensitive tape?

A Yes.

Q Is that basically and generally true of the other divisions, that each division is responsible for its own R&D work?

A Yes, basically that's true.

Q Does 3M consider research and development work to be an important part of its corporate planning and marketing strategy?

A Certainly.

Q I saw a television show the other night about how 3M had stumbled onto these new little yellow

1 stickums.

2 A Uh-huh.

3 MR. BLIZZARD: I thought we were
4 here to take his testimony, and I hear
5 yours..

6 Q (By Mr. Crow) My question to you is: How much
7 emphasis does 3M put on its research and
8 development of new products based on your own
9 experience in several different divisions?

10 A Quite a bit. We have a very large research effort
11 in the corporation.

12 Q That's the impression I got from the T.V. show I
13 saw. What other divisions did you work in, and
14 would you give me the dates you worked there
15 besides as a product development manager for the
16 pressure-sensitive tape division?

17 A Okay. I wasn't a product development manager for
18 the tape division. I started out as a product
19 development engineer in the Industrial Tape
20 Division in 1967, and I spent about one and a half
21 years doing that and then went to the Technical
22 Services Group of the Industrial Tape Division for
23 approximately another year and a half, almost two
24 years.

1 A Yes, correct, and then I transferred to the
2 International Division of 3M as essentially a
3 process engineer for pressure-sensitive tapes and
4 did that for one year and then was transferred due
5 to internal realignment of the corporation to the
6 Commercial Tape Division of the company doing the
7 same job, process engineering work for
8 International; and I did that for essentially six
9 months, then again transferred to the Technical
10 Services Group of the Commercial Tape Division as
11 the supervisor of that group and continued on with
12 that until approximately 1975 when I went back
13 into the international technical work for
14 commercial tape again, and that was through 1976
15 when I transferred out of that division to
16 Occupational Health and Safety Products.

17 Q Can you tell me the reason or purpose of your
18 transfer out of the Industrial Tape Division into
19 the Occupational Health and Safety Products
20 Division?

21 A I didn't transfer from the Industrial Tape
22 Division into the

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(Whereupon, Scheel Exhibit Nos.
1-60 were marked for identification by
the court reporter.)

KENNETH LAURENCE SCHEEL,
having been first duly sworn on oath, testified as
follows:

EXAMINATION

BY MR. CROW:

Q Would you state your full name, sir.

A Kenneth Laurence Scheel.

Q And Mr. Scheel, where do you work?

A At 3M Company.

Q And what's the business address for your office?

A For the company or where I'm personally at right
now?

Q Where you work.

A Where I work? Right now, I'm working at 3M Far
East, Limited, in Hong Kong.

Q And what is the business address there in Hong
Kong?

A The business address there is Victoria Center in

1 Causeway Bay.

2 Q Is that where 3M does most of its design, testing
3 and marketing of its respiratory equipment?

4 A No.

5 Q As you know, my name is Carl Crow; and I'm here
6 today to take your deposition in a couple of cases
7 involving an injury to people who have silicosis.
8 We've asked for somebody who could best describe
9 the process of designing, testing and marketing
10 3M's respiratory equipment, especially these dust
11 masks. Are you that person?

12 A I believe so, yes.

13 Q Would you tell me the background you have at 3M
14 that causes you to think that you are that person?

15 A I have been in Occupational Health and Safety
16 Products Division for eight years now; and up
17 until last October, I had served in functions as
18 the R&D manager for development of our soft goods
19 which would be our respirators and as a technical
20 services manager for that division.

21 Q Do you have any formal training, formal
22 educational training?

23 A In what?

24 Q Well, do you have a college degree?

25 A Yes, I do.

1 Q When did you get it, where did you get it from,
2 and what was your major study?

3 A In 1967 in chemical engineering from Purdue
4 University.

5 Q And at that time, did you have any aspirations one
6 way or the other as to what you thought you might
7 apply that chemical engineering degree to?

8 A I don't understand what you mean by that.

9 Q What did you plan to do with your chemical
10 engineering degree?

11 A Well, at the risk of being flippant, get a job in
12 the chemical industries using that knowledge.

13 Q Okay. Who did you work for first after you got
14 your chemical engineering degree?

15 A 3M.

16 Q Have you been with 3M every since 1967?

17 A That's correct.

18 Q Do you have any other formal education or
19 training, for instance, classroom time or work
20 towards a master's degree or Ph.D. degree?

21 A No.

22 Q Have you been to any informal training programs to
23 better help you design, test, manufacture and
24 market respiratory equipment?

25 A No, I would say not.

1 Q I don't know very much about chemical engineering
2 or what it takes to get a chemical engineering
3 degree. What all is included in the broad term of
4 chemical engineering?

5 A The kind of course work do you mean?

6 Q Yes.

7 A Physical chemistry, inorganic chemistry, organic
8 chemistry, physics, mass transfer, unit
9 operations, heat transfer, that's basically it.

10 Q Most of the chemical -- the reason I ask you is
11 that most of the chemical engineers I've met end
12 up working in some field outside of respiratory
13 equipment design, manufacture, testing and
14 marketing, for instance, like with Exxon Oil
15 Company.

16 A Huh-uh.

17 Q Do you see what I'm saying? Are there any formal
18 educational programs in colleges which in some way
19 offer a degree which in some way requires course
20 study that actually involves the theory of the
21 design of respiratory equipment?

22 A Not that I'm aware of, no.

23 Q After you went to work for 3M in '67, what sort of
24 work did you do for them?

25 A Let's see, product development engineer in the

1 Industrial Tape Division.

2 Q When you got your Bachelor of Science in 1967, had
3 you ever designed a piece of respiratory
4 equipment?

5 A No.

6 Q Had you ever taken any courses in the design of
7 respiratory equipment?

8 A No.

9 Q How did the people at 3M, if you know, conclude
10 that you were the appropriate person to be placed
11 in charge of product development at 3M?

12 MR. BLIZZARD: I don't believe he's
13 ever testified that he was placed in
14 charge of product development.

15 Q (By Mr. Crow) Maybe I misunderstood you, Mr.
16 Scheel. If I did, I apologize. What, again, did
17 you start doing when you started with 3M?

18 A As a product development engineer for the
19 Industrial Tape Division.

20 Q For the Industrial Tape Division?

21 A Yes.

22 Q I see. When you are talking about tape, are you
23 talking about the kinds of tape you use for
24 videotape?

25 A No, pressure-sensitive tape.

1 Q Like Scotch tape?

2 A Yes, like Scotch tape.

3 Q 3M does make products other than Scotch tape,
4 don't they?

5 A Yes.

6 Q Can you name some of those products for us?

7 A We make a whole range of electrical -- well, I
8 should back up. We make a whole range of
9 pressure-sensitive tapes, make a range of
10 electrical connectors and associated objects like
11 that, facsimile copying machines; business office
12 business machines essentially are made, a whole
13 line of medical and surgical products are produced
14 by the company, abrasives, which are sandpaper,
15 grinding wheels, things like that. Those are the
16 major areas that we deal in.

17 Q Well, do you make any protective equipment,
18 specifically respiratory protective equipment, at
19 3M?

20 A Yes.

21 Q How long has 3M been in that business?

22 A Essentially for making respirators since 1972.

23 Q Well, did you make any respiratory equipment,
24 anything that a person might logically conclude
25 was to protect the human lung from contamination

1 in the work place before 1972?

2 A No, we did not, not for protecting human lungs.

3 Q Did you make any dust masks such as the one I have
4 here on the table or such as the three that are on
5 the table at 3M before 1972?

6 A Yes, we did.

7 Q But those were not for protecting human lungs?

8 A That's correct.

9 MR. BLIZZARD: Well, are you asking
10 about each one of them separately or as
11 a group or -- you've got three masks
12 sitting on the table, and I'm confused.

13 Q (By Mr. Crow) Okay. The question is: Are you
14 confused?

15 A No, I don't think so.

16 Q Ed's testimony, we can't rely on it today because
17 he's not under oath; but if you ever get confused
18 during this deposition today, I want you to stop
19 me and tell me that you're confused.

20 A Uh-huh.

21 Q I won't necessarily know that unless you tell me;
22 you understand that?

23 A Right.

24 Q You have the right to understand the questions
25 that I ask of you.

1 A Uh-huh.

2 Q I don't expect you to have to try to answer a
3 question you don't understand.

4 A Uh-huh.

5 Q So understanding that if there's any question in
6 your mind that you are a little bit hazy about my
7 question, you have the right to stop me and inform
8 me of that and ask me to repeat it or rephrase it,
9 okay?

10 A Right.

11 Q If you answer my questions, I'm going to hold you
12 to your answers. If you answer my question, I'm
13 going to assume you understood it, okay?

14 A Sure.

15 Q Can we work together on that basis?

16 A Sure, that's fine.

17 MR. BLIZZARD: You can rely on the
18 fact that I will inform you if I'm
19 confused by the question, and I think
20 the question that you asked may have
21 been misconstrued later to mean that all
22 three of the items now sitting in front
23 of you are not for respiratory
24 protection. I think the witness'
25 testimony is that one of the items is

not for respiratory protection. I want
to make sure the record's clear on that.

THE WITNESS: That's correct, yes.

Q (By Mr. Crow) Well, Mr. Scheel, I appreciate Mr. Blizzard's comments and the edification they provide all of us, particularly yours as the witness. My original question to you was: When did 3M start making respiratory equipment, and you told me 1972?

A You said specifically for protection of human lungs, and I said 1972, that's correct.

Q If I understand your testimony, then, before 1972, 3M did not make anything, whether it was a negative-pressure respirator or a positive air supplied respirator, which it designed, manufactured, tested or marketed to protect the human lungs from work place and environmental contamination?

> A That is true because before 1972 we did not make respirators. We only made a dust mask, and that is not for protection of the human lung.

Q Maybe it's because I don't understand the respiratory equipment business that I find that such a fine distinction. If you didn't make the dust masks at 3M before 1972 to protect the lung,

1 what did you make them for?

2 MR. STAHL: I'm going to ~~object~~ to
3 the form of the question because it has
4 Mr. Crow testifying as to the fine
5 distinction aspect; and in that aspect,
6 I'm going to object to the question.

7 Q (By Mr. Crow) Is he your lawyer? Have you ever
8 met him before?

9 MR. STAHL: I'm making objections
10 to the form of the question, Mr. Crow.

11 MR. CROW: And I can't stop you
12 from doing that. We're taking it by the
13 rules.

14 MR. STAHL: That's right, so you
15 may ask -- insofar as my client's
16 concerned, I object to the form of the
17 question as a fine distinction because
18 that is you testifying.

19 Q (By Mr. Crow) What did 3M intend these disposable
20 masks to do if not to provide either complete or
21 partial protection to the human lung?

22 A Which ones are you speaking of now?

23 Q The ones made before 1972.

24 A '72? They are designed strictly to offer relief
25 from an irritant value of nuisance dust. They

1 > have nothing to do with protecting the human lung.
2 That's all we do.

3 Q If they were not designed to protect the lung,
4 were they designed to protect the nose, the mucous
5 membrane, the esophagus? What do you mean when
6 you say they were designed to protect only against
7 did you use the word irritants?

8 A Yes.

9 MR. BLIZZARD: Wait, what's the
10 question?

11 Q (By Mr. Crow) What were they designed to do if
12 not to protect the lung? Can you elaborate on
13 that for me?

14 A It's designed to keep things that are called
15 nuisance dusts out of the upper airways, nose,
16 mouth that would cause people to be uncomfortable;
17 and as a result, they would offer relief from that
18 irritant. Irritant is maybe a bad word because it
19 can sometimes be construed as something harmful to
20 you. Not something harmful to you at all, just a
21 nuisance, simply a nuisance to have, and that 85
22 dust mask keeps that out of your nose and mouth.

23 Q Well, we have on the table for the record, because
24 the record sometimes is sightless, we have three
25 masks. One is the 8500 with the blue band, right?

1 A That's correct, yes, sir.

2 Q The other is the 8710, and it's got two yellow
3 rubber straps, right?

4 A Correct.

5 Q Now, you mentioned the 8500. Is what you just
6 told me about the 8710 true as well for --

7 A I didn't tell you anything about the 8710.

8 Q Well, was this manufactured before 1972?

9 A No.

10 MR. BLIZZARD: Wait a minute. When
11 you say this, what are you referring to?

12 MR. CROW: Well, I was holding the
13 8710.

14 MR. BLIZZARD: Well, you pointed
15 out the record is sightless, and it is
16 sightless.

17 Q (By Mr. Crow) All right. Let's go back over this
18 again. The 8500 was manufactured before 1972?

19 A Yes.

20 Q When did you start manufacturing the 8710?

21 A In 1972.

22 Q There's a yellow mark on the table, and it looks
23 like it says 3M No. 9910.

24 A Yes.

25 Q Is that, in fact, a 3M 9910?

1 A Yes, it is.

2 Q When did you start manufacturing it?

3 A It would have been about late 1977, I believe, or
4 early '78.

5 Q Okay. Now, I take it from what you just told me,
6 3M did not intend, design, manufacture, test or
7 market the 8500 paper disposable mask to protect
8 the human lung in any way?

9 A That is my opinion, yes. That is true, they did
10 not.

11 Q Were you at 3M when they decided to design,
12 manufacture, test and market this mask, the 8500?

13 A No, I was not.

14 Q Who was in charge of the 8500 project at 3M?

15 A Who is in charge of it?

16 Q Who was in charge of it at the inception?

17 A I don't know.

18 Q How long has the 8500 been manufactured at 3M?

19 A I think since about the early 1960's.

20 Q Okay. Would you know any more specifically than
21 that?

22 A No, I don't.

23 Q Would it be safe to say sometime before 1964, at
24 least?

25 A Yes, I would think.

1 Q And if you will, I had asked you to elaborate on
2 what things this mask was designed to protect
3 what it was marketed to protect, what it was
4 tested to protect against; and you didn't like the
5 word irritants because of your feeling that some
6 people might get the impression that irritants
7 might be harmful in some way. You like the word
8 nuisance dust, I think, or phrase?

9 A Yes.

10 MR. BLIZZARD: Wait a minute. What
11 are you yes, sirring to? I'm not sure
12 what his question is. He started out
13 with one thing, and now he's gone
14 through two or three different subjects
15 before he's asked you something.

16 Q (By Mr. Crow) Would you tell me in your own words
17 what you think a nuisance dust consists of?

18 A A nuisance dust is a dust that you can breathe in
19 up to a certain quantity level that will not harm
20 you whatsoever. It will not cause any disease, at
21 least as is known today.

22 Q You said up to a certain quantity level?

23 A Yes. The government normally will say that if you
24 were above either 10 or 15 milligrams per cubic
25 meter of a nuisance dust, then, even so, you

1 should wear a true respirator ~~for~~ it because the
2 concentration of the material is so high ~~that it~~
3 may cause some harm just from the pure quantity of
4 the material.

5 Q Well, I take it from what you just told me, then,
6 there are two factors you use in trying to
7 evaluate whether or not some dust may or may not
8 be a nuisance. One of the facts you use is the
9 actual type of dust itself, the material that it's
10 made from; is that correct?

11 A Yes.

12 Q And the other factor that you would consider in
13 determining whether or not dust that this 8500
14 mask is designed to protect against is nuisance
15 dust is concentration?

16 A Yes.

17 Q Isn't it true that some substances which would be
18 considered toxic, isn't it true you would consider
19 some substance nuisance dust which might be
20 considered toxic in higher concentrations?

21 A Say that again. I don't understand that.

22 Q You mentioned the government generally says that
23 even for nuisance dust, if they're in higher
24 concentrations than 10 milligrams per cubic
25 meter --

1 A Ten or fifteen, yes.

2 Q -- then you should wear a respirator anyway?

3 A That's correct, yes.

4 Q Do I understand from that fact that there are
5 someplace dusts which the government considers
6 nuisance in low concentrations but possibly toxic
7 in higher concentrations?

8 A No, I don't believe that's the case at all. It is
9 simply a matter of not allowing loading up of the
10 dust into your lungs, even though it's nuisance,
11 of putting a purely physical mass of dust in your
12 lungs which is not a good idea to do that.

13 Q And that's common sense, isn't it?

14 A It's common sense, but it's not toxic in the sense
15 that it will cause disease.

16 Q I see. So in your mind and in 3M's mind, there
17 was a distinction between simply keeping dust
18 which would have a tendency to overload a person's
19 lungs in high quantities in a person's lungs and
20 keeping out certain substances which would be
21 considered by definition toxic; is that right?

22 A 3M -- say that again.

23 Q Yes. You said this mask was designed simply to
24 prevent too much of these nuisance dusts from
25 getting in the lungs.

MR. BLIZZARD: Which mask are we
talking about?

Q (By Mr. Crow) The 8500.

A No, I didn't say that. The 8500 is designed to
keep it out of your nose and throat. It does
nothing about protecting your lungs at all.
That's what I said.

Q Not even from nuisance dust?

A That's correct, because it was not designed to
keep all things from or protecting your lungs.
It's nuisance dust alone.

Q Maybe it's my fault, but you would agree with me
that the 8500 was designed to keep nuisance dust
from reaching the nose and mouth of the wearer?

A Yes, true.

Q Now, you said that the purpose was to keep the
lungs from being I think your term was overloaded
or overburdened by some of these types of dusts.
How did you explain that a moment ago?

A No, that's not what I said. I said in very large
quantities of nuisance dusts, then you don't use a
nuisance dust mask. You go to a respirator to
keep the excess quantities of that material from
overloading your lungs and getting in, if you
will. That's why you use a respirator in that

1 case.

2 Q Because a true respirator, whatever that ~~may be~~
3 would be more efficient than the 8500?

4 A In general, that's true, yes.

5 Q And I ask you that actually just trying to protect
6 your nose and mouth from these light
7 concentrations of nuisance dust, that's just
8 common sense, isn't it, so you don't irritate your
9 mucous membrane and get it in your nose and get it
10 in your mouth?

11 A It's common sense from the point of view that if
12 it bothers you and someone walking around who has
13 allergies, let's say, it doesn't feel good to have
14 allergies; and if you can keep the materials out
15 of your nose and mouth, yes, that's common sense.

16 Q You don't have to have a Bachelor of Science
17 degree or a chemical engineering degree to know
18 that you might want to do something to keep some
19 of that dust out of your nose and mouth, do you,
20 sir?

21 A You don't have to have a chemical engineering
22 degree? No, not hardly. I wouldn't think so.

23 Q However, there's a distinction in the types of
24 dust that are found in the work place. Some are
25 considered to be toxic, and some are considered to

1 be simply nuisance; isn't that true?

2 A Yes.

3 Q Since you're the designee of 3M in this case,
4 would you please give me some idea of what types
5 of dusts are considered to be merely nuisance and
6 what types are considered to be toxic?

7 A Okay. The types that are nuisance, we have
8 several grain dusts that are that way. Wood dust
9 a lot of times is considered nuisance. Pure dirt
10 that's on the ground, unless it's contaminated
11 with something, but ordinarily it's normally a
12 nuisance. Pollen, things like this are nuisance
13 materials. Toxic materials would be things like
14 silica, coal, metal dusts of all sorts are usually
15 toxic to some degree. That's some broad examples
16 of them.

17 Q So if I understand what you're saying, you think
18 of dust in the air, like have you ever been out to
19 West Texas?

20 A No, I never have been to West Texas.

21 Q Have you ever seen pictures of a dust storm?

22 A Yes.

23 Q We're talking about nuisance dust there, aren't
24 we? That's dust blown in the air?

25 A In general, I would say probably yes, it's a

1 nuisance.

2 Q Even though sometimes the air will be so thick
3 with dust you can't see 20 or 30 feet because if I
4 understand you, based on your training and
5 experience, you consider that to be a nuisance
6 dust situation, possibly severe, but nevertheless
7 a nontoxic nuisance situation?

8 A Probably, yes.

9 Q In working with wood that's being chipped into
10 small pieces, sometimes dust comes up from that,
11 and that's a nuisance dust?

12 A Depending on the type of wood, yes, normally it
13 is.

14 Q Are there any types of wood that give off toxic
15 dust?

16 A I believe there are some that are considered
17 borderline, look them up to make sure.

18 Q Okay. You said that in '67, you were a project
19 engineer for the pressure-sensitive tape?

20 A Product development engineer.

21 Q When did you move out of that and into respiratory
22 equipment?

23 A Well, I moved to several other jobs first before
24 respiratory equipment, but most of it all had to
25 do with tape like I was originally. 1976 is when

1 I joined Occupational Health and Safety Products.

2 Q From reading some of this literature, it looks to
3 me that 3M's Occupational Health and Safety
4 Products Division is a separate little division
5 from the company; is that correct, or am I
6 incorrect?

7 A It's a division of the company, yes, that's
8 correct.

9 Q Or, rather, is 3M broken down into a number of
10 divisible entities which each concentrates on
11 producing a specific product?

12 A Yes.

13 Q You named some of the products that 3M
14 manufactured to me a moment ago to help give me a
15 better understanding of what your company does.

16 A Uh-huh.

17 Q Can you name for me some of the divisions that 3M
18 has, specific separate divisions?

19 A Just at random? Anyone you want?

20 Q How many are there altogether do you think?

21 A About forty.

22 Q Could you give me some examples by division name
23 of some of the divisions that you have?

24 MR. BLIZZARD: What for?

25 MR. CROW: So I'll understand the

1 nature of the corporate structure and
2 the way the divisions report back.

3 MR. BLIZZARD: Well, you can ask
4 him how his division reports; but as to
5 how the rest of the company reports,
6 we're not going to go into that. The
7 deposition is going to be long enough as
8 it is.

9 Q (By Mr. Crow) Does the Occupational Health and
10 Safety Products Division of 3M have any connection
11 at all with the parent company?

12 A Well, yes.

13 Q What is the connection?

14 A We're part of the parent company.

15 Q Well, is there any communication between the
16 Occupational Health and Safety Products Division
17 of 3M and the rest of the company?

18 A I don't understand what you mean by that.

19 Q I mean, is the rest of the company aware of what
20 kind of products you're making in the Occupational
21 Health and Safety Products Division?

22 A The rest of the company meaning, what, the people
23 that work there?

24 Q Well, see, that's the problem I'm having trouble
25 getting a grip on because I haven't been allowed

1 even to this point to understand what the rest of
2 the company is. You have a corporation here,
3 don't you?

4 A Yes.

5 Q What is the name of the main corporation?

6 A 3M Company.

7 MR. BLIZZARD: What do you mean the
8 main corporation? We've only been
9 talking about one today.

10 Q (By Mr. Crow) Is the Occupational Health and
11 Safety Products Division a separate corporation?

12 A No.

13 Q It's part of the same corporation?

14 A Yes.

15 Q And these other forty odd divisions are all part
16 of the same corporation?

17 A Yes.

18 Q Does the Occupational Health and Safety Products
19 Division report back to somebody outside of the
20 division so that somebody has an overall picture
21 of what products are being made, designed, tested
22 and marketed?

23 A Yes, there's a reporting structure.

24 Q How does the Occupational Health and Safety
25 Products Division report out of its own

1 Q I sure do.

2 A Okay. It's very simple. I was offered the
3 opportunity to become the product development
4 manager for the soft goods area, which would be
5 known as the respirators like you have on the
6 table here, in that division; so it was a
7 promotion to go, plus it was work I was interested
8 in doing.

9 Q Okay. Up until 1976, had you ever designed a
10 piece of respiratory equipment?

11 A No.

12 Q Had you ever manufactured a piece of respiratory
13 equipment?

14 A No.

15 Q Ever tested a piece of respiratory equipment?

16 A No.

17 Q Ever attempted to determine what was necessary to
18 properly and adequately market a piece of
19 respiratory equipment?

20 A No.

21 Q By the way, does 3M also place a great deal of
22 emphasis on the marketing of its products?

23 A Certainly we do.

1 products?

2 A No, we don't.

3 Q All right. Does each division then have somebody
4 responsible for marketing its own products?

5 A Yes.

6 Q And if I understood your previous testimony, all
7 of the research and development for the
8 Occupational Health and Safety Products Division
9 would occur inside of that division and not within
10 the larger frame of a main corporation?

11 A That's correct, yes, sir.

12 Q How long has the Occupational Health and Safety
13 Products Division been around?

14 A It was made a division in 1977, as a division. It
15 was a smaller entity before that.

16 Q Before 1977 when it formally became a division,
17 whatever that means as compared to the way it was
18 before, how was it structured before then?

19 A It was structured reporting to the vice-president
20 of the Commercial Tape Division before that.

21 Q Before 1977?

22 A Yes.

23 Q And who was the vice-president in charge of
24 Commercial Tape?

25 A When? In what time?

1 Q In 1976 or '77 just before the change-over
2 occurred where this Occupational Health and Safety
3 Products Division became a separate division.

4 A An Ernie Moffet is his name.

5 Q Is he still at 3M?

6 A I don't really know if he is or not.

7 Q Well, prior to '76, '77, is that the way the
8 Occupational Health and Safety Products Division
9 reported to the persons higher up in the
10 corporation is through the vice-president of
11 Commercial Tape?

12 A Yes.

13 Q Did a lot of other product lines also report to
14 him, as well, or was this just some sort of
15 anomaly?

16 A No, it was all the products of the product
17 structure of Commercial Tape reported to him,
18 also.

19 Q So we've got the Commercial Tape reporting to him
20 and the Occupational Health and Safety Products
21 reporting to him. Anybody else?

22 A No, I don't think so.

23 Q Do you know why before 1977 the vice-president in
24 charge of Commercial Tape was the person who was
25 basically overseeing the Occupational Health and

1 products?

2 A No, we don't.

3 Q All right. Does each division then have somebody
4 responsible for marketing its own products?

5 A Yes.

6 Q And if I understood your previous testimony, all
7 of the research and development for the
8 Occupational Health and Safety Products Division
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17 whatever that means as compared to the way it was
18 before, how was it structured before then?

19 A It was structured reporting to the vice-president
20 of the Commercial Tape Division before that.

21 Q Before 1977?

22 A Yes.

23 Q And who was the vice-president in charge of
24 Commercial Tape?

25 A When? In what time?

1 Safety Products line?

2 A Yes. It was because the people who had the ~~idea~~
3 for producing these products belonged to that
4 division originally.

5 Q And can you give me the names of the people who
6 originally came up with the idea of designing,
7 manufacturing, testing and marketing any kind of
8 respiratory equipment at 3M?

9 A When are you speaking of?

10 Q The people who originally came up with the idea,
11 and you pointed across the table at these masks.

12 A The first ones you're talking about?

13 Q The first ones.

14 A I don't know. That was before my time.

15 Q Okay. Whose names can you give me as being
16 innovators in pushing for the design, manufacture,
17 testing and marketing of respiratory equipment of
18 any kind, whether it's the 8710 or some other more
19 sophisticated piece of respiratory equipment?

20 A I'm not sure what you're looking for. Say it
21 again.

22 Q You told me that the people who came up with the
23 idea of marketing these things -- and you pointed
24 across the table -- came out of the Commercial
25 Tape Division?

1 A Yes.

2 Q Who were those people?

3 A I don't know. That was before my time. I don't
4 know who they are.

5 Q Before you joined the company or before you got
6 into the --

7 A It would have literally been before I joined the
8 company.

9 Q So we're talking about pre-'67?

10 A Yes.

11 Q Do you have any documents at 3M Corporation which
12 would tell us when 3M first got in the business of
13 manufacturing masks or any type of respiratory
14 equipment?

15 A I don't know if we do or not.

16 Q Is there anybody that's been around longer than
17 you that you think would be better able to answer
18 that question?

19 A In the division now?

20 Q In or out of the division, can you give me a name?

21 A No, I don't think so. People that are in the
22 division now have only been there as long as I
23 have or less; so they wouldn't have any further
24 back memories than I would.

25 Q Who was in charge of your division when you took

1 over?

2 A You mean when I joined it?

3 Q Yes.

4 A Who was in charge of it? His name was Dan
5 McDonald.

6 Q Is he still at 3M?

7 A No.

8 Q Is he deceased?

9 A No.

10 Q Is he retired?

11 A Yes.

12 Q Do you know where he's living now?

13 A No, I don't.

14 Q Can you tell me what the structure of the
15 Occupational Health and Safety Products Division
16 was at 3M in terms of the make-up? Were there
17 different levels within that organization of who
18 reported to who? I'd like to have some idea of
19 the way things worked in the division when you
20 arrived.

21 A No, just Dan McDonald was the head of it, and we
22 just had a large group of laboratory people
23 working for him, and there was a group of
24 marketing people working for him and a small sales
25 force when I arrived there.

1 Q Okay. Has that changed since then?

2 A No, basically not. Just larger, that's all, in
3 terms of numbers of people.

4 Q How does the Occupational Health and Safety
5 Products Division of 3M compare in size or
6 revenues with any of the other divisions?

7 A I really don't know compared to the others.

8 Q Who at 3M would best be able from your
9 understanding and contacts at the company to
10 answer that question for us?

11 A Probably the chief executive officer of the
12 company would know that for sure.

13 Q Okay. I'm not trying to be flippant with you, but
14 anybody else that you can think of other than him?

15 A Public Relations Department maybe.

16 Q Does the Public Relations Department have anything
17 to do with marketing decisions of any of the
18 divisions at 3M?

19 A No.

20 Q Are all the marketing decisions for the
21 Occupational Health and Safety Products Division
22 made within the division?

23 A Yes.

24 Q Does anybody outside of the division have veto
25 power on marketing decisions within that division?

1 A I don't know. I don't think so

2 Q Does anybody outside of the division have ~~any veto~~
3 power or any power to alter decisions within the
4 division as to respiratory product design,
5 manufacture, marketing or testing within the
6 division?

7 A Veto what?

8 Q Well, can somebody outside of -- who's technically
9 not a member of the Occupational Health and
10 Safety Products Division of 3M, can somebody
11 outside of that division say or have a say in
12 whether or not a particular design respirator is
13 manufactured or how it's manufactured or how it
14 might be tested?

15 A No.

16 Q So the division is rather autonomous in the way it
17 decides to R&D a product, design it, test it and
18 market it?

19 A Yes.

20 Q As far as you know, has that always been the case
21 even before it became formally a design of 3M?

22 A It depends what you mean by -- it wasn't -- before
23 you are a division, if you're part of another
24 division as a smaller project, then you're not
25 autonomous in that sense. I mean, you have to

1 report to that division; but inside the parent
2 division, yes, it would be autonomous.

3 Q But before 1967 when this Occupational Health and
4 Safety Products group or line became a separate
5 division, did anyone outside of the division or
6 product line or group have power to alter
7 decisions made within the product line or group
8 about what kind of respiratory equipment or masks
9 would be designed, how they'd be manufactured, how
10 they'd be tested, how they'd be marketed?

11 A I don't believe so, no.

12 Q Is there anybody else at 3M who would be able to
13 give me any better an answer than you just gave me
14 who perhaps had been there in the division longer
15 than you?

16 A That kind of thing, a policy like that from
17 outside, a veto, would come from very high if it
18 even exists at all; so, again, the president of
19 the company would know that if that's true.

20 MR. BLIZZARD: I'm a little
21 confused by what you mean by veto power.
22 I mean, a chief executive officer could
23 probably fire anybody he wants to. That
24 would be an effective veto. You are
25 talking about some kind of system that

1 Q Do you know what the criteria is that is used to
2 determine whether or not a dust is either a
3 nuisance dust or a toxic dust?

4 A The criteria for it?

5 Q Yes.

6 A How they decide whether it is or is not?

7 Q Yes.

8 A No, I don't know exactly the criteria. It's done
9 by epidemiologists, physicians, things like this
10 decide how that's done. How they actually do it
11 I'm not aware of.

12 Q Okay. But you know and we were talking about
13 there being a distinction between different kinds
14 of dust, correct?

15 A Between nuisance and toxic?

16 Q Yes.

17 A Yes.

18 Q Does 3M Manufacturing Corporation rely solely on
19 the United States Government to know which types
20 of dust are toxic and which are nuisance?

21 A Not totally, no, because the American Conference
22 of Hygienists is not exactly a government
23 organization, and they list in a booklet toxic
24 dusts and gases.

25 Q And in their booklet, they make a distinction

they pass along vetoes to higher-ups --

MR. CROW: You're confused about
that?

MR. BLIZZARD: I'm confused about
what you mean by veto.

Q (By Mr. Crow) That's one of the reasons I asked
you the earlier question about the other divisions
that I did. As I understand the corporate
structure of 3M, each product division pretty much
has all of the say in terms of what that product
division does?

A Yes.

Q And that's one of the things that 3M Manufacturing
Corporation prides itself in?

A Yes.

Q Now, we were talking earlier about the distinction
between nuisance dust, like the kind of dust you
might see in a West Texas dust storm or from
pollen or from wood being worked with in some
fashion, and toxic dusts. Do you remember us
talking about that?

A Yes.

Q There are, in fact, a number of dusts that are
considered toxic by the federal government, right?

A Yes.

1 between toxic dust and nuisance dust?

2 A They describe what a nuisance dust is, yes. There
3 are none listed there.

4 Q When did you first become aware of the fact that
5 there were such things as dust particles which
6 could float around in the air and be toxic to a
7 human being?

8 A I don't really know. I certainly was aware of
9 that before I reached Occupational Health and
10 Safety Products, but I don't know exactly when
11 that would have been.

12 Q Do you think it might have occurred when you were
13 getting your degree in chemical engineering?

14 A I really don't know. I don't remember.

15 Q When is it you first learned that silica was toxic
16 to human beings?

17 A It would be shortly after I joined OH and SP.

18 Q Shortly after you joined what?

19 A OH and SP is Occupational Health and Safety
20 Products.

21 Q OH and SP?

22 A Yes.

23 Q Before that time, I take it you hadn't heard of
24 silica being toxic to animal life including human
25 beings?

1 A No, I don't think so.

2 Q Did it surprise you?

3 A No.

4 Q The problem that is caused by silica is rather
5 specific, isn't it?

6 A Yes. In general, yes.

7 Q What is the problem that is caused by silica dust?

8 A It causes silicosis.

9 Q Okay. When did you first learn of that fact, that
10 silica dust causes silicosis?

11 A Shortly after joining OH and SP, I found that out.

12 Q So you didn't learn it in college?

13 A No.

14 Q And you didn't learn it while you were working
15 with the Scotch tape people or the
16 pressure-sensitive tape group? Whether it was
17 commercial or industrial, you didn't learn it
18 then, did you?

19 A No.

20 Q How did you learn it when you got to OHSP? Did
21 somebody tell it to you, or did they give you a
22 book to read?

23 A No, I think it was told to me originally.

24 Q Okay. Who told it to you for the first time?

25 A I don't even begin to remember.

1 Q Do you remember under what context you were told?

2 A I'd just be guessing. I don't remember exactly.

3 Q Do you, based on your association with OHSP, have
4 any idea of how long medical science or for that
5 matter industrial hygienists have known that
6 silica dust causes silicosis?

7 A No, I don't know how long that's been known.

8 Q Do you have a library at 3M?

9 A We have a lot of libraries at 3M, yes.

10 Q Separate libraries for separate divisions; is that
11 right?

12 A No, not specifically for divisions. They are
13 libraries by type. Technical libraries of one
14 sort or another, business libraries, we have
15 those.

16 Q When you say technical libraries, are there any
17 libraries or portions of a library dedicated to
18 information that's available on the disease of
19 silicosis, the mechanism in which it's caused and
20 its prevention?

21 A I would suspect so, probably, that we have that,
22 yes.

23 Q Well, I don't want you to have to suspect if we
24 can help it. Have you ever seen any literature at
25 3M in the form of treatises, books, catalogs,

1 surveys, test data kept in such a fashion that a
2 common ordinary person might think of it as a
3 library and specifically dedicated the subject of
4 silicosis as the reason for it occurring and its
5 prevention?

6 A A whole set of things just about silicosis, no, I
7 have never seen that personally.

8 Q Okay. If you wanted to go to better educate
9 yourself about the disease known as silicosis,
10 what causes it, how to prevent it, is there any
11 specific place at the 3M Company you'd go to?

12 A To learn about the disease, yes, I'd probably call
13 the Medical Department probably.

14 Q Why would you call them rather than looking for
15 some type of written reference material?

16 A Well, you asked me where I would go to read about
17 it. I said the Medical Department. They probably
18 would have books on that sort of thing because it
19 is a medical problem.

20 Q Now, have you ever seen the books that the Medical
21 Department has?

22 A No.

23 Q Is anybody in the CHSP responsible for staying
24 abreast of the information in the Medical
25 Department on silicosis?

1 A No.

2 Q The reason I ask you that is because you know that
3 technology advances day to day, month to month,
4 year to year, right?

5 A Sure.

6 Q And humans' knowledge of the source of disease and
7 cure and prevention advances year by year?

8 A Sure.

9 Q Do you have a policy within the OHSP whereby
0 somebody is supposed to keep their finger on, so
to speak, new information that becomes available
to help you better design, manufacture, test and
market equipment against a specific hazard?

A A single person to do that?

Q Yes.

A Not a single person, no.

Q Then tell me how that's done because surely you do
it.

A Every person generally is expected in their job to
keep abreast of new technologies as it impinges on
their own job function.

Q Okay. Tell me how that occurs in real life there
within the OHSP?

A People go to seminars. They read trade
literature. Their own work is essentially a

1 pushing ahead of, as you call it, you know, the
2 frontier of technology going ahead.

3 Q When you first went to the OHSP, you didn't know
4 about silicosis or silica causing silicosis. You
5 told me that earlier. Would you answer the
6 question the same way if I asked you about
7 asbestosis?

8 A Yes, the answer would be the same. Yes.

9 Q When you got to the OHSP, how did you go about
10 trying to get a good solid foundation on the types
11 of diseases that these OHSP products were designed
12 to try to protect against?

13 A What do you mean by a solid foundation?

14 Q Well, how did you educate yourself? You certainly
15 recognized that understanding what causes
16 silicosis is one of the first logical steps to try
17 to find out how to prevent it.

18 A Sure.

19 Q Same thing for asbestosis?

20 A Yes.

21 Q When you got to OHSP, what did you do to try to
22 educate yourself on what causes silicosis?

23 A It took about three minutes. Inhalation of
24 silica. When that happens, if you do it long
25 enough, you may end up with silicosis.

- 1 Q Well, silica is one of the most abundant things on
2 the face of the earth, isn't it?
- 3 A Yes.
- 4 Q There are whole cultures that live in areas that
5 are very sandy, and that's silica, isn't it?
- 6 A Sand is silica, yes.
- 7 Q So are you saying that if you simply inhale enough
8 sand off the beach or in a desert area, you'll
9 develop silicosis?
- 10 A No.
- 11 Q Because that's not true, is it?
- 12 A No.
- 13 Q It's not all that simple, is it?
- 14 A Inhalation of silica is what causes silicosis.
- 15 Q But isn't there something else required other than
16 just the inhalation of silica? Isn't there
17 something else concerned like the particle size?
- 18 A Yes, it has to be respirable, yes.
- 19 Q What size does it have to be to be respirable?
- 20 A Generally 10 microns.
- 21 Q Is there any particle size that you consider to be
22 ultrahazardous or particularly hazardous?
- 23 A No.
- 24 Q So it just has to be below 10 microns?
- 25 A To be respirable dust, yes.

1 Q Are you saying that somebody cannot inhale same
2 particles or silica particles that are larger than
3 10 microns into their lungs?

4 A It's a matter of how deep they'll get in the
5 lungs. If they're large, they don't get very far.

6 Q And you made the cutoff at 10 microns. Is there
7 something about particles smaller than 10 microns
8 in terms of their penetration into the lungs that
9 makes them particularly prone to cause silicosis
10 as compared to larger particles above 10 microns?

11 A It's the fact that they can get down into the deep
12 airways of the lungs that cause the problem, not
13 because of their difference in time. They're
14 still silica. It just depends on how far they get
15 into the lung. That's all.

16 Q The larger particles that don't get down as far
17 into the lungs, are those normally exhaled or
18 coughed out?

19 A They can be, yes.

20 Q Is that the reason they're not as hazardous as the
21 smaller particles?

22 MR. ADAMS: I object to what I
23 consider this witness to be rendering
24 medical opinions, and I object to this
25 complete line of questioning and

1

2

(5)

6

13

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21

22

1 silicosis?

2 A As I said, I have no idea. I don't know.

3 Q And who was your predecessor again?

4 A I don't even remember his name. I only met him
5 once. I can't recall what his name was.

6 Q So if you don't know how silica dust causes
7 silicosis, biologically or however you want to
8 describe it, you do know that certain size
9 particles are the ones you want to protect
10 against?

11 A Yes.

12 Q You're not really concerned with 30 micron size
13 silica particles; you're concerned with those
14 below 10 microns in size?

15 A In general, that's true, although we're concerned
16 about all particle sizes but especially those.

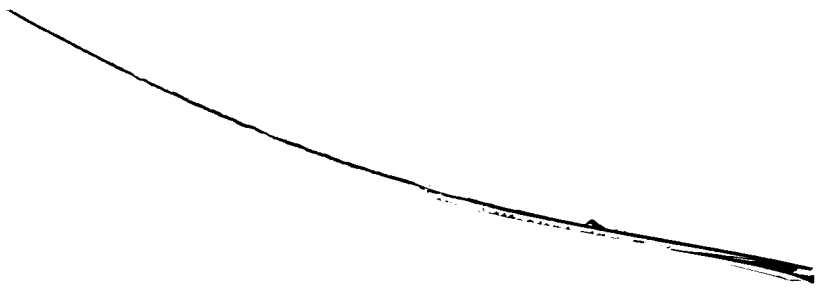
17 Q Why especially those?

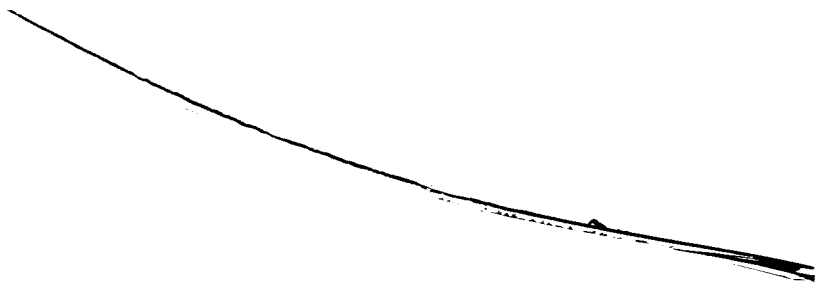
18 A Because they're the respirable ones. They're the
19 ones that can get down deep into the lungs.

20 Q And would it be fair to say they're not only the
21 ones that can get down deep into the airways of
22 the lungs but the ones most prone not to come back
23 out again either by exhaling or coughing?

24 A That's true, that way, yes.

25 Q So they stay there?





1 A Yes.

2 Q And whatever else they do -- and you don't know
3 the medical mechanism -- but whatever else they
4 do, they seem to cause the disease?

5 A Yes.

6 Q And that knowledge was at 3M when you came on
7 board. I asked you earlier if you had any idea
8 how long 3M has known that much about the
9 mechanism of how silicosis occurs, and your answer
10 was I don't know.

11 MR. BLIZZARD: Wait a minute.
12 That's about three or four questions in
13 one.

14 MR. CROW: I'm trying to speed up
15 the process.

16 MR. BLIZZARD: Well, I wish you
17 would, but it's not going to be
18 accomplished by asking four questions at
19 once.

20 Q (By Mr. Crow) Your answer is, if I understand
21 your testimony so far, you don't know how long 3M
22 has had an understanding of how silica dust causes
23 silicosis, either in particle size or --

24 MR. BLIZZARD: I think you asked
25 him about his predecessor and of 3M,

and he can't answer questions for every employee of 3M. He can answer questions about himself.

Q (By Mr. Crow) All right. Mr. Scheel, either from talking with people at 3M in the OHSP or from your review of 3M literature that was actually printed at the company or from your review of material that obviously was at the company for some period of time prior to when you came on board, do you have any idea or can you give me any estimate of when 3M first came to understand that silica dust causes silicosis?

A No, I don't know when that was.

Q Okay. How would I find that out now? If not from you, who would I go to?

A I have no idea. To know when it was that 3M in general knew that silica causes silicosis? I couldn't even begin to guess who that would be.

Q You gave me the name of the man in charge of the product line when you were hired or you transferred to the product line, remember?

A Yes.

Q How long was he there?

A You mean when did he start?

Q How long was he in that product line? You didn't

1 call it a division then.

2 A Seven years, something like that, total time that
3 he was in.

4 Q So we're talking about the time frame of something
5 like '70 to '77?

6 A No, no. He overlapped. He was there when I got
7 there, and he left after I got there. He retired
8 two years ago.

9 Q Earlier I asked you about the people who first
10 conceived the line of respirators or masks, and
11 you said you didn't know their names?

12 A That's correct.

13 Q Is there anybody at 3M that would know their names
14 that you know of?

15 A Not offhand I could tell you for sure would know
16 who they are.

17 Q But you can go back to the company, and they can
18 tell you, and you can relay that information to
19 your attorney?

20 A I suppose I can try, yes.

21 Q Is there any man or group of men or women that 3M
22 generally acknowledges to be the father, so to
23 speak, of the respiratory equipment line?

24 A No.

25 Q Or the person or persons who handled it in its

earlier stages and made it successfully grow into the size it is today?

A I don't know because I don't know who those people were in the beginning.

Q Do you know what they did in terms of deciding what risks they were trying to avoid for the workmen, deciding how to go about trying to avoid those risks, deciding how to test to see if their decisions were correct and making whatever decisions were necessary to get the product to the workman so it would be properly used? Do you know anything about how that process went along before you came to the division in 1967, I mean, '77?

A '76 is when I came. No, I don't, did not know those people, so I don't know what they did.

Q How can I get that information now? Who would I go to in the company?

A I don't know. To tell you the truth, I don't know.

Q And you told me earlier that everybody in your division has only been around as long as you have?

A That's true. At the moment, that's right.

Q So as far as you know, there are no what you might call old-timers that have been around for 30 years who might know how the decision was made to get

1 into the respiratory equipment line?

2 A Huh-uh.

3 Q Or who was behind it or in charge of R&D or any of
4 that information, right?

5 A Not that I know of. I don't know anybody like
6 that in our crew.

7 Q Mr. Scheel, if you need to take a break at any
8 time --

9 A I'll tell you.

10 Q -- just say so because we have -- in spite of the
11 fact that this is an important proceeding and we
12 intend to rely on the information you give us
13 today, we can certainly accommodate you or anybody
14 else.

15 A Okay.

16 Q We sent out a notice to take the deposition of a
17 designee or designees of the Minnesota Mining and
18 Manufacturing Company, and that designee was to be
19 a person or persons best able to describe the
20 design, testing and marketing of the Minnesota
21 Mining and Manufacturing Company dust mask or
22 respirator series 8500, 8710 and 9910. Do you
23 know anything about the design process of the
24 3500?

25 A Yes, I do.

1 Q How did you find that out? You weren't there at
2 the time it was designed.

3 A Well, I'm misunderstanding your design. You mean
4 how it's made?

5 Q Do you know who it was that came up with the idea
6 for the 8500?

7 A No, I don't.

8 Q Do you know from your own personal knowledge what
9 type of problem they were attempting to design the
10 8500 to protect against?

11 A The nuisance dust as far as I know.

12 Q That's as far as you know. Where have you gotten
13 that information from?

14 A That is strictly just from conversations.

15 Q With who?

16 A Just people in the division. I've never seen it
17 written down if that's what you're asking.

18 Q Anybody in particular?

19 A No, not that I can recall.

20 Q Anybody with an industrial hygienal degree?

21 A I can't recall them, so obviously I can't answer
22 that, either.

23 Q Have you ever seen the design specifications for
24 the 8500?

25 A The design specifications exist even to this day

1 how to make it, yes, and I've seen it.

2 Q Has the design specification changed over the
3 years?

4 A Not basically, no. The size and shape of it is
5 still the same as it always was.

6 Q What about the material and the density?

7 A That's stayed the same.

8 Q Do you know who was in charge of testing the 8500
9 to see that it did what it was supposed to do?

10 A When are you speaking of?

11 Q At any time in the past.

12 A Well, I know in just the recent years who it was,
13 yes. It's the Quality Control Department.

14 Q Are they a part of the OHSP?

15 A Yes.

16 Q And who's in charge of the Quality Control
17 Department?

18 A It's really the manufacturing director who is in
19 charge of those people.

20 Q And what's his name?

21 A His name is William Keyes at the moment.

22 Q Does it change frequently?

23 A No, not frequently.

24 Q How long has William Keyes been in charge of the
25 Quality Control Department?

1 A Like I said, he isn't in charge of it. It reports
2 to him. He's the manufacturing director, ~~so the~~
3 last two and a half years.

4 Q Well, who's actually in charge of the department?

5 A I really don't know his name. It's somebody who
6 is the supervisor of that group, but I don't know
7 who it is.

8 Q What is the group comprised of?

9 A Quality control technicians and engineers to test
10 the product.

11 Q Is there anybody who's specifically studied
12 industrial hygiene in that group?

13 A I have no idea.

14 Q But William Keyes is the only name you can give me
15 right now?

16 A As far as who supervises that group, yes.

17 Q You don't know any of the names of the members of
18 the group or the man in charge of the group,
19 actually in charge of the group, to ask them to do
20 A or B. You only know the name of the man that
21 the group reports to?

22 A That's right.

23 Q And he has other responsibilities other than the
24 testing of the respiratory equipment?

25 A Yes.

1 Q He's in charge of what?

2 A Manufacturing.

3 Q Of what line?

4 A Of our respirators, all of them.

5 Q Do you have any idea how many 8500's were marketed
6 before you came to the division?

7 A No.

8 Q Do you know anybody who would know that?

9 A No.

10 Q Do you have any idea of who the 8500's were
11 marketed for?

12 A Who they were marketed for?

13 Q Yes. Or do you know what they were marketed for
14 or who they were marketed to? Explain that to me.

15 A Well, there apparently is a confusing distinction.

16 A Yes.

17 MR. ADAMS: Probably marketed for
18 the stockholders.

19 A Say it again. I don't understand.

20 Q (By Mr. Crow) Well, I guess that's true, the 8500
21 was indeed marketed for the stockholders, wasn't
22 it?

23 A Since all of our products are done that way, sure.

24 Q Now, was the 8500 marketed to be purchased and
25 used by a specific group or occupation?

1 A I don't think so, no, not that I know of.

2 Q Who would know the history of the marketing of the
3 8500 if you can't tell me?

4 A I don't know because I don't know who was there at
5 that time.

6 Q Okay. So in terms of the decision to make that
7 product, in terms of the person who designed it,
8 in terms of the person who made some marketing
9 decisions on that product, you really don't know
10 who did that?

11 A No, I don't. It was long before I got to the
12 company.

13 Q You don't know how many of them were sold?

14 A No.

15 Q You don't know the kinds or types of occupations
16 that bought and used it?

17 A No, not in the sense that you asked me was there a
18 specific group, and I said no, I don't think so.
19 It was a general thing.

20 Q Was there any specific group targeted by your
21 marketing strategy?

22 A In the very beginning?

23 Q Yes.

24 A I don't know because I wasn't there.

25 Q All right. When did you first become aware of

1 some specific groups being targeted.¹²

2 A I've never been aware of specific groups being
3 targeted.

4 Q Are you aware of any specific groups that were
5 expressly prohibited from purchasing the 8500?

6 A In the sense of people that are working in toxic
7 dust atmospheres, if you want to call that
8 prohibited, yes, we wouldn't sell the 85 -- we
9 would not recommend the 8500 for that type of use.

10 Q And I don't know if it was a Freudian slip or not,
11 but are you saying that you would sell it to
12 occupations that work in a toxic dust atmosphere
13 but you wouldn't recommend it?

14 A No, the reason I stopped that is because we don't
15 sell direct. We only sell it through
16 distribution.

17 Q If you sell it through a distribution process, I
18 take it, then, that you wholesale products like
19 the 8500 to somebody outside of the 3M Company;
20 and they, in turn, resell the product to the
21 eventual purchaser and user of the product; is
22 that right?

23 A Yes.

24 Q Do you at 3M, especially from the OHSP Division,
25 rely on the intermediate buyer and reseller to

1 determine how your product is to be properly used
2 and what groups could not properly use your
3 products?

4 A We rely on them to decide that?

5 Q Yes.

6 A No.

7 Q I take it that the reason you don't do that is
8 because you at 3M and especially in the OHSP
9 Division, you know good and well the limitations
10 of your products, don't you?

11 A Ourselves personally know the limitations?

12 Q Yes.

13 A Certainly.

14 Q And you know that because you not only had some
15 idea of what the product was actually designed to
16 protect against but, therefore, what it would not
17 protect against from the very beginning of the
18 concept of the product, correct?

19 A I would have to say for a respirator, yes, that's
20 true.

21 Q And then you would confirm that preliminary
22 opinion or assumption or educated guess by
23 actually testing your product to see what its
24 limitations were?

25 A I'm sorry, with the cough in there, I missed it.

1 Say it again.

2 Q And I assume that you would not only, besides
3 having this preliminary concept of what this
4 product was designed to do, you would test in some
5 way to see if the product actually would do what
6 it was designed to do, right?

7 A Yes, we test certain -- a lot of aspects of the
8 product, yes, we did.

9 Q And you would also as part and parcel of the
10 testing process determine what the product's
11 limitations were?

12 A Sure.

13 Q Therefore, I take it that you at 3M and especially
14 in the OHSP Division consider yourselves to have
15 more knowledge about the purpose for which your
16 products are intended to be used and their
17 limitations than the people that you wholesale
18 your products to or even the eventual purchaser of
19 the product; is that correct?

20 A Certainly for the distributor we would know about
21 that, not necessarily for the end purchaser. They
22 may be as knowledgeable as we are.

23 Q Tell me why you would say that. You're the ones
24 who conceived of the product; you're the ones who
25 actually designed the product out of this mental

1 conception; you're the ones who tested that
2 conceptual product to see if it's really going to
3 work and what the parameters of its efficiencies
4 are; you're the ones that have a quality control
5 system to see how many millions of these actual
6 products are going to work like they're supposed
7 to. Why is it you think the ultimate user of your
8 product may have as much knowledge about your
9 product's purpose and utilization than you would?

10 A That's a different question. I would say -- I
11 said the end user. The purchaser is not
12 ultimately the end user in most cases.

13 Q What do you mean by that?

14 A What I meant by my previous response to the
15 question was that sometimes the purchaser, the
16 person who makes the decision to buy the
17 respirator, is, in fact, an industrial hygienist
18 purchaser of the product. He doesn't personally
19 use the product. The workers use the product. An
20 industrial hygienist can be very knowledgeable
21 about respiratory protection, and that's what I
22 meant by that. We don't always have a vast spread
23 between our knowledge and the purchaser of the
24 product.

25 Q But I take it from your answer -- and I think

1 you've probably encountered this in your past
2 experience -- you know that some of your product
3 line is going to reach a person who is not an
4 industrial hygienist?

5 A Of course.

6 Q Can you estimate for me based on your past
7 experience and any surveys you've done in terms of
8 marketing your respiratory products what
9 percentage of your respirator products are
10 purchased by industrial hygienists who have been
11 trained formally to have a good understanding of
12 work place hazards and what's required to protect
13 against those hazards?

14 A What percentage of people like that are --

15 Q Yes.

16 A I don't know.

17 Q Don't have any idea?

18 A No.

19 Q Could be 10 percent, could be 90 percent?

20 A Sure. I doubt if it's 90.

21 Q Me, too. In fact, you would expect the percentage
22 to be relatively small, wouldn't you?

23 A I don't know what it would be.

24 Q Well, you know you're selling your product to
25 people who are not industrial hygienists. Would

1 you agree with me you know you're selling your
2 product to people who do not have as much
3 information about the product, what it's designed
4 to protect against and the product's limitations?

5 A Say that again.

6 Q If you know that you're selling your respiratory
7 products in this case to purchasers who are not
8 industrial hygienists by training, then would you
9 agree with me that you know as a manufacturer that
10 you are, indeed, selling your products to people
11 who do not have as much knowledge about the
12 purpose of the product, the risk to be protected
13 against and the limitations of the product to
14 protect them against that risk?

15 A Yes, I would agree we would probably know more
16 about that, yes.

17 Q Consequently, I take it that as an essential part
18 of your product design and development and
19 marketing strategy, you provide information along
20 with your products so that people who are not
21 industrial hygienists can try to make an educated
22 determination as to what risk this product will
23 protect me against and what risk it will not
24 protect me against?

25 A Yes, we provide information like that.

1 Q Did you do that for the 8500?

2 A When are you speaking of?

3 Q Before you came to the OHSP.

4 A I don't know because I wasn't there.

5 Q Who would know?

6 A Again, I don't know because I don't know who the
7 people are that were there at that time.

8 Q I take it, then, that you don't rely on the
9 intermediate supplier to supply this knowledge,
10 and you don't necessarily rely on all your
11 purchasers being industrial hygienists. You take
12 an active effort to warn the purchasers of your
13 product about the risks and limitations?

14 A Yes, we have an active effort to do that.

15 Q And do you at 3M recognize that as being part of
16 your responsibility in the production of this
17 product?

18 A Sure, uh-huh.

19 Q Is it as much a responsibility at 3M to provide
20 the information to the ultimate user on how to use
21 the product properly as to properly design the
22 product in the first place?

23 A No, from the point of view we don't go to the
24 ultimate user with the information. In general,
25 we go to the people who are responsible for the

1 respirator program in the first place. That's the
2 employer, and that's who we try to get our
3 information to.

4 Q So you don't really make an effort, then, to get
5 the information on the limitations of your product
6 to the actual user but rather simply to the
7 employer?

8 A Well, not rather simply to the employer. The
9 employer is the one who has the responsibility to
10 give that information to the end user; so,
11 therefore, we go to that person who has that
12 responsibility and give it to them.

13 Q Well, you say the employer has the responsibility?

14 A Yes, to provide the information to the workers on
15 what the proper respiratory protection is and also
16 to inform him of what the hazard is he's working
17 in in the first place.

18 Q How did you determine it's the employer's
19 responsibility?

20 A We didn't determine it at all. That's the way the
21 OSHA Act is written.

22 Q When did OSHA come into being?

23 A 1970, I believe.

24 Q Before OSHA came into being, what federal law
25 required employers to assume the responsibility

1 that you've just mentioned 3M Company says they
2 have?

3 A I don't know if there was one.

4 Q So before 1970, you were marketing the 8500,
5 weren't you?

6 A Yes.

7 Q Did you simply provide information to the employer
8 and assume or hope or whatever that that
9 information would eventually work its way down to
10 the actual user?

11 A I don't know because I wasn't there.

12 Q Do you know anybody who could answer the question?

13 A No.

14 Q The products that you manufacture are designed to
15 protect in terms of the 8710 and the 9910, are
16 designed to protect human lungs, aren't they?

17 A Yes, that's true.

18 Q The concept of the 8710 and the 9910 from the very
19 beginning was to protect lungs. That was the
20 whole idea?

21 A That's what a respirator is for, yes.

22 Q It wasn't just to protect against these nuisance
23 dust storm type situations; it was to protect
24 against the toxic dusts, right?

25 A That's correct.

1 Q And what toxic dust was the 8710 and the 9910
2 designed to protect against?

3 A The 8710, you're speaking of when it first came
4 out or now?

5 Q Well, if it's changed, let's talk about when it
6 first came out. What was the original concept?

7 A Pneumoconiosis and fibrosis-causing dusts.

8 Q And those kinds of dusts are what?

9 A Silica is an example.

10 Q Silica and what else?

11 A Cotton dust, coal dust, things like that.

12 Q Asbestos?

13 A Yes.

14 Q Any other dusts that are common that the 8710 was
15 originally designed to protect against?

16 A Almost any, like I said, any lung damaging dust.
17 There's a whole list. I can't offhand give you a
18 whole list of what they are. I'd have to look
19 them up.

20 Q If I was going to look them up, where would I look
21 them up?

22 A Industrial Hygiene Book probably.

23 Q When was the 8710 originally conceived?

24 A I don't know. It was something prior to 1972.

25 Q And you weren't in the division at that time?

1 A No.

2 Q Who was in charge of the division, then, when
3 whoever it was originally conceived of the 8710?

4 A It wasn't a division. I think it was the same
5 fellow I said before. Ernie Moffet was the VP of
6 Commercial Tape then.

7 Q Did Ernie come up with the idea for the 8710?

8 A I don't know.

9 Q Do you know who did?

10 A No.

11 Q Was it first marketed in '72?

12 A Yes.

13 Q And it was designed to protect against all of the
14 toxic dusts that were then listed in the
15 Industrial Hygienist Manual?

16 A No.

17 Q Which ones was it not designed to protect against?

18 A Only designed for pneumoconiosis and
19 fibrinous-producing dust, that's it.

20 Q Is there a hazard from inhaling too much cotton or
21 dust?

22 A Yes.

23 Q It's called brown lung?

24 A Yes.

25 Q Can it be fatal?

1 A I believe so.

2 Q Did the 3M Company test the 8710 to see if it
3 would protect against the risk of silicosis,
4 asbestosis, brown lung, black lung, which is the
5 coal dust problem, right?

6 A Yes.

7 Q Did you test to see if it actually protected the
8 tester against those risks?

9 A Yes, we tested the product to see how it works,
10 how it functions.

11

12 (Whereupon, a lunch break was
13 taken.)

14
15 Q (By Mr. Crow) Mr. Scheel, before we broke to have
16 a bite to eat, I was asking you some questions
17 specifically about the 8710. Before I go any
18 further with that, you told me earlier this
19 morning what your job duties are in the OHSP.
20 Would you tell me again, please?

21 A All the duties I've had since I got there?

22 Q No, what you're doing right now.

23 A I'm on a special assignment in Hong Kong, 3M Far
24 East, Limited, as the marketing manager, program
25 manager for our insulated products, which is a

1 part of our division.

2 Q That doesn't have anything to do with respiratory
3 equipment?

4 A No, this is something different.

5 Q What all have you done in the OHSP?

6 A I started out as research and development manager
7 for the respirators, as I said, and technical
8 services for all of the products of the division.
9 Those are the two things, major functions, I
10 perform.

11 Q R&D manager?

12 A Yes, and technical services manager.

13 Q What is the R&D manager's responsibility to the
14 OHSP?

15 A In the sense of products that I dealt with, which
16 were the respirators, it was to oversee the people
17 that were developing the actual products
18 themselves, the new products.

19 Q Did you have any component in the R&D end of it to
20 continually check the products that have already
21 been marketed to see if they were doing what they
22 were intended to do?

23 A No, R&D does not do that.

24 Q So you were just involved in the designing of new
25 products?

1 A Correct.

2 Q Did you actually design any products while you
3 were in charge of R&D?

4 A Myself personally or my group?

5 Q Well, let's start with you personally.

6 A No, I didn't personally, but my group did, yes.

7 Q What did your group design while you were in
8 charge of them?

9 A The 9900 and that one over there, the 9910.

10 Q Okay. Any others?

11 A No, not during the time that I was there.

12 Q And then you got into technical services?

13 A Right.

14 Q I don't know what that means. Would you tell me
15 what sort of duties are involved when you become
16 in charge of technical services for OHSP?

17 A Sure. Technical services is essentially an
18 informational flow group that ties together our
19 own internal marketing and laboratory and sales
20 force and, also, our outside customers to make
21 sure that information about our products in both
22 ways, what we tell people goes out in the right
23 way and what they tell us back as far as our
24 products are working properly. I think in a broad
25 sense that's what we do back and forth.

1 Q But you say you tie in the marketing and
2 laboratory and sales group?

3 A Yes, from an informational point of view, yes,
4 technical information.

5 Q Well, I mean, I'm not clear, but is the purpose of
6 the technical services group to see to it that
7 adequate information about the OHSP products gets
8 out to the purchasers or users?

9 A Yes, sir, that's a good way to think of it
10 exactly.

11 Q And how long is that sort of -- before I ask you
12 that question, does 3M recognize the need for that
13 type of group in each product line, a group to
14 disseminate information about its product line?

15 A Are you asking do all the divisions have that kind
16 of a function?

17 Q Yes.

18 A I'm not certain that every last one of them do,
19 but most do.

20 Q And your group certainly does?

21 A Yes.

22 Q How would the system in terms of getting the
23 technical information out typically work? Can you
24 give me a routine example of how you fulfill your
25 duties in that regard?

1 A Yes, in the sense that a routine way to do it
2 would be to write a technical bulletin about
3 something, and that is then disseminated to all of
4 our distributors and all of our in-house sales
5 force, and that information is passed along then
6 to the customers as they are contacted by those
7 groups.

8 Q Well, would the technical bulletin be the very
9 first piece of written information about a new
10 product like the 8710?

11 A No, not necessarily. A technical bulletin could
12 be on anything in the sense of it doesn't have to
13 be just about a new product at all.

14 Q It can be about an existing product where some
15 question has arisen about its proper use or
16 improper use?

17 A Yes, that's a possibility there could be.

18 Q What other situations can we talk about in terms
19 of disseminating additional information on a
20 product that's already been marketed besides
21 trying to give information that you now perceive
22 to be necessary that wasn't given before or to
23 correct a misuse or in some way to assist the user
24 in better using a product? What other reasons
25 would you send out a technical bulletin on a

1 product that's already been manufactured and
2 distributed?

3 MR. BLIZZARD: All of that
4 preliminary I'm not sure fairly
5 characterizes the witness' previous
6 testimony.

7 Q (By Mr. Crow) Are you confused, Mr. Scheel?

8 A Yes, I'll have to admit a little. That was a lot
9 of words. Are you asking for examples?

10 Q Would you agree with me part of why you do what
11 you do is to prevent misuse of your product by
12 purchasers or users?

13 A The reason technical services does what it does is
14 to prevent misuse?

15 Q Yes.

16 A I don't know that we would -- if we knew about it,
17 I would say we'd make whatever moves possible to
18 stop that. I don't know that we do everything and
19 try to imagine every possible use and block that
20 because that's hard to do because you don't know
21 what it is in advance.

22 Q Well, besides misuse -- and I'll come back to that
23 in a minute -- I take it these technical bulletins
24 that the technical services group puts out, they
25 furnish additional information to your salesmen

1 and your suppliers, right?

2 A Yes.

3 Q What is the purpose of that additional
4 information?

5 A Just to make them more familiar with the
6 attributes of the product itself, how it works,
7 how it functions.

8 Q I understand additional information sort of speaks
9 for itself in that regard. My question to you is:
10 What purpose or purposes if there is more than one
11 are you attempting to accomplish by disseminating
12 additional information?

13 A Just the best understanding that people can have
14 of our products, that's all.

15 Q So you want to disseminate more information so
16 people have a better understanding about (a) what
17 the product is designed to do?

18 A Yes, that's one possibility of a technical
19 bulletin, yes.

20 Q And (b) what the product is not designed to do?

21 A I don't think we've ever written a technical
22 bulletin on that, but it's possible that you
23 could, yes.

24 Q You said that you felt like if it had come to the
25 conscious level of 3M that somebody was using one

1 of its products in a way not intended, you would
2 immediately take steps to try to correct that
3 situation?

4 A No, I said we would do whatever was necessary to
5 do that. I didn't say it was written, a technical
6 report. We might have to write a letter to the
7 sales force.

8 Q Do you know at 3M if that's ever happened?

9 A You mean writing a letter to our sales force like
10 I just described?

11 Q No, technical letters or memos or information
12 going out to your sales force where you recognize
13 in a certain instance somebody was using one of
14 your products other than originally intended?

15 A We didn't do it in that way. We have gotten
16 information to our sales representatives about
17 that but not by written means, by verbal means.

18 Q I was just going to ask you how you do it, and you
19 said verbal; so would there be any record of how
20 you've done this in the past?

21 A I doubt it because it's given in the sense of
22 verbal training to sales representatives.

23 Q Verbal training?

24 A Uh-huh.

25 Q Do you use films or audio tapes?

1 A No.

2 Q How do you train your sales representatives?

3 A How do we do it?

4 Q Yes.

5 A Well, through the technical services people, bring
6 them to St. Paul and give them what we feel they
7 need to know about making good decisions on
8 recommending respirators to the buyers.

9 Q And the reason you want your salespeople to be
10 knowledgeable about your product line in terms of
11 what each product can and cannot do, what each
12 product was designed and not designed for is so
13 they won't recommend, for instance, a mask or
14 respirator that's designed to protect against
15 vapors to a crew that does sandblasting?

16 A Certainly that would be an objective of it, yes.

17 Q You wouldn't want your sales force inadvertently
18 by omission, let's say, misleading the ultimate
19 purchaser or user of your equipment as to what it
20 could or could not do?

21 A The technical service group would not want that,
22 no, that's true.

23 Q And you also recognize your responsibility at 3M
24 that if you should receive information that would
25 put you on notice that some people apparently have

1 a misperception of how your product can or cannot
2 be used, you would try to take some steps to
3 correct that situation, wouldn't you?

4 A We certainly feel that that's what we should do,
5 yes, uh-huh.

6 Q Your group, did they design the 8710?

7 A My group? Which one are you speaking of?

8 Q The initial R&D group. The 8710 was designed
9 before you came with the group?

10 A Yes.

11 Q But the group that you eventually started working
12 with, are they the ones that designed this 8710?

13 A I don't think so. They were relatively new
14 people.

15 Q At that time, is the only disposable mask 3M had
16 was the 8500?

17 A When?

18 Q Before any other disposable masks were produced,
19 you just had one disposable mask?

20 A Yes, just that one.

21 Q The 8500?

22 A Yes.

23 Q We don't know when the 8500 went into production,
24 but what is it that caused 3M to decide they
25 needed another disposable mask besides the 8500?

1 A Simply the fact that there is a user of toxic dust
2 and gases for that matter, too, that a product
3 like that is not usable for; so as a result, if
4 you are going to market a full line of products
5 for respiratory protection, you must design other
6 products, ones approved against that kind of
7 hazard.

8 Q Well, you said a full line of respiratory
9 products. Did you have other respiratory products
10 in your market line before the 8710 and 9910 were
11 produced?

12 A No. Like I said, only the 8500 before the 8710,
13 that's all there was.

14 Q But I mean were there any negative-pressure type
15 masks like the MSA dust mask series, or were there
16 any positive air supplied masks while the 8710 was
17 being produced before 1972?

18 A No, not before 1972.

19 Q So the only thing that 3M made before 1972 that in
20 any way, shape or form blocked any kind of dust
21 from reaching the nose and mouth of anybody was
22 the 8500?

23 A That's my belief, yes.

24 Q And you told me earlier the 8500 was never
25 intended or designed to provide protection for the

1 human lungs?

2 A That is its function, right.

3 Q Can you tell me what it is about the 8500 that
4 causes it by its own design not to afford any
5 respiratory protection whatsoever to the user?

6 A Well, first off, that's not a fair statement to
7 say it doesn't afford any at all whatsoever
8 because it does. It is a filter, but it does not
9 afford enough to be classed as a respirator.

10 Q I see. Well, I thought when I was talking to you
11 earlier this morning -- and that's where I felt
12 confused because of my just looking at this thing.
13 It looks like just a big old form filter paper
14 with a little wire clip on the top and a blue
15 rubberband sticking out from the edges, and this
16 whole paper surface here is just a paper filter,
17 isn't it?

18 A It's not paper.

19 Q What is it?

20 A It's made out of various fibers, polyester rayon
21 types.

22 Q I wasn't trying to be mean about the 8500. I
23 thought it looked like paper.

24 A It's not, though.

25 Q But the whole white surface material, that is a

1 filter?

2 A Yes.

3 Q I thought you told me earlier this morning that it
4 did not provide any respiratory protection
5 whatsoever?

6 A No, I said it was not designed for protecting your
7 lungs which is how you phrased things, and that's
8 not what it was designed to do.

9 Q It was designed just to keep nuisance things out
10 of your mouth and nose?

11 A That's correct, yes.

12 Q Did 3M do any testing on the 8500 to determine how
13 well it worked to either keep things out of your
14 mouth and nose or incidentally keep things out of
15 your lungs during this process of keeping things
16 out of your mouth and nose?

17 A In the beginning you're talking about?

18 Q At any time in the past.

19 A Certainly; yes, we do test it for its filtration
20 efficiency, at least as of the time I've been with
21 OHSP, it's true. Before that, I couldn't tell you
22 because I wasn't there.

23 Q Well, do you even know if it was ever tested
24 before you came on board with the OHSP?

25 A I can't tell you that for a fact because I wasn't

1 there, but I would be very surprised if it was
2 not.

3 Q Well, surprising things occasionally occur. Have
4 you seen any literature, any test documents, any
5 documents, though obviously you did not prepare
6 it, that were prepared before you came to the OHSP
7 on the testing of these respirators?

8 A No, I have not seen any.

9 Q Well, do you happen to know from your knowledge
10 and experience with the OHSP since you came on
11 board what sort of filtration efficiencies this
12 particular product, the 8500, does, in fact,
13 achieve?

14 A Yes, I do know what that is.

15 Q Okay. How can we talk about that in terms that we
16 both will understand so we can communicate because
17 it's important we communicate.

18 A You understand percent efficiency?

19 Q Okay.

20 A As far as scrubbing out --

21 Q Can you tell me how well this mask, the 8500,
22 performs in terms of percent of efficiency, how
23 you've measured it, how you've determined it, what
24 variables there might be?

25 MR. BLIZZARD: Why don't we do it

one at a time rather than asking four or
five questions at one time.

Q (By Mr. Crow) Did I confuse you?

MR. BLIZZARD: I'm confused.

Q (By Mr. Crow) How did you test the 2500, and what
were the results?

A For percent efficiency you would like to know?

Q Well, we can start there. That's logical.

A We test it with a dust.

Q What kind?

A Calcium carbonate, magnesium dust.

Q Why did you choose those two types of dust?

A One, they're easy to get. They're nontoxic as far
as they're not highly dangerous in a test
atmosphere, and they do a good job of
characterizing the filtration efficiency of any
type of respirator.

Q Is it because of the particulate size or the
characteristics of the dust itself?

A No, it's not the dust itself. The material
doesn't care what material is coming at it or not.

Q Or silica?

A No.

Q Or asbestos?

A Right. It doesn't know what it is, so you just

1 choose the appropriate one based on the sizes you
2 want to use and things like whether they cake,
3 caking meaning it's easy to generate a dust clog,
4 things having to do with controlling a dust clog.
5 It's the same all the time. Then you challenge
6 the mask in this case, not a respirator. You
7 challenge it with a certain concentration of the
8 dust at a certain flow rate, and you look for the
9 percent penetration, how much is coming through
10 the other side.

11 Q What did this mask show you when you did that test
12 to it?

13 A That one would have somewhere in the vicinity of
14 85, 90 percent efficiency against all dust sizes.

15 Q When you say all dust sizes, we were talking about
16 microns earlier?

17 A Uh-huh.

18 Q And are you talking about particles larger and
19 smaller than 10 microns?

20 A Yes, right.

21 Q And as far as the dust, as far as the mask goes,
22 this mask doesn't care whether those particles are
23 silica or calcium carbonate?

24 A From the view of its percent of efficiency, no.

25 Q And you would assume with the test based on your

1 experience, this mask would filtrate out 20
2 percent of the particles above and below 10
3 microns just like it does calcium carbonate?

4 A In general, that would be true, yes.

5 Q Those tests have only been done since you've been
6 with the OHSP?

7 A Only that I can absolutely tell you that it's been
8 done because I saw it. I know the test wasn't
9 developed after I got there, so I'm assuming they
10 were doing it all the time, all the way back to
11 the beginning.

12 Q Can you tell me the name of the man you personally
13 saw conduct the test and was responsible for
14 setting it up to make sure the test was accurate?

15 A No, I saw it out in our factory. It was a quality
16 control technician. I don't know who he was.

17 Q Can you tell me how the test is actually run?

18 A As I said, it's essentially a machine that
19 generates a dust cloud, and the dust cloud is
20 controlled at a certain concentration; and then
21 you have the respirator clamped in a holder, and
22 you run the dust cloud with air through it so it
23 has to go through the respirator mask itself, and
24 you measure the concentration upstream and
25 downstream.

1 Q Let's start with the concentration. What
2 concentration of calcium carbonate do you use
3 upstream?

4 A To tell you the truth, I don't remember because I
5 haven't looked at the test specification in a long
6 time.

7 Q Do you have any idea in terms of a general idea?

8 A How much it would be? Purely I would have to
9 speculate. I would guess somewhere around maybe
10 50 milligrams per cubic meter, something like
11 that.

12 Q When you say 50 milligrams, are you talking about
13 50 milligrams by weight in a certain volume of
14 air?

15 A Right.

16 Q And you say the mask is clamped down over a
17 machine?

18 A Well, it's part of it. It's put in a holder, yes.

19 Q And are the edges sealed in some way during this
20 test?

21 A Yes.

22 Q How are they sealed?

23 A The holder just clamps down on the edges of them,
24 on the edge of the mask itself.

25 Q So none of this upstream contaminant can come in

1 and get downstream by coming around the edges of
2 the mask during the test?

3 A That's right.

4 Q And then you apparently apply a negative pressure
5 to the back of the mask and pull this upstream
6 contaminated atmosphere through this filter
7 material?

8 A That's correct, yes.

9 Q When that happens, the only thing that comes
10 through, that gets downstream, so to speak, is
11 what is actually coming through the filter?

12 A That's right.

13 Q Would it be safe to say those are the smallest
14 particles in your upstream contaminated
15 atmosphere?

16 A What comes through is the smallest particles?

17 Q Yes. Isn't that normally the case?

18 A Normally, yes.

19 Q And when you are talking about toxic dust, the
20 smallest particles are frankly the most dangerous?

21 A Right, but that has nothing to do with this
22 because --

23 Q This is not a respirator?

24 A -- that's not a respirator.

25 Q I anticipated what you were going to say, and

1 we're on the same wavelength there; but
2 nevertheless, what this 8500 is going to do if you
3 tape the edges down around a human face, it's
4 going to filter out 90 percent of the contaminated
5 atmosphere, but the 10 percent that comes through
6 is going to have generally the finest particulate
7 contaminant come there through?

8 A There won't be all of it in there, but it will
9 tend to be the finer as opposed to big rocks.

10 Q Now, 90 percent sounds like that's pretty big
11 filtration to me. Why is it that 3M -- well, why
12 is it that you say -- I won't say 3M -- why is it
13 that you say the 8500 doesn't do good enough to be
14 a respirator when it filters 90 percent of this
15 contaminated atmosphere?

16 A It has to do with the fact that a respirator, to
17 actually market one in this country, you need to
18 have an approval for it; and to gain NIOSH
19 approval, in fact, the percent efficiency level is
20 a little over 99 percent minimum to be able to do
21 that; so while 90 percent sounds pretty good, it's
22 not nearly what is required for a respirator.

23 Q Now, NIOSH has only been around since '71 or '72?

24 A Yes.

25 Q Before NIOSH, was there any organization which

1 regulated the sale of respirators?

2 A Bureau of Mines, that was the only one I know of
3 that was into that kind of thing.

4 Q Do you know if they had this 99 percent
5 requirement you mentioned?

6 A No, I don't.

7 Q Before 1971 are 1972 when NIOSH came into being,
8 what is it that kept 3M from selling this mask as
9 a respirator aid if not the government?

10 A Say that again.

11 Q You've told me the reason this mask couldn't be --
12 in your opinion why you didn't think this mask
13 isn't good enough to be used as a respirator
14 device even though its material filters out 90
15 percent of the contaminated atmosphere is because
16 NIOSH requires 99 percent efficiency?

17 A Yes.

18 Q Before NIOSH came out, was there anything that
19 prevented 3M from selling this thing as a
20 respiratory aid or device?

21 A I don't know if there was or not.

22 Q And do you know if they did or not?

23 A 3M advertised that as a respiratory device?

24 Q Yes, before NIOSH came along.

25 A I don't know if they did.

1 Q If they did advertise it like that, they were
2 misadvertising the product, weren't they?

3 A No, I wouldn't agree with that if they advertised
4 it to be an actual respirator in terms of what an
5 actual respirator is; but a respiratory product
6 can be that, what you have in your hand, because
7 it's keeping material out of your respiratory
8 tract.

9 Q So if they advertised this as an aid in
10 respiratory protection before NIOSH came along,
11 you wouldn't necessarily think that was misleading
12 advertising?

13 A No, as long as it said for nuisance dusts.

14 Q Did you know what nuisance dust was before you
15 went to the OHSP?

16 A No.

17 Q Did you ever buy any mask like this down at the
18 hardware store when you were painting around the
19 house before you went with OHSP?

20 A No, I didn't.

21 Q Do you know if anyone else in the United States
22 did?

23 A What, bought those in a hardware store?

24 Q Yes.

25 A I would assume they have.

1 Q Nuisance dust has a technical definition, doesn't it?

2
3 A Yes.

4 Q Do you know if 3M made any attempt to disseminate
5 that technical information on the 9900 before
6 NIOSH came along or afterwards?

7 A No.

8 Q Do you know if 3M has made any attempt to tell the
9 people that buy the 8500 so that they will
10 understand what this mask will and will not do?

11 A At what time frame are you talking about? Ever?
12 Always?

13 Q Ever.

14 A Certainly have since I've been in. Before that, I
15 don't know what they did.

16 Q You can't speak about what they did before that,
17 but you certainly can speak about what you've done
18 since then?

19 A Yes.

20 Q Can you tell me whether or not what you've done
21 since then is at least as much and probably more
22 than what you did before you came on board?

23 A I don't know. I couldn't tell you since I don't
24 know what they did before.

25 Q What do you do to tell people that this mask --

1 what do you do specifically on the 8500 mask ~~now~~
2 to tell people what it can and can't be used for?

3 A We tell them right on the box strictly for
4 nuisance dust, not for toxic use, not for spray
5 painting use, for example. It's printed on the
6 boxes.

7 Q Is it on each individual mask?

8 A No, it's in the box.

9 Q Do you sell them in individual masks?

10 A No.

11 Q How do you group them?

12 A They're grouped in boxes of 50 usually.

13 Q So you put that information on the box?

14 A Yes.

15 Q You do that anticipating that when the box with
16 the actual mask gets to the user, the user will
17 read the information on the box and understand
18 this mask is not to be used in spray painting or
19 toxic atmospheres?

20 A No, not at all. We put that on the box for the
21 purpose of the buyer who is the person who knows
22 best the hazard in his work place, that he reads
23 it and decides whether or not that product is
24 apropos to give to his workers or not.

25 Q So if you just put nuisance dust, this mask will

1 be used for nuisance dust on the box and not for
2 toxic dust, then you expect the buyer to have the
3 expertise to know the difference?

4 A If he doesn't, he can find out from many sources
5 including us.

6 Q How would he find out? What sources would he go
7 to to find out the technical definition of
8 nuisance dust as compared to the technical
9 definition of toxic dust?

10 A He could go to the local OSHA office or local
11 Department of Health. We have an eight hundred
12 number printed right there on the box.

13 Q How long has that eight hundred number been
14 printed on the box?

15 A With the last six years.

16 Q Why has it only been the last six years you have
17 the number printed on the box?

18 A Because we didn't have it before then.

19 Q Well, was there a reason why you put the eight
20 hundred number on the box if the eight hundred
21 number has been around longer than six years?

22 A Yes.

23 Q Did you come to some realization at 3M there was a
24 need in the field for unsophisticated purchasers
25 to be able to get access, easy access, to more

1 information about the uses and improper uses of
2 your products?

3 A Yes, basically that's right. It's basically
4 impossible for users to be in contact with one of
5 our sales reps at all times; and we wanted to make
6 it easy for them to deal with us.

7 Q You already told me you knew a baseline fact that
8 not everybody that would buy one of these would be
9 an industrial hygienist?

10 A Sure.

11 Q An industrial hygienist would know the technical
12 difference between nuisance dust and toxic dust?

13 A Yes.

14 Q But somebody with an 8th grade education might not
15 know the difference, right?

16 A He might not know the difference, yes.

17 Q And if he wears your mask thinking it would
18 protect him against what is technically a nuisance
19 dust, he will, in fact, contract -- in an
20 atmosphere that is technically called a toxic dust
21 -- and I'm talking about the 8500 -- you know that
22 that person because of his or her ignorance very
23 likely could contract the very disease that that
24 toxic dust creates?

25 A You switched gears there. No, the buyer doesn't

1 normally wear the product. The buyer gets the
2 product and makes a decision of which one is the
3 proper one to wear and then gives it to the user
4 to wear; so since the buyer is given access to our
5 instructions and our eight hundred number, they
6 have all the possibility to find out what the
7 difference is that you're striving for, which is
8 nuisance dust and toxic dust, and they do this
9 before they actually assign it to the actual
10 person or worker that's going to wear it.

11 Q Let me ask you my original question again, and
12 then we'll explore what you just answered. It's
13 obvious, I think, but I'm going to ask you since
14 you're knowledgeable about your respiratory
15 equipment, if somebody mistakenly thinks this 8500
16 will protect their lungs against inhalation by the
17 technical term of toxic dusts and wears it as a
18 result of that ignorance, not as a commitment of
19 suicide but out of ignorance, then you can foresee
20 that that person through their ignorance can
21 contract the very disease that toxic dust will
22 create in them?

23 A I would say that is probably true. It possibly
24 could happen.

25 Q And you told me a moment ago that in an effort to

1 prevent that from happening, you furnish technical
2 bulletins. You try to instruct and inform your
3 salesmen; you try to sit down and develop a good
4 list of instructions and warnings to go with your
5 products; is that right?

6 A Yes, we do.

7 Q And in the last six years, you've had an eight
8 hundred number so if somebody has a question, they
9 can call you directly?

10 A That's right.

11 Q Do you know how long eight hundred numbers have
12 been around?

13 A No.

14 Q To back up and shift gears, which you told me I
15 had done a moment ago, but to back up and actually
16 shift gears, you told me you provide the
17 information you do on your mask not to the user
18 but to the buyer?

19 A That's correct, the employer in the actual effect,
20 uh-huh.

21 Q Do you not feel the need at 3M to provide the
22 information to the person whose lungs are at risk?

23 A What we feel we should do is give the information
24 to the person best able to judge the risk to a set
25 of lungs, and we don't feel that is the worker

1 himself. It is the employer who knows and
2 understands what the hazards are in his own work
3 place. The workers there are not usually in a
4 position to know that.

5 Q Why is that?

6 A Because normally they're not cognizant of what
7 they're working on many times and don't know. The
8 employer does or at least he should find out, and
9 that's why we think those people are the ones that
10 are best able to choose what the proper respirator
11 protection is because they know the work hazards
12 in their work place or at least are responsible
13 for finding that out; and based on the information
14 we provide them, they can choose the proper
15 respirator aid, whatever that may be.

16 Q So you acknowledge the workers or users of your
17 respiratory products may not know the risk
18 involved of being around a certain toxic substance
19 even if they know what the toxic substance is?

20 A That's correct, they may not know.

21 Q Even if the employer's told them, for instance,
22 they'll be using sand for sandblasting and they
23 can see that's the case, you understand for a fact
24 that there are many workers in this country that
25 do not understand the risk involved in blasting

1 with sand in conjunction with inhaling that sand
2 and wearing the proper respiratory device?

3 A Are you asking me if I believe there are workers
4 that don't know what the risk is?

5 Q Yes.

6 A Yes, I believe that would be true.

7 Q And 3M's corporate policy is not to attempt to
8 educate the lungs that are at risk but rather to
9 attempt to educate the employer who is paying the
10 lungs that are at risk?

11 MR. BLIZZARD: Well, I don't think
12 that fairly characterizes what he said.
13 He said that the best way to get the
14 information to the employee is through
15 the employer.

16 MR. CROW: Well, I heard what he
17 said. My ears aren't as bad as you
18 think.

19 Q (By Mr. Crow) And if I heard what you said
20 correctly -- and I want to be sure because there
21 seems to be some confusion -- but you at 3M have
22 intentionally decided as a corporate policy not to
23 attempt to educate the human beings whose lungs
24 are actually at risk as to the risk this device is
25 to protect against and the proper selection of the

1 device and the proper method of wearing the device
2 but, rather, you have decided to provide that
3 information to the "employer" instead?

4 A Yes, because we feel that is the best way to get
5 the information to the actual worker user.

6 Q And, of course, if you were wrong, if an employer
7 does not for whatever reason, ignorance,
8 misunderstanding, lack of sophistication explain
9 what you think is adequate and sufficient warnings
10 to the lungs that are actually at risk, then those
11 people are going to get silicosis if they
12 sandblast, aren't they?

13 A I don't know.

14 Q Well, it's at least possible they'll get
15 silicosis; isn't that true?

16 A Define what they're actually doing again.

17 Q If they're sandblasting and not using the proper
18 respirator device, they can get silicosis if they
19 don't know what to use and what equipment to use
20 or how to use it, they can get that disease,
21 right?

22 A Yes, that's possible.

23 Q It's very logical. When did 3M come up with this
24 policy of giving some information to the employers
25 and deciding that fulfilled their responsibility

1 to the lungs that were actually at risk?

2 MR. BLIZZARD: Well, that assumes
3 this so-called policy that you've
4 created, so I'm going to object to that
5 question because it assumes something
6 that's not been testified to. You have
7 asked him how 3M feels it's best to be
8 able to get information to the worker.
9 He has testified to the best way they
10 know how to get it to the worker is not
11 only the information supplied on the
12 boxes but to educate the employer, so
13 I'm not going to let him answer a
14 question that assumes facts he's not
15 testified to.

16 Q (By Mr. Crow) Well, Mr. Scheel, I believe you
17 told me earlier -- and we can go back through the
18 court reporter's records -- but I believe you told
19 me earlier that was your policy in deciding how to
20 disseminate information.

21 A I never said the word policy I don't think. It's
22 our way of doing it. It depends on what you mean
23 by policy. If you mean written down on a piece of
24 paper signed by someone, we don't have that. This
25 is the way we do it.

1 Q And it's the way you've always done it?

2 A At least as long as I've been there.

3 Q And it's the way you intend on doing it in the
4 future?

5 A Yes.

6 Q When did this methodology of trying to instruct or
7 trying to figure out a way of getting instructions
8 to the people's lungs that are actually at risk,
9 when did all of this get started, do you know?

10 A No, it was there when I got there, so I don't
11 know.

12 Q Now, at 3M, do you have or have you talked among
13 yourselves or do you have any warning policy or
14 process whereby you make an attempt to warn
15 against hazards that are life threatening and not
16 necessarily warn against hazards that are not so
17 dangerous? Do you understand what I'm saying?

18 A No.

19 Q At 3M, do you recognize the greater the risk posed
20 to the user or purchaser, the greater the need to
21 warn or instruct?

22 A The greater --

23 Q Have you ever heard that stated?

24 A Not exactly that way, no.

25 Q Well, what I'm trying to find out is this: You

1 know, a product that's designed to protect a human
2 life, more thought would go into the design of
3 that product than a product that's simply a piece
4 of paper that you stick up on a wall?

5 A Uh-huh.

6 Q Wouldn't you agree with me on that?

7 A In general, I guess so, yes.

8 Q And you not only give more thought to the design
9 of that product, but you recognize that even
10 though you may have designed an excellent product
11 to protect that human life, if the human being
12 that's using it doesn't understand how to use it
13 correctly, you've defeated the purpose of the
14 design of the product?

15 A I don't understand.

16 Q Even if you make a product that can save a human
17 life, if you don't provide enough instructions to
18 somebody so they'll know how to use the product
19 properly and, therefore, you haven't saved their
20 life, you haven't really accomplished anything
21 other than making the sales of the products?

22 A I would say that's right. You would certainly
23 have to give instructions on how to use the
24 product.

25 Q And the greater the risk to the user of the

1 product, the more detailed, the more comprehensive
2 you would make your instructions and your
3 warnings?

4 A Not necessarily. Not necessarily.

5 Q So at 3M you don't necessarily have a policy or a
6 procedure whereby if the risk is death, then extra
7 steps will be taken to ensure the user uses the
8 product correctly to prevent death as just
9 compared to a bruised thumb?

10 A I was going to say considering the fact nothing we
11 make guards against a bruised thumb, we treat all
12 our respirators the same as regards our warnings
13 and instructions.

14 Q I understand you treat all of your respirators the
15 same in terms of instructions and warnings. Is it
16 true, sir, you give more attention to the
17 instructions and warnings of the items you make at
18 3M that are designed to protect human life than
19 you would give to your office products?

20 A I have no idea. I don't know what they do in the
21 office products. I've never worked for them.

22 Q Do you know what they do in the commercial or
23 industrial tape divisions?

24 A Yes.

25 Q You got instructions on the side of your Scotch

1 tape, don't you?

2 A Yes.

3 Q And somebody sat down and had to think up those
4 instructions, didn't they?

5 A Yes.

6 Q They didn't appear on the package magically.

7 MR. BLIZZARD: I don't understand.

8 Q (By Mr. Crow) Well, the container, the person who
9 made up the package for 3M to put its Scotch tape
10 in didn't decide what instructions to put on
11 there, did they?

12 A Say that again.

13 Q The people that provided the container for your
14 Scotch tape to be marketed in, they didn't think
15 of the instructions, did they?

16 A The people who provided the container?

17 Q Yes, the Scotch tape holder.

18 A No, generally, that's true. The people who make
19 the container don't make the instructions, no.

20 Q And you put instructions, you say, on the side of
21 your 50-mask boxes of 8500 masks, don't you?

22 A Yes.

23 Q At 3M, do you recognize any need to be more
24 comprehensive in the warnings you put on products
25 that are designed to save human lives than you do

1 on products like Scotch tape?

2 MR. BLIZZARD: I think the problem,
3 Carl, is you're asking him to compare
4 something he's familiar with with
5 something he's not familiar with.

6 Q (By Mr. Crow) I said Scotch tape. You told me
7 you were involved in commercial and industrial
8 pressure-sensitive tape?

9 A Yes.

10 Q So let me rephrase the question by simply
11 substituting pressure-sensitive industrial and
12 commercial tape. At 3M, do you feel like you need
13 to be more comprehensive in the instructions and
14 warnings on the products you make that are
15 designed to protect human life than on your
16 commercial or industrial pressure-sensitive tape
17 products?

18 A I would say no, and I will say no for this reason:
19 Each different product has what we deem, after
20 looking at each particular one, a certain set of
21 instructions and warnings in its use; therefore, I
22 think we would look at all of our products in the
23 same way, the best instructions for that one,
24 whether they be for Scotch tape very simplistic
25 and short or instructions on the boxes of our 8710

1 which are quite comprehensive and complex. That
2 doesn't mean we care more about one than the
3 other; it just means what's required for one may
4 be more or less than what's required for the
5 other.

6 Q At 3M, more emphasis is to be placed on
7 instructions and warnings on a product line for
8 disease and death than for --

9 MR. BLIZZARD: I think he's
10 answered the question. Let's go on.

11 Q (By Mr. Crow) And your answer is no?

12 MR. BLIZZARD: His answer is what
13 it is. He's already given it several
14 times.

15 Q (By Mr. Crow) If someone misuses your commercial
16 or industrial pressure-sensitive tape, they're
17 just going to waste tape?

18 A Quite possibly. I guess they could.

19 Q If somebody misuses one of your respirator aids or
20 devices, it could result in injury or death.
21 We've already discussed that?

22 A It's possible, yes.

23 Q The 8500, you said it had a 95 percent filtering
24 efficiency?

25 A Yes.

1 Q Can we translate that into protection factors?

2 A Sure. That would be 10 if you want to do
3 protection factors, but that only applies to
4 respirators, now.

5 Q I see. Well, we're going to talk about the 8710
6 in terms of protection factors, aren't we?

7 A I don't know. Are you?

8 Q Well, I hope so.

9 A If you want to, uh-huh.

10 Q The 8500, if you were thinking of it as a
11 respirator, would be 10?

12 A Yes, if you were thinking of it in terms of a
13 respirator, it would have 10, yes.

14 Q That would mean you were only breathing one-tenth
15 of the contaminated atmosphere through your lungs?

16 A Right.

17 Q How does it actually work out when you put it on a
18 human being's face, though, if you don't have the
19 edges sealed by a machine?

20 A You'd have to measure it.

21 Q Well, have you done any testing at 3M on the 8500
22 to determine what happens to the protection factor
23 when you don't have the edges nicely sealed down
24 by a machine and you're just drawing through the
25 filter material?

1 A No, because the 8500, it applies only to a
2 respirator, and the 9500 is not a respirator.

3 Q And you don't know what it drops off to?

4 A I don't know that it drops off.

5 Q You've been in R&D and Technical Services. You
6 know there has to be some leakage if you put it on
7 the human face as compared to locking it down with
8 a machine?

9 A Yes, some.

10 Q And you know for a fact the protection factor is
11 going to drop off a little?

12 A Yes.

13 MR. VAN GILDER: Carl, you're
14 confusing the filtering efficiency with
15 the protection factor.

16 Q (By Mr. Crow) Well, the filtering efficiency and
17 the protection factor both deal with how well the
18 filtering material of the mask seals against the
19 face?

20 A No, it does not.

21 Q The protection factor, then, in your mind only
22 deals with the filtering material?

23 A No.

24 Q What does it mean to you?

25 A It means only leakage from face leakage or valves,

1 gaskets if the thing has pieces like that.

2 Q So you said awhile ago you consider this thing to
3 have a 90 percent efficiency, and it would have a
4 protection factor of 10. If you get face leakage,
5 you put it on and actually wear it, if you know
6 that's going to go down, does that mean the
7 protection factor's going to go down?

8 A Yes, but the protection factor has nothing to do
9 with this product.

10 Q Because it's not a respirator?

11 A That's right.

12 Q And you don't have any idea what the actual
13 protection factor on the 8510 will go down to?

14 A 8500 you mean.

15 Q 8500.

16 A No. We never measured it. In fact, you can't
17 measure it on a product like that.

18 Q Why not?

19 A Because of the way protection factors are run.
20 You can't measure it on a product like that.

21 Q I'm sorry, I don't understand. I heard you the
22 first time, but I don't understand why you can't
23 measure on this type of product.

24 A Because of the fact you can't convert that into a
25 high efficiency filter.

1 Q You mean the material this mask is made out of?

2 A That's right.

3 Q Just the material itself won't provide enough
4 filtering agent to be high enough --

5 A -- to run the test, yes, that's right.

6

7

(Whereupon, a short recess was
8 taken.)

9

10 Q (By Mr. Crow) You just told me that this facial
11 test -- do you call it a facial test at 3M?

12 A No, it's currently called a -- if you are talking
13 about protection factor, it's currently called fit
14 factor.

15 Q Fit factor?

16 A Yes, same thing, though.

17 Q Well, we know this thing theoretically has a
18 theoretical protection factor of about 10 if you
19 seal the edges?

20 A That's correct, if there's no leakage, you'd get a
21 -- actually that's not quite right. That's
22 definitional terms. If you're using the
23 percentage of stuff coming through as trying to
24 calculate a number and call it something, in that
25 case where you have no edge leakage at all and are

1 strictly doing the calculation on what is coming
2 out the filter, that's called total inward leakage
3 factor. The computations of coming up with the
4 number are the same.

5 Q You know, what I'm trying to avoid is -- I want to
6 know -- if it's makes a difference, I want to know
7 what you call it or what we have to do, the terms
8 we have to use, if it makes a difference; do you
9 understand?

10 A Sure.

11 Q And I'll ask you until I understand.

12 A Uh-huh.

13 Q If it doesn't make a difference, if we can talk
14 about protection factor interchangeably, I'd like
15 to keep it as simple as we can.

16 A Fine.

17 Q Theoretically if I understand what you are telling
18 me, if the edges are sealed on this mask, you get
19 a protection factor of about 10?

20 A Like I said, you'd get a total inward leakage
21 number of about 10. They are different.

22 Q You call it a total inward leakage?

23 A That's right.

24 Q On your respiratory mask like the 8710, do you use
25 the term total inward leakage?

1 A No, because you don't usually measure that. You
2 are talking about protection factor.

3 Q On the 8710 and 9910?

4 A Any respirator, you do.

5 Q So we'll be talking about protection factor on
6 these?

7 A Yes.

8 Q And if we're trying to compare the 8500 with
9 these, as you've already told me, the protection
10 factor is approximately 10, no edge leakage?

11 A No, the total inward leakage is about 10. I don't
12 know the protection factor on that because you
13 can't measure it.

14 Q You can't measure it because of the edge leakage?

15 A No, because the filter is not nearly efficient
16 enough to stop the material you use for the test
17 challenge in a protection challenge test.

18 Q What is it about the test challenge on a
19 protection challenge test that makes this mask or
20 the filtering material on this mask inadequate? Is
21 there so much more of it challengewise?

22 A No, not really. The concept is you're trying to
23 measure only face leakage on the protection
24 factor, that's all, just the leakage around the
25 face. That means there's no penetration through

1 the filter; otherwise, you wouldn't be able to
2 separate them. I already told you that product is
3 not 100 percent efficient against particulate
4 challenges. As long as it's not, you cannot
5 measure percent efficiency just by the very
6 definition of the test, how it's done.

7 Q So when you're measuring your protection factor,
8 you're measuring face fit and not percent
9 efficiency?

10 A Yes, that's what you're supposed to do. That's
11 what protection factor is is to measure only face
12 seal leakage.

13 Q All right. You told me earlier that toxic dust
14 this was not designed to protect including cotton
15 dust?

16 A Yes.

17 Q And this was not to be used for spray painting?

18 A At least spray paint toxic in nature.

19 Q Which spray paint is toxic, and which is nontoxic?

20 A Toxics may be a water base with materials in it
21 where the solid part is not toxic material.

22 Q Stuff you could inhale and it wouldn't hurt you?

23 A That's right.

24 Q But other types of paint, non-latex base paint,
25 might have materials you would inhale and hurt

1 you?

2 A Yes, especially if it's a solvent base, yes.

3 Q And in those situations, you wouldn't want anybody
4 thinking they could use this type of mask?

5 A No, we wouldn't want people thinking that's a
6 spray paint mask.

7 Q And you wouldn't want people using it where
8 there's a lot of cotton dust?

9 A No, we wouldn't.

10 Q And you wouldn't want people using it with
11 sandblast metal using a sandblaster?

12 A Yes, that's correct.

13 Q And because if they did that enough, they'd get
14 silicosis?

15 A That's a possibility, yes.

16 Q Before I talk to you about these anymore, I want
17 to know do you really know what silicosis really
18 is? You told me earlier you didn't know the
19 medical mechanism by which these small sand
20 particles get down in the lungs. Do you know what
21 happens to a human being once they contract it?

22 A My understanding of it is it essentially blocks
23 the small airways of the lungs, the alveoli, and
24 interferes with the transfer of the blood. It's
25 essentially like losing a greater share of the

1 working area of your lung to transfer oxygen in
2 your blood.

3 Q Has anyone ever explained to you the disease is
4 progressive in nature?

5 A No, I've heard that, I think, but I've never had
6 an explanation.

7 MR. LIPSCOMB: I object to the form
8 of the question. I don't know what that
9 has to do with the subject matter of
10 this person.

11 MR. CROW: I want to know what 3M's
12 designee knows.

13 Q (By Mr. Crow) You know that it's fatal?

14 A I know that it can be.

15 Q Do you know that people can be disabled from it
16 for long periods of time before they die from it?

17 A Yes, I know that.

18 Q Do you know that people in the terminal stages of
19 silicosis literally spend all of their life's
20 energy just trying to aerate their lungs and their
21 blood?

22 MR. LIPSCOMB: Objection to the
23 form.

24 MR. VAN GILDER: Objection to the
25 form.

1 MR. CROW: Objection to the
2 form? What objection could you possibly
3 have to the form?

4 MR. TILL: You're testifying for
5 the witness.

6 Q (By Mr. Crow) I said did you know that people in
7 the terminal stages of silicosis literally have so
8 much trouble breathing that their whole life's
9 energy is directed toward taking a breath in and
10 exhaling that breath?

11 MR. TILL: Object to the form.
12 Argumentative.

13 MR. LIPSCOMB: Objection.

14 Q (By Mr. Crow) Everybody object. Now, answer the
15 question.

16 A Yes, I do know that.

17 Q Do you know it's the slowest form of death a
18 person could experience?

19 MR. TILL: Objection,
20 argumentative.

21 MR. LIPSCOMB: Objection.

22 A No, I can't say I did know it was one of the
23 slowest forms.

24 Q (By Mr. Crow) Do you know of any other forms?

25 MR. VAN GILDER: The witness can't

1 answer medical opinions.

2 MR. CROW: I'm not asking medical.

3 Q (By Mr. Crow) I want to know what you people at
4 3M think about the products that you are going to
5 design, test, manufacture and market to people and
6 represent what's going to protect them from it.
7 Can you think of any other slower ways of dying
8 other than silicosis?

9 A No, I don't know of any other one.

10 MR. TILL: What about living a
11 normal healthy life?

12 MR. LIPSCOMB: Put a running
13 objection.

14 MR. BLIZZARD: He answered your
15 question.

16 Q (By Mr. Crow) What's the difference between the
17 8710 and the 8500 in terms of material used for
18 filtration?

19 A The 8710, in fact, has a filter web sitting over
20 the shell that causes it to have its form and
21 shape.

22 Q Okay. A filter web?

23 A Yes.

24 Q Is the inner part of the 8710 made out of the same
25 material as the 8500?

1 A No, not exactly. It's slightly different.

2 Q How is it different?

3 A Just slightly different fiber blend.

4 Q Is the weave any tighter?

5 A No.

6 Q How does the slightly different fiber blend make

7 it more efficient if it does make it more

8 efficient?

9 A It doesn't, but the shell has nothing to do with

10 the efficiency of the respirator.

11 Q What is it that makes this so efficient you call

12 it a respirator but the 8500 is not a respirator?

13 A The filter web.

14 Q This outer portion?

15 A It's actually between that piece and the shell.

16 Q How many layers of material do we have here?

17 A We have three you're looking at there.

18 Q What is the outer cover made out of?

19 A The outer cover is made of a polyester fiber.

20 Q The inner cover, is that the web you talked about?

21 A No, the inner cover, what you're looking at --

22 Q No, the inner.

23 A The inner, that's the filter media.

24 Q Is that similar to the 8500?

25 A No, completely different.

1 Q Is that what makes this mask so efficient is the
2 inner lining we can't see right now?

3 A That's right.

4 Q What's this material on the inside, the part that
5 fits against the person's face, what's it made out
6 of?

7 A Polyester.

8 Q Similar to the 8500?

9 A Similar.

10 Q It has a little different weave you said?

11 A No, I said it has a little different fiber.

12 Q So you have the 8500 is the inner material. In
13 the 8710, is it the same thickness as the 8500
14 mask material?

15 A Approximately they're the same, the two shells,
16 then.

17 Q So then you basically just added two separate
18 pieces of material on top of an 8500 shell?

19 A Yes, that's right.

20 Q I mean, I understand that you told me there's a
21 slightly different composition of fiber of the
22 inner shell of the 8710; but in simple terms,
23 that's what you've done is put two more layers of
24 material on top of the 8500, and it looks to me
25 this mask is a little bit bigger dimensionally, or

1 is that --

2 A I don't think so. I think that's an illusion.

3 They're about the same.

4 Q So you didn't even change the size of the mask in
5 order to improve face fit between the 2710 and the
6 8500?

7 A That's assuming -- you're assuming there was poor
8 face fit with the 8500 in the first place.

9 Q Well, was there?

10 A Not that we know of.

11 Q You think you got good face fit?

12 A We think so.

13 Q When you say good face fit, are you talking about
14 a 95 percent face fit?

15 A That is the way face fit factors are defined.

16 Q Do you get a 95 percent face fit factor with this
17 8500?

18 A I can't tell you that because we can't measure it
19 directly.

20 Q You get so much material in there that you --

21 MR. BLIZZARD: Go on to something
22 else. We've already talked about that.
23 We'll stay until you finish, but I'm not
24 going to let you ask the same question
25 over and over again.

- 1 Q (By Mr. Crow) The little rubber strap on the
2 8700, has it always been blue?
- 3 A No.
- 4 Q What color was it before?
- 5 A White.
- 6 Q How long was it white before it was blue?
- 7 A It was white when I showed up in the division.
8 Before that, I don't know how long before that it
9 was white.
- 10 Q Well, we have a blue one here. Is this a real old
11 one or a real new one?
- 12 A No, that's current. It's blue now.
- 13 Q But can you tell me when it changed from white to
14 blue?
- 15 A About three years ago, I think.
- 16 Q And before that, as long as you know, it was
17 white?
- 18 A Yes, as long as I know.
- 19 Q Was the rubber retaining device attached in
20 approximately the same manner it is here on this
21 one?
- 22 A Yes.
- 23 Q And approximately the same place?
- 24 A Let me see. Yes, uh-huh.
- 25 Q Did you always have the little logo 3M imprinted

1 on the little nose metal piece as far as you know?

2 A No, that's recent.

3 Q How long has that been going on?

4 A The last couple of years.

5 Q Before then, did you have any kind of logo
6 information on the 8500?

7 A For a time, it was embossed right into the shell
8 itself.

9 Q Did you ever have a different design shell for the
10 8500 than what I'm holding in my hand? Maybe you
11 had the filter material ribbed and running in a
12 different direction?

13 A Not in a different direction than that, no, not to
14 my knowledge.

15 Q And I want to clear up something. As far as you
16 know, the 8500 has never been improved or changed
17 in any way?

18 A Not since I've been in the division it hasn't been
19 changed, no.

20 Q And you don't know about before then?

21 A No.

22 Q 8710, this is something that was designed from the
23 ground up, even though you started with the 2500
24 shell, to be a respirator?

25 A That's right.

- 1 Q Can you tell me what the initial concept ~~was in~~
2 terms of what it was to protect the wearer
3 against?
- 4 A Pneumoconiosis and fibrosis-producing dusts.
- 5 Q Toxic dusts?
- 6 A We separate the pneumoconiosis dusts because toxic
7 dusts include metal dusts, and those are not of
8 the same category.
- 9 Q Like lead?
- 10 A Lead.
- 11 Q What else?
- 12 A Toxic dusts, lead, lead chrome, beryllium, all
13 kinds of metal, zinc.
- 14 Q So if I understand what you are telling me, at 3M
15 you have these three categories. You have
16 category number one you call nuisance dust.
17 That's old West Texas dust; is that right?
- 18 A Yes.
- 19 Q And your second category is pneumoconiosis dust?
- 20 A Yes.
- 21 Q And that includes silica, cotton. Any others?
- 22 A Tobacco.
- 23 Q Tobacco?
- 24 A Yes.
- 25 Q What does tobacco give you besides cancer?

- 1 A I don't remember what the name of the disease is.
- 2 Q Then you have the third category you like to call
- 3 toxic dust which includes lead and what other
- 4 kinds of dust?
- 5 A It includes metal dusts in general.
- 6 Q Iron, steel?
- 7 A Anything that is considered toxic, that would be
- 8 under metal.
- 9 Q Magnesium?
- 10 A You want to bring out a TLV book, we can look them
- 11 up. I don't remember them all by heart, but
- 12 that's what they are.
- 13 Q But when you think about what your respiratory
- 14 products are for, you think of putting them in one
- 15 of those three categories?
- 16 A Yes. Not now we don't. We did then. In the
- 17 beginning, you were talking about the 8710 when it
- 18 was first brought out.
- 19 Q You said in the beginning?
- 20 A Yes.
- 21 Q To differentiate it from Genesis, are you talking
- 22 about from 1972?
- 23 A Yes.
- 24 Q When you got on board there with the OHSP in '76,
- 25 did you still have these three categories in your

1 mind when you designed these kinds of products?

2 A Yes.

3 Q Or tested them?

4 A Yes.

5 Q Or marketed them?

6 A Yes.

7 Q And as far as you know, that three-category system
8 has gone back to the early '60's?

9 A I don't know.

10 MR. BLIZZARD: Carl, we were
11 talking about the early '70s as the
12 beginning.

13 MR. CROW: Of the 8710?

14 MR. BLIZZARD: I'm not sure what we
15 said then.

16 Q (By Mr. Crow) What did you call the group that
17 built the 8500? For a while that was the only
18 product they had. You said it was attached to the
19 commercial or industrial tape bunch?

20 A It was attached to the Commercial Tape Division,
21 yes.

22 Q Did it have a little name?

23 A I think it was always called Occupational Health
24 and Safety Products.

25 Q For a time, this was the only product they had, if

1 I remember right?

2 A Yes.

3 Q Did those folks think of designing, marketing, and
4 testing respiratory equipment or masks in terms of
5 those three categories of hazards, nuisance dust,
6 pneumoconiosis and fibrosis-producing dust?

7 A I don't know. I don't know them.

8 Q In any event, you stopped me. The reason we got
9 off on that is you stopped me because you didn't
10 want me referring to the 8710 as being something
11 that would necessarily prevent a person from being
12 ill from the inhalation of toxic dust because that
13 could include metal dust, right?

14 MR. BLIZZARD: Well, why don't you
15 just ask questions instead of
16 characterizing previous testimony.

17 Q (By Mr. Crow) The 8710 is not designed to protect
18 against toxic metal dust, is it?

19 A Let me back up and say when you were asking that
20 question before, you were talking in terms of 1972
21 when the product was first put out; and at that
22 time, it was strictly pneumoconiosis and
23 fibrosis-producing dust. That's what it had its
24 approval for. That's why I objected to the toxic
25 dust in that time frame. Now that is not true.

1 The respirator is approved for those materials,
2 also.

3 Q Did the design of the respirator or the
4 manufacturing process change in any way from 1972
5 when it first came out and was only approved for
6 pneumoconiosis and fibrosis-producing dust to now
7 when it's approved for the third category which
8 includes toxic metal dusts?

9 A Yes, it has.

10 Q What did you have to change about it so you could
11 sell it for both of those last two categories?

12 A We essentially have changed the filtration
13 efficiency of the filter media such that we
14 maintain very high filter efficiency while keeping
15 very low pressure drop, and how we do that is a
16 trade secret of 3M.

17 Q Is that the only change that's occurred in the
18 8710?

19 A Basically, that's right.

20 Q When you say basically, see, I always worry about
21 people that qualify things.

22 A Okay. I didn't mean to. That's what has changed,
23 yes.

24 Q So now I could use this mask for nuisance dust,
25 pneumoconiosis or fibrosis-producing dust or even

1 toxic dust?

2 A That's right.

3 Q When did the change occur so that I could do that?

4 A 1981, I believe.

5 Q Is that when the actual design change occurred, or
6 is that when the approval occurred?

7 A The whole thing -- well, the design change took a
8 while to do, of course, to develop, so we were
9 starting on it prior to that; but when we were
10 finished and could produce it, we submitted it for
11 approval again.

12 Q And you started marketing it with that change?

13 A Uh-huh.

14 MR. BLIZZARD: You're going to have
15 to say yes or no rather than uh-huh.

16 A Yes, that's when we started to market it.

17 Q (By Mr. Crow) The 8710, is it a pretty good
18 respiratory device against silica dust?

19 A Yes.

20 Q Can you tell me what makes you say that?

21 A What makes me say that is because it has very good
22 filtration efficiency, and we believe it fits very
23 well against the majority of human faces.

24 Q Well, now, it's got two bands on it. Has it
25 always had two bands on it?

1 A Always, yes.

2 Q Always yellow?

3 A I believe so. Yes.

4 Q Was that intentional to get a better face fit?

5 MR. BLIZZARD: The color?

6 Q (By Mr. Crow) Yes. The color of the bands, was
7 that intentional to get a better face fit?

8 A The color of the bands doesn't have anything to do
9 with face fit.

10 Q How about two bands on here, is that intentional
11 design to get a better face fit?

12 A It was intentional because NIOSH requires you have
13 two bands to even get an approval.

14 Q I see. You told me it has high filtration
15 efficiency and good face fit. That's what makes
16 you think it's a good respiratory aid to protect
17 the user's lungs. We're talking about lungs.
18 We're not talking about noses, mouths, teeth,
19 mucous membranes or anything like that. We're
20 talking about lungs, right?

21 A Right.

22 Q I assume you did something to test this thing so
23 you can sit there and tell me, make that
24 statement?

25 A Certainly.

1 Q Before I ask you about your testing, I want to
2 know under what circumstances in terms of
3 pneumoconiosis-producing dust you can use the 2710
4 in?

5 A Under what circumstances?

6 Q Yes. Are there any concentration maximums, for
7 instance, silica concentrations, airborne silica
8 concentrations, that this mask won't protect you
9 against? Can you reach an upper limit of
10 concentration that this mask is no longer
11 effective?

12 A It's not a question of being effective. It is, in
13 fact, mandated for respirators, dust respirators
14 like this, negative-pressure half masks, that you
15 don't use it past the threshold limit value of the
16 substance you're working against.

17 Q Threshold limit value?

18 A Yes.

19 Q That's mandated I bet you're going to say by
20 NIOSH?

21 A NIOSH and OSHA, yes.

22 Q Is that something that ya'll require that the user
23 of this product not use it above 10 times TLV?

24 A Who's ya'll?

25 Q I'm sorry, that's something we say here in Texas.

1 I don't know what you say in Minnesota.

2 MR. COFFEY: Youse guys.

3 MR. BLIZZARD: I don't think it was
4 the ya'll he didn't understand.

5 MR. COFFEY: We know that.

6 Q (By Mr. Crow) Does 3M when it markets this 8710
7 specifically warn the user not to use this product
8 in silica atmospheres of more than 10 TLV?

9 A OHSP does. 3M doesn't.

10 Q How does OHSP, the one who markets this product,
11 how do you do that?

12 A It's in the instructions.

13 Q In the instructions?

14 A Uh-huh.

15 Q Is that because of the NIOSH specification that
16 half masks are not to be used above 10 times TLV?

17 A Yes, I believe so, uh-huh.

18 Q Now, the reason I asked you that is because I
19 wanted to know if you had done any testing -- by
20 you, I mean 3M or OHSP -- had done any testing to
21 determine at what point a mask's effectiveness
22 gets overwhelmed to the point the user is starting
23 to get toxic quantities of free silica in his
24 lungs. Have you ever done any tests of that?

25 A We test the filter efficiency of that, we do.

1 2 Tell me how you test the filter efficiency of the
2 8710 and how it's tested against free silica.

3 A It's actually tested against free silica.

4 Q We're not talking about calcium carbonate; we're
5 talking about the real thing?

Q Yes.

7 Q Tell me how you do that.

8 A A chamber filled up with 55 cubic meters of
9 absolute pure quartz of silica.

10 Q Do you have any way of comparing or correlating 55
11 cubic meters of quarts of silica with TLV
12 measurements?

13 A I'd have to look it up in the TLV book. There's a
14 threshold based on the -- for whatever the
15 contaminant is, for instance, sandblasting.

16 Q Did you bring a book with you?

17 A No.

18 Q Do you have an approximation of what 55 cubic
19 meters would be in terms of TLV value?

20 MR. BLIZZARD: Don't guess.

21 Q (By Mr. Crow) I'm not talking about a pure guess.
22 A minimum or a maximum is what I'm talking about.

23 MR. BLIZZARD: I don't want him to
24 make anything close to a pure
25 speculative guess. If it can be looked

1 up, it ought to be looked up.

2 Q (By Mr. Crow) Do you have any other way of
3 characterizing 55 milligrams per cubic meter of
4 pure quartz of silica other than comparing it to
5 TLV?

6 A Characterizing it in what way?

7 Q I don't want to compare apples and oranges. Is
8 there anything else we can translate that to so
9 it's a little more understandable?

10 A Again, I'll ask in what way? I don't understand
11 what you're asking.

12 Q What I'm asking you is I have a feeling I know
13 what a TLV is, and I know what 10 times TLV and
14 100 times TLV is. You started off explaining TLV,
15 this mask was specifically set out not to be used
16 above 10 times TLV?

17 A Yes.

18 Q Let me ask you this: Aside from what NIOSH
19 requires or OSHA requires this mask be limited to
20 in terms of TLV atmospheres that the wearer is to
21 be exposed to in wearing the mask, have you done
22 any testing at 3M Company to determine how high
23 the TLV is in terms of contaminated atmosphere a
24 wearer of this mask could encounter and not suck
25 one more TLV of that contaminated atmosphere into

1 his lungs?

2 A No, not specifically like you're describing it.

3 Q So if I understand what you are telling me, you
4 don't know if somebody's wearing the 8710 and they
5 walk into 20 TLV of free silica, you don't know if
6 it screens out all 20 times that TLV or lets in
7 two times TLV or what?

8 A No, I couldn't tell you exactly, no.

9 Q This mask is promoted to be used around
10 sandblasting areas, isn't it?

11 A It depends on what the actual application is.

12 Q Well, you advertise it to be used around
13 sandblasting areas, don't you?

14 A It can be depending on the concentration of
15 silica.

16 Q Let me rephrase it. Maybe I'm not making myself
17 clear. The fact is that you advertise the 8710 to
18 be used around sandblasting; isn't that a fact?

19 A Yes, it has been.

20 Q Do you know has 3M done any research, surveys,
21 studies, testing to determine how high air
22 concentrations in and around sandblasting
23 operations can be in terms of free silica
24 concentration?

25 A I don't know if we have or not.

1 Q You're not aware of any by that answer?

2 A Huh-uh.

3 Q If you were going to try to find out if 3M had
4 ever gone out and tested atmospheric free silica
5 concentrations around sandblasting areas in terms
6 of multiples of TLV, where would you go look?

7 A I don't know.

8 Q Who would you ask?

9 A I don't even know where I'd start to ask that
10 because I don't think we've done it inside our
11 division, so I doubt if anybody else has, either.

12 Q Now, the testing that you did do with 55
13 milligrams per cubic meter, however that relates
14 to TLV, what did it indicate or show?

15 A It indicates or shows that we're greater than 99
16 percent efficient over that kind of challenge over
17 a 90-minute test span.

18 Q How did you do the testing?

19 A How do we do it? We do it according to 30 CFR 11.
20 We do it exactly as the NIOSH requirements.

21 Q How do you do it?

22 A A chamber of 55 millimeters of silica in it. You
23 draw the silica through the respirator either in a
24 straight flow at 30 millimeters a minute or if
25 you're using a machine, breathing cycle at 40

1 millimeters a minute; and you do this for 90
2 minutes and measure how much silica came through
3 versus what's on the other side. NIOSH doesn't
4 convert it to the actual efficiency. It's the
5 pure mass that comes through that determines if
6 you're efficient or not, but if you meet the
7 requirements, a little over 99 percent efficiency.

8 Q The particles, once again, that come through your
9 mask are the smallest particles as a rule?

10 A No, there's a distribution of them, but certainly
11 the smaller ones would come through, yes.

12 Q And they would preponderate?

13 A I'm not sure that's absolutely the case, meaning
14 that 90 percent of them would be small. It
15 depends on how you define big and little, too. I
16 mean, you will get a distribution of particle size
17 coming through the other side. Certainly I would
18 agree with you the very large sizes will not come
19 through. In this test, the size is very
20 controlled. There is no large amount of particle
21 size variation in the test. It's all
22 approximately six-tenths of a micron.

23 Q The test is only run for 90 minutes?

24 A It's run for 90 minutes, yes.

25 Q How would the efficiency of your mask change if

1 you kept it on for a full 8-hour shift like your
2 advertising indicates you could use it for?

3 A Under the conditions --

4 MR. BLIZZARD: Wait a minute. That
5 question assumes some advertising that
6 has not been shown, has not been
7 discussed, so don't answer the question.
8 Listen carefully to what he's saying
9 because he's repeating a lot of things
10 and asking you a lot of things he hasn't
11 asked you about.

12 Q (By Mr. Crow) Do you advertise this mask to show
13 that it's designed for the regular use of an
14 8-hour shift?

15 A Yes, we do.

16 Q Was that such a secret to everybody? Is that a
17 secret?

18 A No.

19 Q What happens to the efficiency of your mask if you
20 continued this test process past the 90-minute
21 period that NIOSH requires and on into your
22 regular 8-hour shift period, you know, like what
23 happens if you left it on for the other six and a
24 half hours?

25 A On the test itself? It would just get better.

- 1 Q Because the filter would start to clog up?
- 2 A Yes.
- 3 Q And the breathing would become more difficult?
- 4 A Correct.
- 5 Q What about the testing? You say you draw through
- 6 the filter material with a machine that's pulling
- 7 either straight 30 millimeters a minute or is
- 8 inhaling and exhaling in an artificial manner?
- 9 A Yes, using a breathing machine.
- 10 Q What do you do about the edges of the mask?
- 11 A Edges of the mask are clamped into a holder under
- 12 the NIOSH test.
- 13 Q Does face fit affect the performance of the NIOSH
- 14 mandated testing?
- 15 A Face fit has nothing to do with the NIOSH mandated
- 16 testing.
- 17 Q You're only testing filter efficiency?
- 18 A That's correct.
- 19 Q Of course, a human being wearing your mask in a
- 20 contaminated atmosphere is not only going to be
- 21 depending on filter efficiency but also face fit?
- 22 A That's right.
- 23 Q And that's where we get into the protection factor
- 24 business, right?
- 25 A That's correct, yes.
-

1 Q Theoretically, if he clamped your 8710 down around
2 his mouth and sucked air through it, he should
3 have the protection factor of somewhere around
4 100?

5 A Are you asking me to guess what any one person is
6 going to have as a protection factor?

7 Q No. If you have a 99 plus efficiency of your
8 material and you eliminate face fit as a variable
9 and just clamp it down and hold it down around
10 your mouth so that nothing, absolutely no air can
11 travel around the edge of the mask, then
12 theoretically this mask should provide a
13 protection factor of 100; is that right?

14 MR. BLIZZARD: I think the problem
15 is he told you protection factor
16 includes face fit in its definition.

17 MR. CROW: Let him testify, Ed.
18 He's doing a good job. He's doing a
19 better job than you are.

20 MR. BLIZZARD: Well, I hope so.

21 MR. CROW: Let me ask him a
22 question.

23 Q (By Mr. Crow) Yes or no --

24 MR. BLIZZARD: If it can be
25 answered yes or no.

1 Q (By Mr. Crow) Theoretically if you eliminate face
2 fit as being a variable on this mask and you clamp
3 it down on my face and let me breathe through it
4 with a 99 plus efficiency rating for the filtering
5 of material only, your protection factor should be
6 100?

7 A In that description, that's what most people call
8 a work place factor or working factor these days.
9 Yes, that's right.

10 Q What happens when I put it on my face and try to
11 use it on a job? We run into some edge leakage?

12 A You might.

13 Q It's not a matter of you might. You actually have
14 done tests on how much leakage you get around the
15 8710, haven't you?

16 A Sure. Yes, we do.

17 Q You said you didn't do that on the 8500 because
18 the filter wasn't good enough to run the test on?

19 MR. BLIZZARD: Don't answer the
20 question. He's already asked it.

21 Q (By Mr. Crow) But you have on the 8710. How many
22 times?

23 A The question is what?

24 Q How many times have you run protection tests on
25 the 8710 to determine protection factors on the

1 8710?

2 A I don't know. Many times.

3 Q Can you tell me when is the last time you ran a
4 test on the 8710 by year?

5 A Certainly we did it last year. I have not been in
6 the laboratory since last October, so I can't tell
7 you about that.

8 Q Was it the policy within the OHSP to do it on a
9 yearly basis?

10 A No, we didn't have a policy at all about doing it.
11 You run protection factors or fit factors as a
12 matter of research, not as a matter of policy.

13 Q Well, what do your tests show the protection
14 factor for the 8710 to be once you start allowing
15 the leakage to come into play?

16 A On an individual or as a group of people?

17 Q Well, let's start with an individual.

18 A Individual, I couldn't tell you that one. That
19 one is individual. You would have to literally
20 measure it and see what it is.

21 Q How about on a group of people?

22 A I would say in general we're above 70.

23 Q What does it range from, from what to what?

24 A The range, probably 30, 40 up to several hundred.

25 Q So depending on the contour of a person's face,

1 they may get 30 to 40 percent protection factor
2 from this mask, or you said up to 300?

3 A I said several hundred. I don't know if it's 300
4 right on the head, but somewhere in that vicinity,
5 yes, uh-huh.

6 Q Do beards interfere with face fit for this mask?

7 A They interfere with any respirators as far as fit.
8 No one recommends beards as far as respirators.

9 Q I'm sorry, does a beard interfere with the
10 protection factor for the 8710?

11 A Possibly, yes.

12 Q You don't know for sure?

13 A No, there are times that people have been measured
14 with beards, and it's shown no effect. That's why
15 I said possible. But we don't believe that and
16 don't recommend to have beards with respirators.

17 Q Aside from contours and beards, is there anything
18 else that affects the protection factor like
19 smiling, frowning, coughing? Do you test for
20 protection factor having a human being doing
21 various things with their face?

22 A Yes, you do.

23 Q What do you do?

24 A You test up-and-down movements, side-to-side
25 movements, talking, smiling. It's a standardized

1 protocol for running fit factor.

2 Q The masks that you run your test on that we've
3 just talked about, were they fresh from the
4 factory?

5 A Yes, I would assume so because the material we
6 would get would come from our factory.

7 Q Do you have any idea how old it was?

8 A No.

9 Q Was that a factor in how efficient or inefficient
10 or how much protection factor or how little
11 protection factor an 8710 would provide you?

12 A What, age of the respirator?

13 Q Age, yes.

14 A No.

15 Q Is there any other factors other than age which
16 can affect the protection factor rating of an 8710
17 once it leaves the factory?

18 MR. BLIZZARD: I'm not sure what --

19 I'm confused because I thought he just
20 said age doesn't matter, and you just
21 turned that around and said is there
22 anything aside from age, and I think
23 you're assuming age does affect it. He
24 just told you it doesn't.

25 Q (By Mr. Crow) If age doesn't affect the

1 protection factor of your 8710, are
2 other environmental impacts that might
3 protection factor?

4 A That I can think of offhand, no.

5 Q Well, will humidity affect the protection
6 of this mask?

7 A No.

8 Q It will not?

9 A No.

10 Q Moisture?

11 A No.

12 Q Would your answer be the same when the mask
13 first introduced in '72 in terms of humidity?

14 A Yes, I would say even then, the level of
15 moisture wouldn't do much to it.

16 Q So a mask that's been sitting in a warehouse
17 90 or 120 days is going to be just as effective
18 as a mask that just came off the assembly line
19 as you know?

20 A As far as I know.

21 Q How would we compare protection factors to

22 A I don't know. What kind of comparison do you
23 to make? They're two different things.

24 Q Well, when you say protection factor, does that
25 basically mean that if I'm wearing this mask

1 it fits me well enough to give me a protection
2 factor of 30, that I can walk into a 30 TLV
3 atmosphere of free silica and only get one TLV
4 either through the filter medium or around the
5 edges of the mask to my lungs?

6 A Yes, that's what that would mean in the way you
7 describe it, yes.

8 Q In order to achieve the kinds of protection factor
9 results that you just told me about, 30 to several
10 hundred, do you have to go through any multistep
11 process in the fitting of the 8710?

12 A A multi --

13 Q In order to achieve a good enough face fit on the
14 8710 to get the protection factor range that
15 you've just told me about, 30 to several hundred,
16 do I have to go through some sort of fitting
17 procedure with the 8710 that involves multiple
18 steps, or do I just put it on my head?

19 A You have to follow the instructions of how
20 it on. That's certainly true and provided
21 instructions.

22 Q Are those instructions provided to the employer
23 only, or are they provided to the user?

A They're -- in this case, they're provided
have fitting posters that we hang

1 work place for the workers to look at to see how
2 it's done.

3 Q You have posters?

4 A Uh-huh, yes.

5 Q Why do you have posters about how workers should
6 properly fit an 8710 instead of just dropping off
7 a little brochure to the employer and letting him
8 take care of his responsibility as you see it?

9 A What we're doing is actually helping the employer
10 carry out his responsibility. We're giving him a
11 poster to post out in his area and the work area.

12 Q What I don't understand is before in terms of
13 describing in some detail as you explained to me
14 what your product can and can't do, you told me
15 you relied on the employer and you furnished the
16 information to the employer. You remember that
17 line of questioning?

18 A I remember I said we felt the best way to get the
19 information to them is to give the information to
20 the employer.

21 Q In this particular case, you're saying you're
22 trying to help, hep --

23 MR. BLIZZARD: Spell that h-e-p.

24 Q (By Mr. Crow) -- by providing posters to the
25 employer that you know the workers will see?

1 A Yes.

2 Q Why do you feel like it's more important, it's so
3 important to get a good face fit with the 8710
4 that you provide posters that would communicate
5 directly with the workers, but you wouldn't
6 provide information directly to the workers about
7 what this mask will and won't do?

8 MR. BLIZZARD: I don't think he
9 ever testified to that.

10 Q (By Mr. Crow) Do you provide information directly
11 to workers on the 8710 that details what this mask
12 will and will not protect against?

13 A If we're allowed to get to the workers by the
14 employers, we do offer that service, yes. We will
15 train the workers directly.

16 Q I guess you must have had cases -- based on your
17 answer, you must have cases where an employer
18 shields you away from their workers?

19 A Certainly. There's some that will not take us up
20 on that offer.

21 Q And refuse you access to their workers?

22 A Essentially, yes. If they turn down our offer, I
23 guess you could say that. We offer it every time.
24 They either accept or reject.

25 Q How do you offer it?

1 A Our sales rep comes in and offers a training
2 program on the respirator.

3 Q How long has that offer been outstanding?

4 A I'm sure it's been there the whole time I've been
5 in the division. Before that, I don't know.

6 Q Who would know?

7 A I don't remember his name. He would have been the
8 sales manager at that time, but I don't know the
9 guy; so offhand, I can't remember. It would have
10 been the sales manager of the thing at the time.

11 Q Well, you don't normally deal with employers
12 directly anyway, do you?

13

14 (Whereupon, a short recess was
15 taken.)

16

17 Q (By Mr. Crow) Mr. Scheel, we were talking before
18 we moved up to Mr. Blizzard's office about why you
19 folks felt it was so necessary to try to
20 communicate directly with the workers with this
21 poster on fitting the 8710 mask when you didn't
22 communicate and apparently had no intention of
23 communicating directly with the workers on the
24 8500. I wonder why the change.

25 A It's not that we didn't have an intention of going

1 to the workers. What I said earlier today, this
2 morning, I think, we feel the best way to get the
3 information through to the workers is through the
4 employer because of him knowing what the hazard
5 is; but we will attempt to supply materials on the
6 hazard if we can. Like I said, we will offer to
7 train them and provide materials that go up into
8 the work place. Whether or not that always
9 happens is up to the employer, whether he will
10 allow us to do that; so it's not a sudden change.
11 It's just --

12 Q You brought up this morning's testimony, and I
13 don't want to go back through it, but this morning
14 you told me you thought the best way to get
15 information to the employees was to send it to the
16 employer; and consequently, you did not make any
17 attempt beyond that to get the detailed
18 information to the user.

19 A No, you didn't ask me that, if we ever tried to do
20 that. You asked me what the best way was, and I
21 still say that's true to go to the employer. We
22 will attempt to and offer to train the employee
23 directly if the employer will allow us to.

24 Q How do you make this offer again?

25 A Through our sales representatives.

1 Q You don't sell to many direct employers, do you,
2 Mr. Scheel?

3 A Yes, we do. Well, let me define this. The actual
4 sale as far as the delivering and the payment
5 made, but our sales reps that work for the
6 division do call them and inform them of the
7 product line we have and what they are useful for.

8 Q And how does an employer know that service is
9 available?

10 A Which service is this?

11 Q That they can get an actual 3M salesperson to come
12 out and talk to their work force if they desire.

13 A Well, a sales representative when he's talking to
14 an employer, if he has, in fact, sold the concept
15 of one of our products for use in their place, he
16 will make the offer to do this.

17 Q Mr. Scheel, what I'm talking about is your average
18 run-of-the-mill painting contractor, not Exxon
19 Refinery, that you don't sell to directly, you
20 have no contact with whatsoever initially, your
21 products pass through the hands of another party,
22 the suppliers, how does that painting contractor
23 and its employees know that if they think it's
24 necessary, they can call 3M in Minnesota and get a
25 real live 3M salesman to come out to the painting

1 contractor's place of business and have an in
2 depth thorough discussion about your respiratory
3 equipment?

4 A They would do that by calling the eight hundred
5 number that's listed in our literature or on the
6 boxes of the product itself.

7 Q But there would be no -- unless they think they
8 need that help, of course, they're not going to
9 call the eight hundred number?

10 A I suppose that's true, yes.

11 Q And the eight hundred number has only been around
12 for six years?

13 A Right.

14 Q And there would not be a personal salesman contact
15 from 3M unless it's a pretty big account, would
16 there?

17 A It doesn't have to be a very large account. We
18 have many levels of account sizes that they call
19 on.

20 Q What percentage, since you brought this issue back
21 up again, what percentage of your respiratory
22 equipment is sold through suppliers as compared to
23 directly from Minnesota through the sales force?

24 A As far as the contact that's made because remember
25 it's --

1 Q The amount of sales.

2 A All the sales are made through a distribution as
3 far as selling the product. If you're asking me
4 how much of the total sales we make, what is the
5 responsibility directly because of our sales force
6 or the distribution sales force, I don't know what
7 that is.

8 Q Do you have an estimate?

9 A No.

10 Q Would you say the majority of your respirator
11 equipment, the responsibility of the contact
12 between the purchaser and the person they're
13 buying it from, normally would be on the supplier?

14 A I don't know.

15 Q Besides your salesmen, if they do happen to make
16 contact with a particular account, tell the
17 painting contractor and his workmen that they can
18 receive additional information from 3M if they
19 desire, and besides the eight hundred number you
20 put on your brochure since six years ago, how else
21 do you make an attempt to actually get the
22 information as to the use and misuse of a
23 particular respiratory piece of equipment down to
24 the user?

25 A Other than the ways you've said, which would be

1 the direct contact with the people, then I would
2 have to say what you have then is the
3 instructional materials that come with the
4 respirator or what's printed on the box, the
5 literature that goes along with it, that would be
6 in the hands of the employer himself.

7 Q But not to the user?

8 A Well, I don't know whether it would be. As I say,
9 in that case where there is no direct contact,
10 that's why we feel the best way is the employer,
11 that he will pass that along to the user himself.

12 Q Well, what do you put on the box or on the mask
13 itself so that you know it's going to get to the
14 user?

15 A Say that again.

16 Q Do you put anything on the mask itself that you
17 know is going to get to the user?

18 A On the mask itself?

19 Q Yes.

20 A Only on the mask is the approval numbers. That's
21 what's on the mask.

22 Q Do you think anybody that wears this mask is going
23 to know what the approval number means?

24 A Only if he's told, I would assume, yes.

25 Q That approval number doesn't tell you what this

1 mask can or can't be used for or what air
2 concentrations of that particular dust particle it
3 can be safely used for, does it?

4 A If you know the sequence of numbers, what they
5 mean, yes, it will tell you that.

6 Q If you're an industrial hygienist or you have
7 somebody from OSHA talking to you or one of your
8 sales representatives, they can explain it?

9 A Yes.

10 Q But other than that, that's the only way?

11 A Only way for what?

12 Q For you to understand what the number means.

13 A Yes, you would have to have somebody tell you what
14 it means who knows.

15 Q Besides this number, do you put any other
16 information on the mask about what you can and
17 can't use it for?

18 A Well, it says dusts and mists. That's English
19 words that says what it's for.

20 Q Does it have any limitation as to what kind of
21 dusts or mists or what concentrations?

22 A Again, if you know the definitional terms of NIOSH
23 approvals, you will know what that means.

24 Q The definitional terms for NIOSH approvals are
25 somewhat technical, aren't they?

1 A Not offhand, I would say no.

2 Q Do you think that most sandblaster or painting
3 contractor crews would know the technical language
4 for TC-21C-132?

5 MR. BLIZZARD: Don't answer that.

6 You've already answered it.

7 Q (By Mr. Crow) Have you done any surveys or
8 studies at 3M to know whether or not the typical
9 painting contractor or the typical sandblasting
10 contractor knows what TC-21C-132 means?

11 A No, I don't believe so.

12 Q So based on that answer, you really don't know
13 what the folks out there know that you're selling
14 your mask to, do you?

15 MR. BLIZZARD: Well --

16 Q (By Mr. Crow) Do you?

17 MR. BLIZZARD: That is not what he
18 said.

19 MR. CROW: That's exactly what I
20 think he's going to say if you let him
21 answer it; and to me, that's an
22 important question.

23 MR. BLIZZARD: What you always do
24 is back up and say so what you're saying
25 is, and that's not what he said; so if

1 you want to ask a question, fine, but if
2 you want to go back and refresh previous
3 testimony, do it fairly.

4 Q (Dy Mr. Crow) Do you know what the typical
5 sandblasting contractor or typical painting
6 contractor knows, sir, in terms of the substance
7 of TC-21C-132?

8 A The contractors themselves?

9 Q Yes.

10 A They would know from our sales representatives or
11 people that contact them that that means that that
12 is useful for pneumoconiosis, fibrosis and toxic
13 dusts.

14 Q We've been all through that. I know if your
15 salespeople contact them or if they contact OSHA
16 or NIOSH, they might find that out. My question
17 was do you know --

18 MR. BLIZZARD: You're asking him
19 -what a mythical person, a typical
20 painting contractor, might know. I
21 don't know that there is a typical
22 painting contractor, and obviously you
23 can't ask one witness what another
24 person might know; so I'm not going to
25 let him answer questions about a typical

1 painting contractor or what a typical
2 painting contractor might know.

3 Q (By Mr. Crow) Mr. Scheel, you told me earlier
4 that you felt like 3M had more knowledge than
5 anybody else in terms of its use and misuse of its
6 products. Do you remember that this morning?

7 A Yes.

8 Q Aside from what I mentioned a moment ago about
9 your eight hundred number being in effect for the
10 last six years, about your offer to let the
11 salespeople talk to the painting contractor or
12 sandblasting contractor, about the information you
13 send to your suppliers, are there any other means
14 that you use to get information directly down to
15 the man who's lungs are at risk?

16 A Yes, the instructional materials that are on the
17 box because many times the boxes of materials go
18 right down to the end user.

19 Q So that's one other way?

20 A They can read them, yes.

21 Q So if we can get some boxes from your 8710 series
22 respirators going back to '72, we'd know what you
23 put on them?

24 A Yes.

25 Q What you would hope would get down to the user?

1 A Yes.

2 Q Any other ways, like do you put an insert in the
3 box?

4 A In some respirators, we do, yes. It depends.
5 Some of them have individuals. When they're
6 packaged individually, not this one, but others we
7 do do that, yes.

8 Q Which respirators do you package individually so
9 you put an insert in it?

10 A Our gas and vapor respirators are like that.

11 Q Why is it you put an insert into the box for a gas
12 and vapor respirator but not a dust and mist
13 respirator?

14 A Because of the packaging. It's impossible to
15 stack dust and mist respirators because of the
16 size.

17 Q Simply because of the size?

18 A Size and shape, yes.

19 Q What type of insert do you put in the gas and
20 vapor respirators?

21 A A cardboard sleeve that's wrapped around it
22 essentially like a box.

23 Q What does it say? What information does it
24 include?

25 A The usage, same thing on most of our stuff, the

1 use conditions, where you can use it, where you
2 can't, how to fit it.

3 Q Do you talk about warning people that this spray
4 respirator can't be used for
5 pneumoconiosis-producing dust, for instance?

6 A I'm trying to remember exactly because, you see,
7 you can if you use pre-filters on them. They can
8 be used that way. I'm trying to remember if it
9 says that directly. I would say yes, it does,
10 except in the case of using pre-filters.

11 Q Do you warn them about using them in spray areas
12 where the concentrations are so high that they
13 overwhelm the respirator?

14 A Oh, certainly.

15 Q So you put that information in your spray
16 respirator boxes?

17 A Yes.

18 Q Has SM done any studies or any evaluation of how
19 much it would cost to put, for instance, a small
20 red paper or plastic tag on the 3710 to give the
21 same type of information to the ultimate user of
22 this respirator in terms of what you should not
23 use this respirator for and in terms of what types
24 of activities that might create such high
25 concentrations of a certain contaminant you should

1 not use this spray respirator in or this 8710 in?

2 A What was the question actually after all of that
3 qualifier?

4 Q Okay. Have you ever done any studies, surveys at
5 3M to find out how much it would cost to put a
6 small paper tag on the rubber headband of the 8710
7 to specifically instruct and specifically warn
8 about what this respirator can and cannot be used
9 for?

10 A No. No, I don't know if that has ever happened.
11 I don't know.

12 Q If you did that, would you agree with me, Mr.
13 Scheel, that you would have a very high degree of
14 probability of getting that information directly
15 to the man who puts the respirator on his face?

16 A I would agree it would be in proximity to him. I
17 don't know that he would read it.

18 Q But at least you'd be giving him a chance to read
19 it, wouldn't you?

20 A It would be the same chance he has to get the
21 material now by being told.

22 Q By his employer?

23 A By his employer, reading our literature, reading
24 the stuff that's on the box.

25 Q When the issue is protecting a person from the

1 kind of death we've talked about, has 3M, whether
2 or not it's made a study of how much it would cost
3 to do so, ever talked about doing so regardless of
4 the cost and simply adding that to the purchase
5 price of the product?

6 A No, I don't think so. At least not that I know
7 of.

8 Q Do you put any tags on any of your respiratory
9 equipment?

10 A No, not tags, no.

11 Q Well, when you said no, not tags, no, do you use
12 any kind of attachment or hang-on device that
13 instructs or warns?

14 A No, not an attach or hang-on device, no.

15 Q Do you put any tags or attach devices of a similar
16 type on any 3M products that you're aware of that
17 are used for any purpose?

18 A You mean outside of our division?

19 Q Yes.

20 A I have no idea. I don't know.

21 Q Before you became a member of OHSP, did you know
22 what TC-21C-132 meant?

23 A No.

24 Q Did you know there were three different categories
25 of dust we talked about earlier?

1 A No.

2 Q Has 3M gone out in the work place and done any
3 surveys or studies that gives 3M an idea of how
4 much knowledge people who might use their
5 respiratory equipment have about the risks and/or
6 the proper or improper uses of its respiratory
7 equipment?

8 A The knowledge that the users would have of that?

9 Q Yes. Have you done any surveys? Have you gotten
10 back information cards? Have you done anything at
11 all to try to determine how much knowledge the
12 people that use your respiratory equipment have so
13 you would know how much information you need to
14 give them and how much you don't have to give
15 them?

16 A No, we haven't done that specifically.

17 Q So wouldn't you agree with me, sir, that a person
18 -- you've been involved in the marketing aspect of
19 these respiratory pieces of equipment, haven't
20 you?

21 A Not directly. In Technical Services.

22 Q Well, Technical Services has to coordinate between
23 sales and the laboratory people. We've been
24 through that, right?

25 A Yes.

1 Q Would you agree with me, sir, that 3M recognizes
2 that when you're selling a product to somebody who
3 has absolutely no idea of what that product can or
4 cannot be used for, that you have to give that
5 person more information than you would somebody
6 who's an industrial hygienist? Does 3M recognize
7 that as a principle of its marketing operation?

8 A That you would have to give --

9 Q -- that person who's totally ignorant of what it
10 can or can't be used for more information than you
11 would have to give an industrial hygienist?

12 A I don't really think so. I think unless you
13 assume the industrial hygienist already knew about
14 our product, but then he'd have the same
15 information available to him we'd give to the
16 user. We give all information we consider
17 adequate for people to understand what our product
18 does and does not do.

19 Q And on a bottom line basis, the only information
20 you give on these masks to protect somebody from a
21 slow and ultimately fatal death is what you have
22 on these masks?

23 MR. BLIZZARD: He's told you over
24 the past half hour what information he's
25 given, and now you're saying the only

1 thing he gives is what's on the mask.

2 Q (By Mr. Crow) Do you have a picture of the box
3 you send the 8710 out in?

4 A It might be in that pile. I don't know. I don't
5 have one personally with me right now.

6 Q Has your box changed any since 1972, the wording
7 on the box?

8 A I don't know since '72. Since '76, it's basically
9 been the same.

10 Q Can you tell me what it does say on the 8710 box
11 in '76?

12 MR. BLIZZARD: If you're going to
13 hold him to -- let me put it this way:
14 I'm not going to let him guess what's on
15 the box. There's a lot of stuff on the
16 box, and I'm not going to let him guess
17 what's there.

18 MR. COFFEY: Can we attach a copy
19 of a 1972 box as an exhibit?

20 MR. BLIZZARD: If it's here.

21 MR. COFFEY: It's not here. That's
22 why I said if we can get one, can we do
23 it?

24 MR. CROW: Let me clear this up.

25 Q (By Mr. Crow) You've been designated as a

1 designee for 3M on the 8710 and the 9910?

2 A Yes.

3 Q Can you tell me anything about what's on the box
4 for the 8710?

5 A Certainly there's fitting instructions.

6 Q What else?

7 A Warnings where the respirator should not be used.

8 Q Can you remember the substance of any of those
9 warnings if not the exact wording of them?

10 A Typically not to be used in an oxygen-deficient
11 environment and currently do not use higher than
12 10 times the threshold value of whatever the
13 substance is they're dealing with; and then
14 there's warnings about how you should know when
15 the respirator should be disposed, whether you can
16 taste or smell contaminant coming through, whether
17 there's mechanical damage to the respirator,
18 things like that. That's what's on it.

19 Q You said currently there's an item that says do
20 not use higher than 10 TLV of whatever it is this
21 mask is to protect against. What is currently?

22 A It means --

23 MR. BLIZZARD: Today.

24 A Today, now.

25 Q (By Mr. Crow) Well, you didn't get a chance to

1 look at a box today before we started deposing,
2 did you?

3 A No, I didn't look at a box today.

4 Q When did 3M start putting the 10 times TLV warning
5 on the boxes of the 7610?

6 A 7610? You said 7610. It's 8710.

7 Q I'm sorry.

8 A Four years ago maybe. Four or five years back.

9 Q Before that warning was put on the box, did 3M
10 make an attempt in any of its literature that
11 accompanied these masks, either on the box or in
12 inserts, to warn that these masks should not be
13 used in concentrations of a contaminated
14 atmosphere of above 10 TLV?

15 A Before?

16 Q Four years ago.

17 A Before four years ago, did we do that?

18 Q Yes.

19 A No, because it wasn't allowed to be used in 10 TLV
20 at that time. It was limited to five.

21 Q Well, did you warn four years ago not to use them
22 more than five TLV?

23 A I don't believe it was specifically on the box.
24 I'm not sure.

25 Q How about on the insert that went with the box?

1 A I don't know. I don't remember.

2 Q Why is it that 3M decided four years ago that they
3 needed to put a warning on the box now that
4 specifically warns that although this mask is
5 designed to protect against pneumoconiosis and
6 fibrosis-producing dusts, there was a limit to the
7 concentration of the contaminant in the air this
8 mask would protect against?

9 A What's the question exactly?

10 Q Why did you start doing that?

11 A I honestly can't tell you exactly why other than
12 just to update the knowledge that we're trying to
13 give to the consumer of our products.

14 Q Who made the decision to do it?

15 A I don't know who made the actual decision to do
16 that.

17 Q Well, you were in OHSP at that time?

18 A Sure. Yes.

19 Q Somebody in OHSP made that decision at that time?

20 A Of course.

21 Q Who would have been the person in the position to
22 make that decision even if you right now don't
23 know for sure who actually made the decision?

24 A It would probably be a group of people actually in
25 truth. It would be a group of people based on our

1 own legal counsel, in-house legal counsel, and
2 marketing people as to what we're trying to
3 project out to the customer as knowledge.

4 Q What you're trying to?

5 A Yes, at any one point in time what are we trying
6 to project to the customer, which is always the
7 most adequate warnings we can come up with.

8 Q I'll come back to adequate warnings in a second,
9 but can you give me the names of some of the
10 people who would have formed this group who
11 finally came up and said, "Well, we need to
12 include a contaminant concentration level for the
13 atmosphere here so they'll know they can't use it
14 in more than five TLV," who came up with that?

15 MR. BLIZZARD: That assumes
16 testimony that wasn't given. He never
17 said anybody did that.

18 Q (By Mr. Crow) Who was it in the group that
19 participated in the change of the warning?

20 A I don't know. You asked me to speculate on how
21 that might have happened. I said it probably
22 would have been a group, but I don't know that for
23 sure. It wasn't me. I know that.

24 Q I'm not communicating with you very well right
25 now. It's my fault again. I don't want you

1 speculating, but you were in OHSP at the time this
2 warning changed?

3 A Yes.

4 Q And you've told me that that was the first time to
5 your knowledge that 3M ever identified as a
6 problem to the user of the mask using the mask in
7 an atmosphere that was contaminated above 10 TLV?

8 A No, I didn't say we identified it as a problem. I
9 said we just decided as an ongoing forum to put
10 out as much information as we can, and that's what
11 we decided to do.

12 Q When you say we, now we're back to I don't know
13 who. I'd like to depose whoever made that
14 decision. If it's a group of people, give me
15 their names.

16 A I don't even know. I was speculating with you it
17 was a group of people. I guess I don't know who
18 made the decision, so I'm not going to guess and
19 give you names of people I'm not sure will be the
20 case.

21 Q All right. Let me rephrase the question. If for
22 whatever reason you don't know the name of the
23 person who made the decision or the names of the
24 persons who made the decision, can you give me the
25 names of likely candidates?

1 MR. BLIZZARD: I don't want him
2 guessing. He doesn't know, Carl.

3 MR. CROW: Well, I'm asking a
4 question that can lead to the discovery
5 of admissible evidence, and you know
6 that; and the guy is sitting here, and
7 all I've heard is I don't know who did
8 this and I don't know who did that.
9 I've got one name today after several
10 hours, and I'm not trying to be horsy,
11 but I want to know the names of people
12 who either would have been good
13 candidates to be responsible for
14 changing the warnings or who would be in
15 the chain of command and who would have
16 consequently had to approve a change of
17 warning. That's all I'm asking him for;
18 and if it turns out he gives me five
19 names and only one of them counts,
20 that's fine, but I want something
21 besides what I got, which is nothing
22 right now.

23 MR. BLIZZARD: Well, I don't know
24 that -- we've been here for a long time.
25 Let me put it that way. If you know

1 likely candidates, you can answer the
2 question.

3 A There's only one person I know of that I can
4 imagine that would know, and that would be our own
5 in-house legal counsel.

6 Q (By Mr. Crow) And who is that?

7 A Nelson Schmidt.

8 Q Where is he at?

9 A Nelson Schmidt? St. Paul.

10 Q Is he involved somehow in the marketing end of
11 instructions and warnings of the OHSP?

12 A He looks at them and approves them, yes.

13 Q Okay. Now, I'm sorry, I didn't mean to be sharp a
14 moment ago, but I needed somewhere to start.

15 Anybody else within the actual OHSP group who
16 traditionally four years ago in that time frame
17 would have most probably had something to do with
18 the change in the wording on the box?

19 A It would have been whoever the marketing
20 coordinator would have been on that four years
21 ago, and I don't know who that is. It's not the
22 same person it is today.

23 MR. BLIZZARD: Do you know who it
24 is today?

25 THE WITNESS: Yes, a fellow named

John Cain.

2 (By Mr. Crow) Was he in the OHSP four years ago?

3 A Yes, he was a salesman then.

4 Q He's in charge actually of marketing within that
5 group now?

6 A No, no, he's marketing coordinator. He just has
7 dust respirators as his responsibility. He
8 doesn't do the marketing for the whole division.

9 Q Including the 8710?

10 A That's right. Wait a minute. I take that back.
11 That's been changed. A brand-new guy's come in in
12 the last few months. He used to do it. Cain used
13 to do it. There's another fellow that does it
14 now.

15 MR. COFFEY: Are we saying Cain
16 as in C-a-i-n?

17 THE WITNESS: Yes.

18 MR. COFFEY: As in J. E. Cain?

19 THE WITNESS: Yes.

20 Q (By Mr. Crow) I'm going to ask this question
21 again to avoid going back through the court
22 reporter's notes because I don't think you
23 answered this question when I asked it. Prior to
24 four years ago when you put the TLV limitation on
25 the boxes, did you provide information about a TLV

1 limit in any other way like in an insert,
2 something printed on a mask, on a sales brochure,
3 in a catalog, any other way whatsoever before four
4 years ago, whether to a supplier, an employer or
5 an employee?

6 A I don't think so. I'm not certain.

7 Q See, now, once again, I need to ask you if not
8 you, the only person that I have contact with at
9 3M, who would I go to in 3M to try to find out for
10 sure?

11 A Offhand I would say what you would do is just come
12 up with some of the copies of the literature
13 sheets from the boxes from six years ago, I'd say.
14 It's either there or it isn't. That would make it
15 very certain. I don't remember it being there.

16 Q Okay. I don't, either, but I want to know the
17 name of somebody, if you weren't sure, somebody
18 around in the legal department or wherever that's
19 been around long enough that we could get a for
20 sure answer.

21 A I would suspect they'd be trying to remember just
22 the same as me and tell you the same thing, look
23 at the actual stuff and you'd know for certain.

24 Q If there was no dissemination of information in
25 any form before four years ago --

1 MR. BLIZZARD: I think he's --

2 MR. CROW: Let me finish my
3 question.

4 MR. BLIZZARD: All right. Well,
5 he's talking about written material.
6 From the way he's answered the question,
7 that's what he's told you, and now
8 you're changing it to any information in
9 any form.

10 Q (By Mr. Crow) Okay. We'll try it again. Before
11 four years ago when you started printing 10 TLV
12 maximum on your boxes, did you disseminate any
13 information to suppliers, employers, employees or
14 users of your 8710 that there would be a maximum
15 permissible concentration of the contaminated
16 atmosphere that they could use the mask in if not
17 in written form then in some other form?

18 A Yes, in training, when you're training the people,
19 you tell them that as part of the usage conditions
20 of it.

21 Q When you're training people?

22 A Yes, uh-huh.

23 Q Have you ever trained any people, any users of the
24 mask?

25 A Sure. Yes, I have.

1 Q Painting contractors, sandblasting contractors?

2 A No, I don't think those two. Chemical companies
3 mostly in my case.

4 Q For the 8710 and the 9910?

5 A Yes, plus all the other products of the division,
6 too.

7 Q Have you ever gone out to a small company like one
8 that has only four employees and try to train them
9 on how to use the 8710, or has it just been the
10 large chemical companies?

11 MR. BLIZZARD: Why are we talking
12 about these small companies? I think
13 Mr. Gray worked for Smith Industries,
14 and Mr. Eaton was working for somebody
15 like Todd Shipyards. This deposition is
16 not about anybody working for small
17 painting contractors.

18 Q (By Mr. Crow) Besides the large chemical
19 manufacturers, have you ever tried to train any
20 other employees in any other businesses?

21 A My memory is that happens to be personally the
22 ones I worked on.

23 Q Besides what you think would happen if a 3M
24 salesperson had personal contact with the
25 employees of somebody who purchased their

1 respiratory equipment, before four years ago, did
2 you disseminate information to anybody, either
3 their suppliers, the employee and employer in oral
4 or written form that there was a concentration of
5 contaminated air limit that this mask should be
6 used in?

7 A I think that's what I just told you. In training
8 we would do that, yes.

9 Q I said besides the direct contact or communication
10 you might have on occasion with an employer or the
11 employees --

12 A Uh-huh.

13 Q -- was that information disseminated in any way
14 oral or written before four years ago?

15 A No, I don't think so.

16 Q Okay. Now, earlier I asked you if -- not if -- I
17 asked you why you started putting 10 TLV warnings
18 on the boxes, and you said because it changed from
19 5 to 10 TLV, but my real question is: Did
20 something happen four years ago, five years ago
21 that made 3M realize that people were by ignorance
22 wearing the 8710 in atmospheres way above 10 TLV
23 thinking that it would protect them and,
24 consequently, saw the need for this additional
25 warning?

1 A No.

2 Q Okay. Not to your knowledge anyway?

3 A Categorically, no.

4 Q You are telling me categorically you know that's
5 not why it was put on there?

6 A Yes.

7 Q Then you must know categorically expressly why it
8 was put on there.

9 A I told you it's because we were trying to --
10 unlike what you just said, what we were trying to
11 do was constantly upgrade the materials we sent
12 out to people. In that time period, we had to
13 change from the 5 to the 10, so we put it on
14 there. There was a change in it, and we wanted to
15 let people know that; so therefore, it goes on the
16 box.

17 Q Well, I know you're upgrading and you had a change
18 from 5 to 10, but even when you had the 5, you
19 didn't put it on the box; so I don't understand
20 that's the reason, and I'm not trying to argue
21 with you, but --

22 MR. BLIZZARD: Well, it sounds like
23 it to me.

24 Q (By Mr. Crow) -- that's your reason?

25 A That's the reason.

1 MR. BLIZZARD: What? I think he's
2 told you the reason, but I'm not sure
3 what you just said there while I was
4 making my objection.

5 Q (By Mr. Crow) When the 8710 was developed and you
6 started marketing it in '72, in terms of what 3M
7 understood internally within the OHSP, what was
8 the maximum permissible multiple of TLV that the
9 mask could safely be worn in?

10 A In terms of what? What OHSP thought?

11 Q Yes. Now, stop with me for a moment. We've
12 talked about when you warned about there being a
13 limitation on TLV?

14 A Yes.

15 Q And why?

16 A Yes.

17 Q And if my calculations are correct, we're talking
18 about somewhere around 1980 or '81; is that
19 correct?

20 A Yes.

21 Q The product came out eight years earlier?

22 A Yes.

23 Q What was the internal understanding within the
24 OHSP group as to what maximum multiple of TLV the
25 8710 should or could be used in?

1 MR. BLIZZARD: Now, Carl, you're
2 asking for -- in asking for the internal
3 understanding over an 8-year period,
4 you're asking for him to crawl into the
5 minds of a large number of people.

6 MR. COFFEY: If he doesn't know,
7 Ed, he doesn't know.

8 MR. CROW: Well, I'll tell you why
9 I'm asking the question.

10 Q (By Mr. Crow) And I'll tell you why I'm asking
11 the question.

12 MR. BLIZZARD: Well, you don't have
13 to tell me why you're asking the
14 question. Just ask the question.

15 Q (By Mr. Crow) I want to know what maximum or
16 multiple TLV of free silica your design group or
17 testing group or marketing group in 1972 knew this
18 mask could or should be used in?

19 A In 1972, I couldn't tell you because I don't know
20 those people.

21 Q Are there any written memoranda, documents of any
22 kind which discuss or reflect an understanding
23 within the OHSP group on that issue?

24 A I don't know if there are or not.

25 Q Well, when you came on board in 1976, what was the

1 current wisdom? You know how physicians talk
2 about current wisdom, and the wisdom changes?

3 A Yes.

4 Q That's true at 3M, isn't it, as technology
5 advances, your ideas about how you do things
6 change, don't they?

7 A Certainly.

8 Q And that's one of the reasons you want to keep up
9 with stuff?

10 A Yes.

11 Q In 1976, four years before you made any
12 dissemination, other than your oral sales talks as
13 you've mentioned to me earlier of the fact that
14 this mask had a maximum multiple TLV or usage in a
15 contaminated atmosphere with a maximum multiple
16 TLV, what was your understanding in '76 about
17 that?

18 A When I got there, my understanding of that, after
19 I learned it, of course, naturally, was that we
20 considered it unfair that a half mask respirator
21 like that was limited to a multiple of five. We
22 always considered it to be useful up to ten like
23 any other half mask respirator was.

24 Q So 3M knew because you found out from OHSF in '76
25 after somebody told you and not before somebody

1 told you that this mask should not be used in
2 contaminated atmospheres of free silica above 10
3 TLV, and you knew that in '76?

4 A Sure, yes.

5 Q And you made no written attempt to warn anybody
6 who bought this mask or used it for four years?

7 A No written attempt, I guess that's right. It was
8 not on our boxes.

9 Q And do you know whether or not in '76 was the day
10 that the skies parted at 3M and the sun shown
11 brightly and everybody in the OHSP Division
12 realized that people who bought this mask
13 shouldn't be using it in contaminated atmospheres
14 above 10 TLV in terms of free silica?

15 A You want to say that again?

16 Q Yes, I will say it again. Do you know whether or
17 not 1976 was the year the skies parted and the sun
18 shown brightly through the skies radiating down on
19 the OHSP group and you suddenly got the knowledge
20 that this particular mask, the 8710, should not be
21 used in contaminated atmospheres of free silica
22 dust where the concentrations of the dust were
23 above 10 TLV?

24 A No, there was nothing magic about 1976.

25 Q As far as you know, that knowledge was in the

1 possession of 3M as early as 1972, wasn't it?

2 A As far as I know, that would be so, yes.

3 Q So from the time you introduced the 8710 in 1972
4 to 1981 or whenever you warned of the
5 concentrations the mask could safely be used in,
6 you never tried in any written form to warn, did
7 you?

8 A To my personal knowledge, no.

9 Q Do you know how many masks you sold of 8710's
10 between 1972 and '80 or '81 when you finally did
11 warn of that limitation?

12 A No, I have no idea.

13 Q Do you recognize as a project engineer, as a --
14 what did you call yourself, a technical --

15 A In what time frame?

16 Q OHSP, a technical product development engineer?

17 A I was a product development manager. I was never
18 a product development engineer.

19 Q Okay. Did you recognize that if people through
20 ignorance wore the 8710 in atmospheres of free
21 silica that were 100 times TLV without the
22 knowledge that 3M had that there was a limitation
23 on the contaminated atmosphere, they could
24 contract silicosis?

25 A Did I have the knowledge that that would be true?

1 Q Yes.

2 A After coming to OHSP, I would, yes.

3 Q Well, I know you didn't know about silicosis,
4 about free silica, about TLV's. I assume you
5 didn't know about TLV's.

6 A No, not before.

7 Q Didn't know about any of that stuff that's pretty
8 technical until you came to OHSP. I think we kind
9 of figured that out.

10 A Yes.

11 Q You were in tapes before that?

12 A That's right.

13 Q But after you got to OHSP, was it common knowledge
14 within OHSP as best you could determine that if a
15 person like Lesley Gray or Mr. Eaton wore an 8710
16 in a contaminated atmosphere of free silica where
17 the TLV was, for instance, 100 or higher, they
18 would not have the protection from the 8710 and
19 could contract a disease called silicosis?

20 MR. BLIZZARD: Do you understand

21 that long-winded question because I

22 don't? You know, Carl, if you're going

23 to demand the right to ask as many

24 questions as you want, I wish you'd make

25 them shorter and not go over the same

1 stuff again and again.

2 MR. CROW: I'm not going over the
3 same stuff, and he's looking at me like
4 he doesn't understand the question.

5 MR. BLIZZARD: And so am I.

6 A I was going to answer it in terms of yes, it would
7 be common knowledge amongst us in OHSP that anyone
8 exposed to 100 times TLV of free silica using the
9 8710, that that would be a misapplication of the
10 product, yes, absolutely. Whether or not they
11 would necessarily contract silicosis, we don't
12 know. We're not doctors, so we couldn't tell you
13 that; but we would certainly say it's a
14 misapplication of the product, that you shouldn't
15 do that.

16 Q (By Mr. Crow) In terms of misapplication of the
17 products, if you didn't know what people knew
18 about using your products because you never
19 attempted to survey your user population, how
20 would you know how to make sure -- how would you
21 even make an attempt to see that your respirators
22 were not misused in some way out of sheer
23 ignorance?

24 A How would I make an attempt to do that?

25 Q Yes.

1 A Again, through our sales force, in talking to as
2 many people as we could, through our literature,
3 the best information we could put out.

4 Q Do you have any -- I think you told me earlier
5 that you don't have any information about what TLV
6 levels are of free silica around sandblasting
7 operations?

8 A Not in my personal memory, I don't.

9 Q Do you know if 3M's ever done any studies of that?

10 A No, I don't know if we have or not.

11 Q Before you good folks at 3M advertised this 3710
12 could be used around sandblasting operations, why
13 didn't you attempt to make any effort to find out
14 what the TLV levels were around sandblasting
15 operations when you in the OHSP knew that that
16 mask would not provide protection in contaminated
17 atmospheres above 10 TLV?

18 A The reason we don't do that is because it is the
19 employer who must determine the proper usage of
20 the respirator he gives to his employee;
21 therefore, he has to measure that in the first
22 place. If he doesn't know, he has to assume the
23 worst case; and if that's the case, he wouldn't
24 use an 3710. He would use an air-fed hood.

25 Q Well, you expressly advertised the 3710 to be used

1 in sandblasting operations, and in that same
2 advertisement, you don't put any limit on TLV.

3 MR. BLIZZARD: What advertisement
4 are you referring to?

5 MR. CROW: You know the
6 advertisement I'm referring to. It's
7 all in that material he had.

8 MR. BLIZZARD: Show it to him.

9 THE WITNESS: I'm not sure of the
10 one right offhand.

11 MR. BLIZZARD: Well --

12 MR. CROW: We'll get to it in a
13 minute.

14 MR. BLIZZARD: Let's get to it now.

15 MR. CROW: If you want to ask
16 questions, why don't you ask questions?

17 MR. BLIZZARD: Well, you may not if
18 we stay this way.

19 Q (By Mr. Crow) You said the reason why 3M didn't
20 need to put any information in the advertising
21 that it did for the 8710 about the maximum
22 permissible multiples of TLV in contaminated
23 atmospheres is because the employer had to figure
24 it out for himself?

25 MR. BLIZZARD: Don't answer the

1 question.

2 Q (By Mr. Crow) Is that what you told me?

3 MR. BLIZZARD: Don't answer the
4 question.

5 Q Let me ask you again.

6 MR. BLIZZARD: He said what he
7 said.

8 Q (By Mr. Crow) Why did you not warn if you
9 advertise specifically for sandblasting
10 operations?

11 MR. BLIZZARD: Don't answer that
12 question.

13 Q (By Mr. Crow) Do you have any idea of the
14 range --

15 MR. CROW: Certify that question.

16 Q (By Mr. Crow) Do you have any idea of the range
17 of TLV's in sandblasting operations for somebody
18 who might be standing 100 feet away to somebody
19 standing 50 feet away to somebody actually holding
20 on to the blast hose?

21 A Sure. It could be anything from zero to 100
22 TLV's.

23 Q You knew that then?

24 A Certainly.

25 Q How did you know that?

1 A From reading about it in literature.

2 Q What literature taught you about sandblasting TLV
3 concentrations?

4 A I suspect if I had to remember, it would be things
5 like the industrial hygiene journals and things
6 like that.

7 Q Did you read about that study in Louisiana?

8 A I don't remember a study in Louisiana, no.

9 Q But out of some journals I assume 3M bought you to
10 read -- is that right?

11 A We have them there at 3M.

12 Q But you didn't go down and buy them with money out
13 of your own pocket, did you?

14 A No.

15 Q Those are reference materials furnished to you so
16 you could do your job better?

17 A Sure.

18 Q So you know that sandblasting operations, that TLV
19 levels can change dramatically and radically
20 depending on wind conditions, how long the blast
21 hose has been on, what's being blasted, whether
22 it's the inside of a tank or outside of a tank or
23 how far away a person is from that blasting
24 operation, don't you, Mr. Scheel?

25 A Yes.

1 Q And do you think that same knowledge was available
2 to the people in the OHSP back in '72?

3 A I don't know. I would think so, but I don't know
4 that for certain.

5 Q Well, the question I just asked you involves a
6 very common-sensical observation, in fact, doesn't
7 it? You don't have to have a chemical engineering
8 degree to know there's going to be a wide
9 variation of TLV levels in sandblasting
10 operations, right?

11 A If one assumes you know what a TLV is, no, I don't
12 think it would take a very technical degree to
13 know there would be a wide variation in the TLV
14 levels.

15 Q While your group was deciding how to market the
16 8710, part of the group's attention would have
17 been focused on what to tell people it could be
18 used for, right?

19 A Sure. Yes.

20 Q Was any part of the group's attention focused on
21 what to tell people the 8710 could not be used for
22 as you were putting that advertising material
23 together so that you would not either
24 intentionally or inadvertently mislead the
25 ultimate purchaser or user of your 8710?

1 A I don't know. I wasn't there when this was being
2 done in 1972.

3 Q From the time you got into the OHSP in 1976, did
4 you participate in any of the marketing -- what
5 would you call them -- marketing decisions made
6 about the advertising for the 8710?

7 A Yes.

8 Q Was any time spent in the marketing decision
9 conferences on the 8710 when you were talking
10 about what to put in the sales literature, was
11 there any time spent about what not to put in so
12 as to mislead?

13 A Yes, we would --

14 MR. BLIZZARD: I don't understand
15 that question. When you say what was
16 discussed about not putting in so as to
17 mislead, that's a dangling phrase, and
18 I'm not sure what it's there to modify.

19 MR. CROW: Well, we know that the
20 8710 was advertised in use around
21 sandblasting.

22 MR. BLIZZARD: Well, that's why I
23 wanted you to show him this
24 advertisement you've been talking about.

25 MR. CROW: But he knows this for a

1 fact.

2 MR. BLIZZARD: I don't know if he
3 does or not.

4 MR. CROW: He knows more than
5 you're allowing him to say. I can see
6 it in his eyes. He's got the knowledge
7 right behind his two eyeballs.

8 MR. BLIZZARD: That's what I'm here
9 for is to make sure you treat the
10 witness fairly and don't decide what he
11 knows based upon what you see in his
12 eyes. If you've got an advertisement
13 you're referring to, show it to him;
14 otherwise, I'm not going to let him
15 answer you about it.

16 Q (By Mr. Crow) Well, without seeing an
17 advertisement, Mr. Scheel, because of your
18 position and your appointment here today as the
19 designee, do you know whether or not 3M ever
20 advertised the 3710 to be used around sandblasting
21 operations?

22 A Yes, in generalities, it was, yes.

23 Q I assume that that advertising statement that this
24 mask can be used around sandblasting operations, I
25 assume that that was not the result of a monkey

1 typing out words on a typewriter until you
2 randomly came up with a phrase, was it?

3 A No.

4 Q That was a conscious intentional marketing
5 decision by 3M Company, wasn't it?

6 A To be used around sandblasting, yes, because it
7 can be.

8 Q I'm talking about the phrase.

9 A Yes.

10 Q Putting that in the sales literature was a
11 conscious intentional act?

12 MR. BLIZZARD: What phrase?

13 Q (By Mr. Crow) Well, putting in language to the
14 effect that the mask can be used around
15 sandblasting, that was intentional. That wasn't
16 an accident?

17 A No, it wasn't an accident, no.

18 Q Now, if you knew at the time that that information
19 was inserted in the sales literature that a part
20 of, a substantial part of or a small part of
21 sandblasting operations have such high TLV
22 contaminated atmospheres, was there any discussion
23 within your marketing group about somehow limiting
24 or in some other way informing people who might
25 purchase this product specifically for use around

1 sandblasting areas that there was some limitations
2 on its use in sandblasting areas? Was any time
3 spent in those marketing meetings talking about
4 well, maybe we shouldn't say that unless we put in
5 a qualifier and explain there's some limitations
6 here because some people might not understand?
7 Was there any discussion along those lines?

8 A I don't know because that first 8710 to my
9 knowledge has always been advertised as being
10 useful around sandblasting, so that's before I got
11 there, so I don't know if that kind of discussion
12 took place in those days.

13 Q Okay. So your answer is I don't know?

14 A That's right.

15 Q The same sort of question I've been asking you all
16 day, do you know either who it was specifically or
17 who good candidates would be in terms of the
18 people who would have put that language in the
19 sales brochures in the beginning?

20 A Like I've been telling you all day, I don't know
21 those people, so I can't answer that. I don't
22 know who they are.

23 Q Is there a way, for instance, to go back through
24 the documents, memorandums or whatever at 3M to
25 track back to the time when the marketing group

1 was putting together the literature in the 8710
2 and find out, for instance, who shows up being
3 cc'd on memorandums explaining the thought process
4 for the marketing of the 8710?

5 A If they exist, I suppose so, yes.

6 Q And as far as you know, that would be the only
7 way?

8 A That would be the only way I'd know to find it,
9 yes.

10 Q You said to me awhile ago that you didn't consider
11 that advertisement misleading because the 8710
12 could, in fact, be used around sandblasting
13 operations?

14 A That's correct.

15 Q To some degree?

16 A Depending on circumstances, yes, it can be.

17 Q Now, all I've ever seen is sort of the general
18 statement that it can be used around sandblasting
19 operations. What, based on your knowledge of what
20 you know from working inside of OHSP, what
21 conditions are right for use of the 8710?

22 A What conditions are right for it?

23 Q Yes. When can you use it around sandblasting
24 operations, under what conditions, under what
25 circumstances?

1 A You can say it in a negative way the first time.
2 Never can it be used when you're at the
3 sandblaster itself. That's not allowed in the
4 first place, so the only people that could use the
5 8710, then, is people peripheral to the
6 sandblaster itself, pot tender, maintenance
7 people, even supervision people walking in the
8 area, but they would have to -- if someone is
9 there all the time, like a pot tender, for him to
10 be able to use the 8710, there would have to be
11 some knowledge of whether or not the concentration
12 of silica he's being exposed to is less than ten
13 times the threshold limit value of the particular
14 level of sand they're using because that will vary
15 and change; and if that's been measured and shown
16 to be the case, then fine. If not, if it hasn't
17 been measured, then, in fact, what we would
18 recommend is that you assume the hazard is
19 unknown; and therefore, you use one that you know
20 will cover it, which in this case for a pot tender
21 would be an air-fed hood of some sort.

22 Q Well, you told me awhile ago that you absolutely
23 cannot use the 8710 while you're blasting?

24 A That is right. That is not the form of protection
25 that is mandated.

1 Q Well, when you say mandated, you are talking about
2 NIOSH?

3 A OSHA. That precedes the 8710. It's always been
4 that way.

5 Q What about the Bureau of Mines?

6 A I couldn't tell you about the Bureau of Mines. I
7 don't know.

8 Q Aside from what NIOSH or OSHA says you ought to do
9 -- we kind of went through this before on a
10 different issue -- did 3M have the knowledge in
11 '72 that TLV levels around the actual sandblaster
12 would be so high that the 8710 would not provide
13 adequate protection to the sandblaster in terms of
14 respiratory protection?

15 A I would say I would almost be certain they did for
16 the reason that they would know based on the kind
17 of job we have to do, they would know what the
18 rules and regulations were under OSHA; and I can't
19 imagine anyone not knowing if you read the
20 regulations for sandblasting because it tells you
21 why. It says because it will probably exceed 10
22 TLV's; so yes, I would have to say yes, they did
23 know that.

24 Q So logically, then, if some sandblaster out of
25 ignorance used the 8710 because he hadn't read the

1 OSHA regs or NIOSH regs but only found the
2 literature it could be used around sandblasting,
3 that person very well could contract silicosis?

4 A Like I said, I answered that before and said
5 essentially the same thing. That's a
6 misapplication of the product. I don't know for
7 sure he would contract silicosis, not being a
8 doctor. It depends on how long he's exposed,
9 what's going on.

10 Q That frankly sounds like a pat answer to me.

11 A It's not a pat answer. If you did this for an
12 hour, it probably wouldn't matter.

13 MR. BLIZZARD: Don't argue with the
14 witness. Ask him questions.

15 Q (By Mr. Crow) Is it the position of the OHSP and
16 you as a designee for 3M Corporation that if
17 somebody has contracted silicosis from the use of
18 your products, then it by definition has to be as
19 a result of a misuse or misapplication of your
20 products?

21 A If they've contracted silicosis and they were
22 using our product?

23 Q Yes. I guess it's your position categorically
24 that their disease must by definition be the
25 result of a misuse of your product?

1 MR. BLIZZARD: Well, Carl, I don't
2 know of a single case, and certainly Mr.
3 Eaton and Mr. Gray have used other
4 people's products; so to ask him if they
5 used only 3M products and contracted
6 silicosis would be --

7 MR. CROW: No, no, no.

8 MR. BLIZZARD: They've used other
9 people's products; and some of them, I
10 think Mr. Gray for a period of time
11 didn't wear anybody's protective
12 devices, didn't wear any protective
13 devices.

14 Q (By Mr. Crow) See, I'm learning more about Mr.
15 Gray's case as we go along. Does 3M recognize in
16 any way, Mr. Scheel, that there have been cases
17 where sandblasters or people around sandblasters
18 have contracted silicosis even though they use 3M
19 respiratory equipment like the 8710?

20 A If you're asking me whether or not we recognize
21 that someone who during the total time that they
22 were exposed to silica were wearing an 8710 and
23 still got silicosis, we don't recognize that at
24 all that that's ever happened.

25 Q Has 3M ever been sued before as a result of the

1 8710 or 8500?

2 A Yes.

3 Q How many times?

4 A I don't know the total number.

5 Q Do you know who would have that information?

6 A Yes, our legal counsel would, obviously.

7 Q So if I understood your last answer, you think
8 it's impossible for someone who wore the 8710 to
9 have contracted silicosis in and around
10 sandblasting operations?

11 A I didn't say it was impossible. You asked me if
12 we recognized the fact, and I said no, we don't
13 recognize the fact that that's ever occurred.

14 Q Maybe you and I are squabbling over semantics.
15 When I say recognize, I don't necessarily mean
16 admit, but have you had any internal discussions
17 within OHSP -- I'm not talking about with your
18 lawyer -- where you recognized or somebody pointed
19 out there seems to be some folks getting silicosis
20 even though they're wearing the 8710?

21 A Never. Never. As long as it's being used
22 correctly, obviously.

23 Q Well, I'm talking about period.

24 A No.

25 Q Have you recognized that there have been any

1 people in the United States of America who have
2 ever worn the 8710 and ended up contracting
3 silicosis?

4 A Let me understand your question correctly. People
5 who actually have silicosis and wore an 8710 even
6 though just once, you're asking me if I know
7 that's true?

8 Q Have you received information either in the way of
9 complaints or lawsuits that lets you know there
10 are people that have silicosis that wore the 8710
11 thinking it would protect them?

12 A That is certainly true that we have received
13 lawsuits of people with silicosis that say they
14 have worn the 8710 some unknown number of times.

15 Q And is it the position of 3M that their having
16 silicosis along with their allegation they wore
17 the 8710, is it the position of 3M that they must
18 have necessarily misused the 8710?

19 MR. BLIZZARD: Well, ask me about
20 the position of 3M. Ask him about facts
21 and opinions.

22 Q (By Mr. Crow) Well, under what circumstances
23 would you contract silicosis while wearing the
24 8710?

25 MR. STAHL: He's not a medical

1 doctor.

2 A I don't know. As long as one understands the
3 threshold limit concept, I would say the only way
4 that could possibly be is a very prolonged time
5 improperly wearing the 8710 and very high
6 concentrations of silica.

7 Q (By Mr. Crow) We have two things, actually three
8 because the first part was a qualifier. They
9 could have been wearing the 8710 in too high TLV
10 concentrations; is that right?

11 A Yes.

12 Q They could have improperly been wearing it?

13 A That's right.

14 Q They didn't fit it right, that's a possibility?

15 A Yes.

16 Q And the third one was that -- well, the third one
17 is really about the same as the first one. They
18 were just in super high concentrations of free
19 silica and didn't realize it or didn't know what
20 was going on?

21 A That's certainly possible, yes.

22 Q Can you think of any other possibilities how
23 someone would end up diagnosed as having silicosis
24 with a history of wearing the 8710?

25 A Not offhand, no.

1 Q Do you have any idea of the concentrations of free
2 silica in terms of TLV's as far as somebody doing
3 a process called lance blasting?

4 A No, I don't.

5 Q From any of the literature inside of OHSP, can you
6 tell me the distribution of particle size from
7 sandblasting operations; and by that, I mean that
8 isn't it true that most of the particles that come
9 out of the sandblasting operations, most of the
10 sand particles that are created by the fracturing
11 process of the sand striking a hard object at high
12 speed, most of those particles are very small in
13 size, either .5 microns or less?

14 A They're certainly in that range. I don't know
15 that most of them are less than a half micron, but
16 in that range, yes.

17 Q So you don't know if most of them are in that
18 range or not? That really was your answer?

19 A No, there would be a distribution of them. When
20 you say most, that makes it sound like almost all.
21 There would be a distribution. I don't know if
22 that's true, but they're certainly down in that
23 range.

24 Q Did the Bureau of Mines have an approval for the
25 8710 to be used around sandblasting operations?

1 A I don't know if they did or not. I'm only
2 familiar with the NIOSH approvals.

3 Q Did the Bureau of Mines have approvals for
4 pneumoconiosis or fibrosis-producing dusts?

5 A I said I'm only familiar with the NIOSH ones, so I
6 don't know.

7 Q Did 3M Corporation at any time since the
8 introduction of the 8710 attempt to thwart a
9 stricter regulation of what the 8710 could be used
10 in, what type of conditions or atmospheres it
11 could be used in to your knowledge?

12 A Say that again. Did we try to do what?

13 Q Did you try to thwart or stop any attempt by the
14 ISEN to restrict the use of the 8710?

15 A ISEN?

16 Q Yes.

17 A No.

18 Q You're not familiar with them?

19 A No. Are you talking about the ISEA?

20 Q What is the ISCA?

21 A ISEA.

22 Q What is that?

23 A The Industrial Safety Equipment Association.

24 Q Did the Industrial Safety Equipment Association
25 ever attempt to restrict the use of the 8710?

1 A Restrict it itself, no. They give opinions as a
2 group of what they think is wrong in terms of
3 responding to things recommended by OSHA. They do
4 that.

5 Q Did the ISEA in the history of the 8710 ever to
6 your knowledge suggest that 3M restrict the
7 advertised uses of the 8710 in any way?

8 A Advertised uses? Not that I know of, no.

9 Q How about applications where they were advertised
10 or not?

11 A Yes, I believe so. I think they were something to
12 do -- yes, just recently.

13 Q What was the suggestion of the ISEA?

14 A I think it had to do with maximum use
15 concentrations of asbestos, I believe it was.

16 Q Basically did they feel like your 8710 would not
17 perform satisfactorily in high concentrations of
18 asbestos?

19 A I don't know about high concentrations.

20 Q Let me ask you: What concentration levels were
21 they worried about?

22 A I'm not exactly sure. I think it was something to
23 do with the fact of whether it should be used up
24 to 10 TLV's. On the other hand, I think the thing
25 had to do with all half mask respirators, not just

1 disposable types.

2 Q And did 3M threaten to withdraw from the ISEA
3 unless they withdrew those suggestions?

4 A I don't know if they withdrew from it.

5 Q Who withdrew?

6 A Don Wilmes would know that.

7 MR. COFFEY: Can you spell that for
8 me?

9 THE WITNESS: W-i-l-m-e-s.

10 Q (By Mr. Crow) Is he still alive?

11 A Sure, yes.

12 Q Still work for 3M?

13 A Yes.

14 Q Do you have a representative at 3M who normally
15 testifies before NIOSH and OSHA committees on
16 respiratory equipment?

17 A There is -- yes, Wilmes and I have both done that.

18 Q How often have you testified before NIOSH and OSHA
19 committees for 3M on respiratory equipment?

20 A Myself?

21 Q Yes.

22 A Twice that I recall.

23 Q And the other gentleman, do you have any idea how
24 many times?

25 A Six or seven, maybe, something like that.

1 Q Do you happen to have excerpts, typed excerpts, of
2 the testimony you gave before those committees
3 available at your office; or would I need to write
4 specific committees and ask for the excerpts of
5 the testimony you two gentlemen have given for 3M?

6 A I would think it would be there, the testimony. I
7 think it would be in our files. The testimony
8 would be in our files because it's public record
9 and government documents.

10 Q Anybody else at 3M that testified in OSHA or NIOSH
11 proceedings for respiratory equipment?

12 A Wilmes was the main person to do that sort of
13 thing and myself.

14 Q Even back to '72?

15 A That, I couldn't tell you. I wasn't there, and I
16 don't know.

17 Q I'm going to shift gears on you and talk about
18 this 9910.

19 A Okay.

20 Q This is a different respirator from the 8710,
21 isn't it?

22 A Different in construction, yes.

23 Q Different in purpose or use?

24 A No, it has the same purpose and use and
25 limitations as the 8710 does.

1 Q Is it more efficient or less efficient?

2 A It's essentially the same.

3 Q Why did 3M feel the need to design, manufacture,
4 market the 9910 if there's no difference in the
5 utility between it and the 8710?

6 A There's a difference in utility in the mechanical
7 features of it, not in filtration efficiency. In
8 terms of a coke oven, which that was designed for,
9 it's very hot in a coke oven; and an 8710 will
10 lose its mechanical shape very quickly in high
11 heat perspiring a lot, so you must replace the
12 respirator when it's lost or damaged; so it would
13 be impractical. You would have to change it every
14 few hours, so that one is more rigid instead; and
15 it holds its shape better because it has two
16 shells put together, and that's why it was
17 designed that way.

18 Q That's the only reason for this thing coming into
19 being?

20 A Yes, basically that's right other than the fact
21 that some people like adjustable straps they can
22 pull and yank. It's personal preference, so you
23 naturally give the customer if you can what he
24 wants.

25 Q You can also get a tighter face fit with the 9910

1 than the 8710, can't you?

2 A Yes.

3 Q Because you can adjust the straps. How do you
4 adjust the straps on the 8710?

5 A By pulling them like this in the back.

6 Q By moving them on your face, and you can adjust
7 the tightness to the face?

8 A To a certain degree, yes.

9 Q To a certain degree, I can understand that; but on
10 this particular mask, you can adjust each end
11 everywhere on the mask. You can shorten it or
12 lengthen then it, too, or whatever you want in
13 between?

14 A Yes.

15 Q And you're saying the potential for having a
16 tighter face fit on the 9910 was not any part of
17 its coming into being?

18 A No, I explained to you why we designed it, for
19 that purpose.

20 Q You want to take a break?

21

22 (Whereupon, a short recess was
23 taken.)

24

25 Q (By Mr. Crow) Mr. Scheel, not only did we ask 311

1 to produce a designee to talk about the 2500, 9710
2 and 9910 masks, but we asked that designee to
3 bring with him, "any and all catalogs, pamphlets
4 or sales literature on the above-named products
5 from the time of their inception until the present
6 and further, shall be required to bring any and
7 all documents which describe any testing done on
8 the above-named products and any and all documents
9 which describe or illustrate how those products
10 were marketed for any purpose whatsoever." Did
11 you see a copy of that letter when it came in?

12 A That letter that you have right there?

13 Q Yes.

14 A No.

15 Q You've never seen it?

16 A No, I have not.

17 Q You've been designated as a designee, obviously.

18 Have you ever testified before for 3M in a case
19 similar to this where 3M's been sued from somebody
20 allegedly getting silicosis or for that matter
21 asbestosis as a result of using an 2500 or 9710 or
22 9910?

23 A You're asking me if I've ever been deposed like
24 today before?

25 Q Yes.

1 A Yes.

2 Q Not just deposed, for instance, in your divorce or
3 something like that, but I want to know have you
4 ever been a designee for 3M before in a case where
5 somebody was alleging that a 3M respirator caused
6 them to have a disease?

7 A Yes, once before.

8 Q Do you know what the name of that case was?

9 A Frazier or Foster or something like that. Foster,
10 that was it.

11 Q Is that the only time you've been deposed in a
12 case similar to this?

13 A Yes.

14 Q We have been provided pursuant to that subpoena
15 under our Texas Rules of Civil Procedure a bunch
16 of documents that I think you brought with you
17 here today, or did you bring them here with you
18 today?

19 A I didn't personally, no.

20 Q Who brought them?

21 A I don't know.

22 MR. BLIZZARD: I did.

23 Q (By Mr. Crow) Okay. So Mr. Blizzard brought them
24 today?

25 A Yes.

1 Q Did you participate at all in going back through
2 the 3M files to search out documents to comply
3 with the 201 duces tecum?

4 MR. BLIZZARD: Are you referring to
5 the letter you sent out? He obviously
6 doesn't know what 201 duces tecum is,
7 but let me shortcut it for you. He
8 didn't. I think it was done in
9 Minnesota by their general counsel's
10 office.

11 Q (By Mr. Crow) The documents that we have here on
12 the table in front of us, from your own
13 independent personal knowledge, do you know
14 whether or not the documents that we have on the
15 table are all the documents that describe the
16 marketing, the testing of the 8500, 8710 and 9910
17 respirators?

18 A No, I do not know if they're all of it.

19 Q If I were going to ask you and you were going to
20 answer under oath how you would know if all the
21 documents have, in fact, been produced today,
22 where would you go back at 3M to try to look
23 through your files to try and make that
24 determination?

25 A Actually, that's not the first thing I'd do. I

1 have not read through that stack, so I can't
2 really comment on what you have asked for, if
3 that's what it represents. If I read through it,
4 I could give you a better answer of whether that's
5 true.

6 Q Okay. Let's start doing that. Before we do, I
7 notice that virtually all of these documents have
8 a stamped number on them.

9 A Yes.

10 Q Most of them seem to be sequential.

11 A Yes.

12 Q Do you know why that number is on the copies that
13 we have?

14 A I believe it's simply a number that pertains to
15 this case that's put on by the legal counsel.
16 They're not on the documents originally. When
17 they're copied and given to you, there's a stamp
18 put on them for recordkeeping purposes. That's
19 all I know it's for.

20 Q You don't know if these documents were copied for
21 another case and a number put on them at that time
22 and then those same documents furnished to us?

23 A No, I don't know if that's true.

24 MR. CROW: Has that happened here?

25 MR. BLIZZARD: I don't know. I

1 don't know whether he's been exposed in
2 one other case. I don't know. I'm not
3 the lawyer for 3M in that case. I don't
4 know, and I don't know if your request
5 in your notice was the same request made
6 in the other case. I don't think it is.

7 Q (By Mr. Crow) Let's start through the documents
8 that somebody brought to the deposition today.

9 MR. BLIZZARD: There's no mystery.
10 It's me.

11 MR. CROW: Where did you get them
12 from, Ed?

13 MR. BLIZZARD: I got them from
14 Minnesota, came in the mail.

15 MR. CROW: Did you send them our
16 letter?

17 MR. BLIZZARD: Yes.

18 MR. CROW: And this was their
19 response?

20 MR. BLIZZARD: That was it.
21 Everything that came in the mail to me,
22 you've got.

23 Q (By Mr. Crow) Let's look at what's been marked
24 already as Scheel Exhibit 1. Can you tell me what
25 Exhibit 1 consists of?

1 A Exhibit 1 is just the top sheet or this whole
2 thing?

3 Q The whole thing. If you don't mind, I'll just
4 move over here behind you. If you would, flip
5 through that. I know you've seen that material
6 before, or I suspect you have. Tell me what it
7 is.

8 A No, I haven't seen this before. This is quite
9 old.

10 MR. BLIZZARD: Take whatever time
11 you need to review it to answer the
12 questions he's going to ask you.

13 Q (By Mr. Crow) Mr. Scheel, in looking through
14 Exhibit 1 on the page that Minnesota Mining and
15 Manufacturing has marked as 52577, there is some
16 sort of reply card. Do you see that?

17 A Yes.

18 Q Do you know how long 3M's been sending out and
19 getting back the kinds of reply cards like the one
20 depicted on 52577?

21 A Like this one, no, I don't. We do have reply
22 cards, but in many cases, it's for other products
23 in our company that we do.

24 Q That reply card specifically asks what type of
25 work your company does, doesn't it?

- 1 A Yes, it does.
- 2 Q And does it specify someplace on there what type
3 of mask the person would be using?
- 4 A No, it doesn't specify what type they'd been
5 using, not that I can see.
- 6 Q It does say, "Had you been using a nuisance dust
7 filter mask previous to using the "3M" Filter
8 Mask"?
- 9 A Yes, it does.
- 10 Q We're talking about the 8500, aren't we?
- 11 A No, it says, "Had you been using a nuisance dust
12 filter mask previous to using the "3M" Filter
13 Mask?" That could be anything other than the 8500.
- 14 Q Other than the 8500?
- 15 A That's what that question says to me.
- 16 Q Those types of cards would give you some
17 information about how your products were being
18 used, wouldn't they?
- 19 A This particular one would give you some
20 information about that.
- 21 Q In fact, question number 8 that somebody at 3M
22 thought up is, "How is the "3M" Filter Mask being
23 used," isn't that right?
- 24 A Yes.
- 25 Q If you would, go ahead and flip on. I'm sorry I

1 interrupted you.

2 A (Witness complies.)

3 Q The filter mask that we see depicted on 52581,
4 that's the 8500 design, isn't it?

5 A Yes. Is this still Exhibit 1?

6 Q Yes. Page 52582, there's an advertisement, and
7 where the print's too fine, I can't read it.

8 A Right here?

9 Q Yes.

10 A It says, "Textile Industries, May, June, July,
11 National Safety News, June," then you can't read
12 the rest of it.

13 Q The advertisement is that the mask blocks dust
14 arising from cotton. Isn't that what the
15 advertisement says?

16 A That's true. That would be nontoxic cotton
17 because not all cotton dust is toxic.

18 Q I see. Some cotton dust is toxic, and the rest of
19 it is nontoxic?

20 A Yes.

21 Q So people would only use that in nontoxic cotton
22 dust and then use something else for toxic cotton
23 dust?

24 A That's correct.

25 Q Why don't you flip on. Next page, 52582,

1 left-hand column, there's an advertisement for a
2 man that says, "I work in a paint plant. This
3 mask really does a great dust filtering job, makes
4 breathing easier." It says, "Highly efficient
5 against nontoxic dusts and spray particles."

6 A It says highly effective actually is what it says.

7 Q So as long as the paint spray particles are
8 nontoxic, then you are still okay using that mask?

9 A That's correct.

10 Q The second part of 52583, there's a man,
11 foundryman, grinding what looks like a piece of
12 metal with a grinder; is that right?

13 A Yes, he's grinding something. You can't tell what
14 it is.

15 Q It says, "Mask blocks dusts arising from foundry
16 sands." What kind of dust comes up when you grind
17 metal in a foundry with a grinder?

18 A Metal itself.

19 Q Anything else?

20 A If there's something on the metal to start with,
21 perhaps a coating of some sort.

22 Q I thought that mask wasn't supposed to be made to
23 screen out metal particles?

24 A Not for toxic metal particles.

25 Q So nontoxic metal particles it will take care of?

1 A Yes.

2 Q How does a mask tell the difference between a
3 toxic or nontoxic metal particle? Does a red,
4 green or yellow light come on?

5 A Not likely. You mean the respirator itself can
6 tell the difference between them?

7 Q Yes.

8 A No, it cannot. Human beings have to make it.

9 Q Or a corporation?

10 A Human beings make it. Corporations don't.

11 Q Apparently the case.

12 MR. BLIZZARD: I think most people
13 will admit corporations are run by human
14 beings, at least 3M is.

15 Q (By Mr. Crow) If you'll keep looking, if you'll
16 stop with me back here on page 52585, there's an
17 advertisement for a man who finishes drywall; and
18 he doesn't want to breathe dust from finishing
19 drywall, right? Finishing drywall with the kind
20 of mud that people put on drywall back in the
21 early '60's, do you know whether or not they used
22 asbestos in that mud?

23 A No, I don't know if they did in the early '60's,
24 if that was true.

25 Q If you will, just keep flipping, please. I'm

1 sorry, let me stop you. I didn't really have a
2 chance to see that. Okay. I don't want to rush
3 you. Page 52589 includes a textile worker
4 advertisement. Is there anything in there about
5 nontoxic cotton dust as compared to toxic cotton
6 dust?

7 A It doesn't talk about cotton dust at all.

8 Q It just talks about wearing it, that a textile
9 worker says, "It's easy to breathe and talk
10 through."

11 MR. BLIZZARD: I don't think that
12 page is an entire document, Carl. I
13 think that's the first page of a
14 document that's several pages long
15 because the sentence ends on 52590 and
16 begins again on 52591.

17 Q (By Mr. Crow) Do you know where that page came
18 from?

19 A Are you asking me whether I know where it came
20 from?

21 Q Yes.

22 A It says, "Reprint of an advertisement of
23 Occupational Hazards, National Safety News, May,
24 September, 1964 issues."

25 Q By the way, what kind of cotton dust is toxic and

1 what kind is nontoxic?

2 A It depends on the operation. To tell you the
3 truth, I'd have to research it and look it up to
4 tell you the truth and give you an exact answer;
5 but there's certain areas I know the stuff is
6 considered toxic. It has to do with the
7 operations of the textile machine itself.

8 Q And the grinder would have to know what kind of
9 metal grinding he was going to do to know if it
10 was toxic or not?

11 A Yes, somebody would have to tell him what kind of
12 metal he was working with. Well, I should say
13 that's not exactly so. If the employer knows and
14 gives him the proper respirator, the worker
15 doesn't have to worry about what kind of metal.

16 Q Somebody who paints has to know whether their
17 paint's toxic or nontoxic, right?

18 A Again, someone would have to know that to choose
19 the right respirator.

20 Q By the way, all those articles or advertisements,
21 the farmer that you've been looking at several
22 pages worth, we're now on page 52617, it says,
23 "Gives excellent filtration against pollens,
24 nontoxic dusts, powders and spray particles."
25 What kind of particles do you suppose they're

1 talking about there?

2 A In terms of a farmer?

3 Q Insecticides?

4 A No, not normally insecticides. Those are usually
5 considered toxic. Offhand --

6 Q It doesn't say nontoxic spray particles, though,
7 does it?

8 A It's nontoxic dusts, powders and spray particles.
9 It's all three of them, but I can't give you an
10 example of what a nontoxic spray particle would be
11 on a farm right at the moment.

12 MR. STALL: Manure.

13 THE WITNESS: Manure.

14 A Well, to answer your original question, what these
15 are, all except for a couple of bounce-back cards
16 that are in there, these are all advertisements
17 for the 8500 that run from about 1963 through
18 1966.

19 Q (By Mr. Crow) And we're talking about Exhibit 1?

20 A Yes.

21 Q Okay. Here's Exhibit 2 that was furnished to us
22 today. Those are also stamped with five digit
23 numbers. I want to stop you on page 52636. Is
24 that an ad for a painting contractor; he used the
25 8500?

1 A No, this is not an ad for a contractor. This is
2 an ad that's directed at the dealers who sell
3 materials to painting contractors.

4 Q Oh, I see. That is an ad to people like
5 Devco? Do you have a Devco in Minnesota, people
6 who sell paint and painting supplies and other
7 supplies to stock your 3M 8500, what do you call
8 it, a dust mask?

9 A Nontoxic dust mask, yes.

10 Q So that painters will buy them, is that what the
11 purpose of the ad is?

12 A The purpose of the ad is to tell the dealer who
13 would sell the 8500 that this is a good product,
14 that it will make business sense for him to stock
15 it.

16 Q You'll make money from it, right?

17 A Certainly.

18 Q And the second, excuse me, the first sentence
19 says, "Offer your contractor customers clean
20 breathing. How? With 3M Brand Filter Masks.
21 They protect their lungs from dusts and sprays."
22 Did I read that correctly?

23 A Yes.

24 Q Is there any limitation in that advertisement
25 about what kind of dusts and sprays that mask will

- 1 protect those men's lungs from?
- 2 A No, there is not in this particular ad.
- 3 Q Well, let's go on. Why don't we look at page
- 4 52640. There is a picture of a man with a soiled
- 5 or sooted face or a painted face, we can't tell
- 6 which, and it says in bold print, "Dust and paint
- 7 spray are nothing to sniff at." Big bold print at
- 8 the bottom, "Neither are sales of 3M Filter Face
- 9 Masks." Is that another ad to somebody who
- 10 services painting contractors to stock the 3M
- 11 3500?
- 12 A Yes, it is. It's to a dealer.
- 13 Q And that ad as we talked about previously is
- 14 something that the marketing department of 3M
- 15 designed to sell 3M products to dealers who would
- 16 then resell them to paint contractors; is that
- 17 right?
- 18 A Yes, that's true.
- 19 Q Is there any limitation on page 52640 about what
- 20 kind of paint?
- 21 A No, there isn't, but on the other hand, it says
- 22 nontoxic here, grinding dust.
- 23 Q What kind of grinding dust?
- 24 A It says, "It gets the finest filtering protection
- 25 against grinding dust and nontoxic paint spray

1 particles."

2 Q What kind of dust can you get for
3 operations?

4 A Kind of dust?

5 Q Yes.

6 A Anything you can grind, you would
7 it.

8 Q Yes. Let's go on if you don't mind.
9 at page 52665. There's another
10 get contractor suppliers to stock

11 A Yes, that's the case.

12 Q Okay. Page 52669 and 52670 are
13 advertisements to get painting contractors
14 suppliers to stock the 8500; is

15 A No, 52669 is a general ad to --
16 anybody who reads Spotlights, Fe
17 it says if you want free samples
18 your company letterhead to SM Co
19 you'll receive it. 52670 is an

20 dealer who services painting contractors

21 Q Well, can you tell me why 52670
22 way even mention that the mask is
23 nuisance dust or spray particles
24 ad going to paint contractor suppliers
25 with the same image does mention

1 dust and paint sprays, whatever that means to the
2 average person? Can you tell me why they use the
3 same image of the same man selling to two
4 different companies?

5 MR. BLIZZARD: If you know.

6 A Yes, I can tell you why. Your question if I
7 understood it was why does it talk about nontoxic
8 here, nuisance dust, spray particles on 52669 and
9 does not talk about that on 52670. Is that your
10 question?

11 Q (By Mr. Crow) Yes.

12 A Because 52669 could be read by a potential user of
13 the product; and therefore, there are some
14 warnings given because it is to general public
15 that could write in for free samples. The 52670
16 is a standard ad not aimed at the person himself.
17 It's aimed at a dealer, the person who would get
18 the product. He would get his information about
19 the product along with the product that we have in
20 stock, your sales reps that come and train him,
21 depending on who the sales rep is in that
22 territory. He would get that information at a
23 later date. It's not necessary to have that
24 information here.

25 Q So you want them to buy your product; and as soon

1 as a salesman showed up, he'd say, "Now, this
2 can't be used in nontoxic dust situations or
3 nontoxic paint situations"?

4 A Say that again. I understood the part we want
5 them to buy the product.

6 Q Well, 52670 just like the two earlier ones doesn't
7 mention limitations?

8 A Just like the ones that were aimed at a dealer,
9 yes.

10 Q Meaning you didn't feel like you needed to mention
11 limitations of your product. You would furnish
12 those limitations to the supplier later?

13 A Yes, because they are not actual users of the
14 product.

15 Q Just like the employer is not the user of the
16 product?

17 A No, not the same at all. We furnish the
18 information to the employer because we feel he's
19 the best one to pass it along to the employee. A
20 dealer can do that, too, from the 3M sales
21 representative. It's not exactly the same.

22 Q What is Exhibit 2?

23 A Exhibit 2 is another series of ads on the 8500.

24 Q Did you happen to notice when the last ad was, the
25 date of the last ad? It looks to me to be '74.

1 A I didn't look --

2 Q If these are chronological and the numbers are at
3 least chronological, the last page I have on
4 Exhibit 2 shows '74.

5 A Yes, these ads run from approximately March, 1967,
6 through May, 1974.

7 MR. BLIZZARD: That's assuming
8 they're in chronological order.

9 Q (By Mr. Crow) They're in numerical order, aren't
10 they? We know that generally.

11 MR. BLIZZARD: Yes, but that
12 doesn't mean they're in chronological
13 order.

14 Q (By Mr. Crow) Do you know where the rest of the
15 '74 to '84 ads are, '85 ads on the 3500?

16 A No, I do not.

17 Q Can you tell me what Exhibit 3 is?

18 A Exhibit 3 is a request to the United States Bureau
19 of Mines of March 29, 1972, for approval of a 3M
20 brand respirator number 8710; and attached with it
21 then is the 3M test data showing it passed the
22 prescribed minimum test requirements as required
23 by a dust respirator, silica dust, silica mist.

24 Q What's the difference between silica dust and
25 silica mist?

1 A The silica mist, it's the silica, again, but it's
2 been aerialized up to be in the form of a mist
3 instead.

4 Q How does that happen?

5 A I'm not really certain. That test is rarely done
6 because a silica dust test is a lot more
7 stringent. We know the silica mist is easy to
8 filter and the dust is a lot harder, so it's
9 rarely done, so I can't tell you. I've never
10 actually seen it done.

11 Q Is there any reply from the United States Bureau
12 of Mines?

13 A On this, no. To go on with what's on here,
14 there's also results of a qualatative coal dust
15 fit test, a headband uniform and even tension
16 test, copies of the fitting instructions.

17 Q Did the Bureau of Mines require copies of your
18 fitting test along with the rest of your test data
19 before approving the mask?

20 A Apparently so because here it is attached to this
21 and then copies of engineering drawings of the
22 structure of the 8710.

23 Q What is Exhibit 4, please?

24 A It is a report by J. F. Dyrud to R. J. Barghini on
25 what appears to be the witnessing of the testing

1 of the 3710 at NIOSH for the purpose of approval.

2 Q You got approval for the dust, but you couldn't
3 pass the mist?

4 A That's what it says here, yes.

5 Q Can you tell me what Exhibit 5 is, please?

6 A It's a report on a measurement system from
7 TSI called a TSI mass recorder and saying that it
8 does seem to be a good piece of equipment for
9 measuring the amount of materials that might come
10 through a respirator in terms of mass.

11 MR. BLIZZARD: Did you look at all
12 the pages of that?

13 THE WITNESS: No, I didn't. That's
14 because I know how these are written.
15 This would be the discussion on the back
16 side. Technical report summaries always
17 have what's on it in the front.

18 Q (By Mr. Crow) Who is Mr. Barghini?

19 A Mr. Barghini is a fellow that's in our development
20 area of our laboratory.

21 Q A lot of the correspondence I see is directed to
22 him, and on Exhibit 6, which I'm going to ask you
23 about in a minute, it says, "Robert J. Barghini,
24 Laboratory Manager, Occupational Protection
25 Products"?

1 A He must have been lab manager at one time. He
2 wasn't when I got there. Worked for the lab.
3 Q Does he still work for 3M?
4 A Yes.
5 Q For the OHSP group?
6 A Yes, he does. At least he was still there in
7 October. Do you want me to read this?
8 Q Just tell me what it is. What is on Exhibit
9 6? Just what is it generally?
10 A It is a report of 8710's efficiency and a
11 qualitative report on pressure drop increase on
12 8710 after it had been challenged with lead dust
13 as described in the Bureau of Mines Schedule 21B;
14 and the two sheets attached to the cover letter
15 are simply the reporting of the conditions of the
16 test and the results.
17 Q Exhibit 7 appears to me to be from a Mr. J. E.
18 Kropp, R&D Supervisor, Occupational Health and
19 Safety Products at 3M?
20 A Yes.
21 Q Is he still there?
22 A At OHSP, no, there's no Jim Kropp in OHSP, so if
23 he's in 3M, I don't know.
24 Q What is Scheel Exhibit 7?
25 A Okay. Number 7 is a letter written to Mr. Charles

1 Richards at Los Alamos Scientific Laboratory
2 talking about testing that had been done on the
3 8710 in terms of silica dust, and it's the effect
4 of the silica dust challenge on the efficiency of
5 the respirator.

6 Q Okay. Exhibit 8, if you can, just tell me
7 generally what it is, the substance --

8 A I haven't quite figured it out yet.

9 Q The substance of it sort of speaks for itself, but
10 I want to ask you who wrote it.

11 A Just a second. Generally it's a discussion. It's
12 written from Mr. Nelson Leidel to Philip Lowry
13 who's at Los Alamos Scientific Laboratory clearing
14 up apparently some misunderstandings Mr. Lowry had
15 about what Mr. Leidel had stated about the
16 efficiencies of disposable single use respirators.

17 Q Number 9, please?

18 A Number 9 is an extension of approval on TC-21C-132
19 which covers the change in a filter media in the
20 8710 and to allow optional cover webs for the 8710
21 respirators.

22 Q Now, is that the change you told me about earlier
23 today that the 8710 was changed once?

24 A I would have to say it is, yes.

25 Q And that was in 1962?

challenge, which is dioctyl phthalate is what that is, whether that will cause long-term change in penetration, whether in humidity or dry conditions; and the conclusions reached there was no change in penetration detected in comparison by differences. There was slight increased penetration at the 100 percent relative RH storage, and it is requested then from this report that there is a possibility that binders might leak out of the shell into the filter media to cause that to occur, so there should be a study to see if that possibility exists.

Q Okay. Thank you. What is 12, if you will?

MR. BLIZZARD: Carl, I'll let you finish with this one.

MR. CROW: And you've also got somebody whispering in your ear.

MR. BLIZZARD: That's right. We've been working on a long day with a short lunch, and I can see it in the witness' eyes and the lawyer's eyes. I'm not saying the deposition is at an end, but we need to adjourn as soon as you conclude your questions about this exhibit.

1 MR. CROW: Okay. Can we have the
2 rest of these documents bound up by the
3 court reporter available to everybody?

4 MR. BLIZZARD: Yes.

5 MR. CROW: The order in which the
6 exhibits are marked one, two, three,
7 four, five, six, chronological order?

8 MR. BLIZZARD: Yes.

9 MR. CROW: That's fine. That's all
10 I wanted so I can tell what's missing.

11 MR. BLIZZARD: Well, hopefully
12 nothing.

13 A Exhibit 12 is a letter from D. P. Wilmes to Jim
14 Oppold of NIOSH, apparently a submission that had
15 been made for extension of approval on the 6710
16 respirator was in error, and this letter
17 essentially says here we are submitting it again
18 based on the way you would like us to do it.

19 Q Okay.

20 MR. CROW: You want to terminate at
21 this time?

22 MR. BLIZZARD: Yes.

23

24

25

(Whereupon, the deposition of
Kenneth Laurence Scheel was terminated
at 6:35 p.m., March 21, 1985, to be
continued at a future date.)

KENNETH LAURENCE SCHEEL

THE STATE OF TEXAS :

COUNTY OF HARRIS :

SUBSCRIBED AND SWORN to before me, the
undersigned authority, on this, the _____ day of
_____, A.D. 1985, by said witness,
Kenneth Laurence Scheel.

Notary Public, State of Texas

1 THE STATE OF TEXAS :
2 COUNTY OF HARRIS :

3 I, Karen J. Ingram, a Certified Shorthand
4 Reporter and Notary Public in and for the State of
5 Texas, do hereby certify that the facts stated in the
6 caption to the foregoing deposition are true; that said
7 deposition was taken before me at said time and place,
8 pursuant to said notice and agreements, the said
9 witness, Kenneth Laurence Scheel, having been by me
10 first duly sworn on oath; I further certify that said
11 deposition was reported by me in shorthand, later
12 reduced to typewriting under my personal supervision,
13 and the above and foregoing 240 pages of typewriting
14 constitute a true and correct transcript thereof.

15 I further certify that the charge for the
16 preparation of the foregoing completed transcript is
17 \$ 551.80 charged to Plaintiffs.

18 Given under my official hand and seal of
19 office on this, the 14th day of May,
20 A.D., 1985.

21
22
23
24
25

Karen J. Ingram
Karen J. Ingram, C.S.R.
Certificate No. 1175
Expires 12/31/86