

TRANSCRIPT OF PROCEEDINGS

ASBESTOS LEVELS IN MINING)
FACILITIES)
)

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THE UNITED STATES DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

PUBLIC MEETING: ASBESTOS LEVELS IN MINING
FACILITIES

Laurentian Room
Best Western University
95 East Main Street
Canton, New York

Wednesday,
May 29, 2002

The parties met, pursuant to the notice,
at 9:06 a.m.

PARTICIPANTS

From MSHA:

Jim R. Petrie, Moderator
Sharon Ainsworth
Al Ducharme
Debra Janes

Speakers:

Mary E. Hall
John Kelse
Dana Putman
Peter Rocca
Jody Tosti

P R O C E E D I N G S

(9:06 a.m.)

1
2
3 MR. PETRIE: Good morning, my name is Jim Petrie.
4 I'm the Northeast District Manager for the Mine Safety and
5 Health Administration. I'll be the moderator for this
6 public meeting. On behalf of Dave Lauriskie, the Assistant
7 Secretary of Labor for Mine Safety and Health, I want to
8 welcome all of you here today.

9 Also here with me are several other individuals
10 from MSHA. We have Sharon Ainsworth to my right. She's
11 with our technical support organization. Debra Janes, who
12 is back at the table there. Debra is with our Standards
13 office, and Al Durcharme on my left. Al is from our
14 Solicitor's office.

15 This is the fourth of seven public meetings. The
16 previous meetings were held in Pittsburgh, Pennsylvania;
17 Spokane, Washington; and Vacuville, California. The
18 remaining meetings will be held on June 5th in Phoenix,
19 Arizona; June 12th in Virginia, Minnesota; and June 20th in
20 Charlottesville, Virginia.

21 The initial announcement of these public meetings
22 was contained in the Advance Notice of Proposed Rulemaking
23 published on March 29, 2002 in the Federal Register. I
24 believe we have a copy of that back at the table where Debra

1 is sitting.

2 A subsequent Federal Register notice published on
3 April 18th announced that the date of the Charlottesville,
4 Virginia was changed to June 20th, and a public meeting will
5 be held in Phoenix, Arizona on June 5th. That subsequent
6 Federal Register notice is also on the table back there.

7 The purpose of these meetings is to obtain
8 information from the public that will help evaluate the
9 following five issues: whether to lower MSHA's asbestos
10 permissible exposure limit; whether we should replace our
11 existing fiber analysis method referred to as Phase Contrast
12 Microscopy with a more sensitive method, which Transmission
13 Electron Microscopy; whether we should implement safeguards
14 to limit take-home exposure; whether our field sampling
15 methods are adequate; and how our samplings results are
16 being used. And lastly, what is the likely benefit and cost
17 impact of any rulemaking action we would take on these
18 issues.

19 These five issues were discussed in the March 29th
20 Federal Register document. The scope of these issues we are
21 addressing with this advance notice of public rulemaking and
22 it's limited. Therefore, this public meeting will be
23 limited to hearing public input on the five issues that I
24 must mention.

1 In the Advanced Notice of Public Rulemaking we
2 asked several questions relating to each of these five
3 issues. We are particularly interested in responses and
4 information related to these questions.

5 Now I'd like to give you some background, which
6 has lead us to be here today. MSHA's current asbestos
7 standard for coal mining, and for metal, and non-metal
8 mining is two fibers per cubic centimeters of air. These
9 standards date from the mid-1970s. In 1980 we requested
10 that the National Institute for Occupational Safety and
11 Health or NIOSH, investigate health problems at vermiculite
12 operations around the country because our sampling data at
13 that time showed higher than average asbestos exposure among
14 the miners there.

15 The results of the NIOSH study were published in
16 1986 and verified that our sampling results indicated high
17 occupational exposure prior to 1974 at a vermiculite
18 operation in Libby, Montana. The highest exposures were in
19 the mill. The MSHA report showed that in 1974 the mine began
20 to use a wet process to concentrate vermiculite in the mill
21 and occupational exposures dropped markedly.

22 The asbestos-exposed miners employed at the
23 vermiculite mine in Libby, however, inadvertently carried
24 the asbestos fibers home on their clothes, and in their

1 personal vehicles. Thereby, continuing to expose themselves
2 and family members.

3 At that time, we had encouraged the operator to
4 change from dry to wet processing of the material, and also,
5 to reduce take-home contamination by installing showers and
6 requiring the miners to change clothing before leaving the
7 site.

8 In November 1999 a Seattle newspaper published a
9 series of articles about the unusual high incidents of
10 asbestos-related illness and fatalities among individuals
11 who had lived in Libby, Montana. Because MSHA had
12 jurisdiction over the mine, the Department of Labor's Office
13 of the Inspector General began evaluation of MSHA's role at
14 the Libby mine.

15 The findings and recommendations of the Office of
16 the Inspector General were published in March 2001. Three
17 of their recommendations would require additional rulemaking
18 by MSHA, and those issues are the subject of the public
19 meeting today.

20 The Office of the Inspector General
21 recommendations were that MSHA lower the existing
22 permissible exposure limit to a more protective level. That
23 MSHA use a more sensitive analytical method, Transmission
24 Electron Microscopy to quantify and identify fibers in our

1 samples rather than Phase Contrast Microscopy method
2 currently use, and that MSHA address take-home contamination
3 from asbestos.

4 Recently, MSHA adopted new asbestos sampling
5 techniques, and we have increased the scope of sampling for
6 air-borne asbestos fibers at mines in an attempt to better
7 determine miners exposure levels to asbestos. Our efforts
8 have included taking samples at all existing vermiculite,
9 taconite, talc and other mines to determine whether asbestos
10 is present and at what levels.

11 Since the Spring of 2000, we have taken almost 900
12 samples at more than 40 operations employing more than 4000
13 miners. Our preliminary review and analysis of these
14 samples show there are very few exposures occurred during
15 the sampling period, which were above the OSHA eight-hour
16 time weight average of .1 fiber per cubic centimeter of air.

17 The sampling results are now available to the
18 public on our website at <http://www.MSHA.gov>. Also, the
19 sample results will be made part of the rulemaking record if
20 we move forward on this.

21 The issues surrounding asbestos exposure are
22 important to MSHA, and we will use the information provided
23 to us at these public meetings to help us decide how best to
24 proceed to address these five issues. So we want to hear

1 your views. These meetings will give mine operators, miners
2 and their representatives and other interested parties an
3 opportunity to present their views on these five issues that
4 are considering for potential rulemaking action.

5 The format of this public meeting will be as
6 follows -- formal rules of evidence will apply and this
7 meeting will be conducted in an informal manner. Those of
8 you who have notified MSHA in advance of your intent to
9 speak, or have signed up to speak today will make your
10 presentations first.

11 After all scheduled speakers have finished, others
12 can request to speak. When the last speaker is finished, we
13 will conclude this public meeting. If you wish to present
14 any written statements or information today, please clearly
15 identify your material. When you give it to me, I will
16 identify the material by the title as submitted.

17 You may also submit comments following the
18 meeting. Please submit them to MSHA by June 27, 2002, which
19 is the close of the comment period. Comments may be
20 submitted to MSHA by electronic mail, fax or regular mail.
21 Please note that MSHA headquarters office in Arlington,
22 Virginia will be moving on June 10th, and therefore, we will
23 have a new address, telephone and fax information. We will
24 provide this information for those of you who might want it

1 in the back of the room.

2 A verbatim transcript of this public meeting will
3 be made available upon request to the public. If you want a
4 personal copy of the meeting transcript, please make
5 arrangements with the court reporter, or you may view it on
6 MSHA's website. We will put it on our website as well. It
7 will be posted there within five days after this public
8 meeting. The procedures will also be the same for other
9 public meetings we will be conducting.

10 We will begin with persons who have registered or
11 have requested to speak. And to ensure that we obtain an
12 accurate record when you speak, please begin by clearly
13 stating your name and organization for the record.

14 Our first speaker today is -- okay, are there any
15 other speakers, he had requested to go later. Ms. Mary
16 Hall, would you like to speak? Would you step forward,
17 please.

18 MS. HALL: My name is Mary E. Hall, 25 Main
19 Street, Philadelphia, New York. I'm the wife of the
20 deceased Lynn D. Hall. He was an employee of the W.H.
21 Loomis Talc Company, Philadelphia, New York. Also, the St.
22 Joe's Lead Mines.

23 From 1941 to 1953, he was employed -- I believe
24 those were the dates -- at the W.H. Loomis Talc Company.

1 Somewhere around that time, he also worked in the St. Joe's
2 Lead Mines. At that time, he fell several feet one evening
3 caused by dynamite fumes. At that time, he couldn't go back
4 to work. They told him the best thing he could do was to
5 get out in the country in the fresh air, and stay out there
6 because he had exposures. They did tell him that. So he
7 never went back.

8 He tried at that time to continue to work in an
9 environment where there is lots of fresh air, but gradually
10 we moved into the village. And at that time we moved
11 because his health was getting bad, bad, bad. He was on a
12 continued concentrator -- oxygen concentrator, plus if went
13 anywhere, he had to take portables with him.

14 He enjoyed boating, and a lot of things, so we
15 were able to take portables and do those things with him.
16 It was very hard for him to live at that time. It got
17 terrible. He lost 90 some pounds. He was doctoring with
18 doctors in Ogdensburg, Dr. Loinaz -- a group of them. and
19 then, they turned it over to a lung specialist.

20 At that time, I guess, it was too late. from what
21 the lung specialist told us. He wished he'd came a lot
22 earlier. He might have been able to relieve him of a lot of
23 his pain and distress he was going through. But I believe
24 from the time -- we moved uptown in 1981, he was

1 progressively going downhill, downhill, downhill, due to
2 this talc exposure.

3 He had to go to several hearing in Syracuse.
4 Finally, they brought some mineralogists up from Kentucky
5 and they witnessed his health records, and whatever was
6 available at that time. And they gave a diagnosis that he
7 was exposed to asbestos, and what he had I believe started
8 with "M". I can't say the word.

9 MR. PETRIE: Mesothelioma?

10 MS. HALL: That's right. But he suffered
11 terrible. He did go to hearings as long as could, then they
12 brought them into Watertown where it was closer. He passed
13 away in 1985. After that, I went to hearing, I think, in
14 Syracuse and then they brought them into Watertown. I had
15 to go to regular meetings there with an attorney who --
16 associations. And then finally I settled on some much semi-
17 weekly to me, which was -- it's hard to survive off that,
18 I'll tell you, because it was based back in the '50s on the
19 wages they earned at that time.

20 We had some money saved. Every bit of it we had
21 was used for his health. We had to pay those bills. He had
22 no insurance. We'd had insurance, and they dropped him
23 because of the bills came to so much that they wouldn't
24 carrying him on it. So they took me off, too. Well, then

1 we started in our case in Syracuse because I was going in
2 the hospital so much.

3 So I had to go through a series of tests myself at
4 Syracuse because they thought I was exposed to talc, which I
5 do have a case, too, 75F. This is 75 -- mine is 75F. I
6 just recently in the last year started on some machines
7 where I have to get extra -- it's a machine and it has a
8 hose that I have to use it all the time -- quite often.
9 They tell me to use it 5 times a day that makes me breath
10 easier and it opens up my lungs.

11 But they did tell me down in Syracuse and also, in
12 Florida. I had to go to Florida. I lost a brother down
13 there this winter, and I had to go into the hospital two
14 days after I got down there. And they took one of the x-
15 rays of mine, and when she came out, she said, "Have you
16 ever been exposed to dust of any kind?" I said, "Yes, my
17 husband used to come home when he worked for Loomis with his
18 clothes just white. And his dinner pail. His car was
19 white. He was bringing that home every day to his children
20 and to me. We had two little ones at that time.

21 We didn't realize at that time what it was doing
22 to the family with the talc all over his clothes, and I had
23 to wash them. His car was continuously covered with talc.
24 We lived in an old house in Fowler, New York. We lived

1 there with those two children. He worked at the talc mine
2 at that time, and then at the St. Joe's Lead Mines.

3 All I can say is he had a brother that lived away
4 and he came home to see him one time. He couldn't believe
5 it was his brother because he'd failed so. That talc is
6 terrible. I tell all my family, if you have any children,
7 don't use any talcum powder or anything that has talc in it.
8 Keep away from the talc, even the sand has it now. There
9 are so many places of exposure that people don't realize,
10 but I have begun to realize a lot of it.

11 The death is terrible. That's all I can say. My
12 husband died at 58. I had a son left at home, and he seen
13 his father go through this. I wish he had been able to come
14 with me today. It would have been a great help, but he
15 wasn't able to because he has a business out of state.

16 All I can say is that I hope they do change the
17 fiber or change whatever they need to on this talc because
18 it is doing something to workers. It did. I don't know
19 about right now, but I do know then that the exposure was
20 terrible. They had no ventilation. They had no bathrooms
21 at that time where they could change before they came home.
22 That's why we all got so much exposure, I believe -- the
23 families did.

24 I believe that's -- I probably could tell you a

1 lot more, but my memory right now -- I guess that will be it
2 for today.

3 MR. PETRIE: Thank you very much for your
4 presentation. You have our deepest sympathy of the loss of
5 your husband and your own personal illness.

6 MS. HALL: I will just pray each and every day
7 that something is done to help the workers of today so it
8 doesn't happen to them.

9 MR. PETRIE: I just have one question. Where is
10 the location of the operation where your husband worked?

11 MS. HALL: It's on Popple Hill, this side of
12 Fowler.

13 MR. PETRIE: It's here near Canton?

14 MS. HALL: Huh?

15 MR. PETRIE: It's here near Canton?

16 MS. HALL: No, no, it's between Gouverneur and the
17 little town of Fowler, New York. Gouverneur, New York and
18 Fowler, New York. It's closer to what they would call
19 Fowler and Balmat.

20 MR. PETRIE: Okay.

21 MS. HALL: The mill is still there. It's sits
22 back from the road because they -- it used to be closer to
23 the road, and when they put the new highway in, it sits back
24 in a ways on a hill. That's where he got so much of his

1 work done as a packerman. That's where he got exposed so
2 much. They said he was the best packerman he had, and they
3 showed him with --

4 MR. PETRIE: Thank you very much.

5 MS. HALL: Thank you.

6 MR. PETRIE: Next, Peter Rocca? Did I pronounce
7 that correctly?

8 --

9 MR. ROCCA: I've been in the talc mining industry
10 since I was 18 years old. I first worked when I was going
11 to college in 1948 for St. Joe Lead at Edwards for a short
12 time. And my first talc mining experience as an assistant
13 engineer at the Loomis Talc Company, an underground mine --
14 several underground mines. One at the site of the current
15 open pit in Fowler.

16 In 1954 I went to work for the International Talc
17 Company as an assistant mining engineer and worked my way up
18 through the years until -- when they closed, I was the
19 general mine superintendent. The current open pit mine in
20 Fowler was totally my invention, and the equipment that's
21 there I set up myself and --

22 MR. PETRIE: Excuse me, if you could speak up a
23 just a little louder. I'm not sure if the people in the
24 audience here can hear you.

1 MR. ROCCA: My whole point of being here is to
2 talk about asbestos as a specific term. I compare it to
3 banning of certain bullets. Apparently, they kill you
4 deader than others or something of the sort. But in that
5 open pit mine -- I worked at the Fowler mine -- a talc mill
6 which we sold in competition was asbestos.

7 At the open pit mine I have seen what we call
8 petrified wood. Lens in the ore that long (indicating), and
9 3 or 4 feet long and 8 inches in diameter. We must have
10 taken pieces of those in the Engineering office. We
11 battered the end of them, and used them for brushes to clean
12 off our drawings.

13 In the underground mine, which is part of the open
14 pit there now. We found the same thing in the ore. We had
15 to be very fussy about catching it because we didn't want
16 the long fibers in the particular ore that we were
17 operating. I worked -- did the geology work and I worked
18 quite closely with our chemist in the lab, and one thing our
19 75 year old chemist always told me. He would show me under
20 the microscope. He said, "No matter type of talc it is, no
21 matter how granular it is, when you grind it down, and you
22 look at it under the microscope it's fiber.

23 That's what the doctor tells me is wrong with
24 lungs. I try to get as much exercise as I can, and my

1 breathing, actually, according to my doctor, is improved a
2 little in the last year. But he said that's not your
3 problem. Your problem is that your lungs are so scarred
4 that there is no oxygen going into your lungs.

5 So what this lady described, and I'm looking
6 forward to in a few years, my retirement is not what I
7 thought it was going to be. I'm very limited in my
8 activities, and I certainly don't look forward to a long,
9 happy life. I'll be 74 years old this year. My father
10 lived to be 94, and at 90 years old he was out working eight
11 hours a day in his garden. And believe me, I couldn't do
12 that now.

13 But the whole point I want to make is that as
14 these hearings -- I don't know from reading the Register
15 it's going to include more than just strictly asbestos and
16 it certainly should. Whether it's under this law or another
17 one, eventually something has to be done to protect people.
18 The one term that everyone uses that more or less baffles me
19 is "miners."

20 Actually, I did work in the mine and I did work
21 around the mills, too -- engineering work, but the exposure
22 was in the mills where the stuff is grown. The mines, since
23 the 1930s, it required wet drilling, and the exposure is not
24 that bad. The biggest exposure we had was not because

1 things were done properly, but when -- our crew was on a
2 bonus system. And if they were going to blast chunks of ore
3 that they were loading that were too big, and the black ore
4 and they would drill a few pin holes.

5 They didn't want to bother to get a water hose and
6 puff it up. If you caught them doing it, of course, you
7 made them do it. But this was a normal procedure was that
8 they just didn't bother with that water hose. So therefore,
9 they -- you drill a hole over your head and that stuff
10 coming down on you, and you look at a man and you can't tell
11 who he is. His face is completely white, and the mills are
12 the same way.

13 In my travels to the Mining Engineers Society we
14 went up into Canada in Quebec at an asbestos mine up there.
15 At the time it was the most modern thing that had ever been
16 developed. The ground was wet -- the material was wet
17 coming out of the mine. In the mill they had something like
18 3500 force-blower fans on top of the building. The building
19 was under a complete vacuum. You had to go through vacuum
20 locks in the building. Every work station was covered with
21 a hood. As far as I was concerned, that was cleaner than my
22 home ever was.

23 But I came back, and looked at the conditions our
24 people were working under and it just totally flabbergasted

1 me the difference. To me, I couldn't see any difference
2 between talc and asbestos, and I still don't as far as the
3 problems with your lungs. I'm one of the few miners and
4 employees that are left alive at my age, most of them are
5 long gone.

6 When I left the mines, we had people who were in
7 their '40s, who had gone from the mine work to the mill a
8 couple of years. And the minute they quit working, New York
9 State told them you're not disabled enough, so you can't get
10 disability. You can't get compensation, but you're disabled
11 enough so you can't draw unemployment. So they sat for a
12 couple for a years with no income of any kind, and they just
13 sat.

14 If they went out, and mowed their lawn, someone
15 from the State insurance fund saw them, and turned them in
16 at a hearing and said this man was working. He's not
17 disabled. That's what they went through. I didn't want to
18 go through that, so I worked on my own. I didn't claim
19 disability until about 12 years ago. It took me nine years
20 before I got anything.

21 In the meantime, I worked on my own on odd jobs.
22 I did everything, worked construction, operated equipment --
23 whatever I was able to do. It had to be, naturally, not a
24 permanent job. It had to be temporary jobs because if you

1 told anybody you worked for 20 years in the talc industry,
2 you could say all you wanted -- that's wasn't what kept it
3 there, but you couldn't get a job; and that's the way my
4 life went on.

5 It's a sad thing to have to look at that right now
6 and realize that we're still trying to combine this thing to
7 strictly asbestos, rather than just that it's killing
8 people. I really hope that something happens to change the
9 limits and change the -- especially home-affiliated dust.

10 I have three grown children, They all have
11 breathing problems, every one of them -- asthma. I came
12 home from work with my coveralls where I worked in the mines
13 with the dry talc on them, and washed them in the same
14 washer that their clothes were washed in.

15 In my last years I had a company vehicle to drive
16 as a personal vehicle. My children were in that. That
17 vehicle -- the seats and everything were so saturated with
18 talc dust that we drove with the windows opened most of the
19 time, and it's another feature that's coming up now that
20 needs to be -- I guess, it's going to be covered under this
21 current program. I've taken up enough of your time. Thank
22 you.

23 MR. PETRIE: Thank you, Mr. Rocca. I just have
24 one quick question. You may have mentioned it. When were

1 you last employed at the talc operation?

2 MR. ROCCA: When the Vanderbilt Company took over
3 the operation in 1974.

4 MR. PETRIE: 1974?

5 MR. ROCCA: In fact, when they announced that our
6 properties had been sold, my general manager told me, you're
7 one person that doesn't have to worry about a job because
8 with your background here, and your knowledge of the talc
9 and your knowledge about the open pit, you'll never have to
10 worry about a job. They never interviewed me for a job.
11 They didn't interview anybody.

12 MR. PETRIE: You had started in the industry in
13 what year?

14 MR. ROCCA: I started in 1951.

15 MR. PETRIE: '51? Over that time period, did you
16 note any kind of changes, and controls, or exposures, use of
17 respiratory protection -- anything of that nature?

18 MR. ROCCA: They tried to. The analysts at
19 International Talc -- especially, whoever handled the
20 fibrous talc, they tried to use battery-operated breathing
21 apparatus, and most of the employees' lungs were so bad that
22 it restricted their breathing to the point where they
23 couldn't use them. But I wasn't -- I wasn't, basically,
24 associated with the mining.

1 In our open pit mine -- I don't know how they
2 handle it now, but was strictly a dry drilling operation and
3 considerable amount of dust from it -- crushing operation
4 the same way.

5 MR. PETRIE: Does anybody else have any questions
6 -- Allen, Sharon, Debra?

7 --

8 MR. PETRIE: Thank you, Mr. Rocca. All right,
9 next we have John Kelse with R. T. Vanderbilt. We'll have
10 to take just a moment to make sure this projector is set up.
11 Why don't we go off the record momentarily while we do that,
12 and we'll go back on in just a few minutes.

13 (A short recess was taken at 9:39 a.m.)

14 MR. PETRIE: We're going to reopen the meeting at
15 this time. Mrs. Hall wanted to make one additional
16 statement. We'll ask her up to the table here to do that,
17 and then Mr. Kelse will make his presentation. Go ahead,
18 Mrs Hall.

19 MS. HALL: I'm Mary Hall from Philadelphia, New
20 York, wife of deceased Lynn D. Hall of the same residence at
21 the time of death. I would like to add on to what I've
22 already said that prior to meeting my husband, he had worked
23 -- when he was about 15 years old, they had hired him a
24 place called Talcville. I understand there was a talc mill

1 at that time at Talcville.

2 Back in I would say probably the late '30s, 1940,
3 somewhere in there. This was stated on his settlement
4 claim. It was St. Mark's Liquid Corporation they called it.
5 That was the name of it. That talc mill is not being
6 operated any more, but it was at that time. And I noticed,
7 when I was going to hearing, that this appeared all the time
8 -- St. Mark's Corporation, and I went to inquire where it
9 was. They said it was in Talcville, New York.

10 I studied back and found out that during our court
11 hearings that he had to have been about 15 years old when
12 they hired him under age. So that was the beginning of his
13 talc days. So I needed to add that, and I thank you very
14 much.

15 MR. PETRIE: Thank you, Mrs. Hall. We've had one
16 additional speaker sign up. We will go ahead and ask this
17 individual to speak before Mr. Kelse. I'm not sure if I can
18 read the writing here Dana Partman?

19 MR. PUTMAN: Putman.

20 MR. PETRIE: Putman, sorry.

21 MR. PUTMAN: The only thing I want to say is that
22 I worked for International Talc from around 1970 to 1974,
23 and I worked for Gouverneur Talc, and there's a vast
24 difference in the air quality of inside the mill buildings

1 between International Talc and Gouverneur Talc. There is
2 just no comparison.

3 The dust was very visible all the time in the
4 International Talc Company mills and the air is very, very
5 much better -- it's excellent in the Gouverneur Talc Company
6 mills. That's really all I wanted to say.

7 MR. PETRIE: Let me ask you just one or two
8 questions here. When you worked at International Talc, were
9 employees at that time using respirators?

10 MR. PUTMAN: Some of us did.

11 MR. PETRIE: How about currently?

12 MR. PUTMAN: We're required to now.

13 MR. PETRIE: Can you state your address for the
14 record, too, please.

15 MR. PUTMAN: 4478 State Highway 58, Gouverneur
16 13642.

17 MS. JANES: It's Dana Putman?

18 MR. PUTMAN: Right.

19 MR. PETRIE: Thank you, Mr. Putman. Did anybody
20 else have any questions for Mr. Putman?

21 --

22 MR. PETRIE: Well, with that, we'll go to the last
23 speaker who has signed up. Mr. Kelse?

24 MR. KELSE: My name is John Kelse. I'm an

1 industrial hygienist, and I manage the Corporate Risk
2 Management Department for the R.T. Vanderbilt Corporation in
3 Norwalk, Connecticut.

4 Some of my duties are basically health safety and
5 environmental product risk -- sort of the whole ball of wax.
6 I've been with the R.T. Vanderbilt Corporation since 1985.
7 And since the day I came in, it seems that a good deal of my
8 time has been syphoned to talc issues and asbestos issues
9 associated with our talc operation which is just a few miles
10 down the road.

11 So given the location of this meeting today in
12 Canton, New York, I more or less anticipated that the focus
13 would be, as you would expect it would be in this area, on
14 the mining -- common historical mining from this region;
15 particularly, the talc operations. And for decades, those
16 talc operations have been the subject of a number of federal
17 inquiries and investigations, and an entire OSHA hearing 10
18 years ago. A lot of those issues are much bigger than the
19 talc.

20 They have to do with definitions and fiber risk
21 and what's important in terms of fiber toxicity, and much
22 bigger issues than talc. But certainly, a lot can be
23 learned from the talc experience in regards to those types
24 of subjects. Some of those subjects are pertinent, I think,

1 to some of the analytical issues that MSHA is asking in this
2 particular rulemaking.

3 Now the five questions that you've asked are
4 excellent questions. I hope to comment on those in the
5 weeks to come. The reduction of the PEL, which,
6 incidentally, I'm in favor of; better control of take-home
7 dust when you're actually dealing with asbestos. I'm
8 certainly in favor of that.

9 The use of TEM, Transmission Electron Microscopy
10 as an adjunct to light microscopy. I'm certainly in favor
11 of that. However, I would encourage its use for qualitative
12 purposes and not quantitative purposes. I will explain that
13 in later comments probably through some trade associations.
14 Probably a technique similar to the one OSHA uses, a sort of
15 differential fiber counting, and use of various tools,
16 depending upon the population of particles that you see.

17 In other words, we'd recommend using dimensions as
18 kind of a screening mechanism similar to the way you use
19 just 3 to 1 fiber counts. If you get more than 1, then you
20 go ahead, and you have them analyzed for TEM now to go with
21 the tube. But if you drop the PEL to .1 or .5 or something
22 like that, you're not really going to be able to do that
23 anymore.

24 I think that if you use better sizing criteria,

1 other than 3 to 1, and use populations --

2 MR. PETRIE: Excuse me one second. Can you speak
3 up a little louder. We have some noise out in the hallway
4 there. Some of the individuals are having difficulty
5 hearing.

6 MR. KELSE: Okay.

7 MR. PETRIE: Thank you.

8 MR. KELSE: So at any rate, I will comment on
9 those questions. But as you heard this morning, for
10 decades, the ore from this mine has been accused of
11 containing asbestos, and more importantly, as imposing an
12 asbestos-like risk.

13 I really won't address the mineral issues,
14 although I do have some slides. If you want, I can go
15 through some of those, but I think it's pretty clear by now
16 that the industrial grade talc that's mined at Vanderbilt
17 isn't, in fact, an asbestos-containing material. I've left
18 some supporting documents on that topic.

19 Because it's been suggested that the health
20 experience of these talc miners reflects an asbestos-type
21 risk, however, and because regulatory agencies have been
22 periodically encouraged to regulate it has as asbestos,
23 whether it contains asbestos or not, it's important to ask
24 whether the health experience of these miners really is

1 reflective of an asbestos risk, mineralogy aside.

2 So to address that, I brought along some slides.
3 I'll pretty much stick to a prepared script so I don't
4 stray. It's all too easy for me to do that. I can go off on
5 tangents on this topic. I don't want to do that. I want to
6 keep this to about 20 minutes and run through these slides.

7 First, what I'd like to go over, I'll go over the
8 facility's pulmonary cancer experience. Remember, I'm
9 talking about Vanderbilt talc here. I didn't work for
10 Loomis. I didn't work for International. I don't know what
11 their experience was. I'm talking about Vanderbilt. The
12 only talc mining operation currently in this region. There
13 are no others, just Vanderbilt. Then I'll briefly address
14 the non-malignant respiratory disease experience.

15 (Slide presentation.)

16 MR. KELSE: This is a very busy table and very
17 difficult to see. My other slides will be a lot easier to
18 make out than this. But it's an extremely important slide
19 because it reflects the most up-to-date breakdown of lung
20 cancer deaths that we have among everybody that had ever
21 worked at Vanderbilt talc.

22 MR. PETRIE: If you can excuse me for just one
23 more second, let me see if we can turn these front lights
24 off so we can better see them.

1 MR. KELSE: Sure. I don't know if I can focus
2 that. I'll try.

3 (A short recess was taken at 9:57 a.m.)

4 MR. PETRIE: We'll go back on the record.

5 MR. KELSE: Are we back on?

6 MR. PETRIE: Yes.

7 MR. KELSE: Again, I apologize for this slide.
8 It's extremely difficult to read, but it does reflect the
9 most up-to-date breakdown of lung cancer deaths that we
10 have. This covers anyone who had ever worked in the
11 Vanderbilt mine or mill for any length of time since its
12 opening in 1948 through 1989. That's a total of 118 over a
13 42 year period.

14 Now over the years, there has been no less than
15 six mortality studies of this relatively small group of
16 miners. So it pretty much places them among the most
17 studied miners in the world. The 31 cases listed here does
18 show an overall excess of lung cancer at approximately two
19 and a half times the expected rate.

20 This a moderate, but significant excess, and one
21 that is seen in all of the studies. If you look no closer
22 than this, you might conclude that the exposure to this
23 talc, whatever it contains, is likely responsible for these
24 lung cancer deaths. Just as excessive exposure is linked to

1 lung cancer deaths, the belief that this talc poses an
2 asbestos-like risk originated from these studies.

3 However, to truly establish a causal association,
4 you need to look a little closer. And when you do, you'll
5 see some very interesting things. One of the first things
6 that jumps out at you is the much higher number of cases
7 among miners versus millers. That's important because, as
8 you've heard others mention here, dust exposure over the
9 years show overall dust levels to be about the same in the
10 mine and the mill with some historical reports showing
11 higher dust in the mill.

12 There are slightly more millers than miners, about
13 15 percent more, who ever worked at this mine. And the
14 average years worked for both groups is similar. So if the
15 cancers are linked to the dust exposure, we would expect to
16 see more cases among millers. But that's not what we see.

17 There is also a very high percentage of cases with
18 very minimal dust exposure time or tenure on the job. In
19 fact, 55 percent of all of the cases worked less than a
20 year. Forty-five percent worked less than six months. And
21 you'll see cases with one day, four days of exposure to the
22 talc in their entire working lives.

23 If the dust is so potent as to cause lung cancer
24 with such minimal exposure -- one day, four days, we would

1 certainly expect to see those exposed longer to show even
2 higher lung cancer rates, but we don't. In studies of
3 asbestos workers, we do.

4 Also, smoking histories -- always important
5 whenever lung cancer is being studied, was obtained for a
6 case control study. The case control study ran to 1985. For
7 these lung cancer death, every case was a smoker. For
8 deaths after 1985, we don't have reliable smoking histories,
9 but I wouldn't be surprised if every one of those lung
10 cancer cases were smokers as well.

11 Just as importantly, the researchers found that 73
12 percent of the non-cancer cases, the controls used in the
13 study were also smokers. So in other words, we've got a lot
14 of smokers in this mining population.

15 This table gives you an idea of how prevalent
16 smoking has been among these miners compared with national
17 norms. Our smoking records are less reliable prior to 1980,
18 but I'm sure the rate was equally disproportionate -- about
19 twice the national average.

20 Some researchers feel smoking alone could not
21 account for all the excess. Others feel strongly that,
22 indeed, it could. That it is, in fact, the more plausible
23 explanation. But whether smoking, in whole or in part, is
24 the reason for the persistent cancer excess, the next

1 observation, I think, is very key.

2 The most recent mortality study included an
3 analysis that all prior studies did not. That was an
4 historical dust exposure assessment. This assessment showed
5 that the cumulative dust exposure from the lung cancer
6 deaths was 31 percent below the dust exposure for all
7 decedents. In other words, we see an inverse dust expose
8 response relationship that further confirms what was
9 suggested from the 10-year data, or time on the job
10 experience.

11 In asbestos exposed workers, those with increased
12 cumulative exposures do show increased lung cancer rates.
13 In other words, you do see an exposure response
14 relationship. You do not see that in Vanderbilt talc
15 workers.

16 I believe this is about as strong as epidemiology
17 gets short of a no-excess finding when it comes to
18 cause/effect determinations.

19 (Slide presentation.)

20 MR. KELSE: This is an interesting slide. Also,
21 one I need to apologize for. It's very hard to see this.
22 What this does is compares lung cancer in non-malignant
23 respiratory disease mortality among Vanderbilt talc workers,
24 and Vermont talc workers.

1 Now I know it's difficult to compare one
2 epidemiology study with another, but the comparison here, I
3 believe, is pretty reasonable. Both groups have similar
4 number of people; similar exposure years; similar overall
5 dust levels; silica exposure isn't an issue in either study.
6 And when you look only at the talc workers in both groups
7 with more than one year exposure, the overall lung cancer
8 rate is no different. In regard to non-malignant
9 respiratory disease, it's actually lower in New York.

10 I put this comparison up because some of the
11 mineral components in New York talc, incorrectly
12 characterized as asbestos by some, or just bad as asbestos
13 by others, aren't present in Vermont. So it doesn't appear
14 these controversial mineral components make much difference.

15 Incidentally, the moderate lung cancer excess in
16 Vermont talc workers was not attributed to the dust by the
17 researchers, which was NIOSH in this case. It turns out
18 that there was also an inverse exposure response seen in
19 Vermont. So factors other than the dust were cited as the
20 likely cause of the lung cancers observed.

21 Well, beyond human mortality studies, it's always
22 good to have animal study or two that supports or doesn't
23 support the epidemiology. This table reflects the effects
24 of a rat pleural implementation study by Moral Stanton of

1 the National Cancer Institute. Dr. Stanton was testing the
2 theory that morphology particle dimension was most key to
3 fiber toxicity, if not the only consideration.

4 It turns out that among all the samples Stanton
5 tested, I believe 72 in all, carefully measuring the
6 particles in each samples, he tested an off-the-shelf sample
7 of Vanderbilt talc as well as platy talc. As you see, the
8 Vanderbilt samples produced no tumors. The Platy talc, just
9 the background level of no experimental significance.

10 But note the middle column. The Vanderbilt sample
11 contained some very long, thin fibers like the asbestos
12 samples. Those fibers are not the elongated, affable
13 cleavage fragments common in this talc. Those are too short
14 and too fat. These fibers are talc fibers. They are
15 relatively rare, but they are observable in Vanderbilt talc.

16 According to Stanton's hypothesis, this sample
17 should have yielded at least a 60 percent tumor rate, but no
18 tumors were produced. Some have reasoned that the
19 Vanderbilt talc didn't produce a carcinogenic response
20 because there are too few of these fibers in the talc.

21 In the past we responded to that with, well,
22 maybe. But it is what it is. Still, it is an important
23 question as it does speak to broader fiber risk issues and
24 theories. So we did have a cell study conducted with a

1 concentrate of these fibers to be tested against an equal
2 amount of asbestos.

3 (Slide presentation.)

4 MR. KELSE: Another slide you can hardly read.
5 The results of that comparison study is reflected here. The
6 talc concentrate sample acted differently than the asbestos
7 sample on appropriate cell cultures, which happened to be
8 rodent tracheal epithelial and pleural mesothelial cells.
9 Again, suggesting that more dimension is likely involved in
10 fiber toxicity.

11 I might add that these fibers described as
12 academic curiosities are not easy to find in the air
13 samples. Also, although not pertinent to MSHA, this talc is
14 used in paints and ceramics primarily. The particulate in
15 this talc is bound in the matrix of these products. This
16 very, very little, if any, public exposure to this material,
17 unlike vermiculite or platy talc used in talcum powder.

18 These are the results of a second animal study by
19 William Smith of Fairleigh Dickinson University. Dr. Smith
20 also tested Vanderbilt talc against asbestos. He even took
21 a concentrate of the non-asbestos form, tremolite, prevalent
22 in the talc and tested that against tremolite asbestos, the
23 real thing.

24 The results were the same as Stanton, tumors for

1 asbestos, no tumors for Vanderbilt talc and no tumors for
2 the tremolite cleavage fragments. The mineral component in
3 this talc most often confused with asbestos.

4 Knowing that the situation in Libby, in part,
5 prompted the MSHA rulemaking, it should be noted that
6 Dr. Stanton tested the vermiculite mine in Libby. The Libby
7 samples produced tumors comparable to the asbestos samples,
8 while the Vanderbilt samples produced no tumors. That date
9 is not on this table, and unfortunately, was not published
10 by Smith. However, it is now public record that a sample of
11 the vermiculite was provided to Smith, and that he actually
12 got as many tumors with the vermiculite as he did with the
13 asbestos samples.

14 Before I switch gears and move to non-malignant
15 respiratory disease, I'm well aware that several cases of
16 mesothelioma are said by some to be linked to Vanderbilt
17 talc. I'm always at a loss as to what to say about that
18 because I'm not aware of any mesothelioma cases that have
19 been reasonably linked to this talc. I use the qualifying
20 term "reasonably linked" because we do know that such cases
21 have been reported.

22 Two were reported, in fact, in the mortality
23 studies. In the cases we are aware of, either the diagnosis
24 was questioned when further investigated, or the latency was

1 far too short to implicate Vanderbilt talc, or there is a
2 work history of actual asbestos exposure.

3 When this issue was raised during the OSHA
4 rulemaking in the early '90s, we found that most cases
5 reported never worked at Vanderbilt talc. One case in the
6 most recent mortality study, for example, involved a man who
7 worked for two-weeks in 1948 as a surveyor at the Vanderbilt
8 site with little, if any, talc exposure.

9 This man then went into the oil business and tore
10 oil burners out of homes during the '50s and '60s. In
11 another case only a 15 year latency elapsed from the first
12 exposure to Vanderbilt talc and death. The latency period
13 didn't fit. In a more recent case the second pathologist
14 found the case unlikely to be mesothelioma after reviewing
15 the tissue and disease process involved.

16 Before we could accept that such a risk is linked
17 to this talc, we would want the diagnosis confirmed because
18 it is not an easy diagnosis to make. We would also want to
19 confirm that the cases are actually linked Vanderbilt talc,
20 and we would want to know about other possible exposures. I
21 don't think these expectations are unreasonable.

22 I should also point out that the animal studies,
23 not the cell study we just discussed, are pleural injection
24 and implantation studies. Animal studies of this sort are

1 typically viewed as having more to do with pleural tumor
2 induction or mesothelioma risk than they do with lung
3 cancer. In these studies Vanderbilt talc did not produce
4 pleural tumors while asbestos while under the same
5 conditions did.

6 While I don't think this is a factor here, I also
7 want to point out that many older mining facilities do
8 contain real asbestos. Our own talc facility, Vanderbilt,
9 which was built in the late 1940's is no exception. I found
10 asbestos-containing installation on boilers, steam lines and
11 dryers. I've seen asbestos-containing brake linings used on
12 shusher machines, asbestos-containing floor tiles. Even the
13 use of asbestos as a filtering aid in the mine laboratory.

14 Much of this has been removed, encapsulated or
15 otherwise replaced with non-asbestos material. But it is
16 important to understand the pervasiveness in older plants.
17 Something that has nothing to do with the ore itself.

18 This brings me to non-malignant respiratory
19 disease and the question, do we see a lot of dust-linked
20 lung disease suggesting that asbestos, or something just as
21 bad is present. As with the cancer experience, we actually
22 know a great deal about the pulmonary status of our miners.

23 Radiographs are routinely obtained and date back
24 to the opening of the mine in 1948. Over the years, they've

1 been reviewed by many pulmonary specialists. Pulmonary
2 testing is also routinely conducted. A very experienced
3 occupational dust disease pulmonary physician and a former
4 director at NIOSH has reviewed the chest x-rays and
5 pulmonary function tests of all our talc workers every two
6 years for the last 18 years.

7 I think this statement by Dr. Palick, now at the
8 University of North Carolina School of Medicine, pretty much
9 cuts to the chase. Please note, if you can read this, that
10 Dr. Palick does not feel he is dealing with an asbestos-like
11 dust risk. Note that he finds very, very little in the way
12 of pneumoconiosis among these talc workers, and very little
13 progression when some evidence of dust involvement is
14 observed.

15 In fact, at the end of 1999, note, he finds only
16 one worker with evidence of pneumoconiosis. Our most recent
17 surveillance effort, which we just completed, shows the same
18 results. Remember, this assessment is from someone who has
19 actually looked at these talc workers over an extended
20 period of time. It reflects actual observation.

21 Frankly, I believe our pulmonary experience with
22 dust is among the best in the mining industry, not the
23 worst. Dust disease is certainly possible with over-
24 exposure to Vanderbilt talc, just as it is with durable

1 mineral particulate of a respiral size of any dust.
2 Certainly some dust like asbestos, or crystalline silica
3 pose an elevated risk because less exposure is needed to
4 result in harm.

5 It's important, however, not to improperly
6 attribute one dust risk to another simply because some level
7 of risk exist for both. When we do see evidence of
8 interstitial scarring, parenchymal opacities consistent with
9 pneumoconiosis, it has almost always been among miners who
10 had, had previous exposure in other area talc mines now no
11 longer operated. Smoking has almost always been involved as
12 well. We do tend to hire miners with prior experience.
13 It's a double-edged sword, unfortunately.

14 (Slide presentation.)

15 MR. KELSE: This slide underscores the important
16 of dose or exposure level. You've heard some testimony this
17 morning about coming home covered in white and your car is
18 covered in white, and I don't doubt that for a second. When
19 you compare the dust exposure associated only with the
20 Vanderbilt mine to the dust exposures associated with other
21 area talc mines, you can see why miners exposed to these
22 much higher dust levels might well show dust-linked
23 problems. Happily, such exposure no longer exists. And
24 these are exposure levels that go back into the '50s and

1 '60s. It's not yesterday.

2 The Vanderbilt dust levels have to do with the use
3 of wet drilling and a variety of mill dust controls not
4 present in these other mines. Not so modern or innovative
5 today, but certainly in the '50s and '60s, it was a radical
6 improvement over mining practices at the time.

7 One x-ray finding that some people fail to
8 differentiate, and wrongly link to asbestos exposure in this
9 talc mine are pleural plaques. The fact that exposure to
10 all talc, including cosmetic talc can result in pleural
11 plaque and thickening is not understood by some physicians
12 who link this only to asbestos.

13 Plaques are typically seen after 10 or 15 years of
14 exposure in asbestos mines and well as in talc mines. We do
15 see this in our talc workers as well in about 4 to 6 percent
16 of our group. It's important to understand, although this
17 is one condition all talc exposure share with asbestos.
18 Pleural plaques are not pre-malignant lesions. Clinically,
19 they are reported to have nothing to do with the evolution
20 of mesothelioma or lung cancer. That's a different biologic
21 process with different end points.

22 These pleural effects are merely a marker of
23 exposure to talc, or asbestos, and likely other dust as
24 well. As this table reflects the pleural abnormalities that

1 we do see in our talc workers are not associated with
2 pneumoconiosis or pulmonary restriction; although,
3 pronounced pleural thickening can affect pulmonary function.
4 We don't have any one with pleural thickening. We have seen
5 a couple of cases in the past, although it was relatively
6 rare. This underscores the distinction between this pleural
7 abnormality and actual impairment.

8 In regard to pulmonary function specifically, we
9 do see a thoroughly high prevalence of mild to moderate
10 obstructive pulmonary impairment with very little or no
11 radiographic evidence of an underlying dust involvement. I
12 think it's pretty clear here that our experience here is
13 most closely linked to the elevated smoking prevalence that
14 I mentioned earlier.

15 The amount of smoking that persists among these
16 miners does bother me. We do offer smoking cessation
17 assistance. We don't get many takers, unfortunately.

18 I'm very glad that our miners and millers are
19 among the most studied in the world. I'm glad we've
20 conducted the type of medical surveillance that we have, and
21 happy that so many mineral scientists, health researchers
22 and physicians support us and stand behind us.

23 There are a lot of lessons to be learned from this
24 seemingly endless saga. This, I believe, are among the most

1 important. Substances should always be called by their
2 proper name and regulated on the basis of reasonably
3 demonstrated risks. We need more clarity in our exposure
4 descriptions, not less. To do less, I believe, actually
5 compromises worker protection because it obscures our
6 ability to accurately identify cause/effect associations and
7 properly attribute current and future risks.

8 When the word "asbestos" is thrown about loosely,
9 the very survival of a company, people's jobs can be put at
10 risk when this emotionally charged word is used. It is
11 important that it be used properly. Prudence to err on the
12 side of safety is a good thing. Unbridled prudence,
13 however, can produce witch hunts. Good science is critical
14 if we wish to minimize bias and control the diversion of
15 limited resources to lower-level risks.

16 I want to say that there is no question in my mind
17 that over-exposure to Vanderbilt talc, International talc,
18 Loomis talc, anybody's talc or just about any durable
19 respiral particulate can cause problems. We've seen it.
20 There is no question.

21 The fact that this talc in this region is a very
22 complex mineral blend. That it is understandable that
23 people confuse it does not mean that you can attribute, make
24 assumptions or do circular reason. Well, it contains

1 asbestos so, therefore, it's got to be an asbestos risk.
2 Okay, it doesn't contain asbestos, but it seems like we have
3 an asbestos risk so, therefore, it's as bad as. So you keep
4 going in this circle that never ends. That's why every
5 single time -- every time there's a federal -- the record is
6 opened by any federal agency to discuss asbestos in any way,
7 shape or form, it seems Vanderbilt is at the table.

8 It seems like the door is open and right away,
9 everyone rushes in to talk about definitions and changes,
10 and maybe they should be considered. But I think you need
11 to call substances what they are. If you have a fiber that
12 works or acts just as bad as asbestos does, you need to put
13 that on the PEL table and say "treat as asbestos," but you
14 don't call it something it isn't.

15 The fibrous actinilite is as bad as tremolite
16 asbestos is, you should regulate fibrous actinilite as
17 severely as you regulate asbestos because it's been
18 demonstrated to be just as bad. But you don't get a whole
19 category, or a group, or blob things together because I
20 think that more than fiber dimension is involved. I think
21 psycho-chemical properties have a link to this. Nobody
22 knows what the actual mechanism of asbestos path in the
23 genisicity is.

24 A lot of asbestos workers who die of lung cancer

1 also happens to be smokers. So it's not surprising on our
2 table just about everybody was, if not everyone was, but
3 that's not unique. That's also seen among asbestos workers.
4 It could be that these fibers, because they act almost like
5 magnets, attracts some of the carcinogens and cigarette
6 smoke hold the particles, the particles go to the air
7 exchange region of the lung and then are broken down,
8 encapsulated, digested, produce active oxygen radicals,
9 produce cellular diversities that ultimately end in
10 aberrations that end in cancer.

11 Nobody is absolutely sure, but that's all the more
12 reason why every single exposure that you look at you need
13 to very carefully characterize that exposure. It doesn't
14 mean it's an excuse, or a reason not to regulate or control
15 it. But it's not an excuse to develop sweeping definitions
16 and drag all sorts of things in that there's evidence that
17 they don't act the same way.

18 That's the reason why I felt compelled to come to
19 this hearing so that it is clear what we know about the
20 experience of our miners and millers. I don't know what the
21 experience with Loomis Talc was. I don't know what the
22 experience at International Talc was. Are some of the areas
23 that we mined similar to those areas? Yes, they are.

24 Are some of the mines that were operating in the

1 '40s, '50s and '60s still operating? No, they're not. So
2 you have to look at it today. Even if you believe that the
3 dust caused excess lung cancer among the miners, the
4 underground mine was closed in 1995. I don't know really
5 what more to say about that.

6 I do have slides that do discuss the mineralogy
7 that shows the difference between cleavage fragments and
8 asbestos. It shows talc fibers, and things of that nature.
9 I didn't plan on using those because it's really not
10 pertinent to the five questions that MSHA asked. But if you
11 have an interest in seeing those, and getting an idea of the
12 distinction, you know, what's the difference between these
13 minerals -- what do these terms mean?

14 I suspect you're to hear more of that probably
15 from the crushed stone industry would be very adamant about
16 not being inclusive of cleavage fragments, for example.
17 You'll probably hear that in Virginia.

18 MR. PETRIE: It would be up to you whether you
19 want to present those into the record.

20 MR. KELSE: I think I'll probably hold off because
21 I suspect that, that's going to be a major presentation in
22 Virginia. I think they'll probably be some mineralogists
23 that are going to be prepared to sit there and talk about
24 this 3 to 1, longer than 5 business and how you probably

1 need to look at things at a much higher aspect ratio, and
2 look for populations and stuff that -- particles that were
3 actually closer to the actual dimensions of real asbestos
4 and use that as a screening method before you go to sublight
5 work and spend a lot of money and time.

6 If you can't see dimensions like that under light
7 acrosophy, you probably don't have an asbestos environment.
8 So if you did see that type of population, then you'd want
9 to take it to the next step, and you'd want to get it
10 analyzed thoroughly with -- would sublight work.

11 That's it. To the best of our knowledge, that is
12 the health experience of Vanderbilt talc miners, past and
13 present.

14 MR. PETRIE: The slides that you have shown this
15 morning, will you be able to provide us with copies of those
16 for the record.

17 MR. KELSE: Yes, they're in the folder.

18 MR. PETRIE: They're in here? Mr. Kelse also
19 presented several documents for the record. I would just
20 like to go through and read the title of those documents
21 into the record. I'll do that at this point.

22 The first one is just entitled "Public Comments;
23 the second one is, Mortality Among Workers at a Talc Mining
24 and Milling Facility; the third is, A Nested Case Control

1 Study of Lung Cancer Among New York Talc Miners; next is,
2 Similarities in Lung Cancer and Respiratory Disease
3 Mortality of Vermont and New York State Talc Workers; next
4 is, Relation of Particle Dimension to Carcinogens and
5 Affable Asbestos and other Fibrous Minerals; next is a
6 Reanalysis of the Stanton et al. Pleural Sarcoma Data.

7 The next one is, Biologic Test of Tremolite in
8 Hamster; next is Mineralogical Features Associated with
9 Cytotoxicity and Proliferative Effects of Fibrous Talc and
10 Asbestos on Rodent Tracheal Affable and Pleural Mesothelia
11 Cells.

12 The next one doesn't have a title per say, but
13 it's dated 11/29/02. It has was I presume is the name of
14 the author, Brian Boehlecke, MD., MSPH. The next one is a
15 letter dated July 6, 1995 to Dr. Morgan from a Dr. Garcia.
16 The next one is a submittal to an OSHA docket by our R.T.
17 Vanderbilt Company. The docket is H-033D.

18 The next document is, The Regulatory and
19 Mineralogical Definitions of Asbestos and their impact on
20 Amphibole Dust Analysis. The next document is, the
21 Asbestiform and Nonasbestiform Form Mineral Growth Habit and
22 their Relation to Cancer Studies. And lastly, Asbestos,
23 health risks, and tremolitic talc, the never-ending Saga.

24 Thank you, Mr. Kelse.

1 MR. DUCHARME: I have a question.

2 MR. PETRIE: Okay.

3 MR. DUCHARME: Mr. Kelse, it was unclear to me
4 when you were talking before your slide presentation, you
5 referenced, and it could be that just I didn't hear you
6 clearly, but you referenced fiber aspect ratios. Can you
7 clarify that again, please?

8 MR. KELSE: Well, I think you'll hear that
9 addressed quite a bit in the weeks to come, but I know the
10 first issue with Vanderbilt talc had to do with what's known
11 as nonasbestiform affables. This talc contains upwards to
12 50 percent tremolite. It's nonasbestiform cleavage fragment
13 material. It's common soil rock producing mineral.

14 Part of that issue, which was the subject of a
15 major OSHA rulemaking in the early '90s was that you
16 basically defined asbestos as one of these six minerals.
17 You know, serpentine, chrysotile and five affables.

18 Then you measured this in the air by taking an air
19 sample and counting those asbestos fibers that were 3 to 1
20 in aspect ratio along with the 5 micrometers. So many
21 fibers per cc and then you'd compared that to a standard and
22 you were either above it or below it. t's very simple, very
23 easy to understand.

24 The problem was that when OSHA put this standard

1 on the books, I think, in the '70s they really didn't -- a
2 lot of people thought this fiber counting business was also
3 a definition. So if you have, say, for example, tremolite
4 common soil rock, like tremolite is a common crushed stone,
5 for example, 99 percent of the time it's just random crystal
6 growth. It's single dimension crystal growth bundles. It's
7 not in the asbestiform growth or mineral crystal growth
8 habit. So therefore, that tremolite is not asbestos.

9 But no one -- because a lot of people never really
10 took courses in mineralogy had no idea that this distinction
11 existed. So you take this material, and you look at it, and
12 you get the chemistry, and it says it's tremolite. And then
13 you break it up, and get particles that will be 3 to 1 or
14 longer 5 micrometers. They're just chunks, you know,
15 schoolbus size things. And you look at it under the light
16 microscope and you go, oh, tremolite -- one, two, three
17 fibers per cc and they call it asbestos.

18 That was commonly done with our talc because 50
19 percent of the talc is this material, so you're going to see
20 a lot of it. Not only is it common in our talc, but it's
21 typical waste material in cooper, taconite, gold and crushed
22 stone. In fact, the whole aggregate industry hangs on this.
23 So if you start defining asbestos as, you know, 3 to 1,
24 longer than 5 of any of these minerals, whether they're

1 asbestiform or not, you end up regulating the major portion
2 of the crushed earth as asbestos.

3 The health data doesn't support that at all. It's
4 all in the other direction. So there is n justification for
5 doing that -- no health justification for doing that. That
6 took almost 10 years to straighten that out, just to get
7 people to understand that. And to get OSHA to say when we
8 regulate these six minerals, we mean the actual asbestiform
9 variety of these minerals, not cleavage fragment.

10 They were originally going to include cleavage
11 fragments, which would have been horrendous. It just would
12 have been unbelievable what would have happened had they
13 done that.

14 Fortunately, the risk is very easy to show, and
15 our data -- the data I showed you was part of that
16 rulemaking. Because of our experience, our miners are
17 exposed to these cleavage fragments as anyone, if not more.
18 So if these things acted like asbestos, it would have been
19 horrendous, and you would have seen it in our miners. It
20 would have blown Libby away. Libby would be nothing in
21 comparison.

22 MR. DUCHARME: Thank you for clarifying that.

23 MS. JANES: I have a couple of questions. I'm
24 Debra Janes. I'm with the Office of Standards. And

1 basically, in those various EPI studies that you put forth
2 in the record, because I haven't read them yet, they list
3 the various ICP codes across time that, that lung cancer was
4 grouped as because lung cancer definitions have changed over
5 time. And if you're looking at historical data, would that
6 all be -- those would be in the studies?

7 MR. KELSE: Yeah. They were the typical EPI
8 approach where you basically send and get death
9 certificates, and the neurologist confirms the cancer on the
10 death certificate.

11 MS. JANES: Right.

12 MR. KELSE: You have to go through that whole
13 process. As you know -- I mean, those are very difficult
14 studies to do. We had six of them. It's unusual to find
15 one, let alone six.

16 MS. JANES: Could you explain some of this medical
17 surveillance that you do on your workers because you were
18 saying that you do x-rays as well as lung function tests?
19 Do you have like beginning of work lung function tests, and
20 then you do a yearly exam or something along those lines?

21 MR. KELSE: Yes. Every two years.

22 MS. JANES: Can you go through what your medical
23 surveillance program is.

24 MR. KELSE: Well, I tried to summarize the data

1 from the x-rays. I used Dr. Palick comments to summarize
2 it. I showed you the pleural plaque experiences he saw in
3 the x-rays. Then I showed you the pulmonary function data
4 in terms of obstructive/restrictive, and then, whether or
5 not those cases, you know, were smokers or not, and whether
6 or not those cases showed any underlying enthelial dust-
7 linked involvement. So those are in the file.

8 MS. JANES: Those are in the files?

9 MR. KELSE: That's right up to date. That's of
10 today.

11 MS. TOSTI: Was that the slide with the 25 percent
12 of non-within the limits and then 70 percent were smokers?

13 MR. KELSE: Out of that group?

14 MS. TOSTI: The pleural plaques.

15 MR. KELSE: No, pleural plaques represented about
16 4 or 5 percent. Where you have 4 or 5 guys out of maybe
17 100. The not within normal limits in the pulmonary
18 functions for various indices would fall below for about 25
19 percent of the group. Most of those reductions are
20 obstructive rather than restrictive. Obstructive usually
21 means like emphysema, and it obstructs the airway.
22 Restrictive is usually more indicative of a dust disease,
23 meaning that there is fibrotic development in the lungs, and
24 the lung is not as elastic, so it restricts.

1 So when you see a lot of restrictive pulmonary
2 function data in a dust environment, that's more suggestive
3 of the dust link. If you see more of an obstructive
4 environment, and a lot of smoking with no indication in the
5 x-ray of epithelial involvement, it indicates that dust is
6 not causing the pulmonary function problem.

7 MS. TOSTI: Any idea of how many people were
8 actually tested 25 percent of?

9 MR. KELSE: Everybody. We do it every two years.
10 A miner can decline the test, but I think maybe one or two,
11 but that's it. We have a very good participation, which is
12 good. It's a wise thing to avail yourself of those tests.

13 MS. TOSTI: How many people employed at Vanderbilt
14 at any given time?

15 MR. KELSE: Dana, what do we have now? We used to
16 have about 170. I think we've reduced to about 100 now.

17 MR. PETRIE: Excuse me, could you state your name
18 and affiliation for the record.

19 MS. TOSTI: Jody, J-O-D-Y, Tosti, T-O-S-T-I, North
20 Country Public Radio.

21 MR. PETRIE: Thank you. Your medical evaluations
22 are done annually?

23 MR. KELSE: Every two years.

24 MR. PETRIE: Every two years? Do they include x-

1 rays spirometry?

2 MR. KELSE: Sure.

3 MR. PETRIE: Interpretation by B readers?

4 MR. KELSE: Yes. In fact, the x-rays are first
5 read by the hospital radiologist, and then several weeks
6 later they're read in separately by Dr. Palick. And then he
7 compares, and if there is any disagreement -- usually, there
8 is pretty good agreement. There is always one or two. I
9 get the radiologists together to iron it out before we have
10 the employee see the hand-ons physician so that he gets the
11 best information possible.

12 MS. AINSWORTH: You mentioned that cleavage
13 fragments shouldn't be counted under the NIOSH PCN 7400
14 analytical method?

15 MR. KELSE: Not if you're looking for asbestos,
16 but the 7400 method is just a fiber count. It would include
17 all those things. To me, it's ludicrous. I mean, what's
18 the point? What do I do with fibers per cc when they
19 include all kinds of stuff and what am I suppose to compare
20 that to? You know, 15 fibers per cc of everything compared
21 to what -- asbestos? I don't know what to do with that
22 number.

23 This whole issue of treating 3 to 1, no longer
24 than 5 is really an interesting topic, and you'll hear more

1 about it. But to the best of my knowledge, it was never a
2 risk base.

3 MS. AINSWORTH: But you mentioned that you didn't
4 think all analysis should be done by TEM. So do you have
5 some idea of how to distinguish when a sample should be
6 looked at thoroughly for the chemical analysis to determine
7 if it's asbestos and when you should just ahead and count by
8 TEM and say it's okay.

9 MR. KELSE: Well, I think you should use sublight,
10 but because it's expensive and time-consuming, what I think
11 is a better idea is to have some type of -- come up with
12 some type of a screening method where can be pretty sure you
13 may have asbestos. Then you'd want to confirm that with
14 sublight.

15 MS. AINSWORTH: What would that screening method
16 be if it isn't fiber counting by PCM?

17 MR. KELSE: It would be, but I think when you look
18 at asbestos -- I shouldn't go through these slides.

19 MS. AINSWORTH: I understand --

20 MR. KELSE: Real asbestos is, as you know, a fiber
21 of bundles. And these bundles can be different in
22 thickness, but in general there has been several published
23 papers of people who have sized and measured asbestos in
24 lung tissue in the air in bulk samples. We'll submit some

1 of those studies to you. Several people, in fact, Dr. Rich
2 Lee, R.J. Lee Group put a paper together in which he
3 essentially assembled all this information and said, well,
4 now look, if this is the population of fibers that you see
5 when you really have asbestos. You know, they tend to be
6 longer than 20 micrometers. They tend to be less than 1
7 micrometer in width, in fact, maybe half a micrometer. They
8 always tend to be less than 1 micrometer.

9 If you see, you know, 10 percent of the fibers on
10 a cassette that are longer than 20 and less than 1
11 micrometer in width, you'd be well advised to take that and
12 do sublight work, and positively identify what those fibers
13 are because there's a good chance that you're dealing with
14 asbestos.

15 If you looked at that and you don't see any fibers
16 that meet those dimensions, you're wasting your time taking
17 it to sublight work.

18 MS. AINSWORTH: That's what I wanted you to
19 clarify because that's currently what the NIOSH procedures
20 say to do. Am I right, Clayton?

21 MR. KELSE: Yeah, well, see 3 to 1 was a -- from
22 what I understand was imported from the U.K. to get
23 consistency among fiber counters for light -- it was all
24 over the map. Some people were doing 5 to 1. They were

1 using all different things. It was like apples and giraffes
2 and you couldn't compare anything. So somebody said, well,
3 let's settle on a fiber definition and when we have a
4 asbestos, a priori -- we have asbestos, a good one is 3 to
5 1, longer than 5. We'll count every asbestos fiber in there
6 if we use that. And you certainly will, and if you have an
7 asbestos exposure of 3 to 1, longer than 5, it's fine.
8 There's nothing wrong with it.

9 If you use 10 to 1, longer than 10, you'd probably
10 count the same ones to, but the point is that it's okay.
11 When you take that and you put in a mining environment where
12 you have a bigger variety of mineral particles of different
13 types, I think you can get yourself in a lot of trouble just
14 clinging to 3 to 1, longer than 5 if you don't have some
15 additional guidance. There's an ASTM method right now
16 that's being considered, and there's an appendix to this
17 method. The method is similar to 7400 method where is PCM
18 and its 3 to 1, longer than 5.

19 And it says, just like the Myers Method say, this
20 is not specific to asbestos, so it can include a lot of
21 other things. This method does the same thing, but then it
22 says, but if you're using this for asbestos -- if that's
23 what you're interested in. If that's what you looking at,
24 go to Appendix 1 and apply these other dimensional criteria.

1 Then you go to Appendix 1 and it says if you have
2 so many fibers such as percent that meet this size dimension
3 or a population in this dimension, then you need to go to
4 sublight to confirm what you have. PCM will not confirm it.
5 You know, will never, never confirm it. So you do need TEM.

6 The problem with using TEM for quantitative
7 purposes is that you -- you know what that's like. The PCM
8 is this universe. PCM is way down here some place. You're
9 looking at some minuscule area, and you're trying to
10 extrapolate from this universe. In a mining environment I
11 think that can be a problem.

12 Secondly, in terms of health studies for asbestos
13 workers and so forth, they were all based on 3 to 1, longer
14 than 5 asbestos exposures. They're based on light
15 microscopy. So you've got so many fibers per cc based on
16 light microcopy. Well, how does that correlate with fibers
17 per cc with TEM. You don't know. And you're not going to
18 know, so you don't know what it means. So that's why I
19 don't think TEM is good for quantification. If you wanted
20 to keep TEM data, I look at a PCM. I get this. Then I
21 looked at TEM and I got that. Then as time goes on, you
22 begin to see if there's a correlation. Then maybe the TEM
23 data might, in the future, be useful for quantitative
24 purposes. But right now you don't have correlating data.

1 So right now to TEM should be used for qualitative purposes
2 where you can see the fibular structure that you're not
3 going to see with PCM. You can tell whether it's
4 asbestiform or not. You can make some other determinations,
5 but you're not going to get PEL. You definitely should use
6 TEM. I just can't imagine you using it for quantitative
7 purpose, even though the General Accounting said that, but I
8 don't think they know what they're talking about when it
9 comes to quantification. That's a long answer for a short
10 question. I'm sorry.

11 MR. PETRIE: Okay, thank you. Are there any other
12 speakers? No.

13 MR. ROCCA: Let me ask Mr. Kelse a question.

14 MR. KELSE: Sure.

15 MR. PETRIE: Yes, Mr. Rocca, if you'll come up to
16 the table there?

17 MR. ROCCA: I saw a chart there that commented
18 about cancer deaths from the talc employees, and basically
19 commented on smoking. I wonder if you're -- I'm sure you're
20 aware of a study that was done a few years back that stated
21 that the combined effects of smoking and talc were 27 times
22 worse than either one. So basically, what you're saying is
23 because a person was engaging in a perfectly legal
24 occupation like smoking, he shouldn't have been working in

1 your talc mines apparently.

2 MR. KELSE: I don't think it's a good idea for
3 anybody exposed to dust to be smoking because smoking -- you
4 know, there is a whole variety of things. But what happens
5 is that when you smoke, you're right, studies generally show
6 that among smokers the same dust exposure -- if I had the
7 same dust exposure and had a guy who smoked and a guy who
8 didn't smoke, the guy who smoked tends to be more
9 susceptible to the dust because his defensive mechanisms for
10 dealing with ciliary escalator and all these things are
11 compromised by the smoking. So the same dust exposure will
12 have more of an impact on the smoker than it would have on
13 the non-smoker. That's not to say, you know, you don't have
14 the right to smoke. But the point is if you're operating a
15 mine and know that if the person smokes he's going to be
16 more susceptible to being injured by the dust. If you're
17 conscientious, you'd think, well, I'd probably would like to
18 see that person not smoke or it would be better if he
19 didn't, or maybe I shouldn't hire him and put him at a
20 higher level of risk because I need to be thoughtful about
21 that person's health.

22 MR. ROCCA: That was my point was that if the
23 danger is that much greater from a smoker in this
24 environment, shouldn't smokers be allowed in that

1 environment? I mean, we're talking about a civil liberty --

2 MR. KELSE: I don't think so.

3 MR. ROCCA: We're talking about a civil liberty
4 deal, but you're saying the -- basically, what they're
5 saying is a man has a right to kill himself if he wants to,
6 you know. That was my only comment.

7 MR. KELSE: I kind of agree with you. It bothers
8 me, as I said. It really, really bothers me.

9 MR. ROCCA: I smoked, not heavily, but in 1964
10 when I saw the Surgeon General's report I quit right there.
11 That was the thing that saved my life probably.

12 MR. KELSE: Well, you can see it on -- I don't
13 know if you can make out some of the tables when you looked
14 at those pulmonary functions tests and you see that those
15 things are obstructive, not restrictive and you know what
16 that is.

17 MR. ROCCA: You see, it's like my case, though,
18 we're not talking about asbestos. We're talking about
19 fibers which have damaged my lungs. You say I wasn't in
20 asbestos. Whatever it was that ingested into my lungs have
21 destroyed my lungs.

22 MR. KELSE: Well, if you're over-exposed to talc,
23 that definitely can happen. There's no question about it.

24 MR. PETRIE: Thank you, Mr. Rocca. If there are

1 no other speakers, I want to close this meeting. The
2 address for headquarters after they move here on June 10th
3 is going to be on this yellow sheet of paper that I'll just
4 sit on this table. I thought we had copies of that, but we
5 don't. So with that, the meeting is closed and thank you
6 all for coming.

7 (Whereupon, at 10:54 a.m., the hearing in the
8 above-entitled matter was concluded.)

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REPORTER'S CERTIFICATE1
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DOCKET NO.: N/A
CASE TITLE: Asbestos Levels in Mining Facilities
HEARING DATE: May 29, 2002
LOCATION: Canton, New York

I hereby certify that the proceedings and evidence are contained fully and accurately on the tapes and notes reported by me at the hearing in the above case before the Mine Safety and Health Administration.

Date: May 29, 2002

Joel Rosenthal

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