PUBLIC HEARING ON
MEASURING AND CONTROLLING
ASBESTOS EXPOSURE

The parties met, pursuant to the notice,
at 9:00 a.m.

Days Inn Hotel
701 Hattrick Avenue
Virginia, Minnesota
Wednesday, June 12, 2002

MSHA headquarters:
U.S. Department of Labor
Office of Standards, Regulation,
and Variances
Mine Safety and Health Administration
1100 Wilson Boulevard, 23rd Floor
Work Station 2352
Arlington, VA 22209-2296
Telephone: (202) 693-9442
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PANEL MEMBERS PRESENT:

Rebecca J. Smith, Moderator, Deputy Director
Sharon Ainsworth, Technical Support
Dr. Carol J. Jones, Health Program Manager
Alfred D. Ducharme, Solicitor's Office
James G. Lynch, Standards Office

PUBLIC IN ATTENDANCE:

Russell T. Jarvi, Jr., US/DOL/MSHA
David T. Couillard, USDOL/MSHA/EFS
Felix Quintana, MSHA-Duluth
George Schorr, MSHA-Duluth
Lary Zanko, NRRI-Duluth
Timothy J. Carlson, Local 1938 Safety Chair
Rick Westlund, Local 1938 Safety
David Mlakar, Local 2660 Safety
Karla McKenzie, Safety Manager NSPC
Gerald Knaeble, Local 6115 Safety
Julie Oreskovich, NRRI-Duluth
Lauri Potter, U.S. Steel-Minntac
Terry Severn, Cleveland-Cliffs, Inc.
Gus Josephson, Ispat Inland Mining
Wade Rosell, Minnesota Power
REBECCA SMITH: Good morning. My name is Rebecca Smith. I'm the Deputy Director of the Office of Standards, Regulations, and Variances for the Mine Safety and Health Administration.

I will be your moderator for this public meeting. On behalf of Dave Lauriski, the Assistant Secretary of Labor for Mine Safety and Health, I want to welcome all of you here today. Also here today with me are several other individuals from MSHA. On my left, Dr. Carol Jones is the program manager for our health program for metal and non-metal. On her left, Al Ducharme is from our solicitor's office. Jim Lynch is from our standards office. On my right, Sharon Ainsworth is from our technical support organization.

This is the sixth of seven public meetings. The previous meetings were held in Pittsburgh, Pennsylvania; Spokane, Washington; Vacaville, California; Canton, New York; and Phoenix, Arizona. The last meeting will be held on June 20th, next week, in Charlottesville, Virginia.

The initial announcement of these public meetings was contained in an advance notice of proposed rulemaking published on March the 29th in the Federal Register. A subsequent Federal Register notice, published on April the 18th, announced that the date of
the Charlottesville, Virginia meeting was changed to June the 20th, and a public meeting would be held in Phoenix, Arizona on June 5th. These two Federal Register notices are available to you in the back of the room.

The purpose of these public meetings is to obtain information that will help us evaluate the following five issues: Number 1, whether to lower our asbestos permissible exposure limit; Number 2, whether we should replace our existing fiber analysis method, referred to as phase contrast microscopy, with a more sensitive method, which is transmission electron microscopy; Number 3, whether we should implement safeguards to limit take-home exposure; Number 4, whether our field sampling methods are adequate and how our sampling results are being used; and Number 5, what is the likely benefit and cost impact of any rulemaking action we would take on these issues.

These five issues were discussed in the March 29th Federal Register document, and the scope of the issues we are addressing with this advance notice of proposed rulemaking is very limited. Therefore, this public meeting will be limited to hearing public input on these five issues I've just mentioned. In the advance notice of proposed rulemaking we asked several
questions related to these five issues, and we're particularly interested in responses and information related to these questions.

Now, I'd like to give you some background which has led us to be here today. In 1980 we requested that the National Institute for Occupational Safety and Health, NIOSH, investigate problems at vermiculite operations around the country because our sampling data at that time showed higher-than-average asbestos exposures among miners.

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

The asbestos-exposed miners employed at the vermiculite mine in Libby, however, inadvertently carried the asbestos fibers home on their clothes and in their personal vehicles, thereby continuing to expose themselves and family members. At that time we had encouraged the operator to change from dry to wet processing of material and also to reduce take-home
contamination by installing showers and requiring the miners to change clothing before leaving the site.

In November of 1999 a Seattle newspaper published a series of articles about the usually high incidence of asbestos-related illnesses and fatalities among individuals who lived in Libby, Montana. Because MSHA had jurisdiction over that mine, the Department of Labor's Office of the Inspector General began an evaluation of the Mine Safety and Health Administration's role at the Libby mine.

The findings and recommendations of the Office of the Inspector General were published in March 2001. Three of their recommendations would require additional rulemaking by Mine Safety and Health, and those issues are the subject of this public meeting today.

The Office of the Inspector General recommendations were: Number 1, that MSHA lower the existing permissible exposure limit to a more protective level; Number 2, that MSHA use a more sensitive method, transmission electron microscopy, to quantify and identify fibers in our samples, rather than the phase contrast microscopic method currently used; and Number 3, that MSHA address take-home contamination from asbestos.

As you may know, our current asbestos standard
for coal mining and for metal and nonmetal mining is 2 fibers per cubic centimeter of air, and these standards date from the mid 1970s.

Recently we adopted new asbestos sampling techniques, and we've increased the scope of sampling for airborne asbestos fibers at mines in an attempt to better determine miners' exposures to asbestos. Our efforts have included taking samples at all existing vermiculite, taconite, talc and other mines to determine whether asbestos is present and at what levels. Since the spring of 2000 we have taken almost 900 samples at more than 40 operations employing more than 4,000 miners.

Our preliminary review and analysis of these samples show very few exposures occurred during the sampling period, which were above the OSHA eight hour time-weighted average of .1 fiber per cubic centimeter of air. Our sampling results are now available to the public and are on our website at www.msha.gov. Also the sampling results will be made part of the rulemaking record if we move forward.

The issues surrounding asbestos exposure are important to MSHA, and we will use the information provided to us at these public meetings to help us decide how to best proceed to address these five issues.
So we want to hear public view. These public meetings will give mine operators, miners and their representatives and other interested parties an opportunity to present their views on these five issues that we are considering for potential rulemaking action.

The format of this public meeting will be as follows: Formal Rules of Evidence will not apply, and this meeting will be conducted in an informal manner.

Those who have notified MSHA or signed up in advance of intention to speak will make their presentations first. After any scheduled speakers have finished, others may request to speak. When the last speaker is finished, we will conclude this public meeting.

If you wish to present any written statements or information today, please clearly identify that material for me. When you give it to me, I will identify the material by the title that you have submitted. You may also submit comments following the meeting. Please submit those to us by June 27th, which is the close of the comment period.

Comments may be submitted to us by electronic mail, fax or regular mail. Please note that the MSHA headquarters office in Arlington, Virginia has moved, and therefore, we have new address, telephone and fax
information that is different than what you have there in front of you in the Federal Register documents. In the back of the room is new fax address information for you.

A verbatim transcript of this public meeting will be available upon request. If you want a personal copy of the transcript, please make arrangements with the court reporter, or you may view it on MSHA's website. It will be posted there five days after this public meeting. The procedures have been the same for all of these public meetings.

I do not believe we have anyone signed up to speak at this moment, is that correct?

JAMES LYNCH: Correct.

REBECCA SMITH: What we will do is we will go off the record now, and we will wait, and if we have someone who is interested in speaking, please sign up, so indicate, and we will then open the record again for that information. So we'll go off the record now.

(Off the record.)

REBECCA SMITH: We'll go back on the record now. We have had a request to speak from Mr. David Mlakar. Mr. Mlakar, please. If you would state your name again and your organization for the record, please.

DAVID MLAKAR: My name is David Mlakar, and I'm
with Local 2660, working at National Steel, and I'm with
the USWA.

First of all, on the issues, I definitely would
agree with lowering the standard. Where we're at 2
fibers per cc, I believe we should lower it down at
least to the OSHA standard, to .1. Why are we -- I
mean, with all the information on asbestos that has been
out there, I mean, why are we sitting and subjecting
miners to 2 fibers when the rest of industry is down to
.1? I mean, under the act of 1977, you state right off
in the beginning of that act, that you're here to
protect the miners, first and foremost. And if you are,
then I would agree with lowering that standard.

Also I do believe that the sensitivity, you
should go to the higher sensitivity, and with limiting
the take-home. All of these are great ideas. It's just
a matter of let's implement them. Sampling, I would
hope that in your regulations, though, that you would
make them where, when new information becomes available,
that you can utilize that information, where there would
be some mechanism in the standard that you can say,
okay, whether it would be a benefit to lower that
standard or to, you know, say, well, with the new
information we have, we could go the other way.

I mean, new information, stuff that we get, we
need to utilize it, and we don't. I mean, we're back in
1973 with the TLDs that you've got, and we're sitting in
2002, and there's no mechanism in there to utilize the
new information that's become available. And I think
there has to be some type of mechanism that you use.

Other than that, that's what you have me
limited to as far as on these five subjects, I would
have a lot more to say on other subjects, and I guess I
can't say it here because I'm limited, because I would
really give you an earful on the rest of it. So other
than that, that's all I have to say.

REBECCA SMITH: Thank you, Mr. Mlakar. Can I
ask the panel members, do any of you have questions for
Mr. Mlakar? (No questions.) Thank you very much for
your comments. We appreciate it.

We'll go back off the record again.

(Off the record.)

REBECCA SMITH: We're back on the record. We
have Mr. Larry Zanko. Go ahead. If you don't mind
again saying and spelling your name and your
organization for the record, please.

LARRY ZANKO: Sure. My name is Larry Zanko.
The spelling of my last name is Z-a-n-k-o. I'm a
research fellow with the Natural Resources Research
Institute. That's part of the University of Minnesota.
We're out of Duluth. And I work in the economic geology group there. My background is, I have a master's degree in geological engineering. And I've been with the Institute for 16 years.

We've been working on a project over the last year and a half where we've been looking at the properties of coarse taconite tailings from the five western Mesabi Range taconite operations, Ispat Inland Minorca, EVTAC, Minntac, Hibbing Taconite and National Steel Pellet Company. We've collected samples, representative samples, as representative as they can be, over the course of a year, collecting a sample every three months from every operation from their tailings line. And the idea was to look -- again, there's a huge potential for taconite by-products to be used as an aggregate source. In fact, these tailings have been used -- or the coarse tailings have been used in road projects around the Iron Range.

And one of the issues -- we've looked at the geology, the mineralogy, et cetera. And we know that from the concerns in the past, from various parties, as to whether or not there's any asbestos or asbestiform type minerals in the taconite, that was one of the issues we wanted to examine. And we had these samples sent to the RJ Lee Group in Monroeville, Pennsylvania.
for analysis. The tailings came in two forms from the
mine; that is, as-received, and the other, a minus 200
mesh or minus 75 micron samples.

And the RJ Lee Group performed x-ray powder
diffraction to identify various mineral components;
polarized light microscopy, using EPA/600/R-93/116;
scanning electron microscopy, as outlined in ISO/DIS
14966, (Ambient air: Measurement of inorganic fibrous
particles, scanning electron microscopy method). I just
got this yesterday, so I'm just reading off of an
e-mail. And transmission electron microscopy in general
according with the analytical portion of ASTM D 5756.

Now, in general, the XRD analysis, and this
confirms pretty much the work that we did as part of
this project, was that the primary component of all of
the samples is quartz, with varying amounts of hematite,
magnetite and siderite, which are iron minerals. And
the primary amphibole mineral identified by XRD was
Minnesotaite. As it says here, XRD cannot differentiate
between fibrous and cleavage fragment varieties of
minerals. And the summary here is that no regulated
amphibole was observed during these analyses.

Now, moving on to the PLM analyses, again,
we're looking at -- they said trace levels of cleavage
amphibole fragments observed in the Minorca and Minntac
samples were identified as, quote/unquote, "tremolite/actinolite." The cleavage fragments, four total in the entire PLM analyses, had moderate aspect ratios, greater than three to one length to width, but showed no evidence of fibular structure. And then based on the PLM analyses, no regulated asbestos minerals were detected.

SEM analyses. No asbestiform minerals were observed during SEM analyses. Several cleavage fragments were observed in the minus 200 mesh fraction that was sieved from the Minorca tailings; no cleavage fragments were observed in the pulverized Minorca sample. The chemistries for the cleavage fragments observed in the Minorca sample are consistent with the identification of Minnesotaite; again, a very common mineral on this part of the Iron Range.

And then finally, for TEM -- I'm just summarizing here -- no asbestiform minerals or amphibole cleavage fragments were observed during the TEM weight percent analysis.

Based on these analyses, no asbestiform minerals are present in these tailings. Also no quantifiable amount of cleavage fragments, with aspect ratios of greater than three to one, are present in the samples.
Basically that's the overall summary. The complete report will be as included in our report for our overall aggregate study that we're doing on the coarse tailings, and that will be finished in October of this year. Again, these results are just a general summary. The complete results from RJ Lee will be arriving shortly at our Institute. I guess that's all I have to say at the moment.

REBECCA SMITH: Mr. Zanko, if you would like to provide us a summary or that report that you're reading from, for the public record, we would appreciate having that.

LARRY ZANKO: Okay. When would you like that? I would prefer to -- this was, like I say, an e-mail that was a summary. The formal report, which all of this information is summarized in, will be arriving probably within the week.

REBECCA SMITH: We'd like to have it by -- we need to have it by the close of the record, which is June the 27th.

LARRY ZANKO: Okay. June 27th?

REBECCA SMITH: June the 27th, yes. And you can fax it to us, you can send it e-mail, hard copy, your choice.

LARRY ZANKO: Okay. I can do that.
REBECCA SMITH: If you don't mind.

CAROL JONES: Your sampling was all done as what we would call bulk sampling, right?

LARRY ZANKO: Bulk sampling.

CAROL JONES: It was not air sampling at all?

LARRY ZANKO: No, no. These were samples of the actual material itself. Not air samples.

CAROL JONES: And as you say, the force behind the study was to see if there was asbestos contamination prior to using this as road aggregate?

LARRY ZANKO: Well, it was one of the things that we felt needed to be addressed because the question would inevitably come up, particularly if the material was used beyond, you know, the mine properties, elsewhere in the state, even out of state. So the idea was to, let's examine. We have a pretty clear idea of what the mineralogy is of the western end of the Iron Range. Mineralogy changes as you go east. But in the western end of the Range we have a pretty -- we've got a good set of data that has been collected over several years and decades. But, again, in this study we wanted to address the analyses of these samples using the latest techniques available.

CAROL JONES: According to the definition of a fiber, the federal definition, it has to be three times
as long as it is wide?

LARRY ZANKO: That's correct.

CAROL JONES: At Least 5 microns long. Is that what you're calling a cleavage fragment? What is the distinction there in your definition?

LARRY ZANKO: In my definition? Well, technically, if you're going on anything with a three to one aspect ratio, isn't that considered to be asbestiform? Is that correct?

CAROL JONES: That's correct. I'm just trying to get at how you distinguish between -- how you define a cleavage fragment?

LARRY ZANKO: A cleavage fragment -- again, I am not an expert in this field. But a cleavage fragment is something that has more of a blocky shape, not flexible. An asbestos type mineral or asbestos fiber tends to have a very, very long length or aspect ratio. It has a fibrous look that is more linear, as opposed to a cleavage fragment, which can be, like I say, kind of chunky or blocky, and more irregular shaped. It just happens to be a fragment that's been broken to that size or length to width aspect. That's my understanding of it from my experience in dealing with, not only this project, but other issues over the last couple of years related to asbestos. I'm not totally ignorant of this,
but.

CAROL JONES: Thank you. That's fine.

LARRY ZANKO: Anything else?

DAVID MLAKAR: I have a question. Who funded the study?

LARRY ZANKO: Minnesota Department of Transportation. It was a MNDOT funded project.

REBECCA SMITH: Mr. Zanko, thank you very much.

LARRY ZANKO: Thank you for the opportunity.

REBECCA SMITH: Back off the record now.

(Off the record.)

REBECCA SMITH: We'll go back on the record now. Mr. David Mlakar has asked to speak again. Go ahead, Mr. Mlakar.

DAVID MLAKAR: Yes. This is Dave Mlakar, local 2660, USWA. Just from listening to Mr. Zanko on his project, he had brought up a couple issues, and one was Minnesotaite. I would like to point out, too, there's a book on mineralogy and geology of the Iron Range, and was by Gruner in 1946, and he in there lists actinolite, and this is on the eastern end of the Range, actinolite and grunerite and cummingtonite on the eastern end of the Iron Range.

Now, I don't know of anything, and I don't have any information on the western end but what was said
here. But bringing up other amphiboles that -- I don't
know what type of medical information is available --
but if by bringing up other amphiboles -- I mean, that's
like -- you're bringing up asbestos-like fibers or what
is considered asbestos-like fibers, any of this. And
maybe in your determination in looking at the six -- I
think it's six asbestos forms that you're looking at --
then maybe you should possibly start looking at other
asbestos forms in your regulations, or at least coming
up with some mechanism that says, hey, if there is a
potential problem that we don't know anything medically
about, that maybe we should have some type of mechanism
for protection of the workers put into those
regulations.

That's about all I have to say on that.

CAROL JONES: Mr. Mlakar, I wanted to just
clarify something you said earlier, that I just want to
clarify for the record. You said you thought we should
lower the standard. I think you meant we should lower
the PEL and actually raise our standard, is that
correct?

DAVID MLAKAR: Right.

CAROL JONES: Thank you. That's all.

REBECCA SMITH: Thank you very much. I believe
we will adjourn until 10 o'clock. At 10 o'clock we will
check back to see if we have any additional interest in
speakers, and if so, we will reopen the record. If we
have no additional interest in speakers at that time, we
will close this public meeting at 11:00.

(Recess.)

REBECCA SMITH: Ladies and gentlemen, it is 11
o'clock, and we've had no further requests to speak, so
we are going to close the record on this public meeting.
Thank you.

(Hearing concluded at 11 o'clock a.m.)

REPORTER'S CERTIFICATE

I, Kathleen M. Undeland, do hereby certify
that the foregoing pages of typewritten matter to be a
true and correct transcript of my stenotype notes taken
on the date indicated.

____________________________________
KATHLEEN M. UNDELAND