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## HEARINGS

IN THE MATTER OF:

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SAFETY AND HEALTH - ASBESTOS SUBGROUP

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OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
WASHINGTON, D. C. 20210

ADVISORY COMMITTEE ON CONSTRUCTION SAFETY AND HEALTH

ASBESTOS SUBGROUP

Room 9022, Federal Office Building

450 Golden Gate Ave., San Francisco, Calif.

August 13 and 14, 1975

AGENDA

Wednesday, August 13, 1975

| | | |
|---|---|---|
| 9:00 a.m. | Call to Order | Frederick Livingston<br>Chairman |
| | Full discussion of the proposed revisions to the 1910 Asbestos rules as amended by the 1926/1910 project subgroups. | |
| | | William Warren<br>Senior Scientist |

ROSTER

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P R O C E E D I N G S

THE CHAIRMAN: Good morning. I'd like to open this Subcommittee meeting on the asbestos standards.

I'd like to put into the record the notice of this meeting, which appeared in the Federal Register, Volume 40, No. 143, Thursday, July 24, 1975. This is the notice of this Subcommittee meeting.

I'd also like to put into the record this working document, which reads or is entitled "Recommendations of the Construction Safety Advisory Committee on the 1926/1910 Project" on asbestos. It contains full Advisory Committee comments, as well as the the recommendations taken from the 1910 proposed asbestos standards.

Is that correct, Frank?

MR. HEMMOTT: Correct.

THE CHAIRMAN: I'd like to know whether any of you have comments you wish to make now in respect to the standards on asbestos.

Do you have any comments you wish to make?

Give your name, please.

MR. BRADSHAW: My name is Don Bradshaw, and I'm representing the National Insulation Contractors Association, and my first comment, opening comment, would be, sir, as far as the present standard is concerned, from an insulation contractor's standpoint, the regulation is an all-encompassing

regulation, which has been very difficult to interpret in relation to the conditions that prevail in the use of working with asbestos-containing materials in the construction industry.

Insofar as the standard as it is written tends to orient itself more to the permanent exposure to asbestos fiber environments, as it would be experienced in manufacturing facilities; and, therefore, from a contractor's standpoint, it has been very difficult from the outset to put it in practical terms for working in the field, in construction.

Thank you.

THE CHAIRMAN: Anyone else have anything they'd like to get off their chest on asbestos?

I'll handle this sort of informally from the standpoint of, if you gentlemen wish to make comments as we go along, please state your name and your affiliation so that the reporter can have it, so that we can know who you are too.

Have you anything you want to say, Frank?

MR. MEMMOTT: No. The primary purpose, of course, of the meeting, as we all know, is to get input from the western part of the United States, and specifically California, and I think all of you have received copies and have had in hand copies of the recommendations of our Health Division for some time, and we hope to have on the record the concerns of the construction industry or the support of the

construction industry from the West Coast area.

Thank you.

MR. FARMER: Fred?

THE CHAIRMAN: Yes, sir.

MR. FARMER: For the record, what we're really trying to do here, as Mr. Livingston pointed out, is have a vertical set of standards within the construction 1926 for asbestos, and that's in answer to your question, that would fit the industry, rather than use the broad horizontal standard from 1910, so that's basically what we're doing at the present time, making a comparison of what would work within the industry.

THE CHAIRMAN: This also may give precedence to future health problems in the construction industry.

Joe, do you have anything you want to say?

MR. SHORT: No.

THE CHAIRMAN: Tom, any comments?

Now, we should start with part -- page number one of the working document, I'm going to call it, and I guess, if it's all right with you gentlemen, we'll go page by page. Do you have any objection to that?

MR. FARMER: I think it's good.

MR. BRADSHAW: Do you have additional copies?

MR. ARNOLDUS: There should be some in the back.

MR. BRADSHAW: Thank you.

THE CHAIRMAN: Mr. Warren, would you explain to the Committee why we talked about the different sizes here that are set forth in number two on the right side of the page and number one under it. I guess it's (a)(2) and (b)(1), on the working document here.

MR. WARREN: Why the sizes are --

THE CHAIRMAN: Well, it says here: "Asbestos fibers" shall mean those asbestos fibers longer than 5 micrometers...." I thought it was supposed to be five micrometers or less.

MR. WARREN: That's actually a practical problem of counting fibers under the microscope.

THE CHAIRMAN: You can't count them small enough?

MR. WARREN: That's actually -- On the number they had been using, that was in the standard before the aspect ratio has been added. That's the draft proposal, three to one, which is counting -- Actually, they're doing that in their counting today, but it wasn't in the standard. We're proposing to add that three to one aspect ratio, and also the diamater, five micrometers diameter. That was in the standard before.

MR. ANANIA: Bill, in a typical asbestos operation, the medium airborne fiber diameter generally runs from .1 to .2 microns, right, and less than one percent of these are three microns in diameter so it really isn't -- Isn't this putting an unnecessary complication in this thing? I mean

we've found this out from all the sampling that we've ever done.

MR. WARREN: Would you repeat that? I didn't quite understand you.

MR. ANANIA: Well, in a typical asbestos operation, the medium airborne fiber in diameter generally range from .1 to .2 millimicrons.

MR. WARREN: That's the medium diameter you say?

MR. ANANIA: And less than one percent of all asbestos is three microns in diameter, so I think, actually, what we're doing is complicating this thing. We're complicating it.

MR. WARREN: Complicating by limiting the diameter?

MR. ANANIA: Yes. It has no real meaning really.

MR. FARMER: Tom, do we need it?

MR. ANANIA: No, I don't think we need it. We're just complicating the whole situation by adding that type of word.

MR. WARREN: As I understand, that's actually a counting arrangement that was made. They wouldn't count it if it wasn't within these limits, and they're adding it just to clarify that.

MR. ANANIA: But you say those fibers longer than five micrometers in length and a diameter ratio of three to one. That's what I'm saying. Most of them are .1 to .2 millimicrons

anyway, so why are you talking about anything greater than five?

MR.WARREN: In length, you mean?

MR. ANANIA: Yes. And then your medium diameter -- Pardon?

MR. WARREN: They wouldn't count those smaller than five microns in length.

MR. ANANIA: That's what I'm saying. You say asbestos fibers. You mean those asbestos fibers longer than five microns. If they're longer, why count? Why even put that type of wordage in there?

MR. WARREN: Those that are shorter than five microns in length are not included in the count; so, if you say they're all shorter than that, as you indicate they are, we have a zero count. That's the way it is now. That's not changed. Five microns is in the standard now.

THE CHAIRMAN: Did you wish to say something?

MR. HYE: I'm Ken Hye from Mining Enforcement and Safety Administration, and he was trying to clarify the fact that you do not count those fibers shorter than five microns, and I'm talking about diameter; I'm not talking about length.

You're talking about the maximum diameter of five microns here, micrometers. I'm talking about -- I didn't mean to imply that I was saying anything about the length of them. Of course, that's in the standard, but what I'm

saying is the diameter. You're talking about with a length to diameter ratio of at least three to one over the maximum diameter of five.

MR. WARREN: What we're proposing here now is bigger than five, it wouldn't be counted in diameter. Diameters greater than five microns will not be counted. That's not in there.

MR. ANANIA: That's what I'm saying. Less than one percent or even three microns, why even put it in? Most of them are going to be smaller. Ninety-nine percent is going to be smaller anyway than three microns.

MR. WARREN: That may be, but this is just a limit in the counting determination.

THE CHAIRMAN: You feel it's unnecessary?

MR. ANANIA: I think it's just a -- I feel it's unnecessary.

MR. FARMER: Mr. Chairman, I'd like to ask Mr. Warren.

When you say three to one here with a maximum diameter of five micrometers, what brings in the diameter, the need for a diameter count when you have the length? Is there something there that we don't see, why one would need that?

MR. WARREN: Well, if they're terribly large, it wouldn't be counted. It wouldn't be worth it in terms of exposure. We have to have a limit there in terms of exposure.

MR. FARMER: I see. I'd like to ask Mr. Steffan then,

our industrial hygienist.

THE CHAIRMAN: Do you want to give his name again?

MR. STEFFAN: I'm Bill Steffan. What he said is right. The particles with diameters of more than five microns are not generally considered to be respirable and, apparently, they have a criteria which they don't count fibers that are larger than five microns in diameter.

I don't think that it makes an awful lot of difference whether you include it in the standard or not, since it's a very small fraction of them. If they did count them or didn't count them, it wouldn't make much difference, but the reason that they don't count them is they did not seem respirable.

MR. WARREN: I think the addition to this to the standard is just a matter of making it clear what the standard means, because the definition is incomplete, as it is, in terms of the size of the particles, size and shape of the particle. This is just expanding that so that it's clear what's meant.

In a practical sense, that's what's used in the counting today anyway, so there's no real change in the count that's going to be obtained.

THE CHAIRMAN: If it wasn't there, it wouldn't make any difference; is that what you're saying?

MR. WARREN: I don't think it makes any difference.

THE CHAIRMAN: In the standard, I'm talking about.

MR. WARREN: It makes a difference to those who may be going to count them because they have these cut-off points that they will use in making the determination. They will obtain that anyway.

MR. ANANIA: But what I'm saying, Bill, is that you're putting wordage anyway really that is unnecessary and you, to an employer who's got to read this and interpret it, it just may confuse him a little more.

MR. WARREN: Why?

MR. ANANIA: Well, he's got to go, let's say, a three to one ratio diameter of a maximum of five microns and this kind of thing. If it isn't necessary, why put it in?

Like I say, 99% are smaller than three microns anyway. That is my only contention. I'm just looking from the standpoint of the employer, the guy that's got to interpret this, because he is not going to be the guy that counts it anyway. Somebody in the laboratory is going to count.

THE CHAIRMAN: Okay. Tom seems to feel that you want to make that suggestion. We recommend that it be this three to one bit and the diameter be dropped?

MR. ANANIA: Let me put it this way. What he's saying here is true, but I think it only confuses the issue. It just doesn't have any real meaning.

MR. WARREN: I'm not a lawyer, but I would think it would

define exactly what we're talking about in the regulations so the people who are trying to comply, if they did exactly as it says, they would be complying; and, if you leave out details, it's not clear legally whether you have to do that or not; but you're saying, I guess, that the answers are going to be the same.

MR. ANANIA: Yes, they'll be the same.

MR. WARREN: Well, the five microns length that's in there already.

MR. ANANIA: Right. That's all right. I was talking about diameter.

MR. WARREN: If that weren't there, you'd get larger count, if somebody could count the smaller particles, and that would be the difference.

MR. ANANIA: Right.

THE CHAIRMAN: Your name, please?

MR. MEYER: George Meyer.

THE CHAIRMAN: Who are you with?

MR. MEYER: I am with Kaiser, a Gypsum Association, today.

I believe -- In truth, I haven't done this, but I do believe that the maximum and minimum size limits certainly should be specified. I find it confusing, however, that the minimum size limit is a length and the maximum size limit is a diameter.

Is it possible to set the maximum and minimum on the same scale?

MR. WARREN: I think that turns out that way. I'm not all that familiar with this because it's a fiber that we're talking about, and it is a length and a diameter.

If it turns out not to be a fiber, of course, it probably isn't this asbestos that we're concerned with.

MR. FARMER: Mr. Chairman, I'd like to ask a question of Mr. Warren, that was brought out earlier from Mr. Steffan, unless I heard this wrong, that it will not bother the respiratory system on the diameter.

Is that correct?

MR. STEFFAN: Large particles? A few particles larger than five microns might get in, but generally those are kicked out by the facilities.

MR. FARMER: That wouldn't be considered a problem for the standard here?

MR. STEFFAN: What he's writing is a method of analysis here, I think, and other things are also important: the type of microscope, lighting. If you want to get into all that detail in the standard -- I don't know that it's necessary.

MR. AMANIA: Mr. Chairman, I make the motion that we drop the diameters, because this could be picked up through a laboratory analysis. I think it's just confusing the issue

and I make the motion that the diameter ratio be dropped.

MR. FARMER: I second that.

MR. WARREN: May I?

THE CHAIRMAN: Go ahead.

MR. WARREN: That would mean the larger ones are going to be counted too, right, by the law? This turns out to be how we effect the law.

MR. ANANIA: No. It doesn't mean that at all, because even if -- If you go back through the standards and they're talking about a chemical or so forth, they don't specify any analytical procedures when they're analyzed for chemicals and so forth. They just say a certain concentration.

MR. WARREN: I think this is a little more than procedure though because this is telling what the substance is that we're concerned with. These asbestos fibers which are of a certain size. Others do not come under this regulation, so it seems to me appropriate to define the items that do come under it.

If we remove that -- If we don't put it in -- We don't have it in now, for practical purposes. If we didn't include those, but legally, we could have, it seems to me.

MR. FARMER: Mr. Warren, if this doesn't present a health problem on the diameter, we would not be able to include it within the standard.

MR. WARREN: You mean even though our definition

included them, someone could show they weren't harmful?

MR. ANANIA: No. What I'm saying is you could pick that up on an analytical procedure, which does not have to be specified in the manual.

MR. WARREN: But this is defined in the item that we're regulating. It seems to me that's different than the analytical procedure.

THE CHAIRMAN: Joe, do you have a comment?

MR. SHORT: No. I'm ready to vote on the motion.

MR. BRADSHAW: Mr. Chairman, I would like to make a comment that although it has been indicated that only one percent of the fibers would normally be over five micrometers in diameter, I have to agree with Mr. Warren that I think it should be defined in the regulation, because it does become a matter of legal interpretation ultimately. I would recommend it be retained in here.

THE CHAIRMAN: Any more comments on the motion?

(No response.)

THE CHAIRMAN: Those in favor?

(Committee responds.)

THE CHAIRMAN: None against.

MR. WARREN: Mr. Chairman, just for clarification, could we have that motion just passed read back? I want to be sure that it just includes the diameter. Is that correct?

THE CHAIRMAN: Well, the motion was deleting the whole

of this number two on the righthand side of the page, because number two, as it is already in the standard, says: Asbestos fibers means asbestos fibers longer than five micrometers.

MR. WARREN: The motion would remove the aspect ratio also.

THE CHAIRMAN: Is that as you all understand it?

MR. FARMER: That's correct.

MR. SHORT: Yes.

THE CHAIRMAN: So our recommendation is to leave this (a)(1) and (2) as it appears in the present standards.

The next item is (b)(1), which relates to the time-weighted average and it reads: (1) 8-hour time-weighted average concentration. The 8-hour time-weighted average airborne concentration of asbestos fibers to which any employee may be exposed shall not exceed two fibers per centimeters of air -- or centimeter of air, dubic centimeter of air, as determined by the method prescribed in paragraph (e) of this section.

Do you have any comments?

MR. ANANIA: I make a motion to accept that.

MR. FARMER: I'll second it.

THE CHAIRMAN: Any other comments? Joe?

MR. SHORT: All we're doing is changing from the five to the two, as it appeared. Isn't that correct?

MR. ANANIA: Plus you're dropping some of the wordage

that you've used previously about the five microns in length.

THE CHAIRMAN: We're talking here of saying two fibers to the five fibers, aren't we?

MR. SHORT: Right.

MR. ANANIA: Right.

THE CHAIRMAN: Is that reasonable?

MR. SHORT: I assume that it is.

THE CHAIRMAN: Does anybody have any comments about the reduction in the number of fibers per cubic centimeter?

MR. MEYER: Yes, sir. I'm Donald Meyer of OSHA Regional Office.

Bill, is that going to be what the final general industry standard on asbestos is too?

MR. WARREN: Yes, I expect so. That's the current standard, says it will come down to that level next July.

MR. MEYER: So then this would put the two in line as to what is intended to be a final standard?

MR. WARREN: Yes. If this were a vertical standard, it would put it in line with the general industry standard, which we've already said would come down, and if these amendments go through before that, it'll bring it to that level earlier, and the court recommended that be considered, so it may result in it coming down earlier, if we would get it out before next July.

MR. MEYER: My only concern was if there was any move underway like changing the general industry to one asbestos fiber that could be -- We try to keep the two in line so that we have equal protection, and also equal enforcement.

THE CHAIRMAN: Well, just for your information, this particular item was taken from the recommendations.

MR. MEYER: Yes, sir.

THE CHAIRMAN: And if their recommendations, the Health Division of OSHA, standards are accepted by the industry, the Solicitor's Office and all that, this is what it would be.

MR. MEYER: Yes. My only point being that there might be something in the wind over on the other side in the general industry, which is not yet reflected in the standard, that they might be saying we need to change the standard to a lesser exposure.

That was my only point that I wanted to query. If Bill was aware of any such move.

MR. WARREN: Someone may wish that, and it may come up in hearings. I don't know what -- Maybe for clarification on this thing we're looking at.

THE CHAIRMAN: Let me ask you a question before we go any further. I've come back to this, the one we just approved, and it says: "...by the method prescribed in paragraph (e) of this section." Now, Frank, is this paragraph (a) in

this set of material we have, or is that something that's in his document that we don't have?

MR. MEMMOTT: You should have everything that he has.

MR. FARMER: Do you have the (e), Frank?

MR. ARNOLDUS: There's an (e) on page 7 of the document, "Method of Measurement," at the top of the page.

THE CHAIRMAN: Okay, it's there then. Okay.

MR. MEMMOTT: Have you found that?

THE CHAIRMAN: Yes.

MR. WARREN: Mr. Chairman, I just wanted to say, since I hear the terms being used, that this is a draft proposal, as we call it. We have drafted this in the Health Standards Office, and it is not a recommendation, in our terminology anyway. It's only a draft that the Project Officer has made and he, at this point, is getting informal comments on it, and it may be changed within our standards arrangement, as it's prepared, before it goes into the Federal Register as a proposal.

Now, as I understand, you people are preparing for us recommendations for the standard in this particular industry and we would consider those as we promulgate a final standard.

THE CHAIRMAN: The Subcommittee is preparing a recommendation to the Construction Safety Health Advisory Committee of the Occupation Safety Health Administration. Anything we do here is a recommendation to that Committee, for their

approval, and it then becomes a recommendation to the Standards Division of the Occupational Safety and Health Administration.

MR. WARREN: And whatever conclusions we come to, based on their informal comments, before this goes to the public, we'll publish then a proposal in the Federal Register and everyone who's interested in the --

THE CHAIRMAN: That's true; this will go the same route.

MR. WARREN: So this is my proposal at this point, and our terminology, and it's not a recommendation; it's a draft proposal, which we may change.

THE CHAIRMAN: I accept that as a correction to my first comments as to what this contains. And, as a matter of fact, one of the reasons we're in San Francisco with this Subcommittee meeting is to get input from the construction industry, who will be faced with complying with this group of standards in the final analysis, so that we are able to produce something that's going to be practical for the industry and still protect the individuals.

I hope that clears the air a little.

On your motion, which was to accept(1) --

MR. ANANIA: Yes.

THE CHAIRMAN: Is there any more comment? How are we going to get to this method of testing by the method prescribed in paragraph (e)?

MR. ANANIA: How are we going to get to it?

THE CHAIRMAN: Yes. Are we going to have Health people doing this all the time?

MR. ANANIA: Well, you're going to have to have -- You mean analyzing?

THE CHAIRMAN: Yeah.

MR. ANANIA: Well, maybe not Health people. You're going to have some laboratory people, qualified laboratory people.

THE CHAIRMAN: Is this equipment something that you can put into the hands of fairly intelligent individuals, so that they could sample the air and get some results?

MR. ANANIA: Sure, and also NIOSH is offering courses in laboratory analysis of asbestos.

MR. FARMER: Hey, Tom, don't we have a definition for a qualified person though, and this would read under (e): All such laboratory determinations --

THE CHAIRMAN: Make a note there and we'll get to it.

MR. FARMER: Okay.

THE CHAIRMAN: What concerns me is if we're prescribing a method here, I'm a little bit in a quandry whether we're not going to be setting up something which is going to be very difficult to comply with.

MR. ANANIA: In which way, Fred? I don't understand your concern.

THE CHAIRMAN: There are hundreds of jobs around the

country, even now in these times, which are not good, and there are hundreds of items which contain asbestos, which are used in the building of structures and in construction. Therefore, there are going to have to be hundreds of people who are qualified for this, as well, as hundreds of pieces of equipment available to do it.

Now, are we setting something up here that's not going to be practical to comply with? This is what I'm getting at.

MR. ANANIA: Well, let me put it this way. Actually, what we need is we need a pump with a certain type of filter, Milipor filters. I'm sorry. I should say membrane filters. Okay, that takes away the company name. And you sample at a certain rate for a certain time. Then you analyze this under a prescribed analytical procedure and what you need there is a microscope with a phase contrast and so forth.

And if you know somebody that would know how to do the counting. Of course, like I say, there are courses offered around the country that teach people to do this, and that's about what it entails in a nutshell.

THE CHAIRMAN: Harry, you got anybody who can do this?

MR. ECKSTEIN: Harry Eckstein from Guy F. Atkinson Company.

No, we don't have anyone on our payroll that can do that.

THE CHAIRMAN: How many would you need to take care of your jobs that might have asbestos on them?

MR. ECKSTEIN: Well, I think we're probably looking, in our line of construction, probably two, and most of this is by repair work, where we're replacing asbestos with something else. But we still would have the present, and so we're probably in a pretty good position ourselves, better than most, that would be using this.

MR. ANANIA: Probably, if you would check all of the constructions and ask them the same question, Fred, probably 85% would respond no.

THE CHAIRMAN: No, what?

MR. ANANIA: That they can't do this at this particular point in time.

THE CHAIRMAN: I know that we have no one that's capable at the moment.

MR. ANANIA: Does that say that you can't do it?

THE CHAIRMAN: Well, it says that my company, for example, would have to have a hundred instruments or 50 or something in the neighborhood.

MR. ANANIA: No, no, no, no.

THE CHAIRMAN: We've got a hundred jobs and, at any time, you may be exposing somebody to asbestos.

MR. ANANIA: You don't have to have one instrument per job.

THE CHAIRMAN: If you're going to comply with this thing, you do.

MR. ANANIA: No, not a one on one situation. If you had an industrial hygienist at a site or somebody that can sample at that site, he doesn't have to sample every day, every day that same job, day in and day out. There are just not enough industrial hygienists in the country doing types of work like that, but one industrial hygienist can,and, in fact, there are a lot of companies in the United States, that are as big or bigger than construction outfits and they have just one industrial hygienist, period. They usually handle what is -- Even the states, they figure one industrial hygienist per 100,000 people.

Now, what we're saying here is that you could -- If you really wanted to apply yourself, you could comply with this. It doesn't mean that you have to have a one on one situation at all times.

THE CHAIRMAN: May I ask the gentleman from the insulation people. Will you give your name again, sir?

MR. BRADSHAW: Don Bradshaw with National Insulators Contractors Association.

In the history of the formation of the original regulation, whose implementation was postponed, it was the reaction of the insulation contracting industry that it was highly impractical to be able to leave with an air sampling method

of fiber counting on job sites. We analyzed this very thoroughly at the time. It was pointed out there were not enough industrial hygienists available to be able to service the industry, but that they could be trained, and this is true. It can be done. It's a question of the practicality of it. The fiber count, of course, has to be done by experts to get a true and accurate count because it becomes a very important part of the law when it is implemented.

The result really of the regulation has been that the insulator contractors have moved as far away from the use of asbestos-containing materials as they can possibly get. And today, there are very few products that are used now in the insulation contracting industry that contain asbestos fibers.

So looking at it from strictly a practical standpoint, there is great concern about being able to test, based upon a regulation that would have a maximum exposure of 10 fibers and a time-weighted exposure of two fibers over an eight-hour period of time.

We're faced with old installations of material that contain asbestos. On chipboard, in process plants that have been insulated in prior years, where new materials are put in place, old materials are removed, and it's a case of in the removal of the old materials now, that the exposure prevails, and this exposure can be for a very short period of

time, perhaps for half an hour or an hour; but, as I look at the regulation, in order to really determine if a man's exposure under the law has complied, you would have to take testing for a whole eight-hour period. Is this correct?

MR. ANANIA: Well, like I say, the thing is based on an eight-hour time-weighted average, but you do have limits, upper limits, and you can take a 15 or 20 minute sample. If you exceed the 10 fibers, then you are in violation; but, if your operation only lasts an hour or 15 minutes say, and you do take a sample and you find that you have three fibers, then you are in compliance during that 15-minute period; but, if you sample for four hours or five hours and you have three, then you just may be in a little bit of trouble, if you project this over an eight-hour period.

MR. BRADSHAW: True, yes.

MR. ANANIA: But, getting back to the original question, as you pointed out about not enough industrial hygienists, the most important thing here is the fiber counting. There are many courses offered around the country where you can take a man, an engineer, somebody that has a -- He doesn't even have to have a scientific background, and you can teach him the operation of a pump, the operation of a filter, etc., and say sample for this length of time at this flow rate and, when it's over, you take the thing out and you pack it up and you send it somewhere and have a qualified laboratory

count it; or, if you want to, you could train or have an industrial hygienist on your staff that oversees this type of thing, and have these other people, as we'll say, trainees, if you will, but the most important thing in this asbestos is the fiber counted because once you put the pump on the guy, there's nothing you can do about it anyway, if you've got the thing set up and it's calibrated and so on. The counting is the most important thing, and that could be done by a laboratory.

MR. BRADSHAW: I believe it has to be done by a qualified laboratory, yes.

THE CHAIRMAN: Do you want to --

MR. ECKSTEIN: Yes. Harry Eckstein from Guy F. Atkinson Company.

Then everything resulting in the test is all after the fact. We've gone in and done the work and we're probably in a whole different phase of the work before we ever find the result. We wouldn't even know if we were in violation.

THE CHAIRMAN: That, to a great degree, would be true.

MR. ANANIA: That's true, but what we're trying to do here, just like the man says, if his workers are exposed to -- that's all they do is work with asbestos; if he works with you two days and then he's gone and he works with somebody else for two weeks, the man is still exposed. The man is still going to get probably cancer. Does that mean that because he

only worked for you for two days, you're not supposed to say, "Hey, this guy was overexposed," and you tell the union and so the next guy would know it. You know, somebody along the line has got to make sure this man is protected.

MR. ECKSTEIN: Say they were our own employees, not those of a subcontractor or an insulation contractor, and we may only have a very short period of time that we are exposing an individual; and, to make this kind of test, the result isn't going to be known for two or three weeks or a month maybe. I just -- I don't see where it's of any value in our type of business.

In some places, where it's a continual kind of an operation, fine. I think you have a whole different situation, but construction is so much different.

THE CHAIRMAN: I only brought up the method of finding out in testing because of the probable problems. This, of course, is in definition. We're talking now on the definition section, and we are defining an eight-hour time-weighted average.

I think that, as we go along, we're going to have to take into account those things which you just brought up.

On the motion, which was to accept the refised (1) on the righthand side of this page one defining an eight-hour time-weighted average sa ing the 3-hour time weighted average airborne concentration of asbestos fibers to which any

employee may be exposed shall not exceed two fibers per cubic centimeter of air, as determined by the method prescribed in paragraph (e) of this section.

Gentlemen, on the motion?

MR. FARMER: I accept.

THE CHAIRMAN: Those in favor?

(Committee responds.)

THE CHAIRMAN: It's carried.

Now, we come to item (2), (b)(2), in which we will consider the substitution of item (2) on the righthand side of the page for what's already in the standard.

Two is "Ceiling concentration." No employee shall be exposed to airborne concentrations of asbestos fibers in excess of 10 fibers per cubic centimeter of air, as determined over a 15-minute period at a sampling rate of two liters per minute, by the method prescribed in paragraph (e) of this section.

Why do we need to say all that, "...as determined over a 15-minute period?"

MR. ANANIA: You mean why the 15-minute period? That's an excursion value, which is -- I don't know. Frank, is it accepted by the Department of Labor. The excursion value's accepted, aren't they?

MR. MEMMOTT: As far as I'm aware.

THE CHAIRMAN: Wait a minute. That's not what you're

saying.

What we're saying here is that no employee shall be exposed to a concentration in excess of 10 fibers per cubic centimeter. Period.

MR. ANANIA: For a 15-minute period.

THE CHAIRMAN: No, it doesn't say that.

MR. ANANIA: Sure it does. Determined over a 15-minute period.

THE CHAIRMAN: Determined over a 15-minute period at a sampling rate of two liters. That's how you determine whether it's ten fibers per cubic centimeter.

MR. WARREN: May I add something there? The present standard didn't limit the time when there was a practical limitation. You can't get instantaneous sampling; so, if you sample over a 15-minute period, it may have risen above 10 for two or three minutes; but, if it were below 10 for an equal time, it would still average 10, and that's just a practical consideration.

THE CHAIRMAN: That way, you've established here as a ceiling concentration.

MR. WARREN: Yes, and, before, there was no time factor put in there.

THE CHAIRMAN: There's no time factor in this either as far as the ceiling concentration is concerned.

MR. WARREN: It says it's determined by a 15-minute

period.

THE CHAIRMAN: That's a method of determination.

MR. WARREN: You have to sample a certain length of time to get a sample.

THE CHAIRMAN: No, you still don't get what I'm saying. What I'm saying is this says that the person shall not be exposed to a concentration in excess of 10 fibers per cubic centimeter for any amount of time. That's what it says.

MR. WARREN: That's what it used to say.

THE CHAIRMAN: That's what it says now.

MR. WARREN: The draft says "as determined."

THE CHAIRMAN: That's a determination. That's how you find out if you've got 10 fibers per cubic centimeter.

MR. WARREN: So if you've made that determination, you don't know if you've exceed 10 or not for short periods within that 15 minutes.

THE CHAIRMAN: Are you saying in this standard that the guy can be exposed to 10 fibers per cubic centimeter for 15 minutes?

MR. ANANIA: For a 15-minute period only.

THE CHAIRMAN: Then why didn't we say it that way?

You're saying as determined over a 15-minute period. It doesn't mean that he's there for a 15-minute period. It means you've got to test for 15 minutes.

MR. WARREN: Right. Your test actually is a 15-minute

time-weighted average, so you can not go in there and take a one-minute sample and get a sample.

MR. ANANIA: No, it's not a 15-minute time-weighted average. It's a 15-minute excursion and you're still on an eight-hour time-weighted average if you've above 10; or, if you're at 10, then over an eight-hour time-weighted average, you've got to go below that.

MR. WARREN: The sample you get in 15 minutes is an average.

THE CHAIRMAN: Just a minute, sir. Your name and your affiliation, please.

DR. BROWN: Dr. Harold Brown. I'm with California Occupational Safety and Health Standards Board.

It seems to me that the way this thing reads now, you could expose a man to 10 fibers for four hours and not exceed your time-weighted average.

THE CHAIRMAN: That's true. This is the point I'm making.

DR. BROWN: And if you -- this is what it says at this particular moment, all you've specified is the sample you meant, but you haven't specified the length of time that a person may be exposed to this particular limit.

Now, if you intend to just use the time-weighted average and say that your ceiling value is 10 fibers, why then, you've done it this way; but, if that's not your intent, you'd

better change the wording.

MR. ANANIA: I have to disagree with you, Doctor, because if you go back to the preceding paragraph, it says two fibers on an eight-hour time-weighted average; so, if you go 10 for 15 minutes, then you're going to have to calculate out how much that man can take. You may have to take him off that job for four hours.

DR. BROWN: That's the point. Four hours. Expose a man for four hours to 10 fibers per cc and four hours at no exposure. What's your time-weighted average?

MR. ANANIA: You say 10. You're going to have about a five hour --

DR. BROWN: Four hours at 10.

MR. ANANIA: Okay. Probably over eight hours, you're going to have to have five fibers.

DR. BROWN: In four hours at zero.

MR. ANANIA: That's what I'm saying. You're going to have to get the guy out of there completely, and he'll still be at five fibers, over an eight-hour period, so you're going to have -- If you determine that you have exposed him to a peak concentration of 10, then it's up to you as an employer to determine if that man can go back in there for another four hours or not and still be exposed to two.

THE CHAIRMAN: We're still not getting to the point here, at all. You just want to say here: No employee shall be

exposed to airborne concentration of asbestos fiber in excess of 10 fibers per cubic centimeter of air for more than 15 minutes. Isn't that what you're saying?

MR. WARREN: It doesn't say that.

THE CHAIRMAN: I know it doesn't, but it should say it, shouldn't it?

MR. STEFFAN: Bill Steffan with the State Department of Health, California Department of Health.

It could state that no employee shall be exposed at any time to airborne concentrations the way it does now, and specify the method of sampling, if that's what you want to do. That's what they're doing now in they're setting the ceiling of 10. It takes a 15-minute sample to find out whether that is over-exposed.

MR. ANANIA: I'm sorry. I didn't get your first statement. Would you repeat that again.

MR. STEFFAN: Leave the wording the way it is in the present paragraph. No employee shall be exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers per cc of air, as determined over a 15-minute period.

I think that's what you want to do.

MR. ANANIA: You really haven't changed anything there, have you?

MR. STEFFAN: Well, yeah. What you have in here now, as

Dr. Brown indicated, is the only limitation you have on the exposure, is the eight-hour time-weighted average of two fibers per cc. It's all you specified. You haven't tied the exposure in with the sampling rate, the sampling period, in the standard.

THE CHAIRMAN: Wait. You've got to make this thing clear so an employer knows what the hell you're talking about, and you're not doing it.

Now, not every employer has people who are knowledgeable in health, physics, and sampling methods, and all this sort of thing. We're not making it clear. Now, somehow or another, you've got to make it so that you say what you mean. Now, I don't know what you mean. You've got me confused. I don't know what you mean now.

I originally thought that you meant that an employee could be exposed to the 10 fiber limitation for 15 minutes.

MR. WARREN: The limit in time is only determined as the time eight-hour -- eight-hour time-weighted average would be exceeded; so, if you're exposing 10 -- if you're exceeding eight hours, then you've violated the standard.

THE CHAIRMAN: What do you need this at all for then?

MR. WARREN: Because it's a ceiling and you can not get more than 10, even for a short period, but the sampling is a problem, so that you can't get instantaneous sampling, so we've put it in 15-minute periods.

Let me read. We have a draft preamble that Mr. Gilbert had prepared to go with this, and that's all he has explained and I think it's all that's necessary myself. It says the section would be revised to specify that the determination of airborne ceiling concentrations of asbestos fibers be made by air sampling for a 15-minute period. Limitations of monitoring procedures make it impossible to determine instantaneous exposures. A 15-minute sample at two liters per minute is used by OSHA in determining compliance with the ceiling limit for asbestos fibers.

That's the only comment he had in the preamble concerning that, and I think that's the only change we've really made there. In the current standard, we have the 10 fibers as a ceiling, but no specification in determining the sample, and that's all we've really done. As long as he doesn't get exposed to 10 fibers per cc for a period long enough to exceed the eight-hour time-weighted average of five, as it is now, or two in the new -- in the draft, he would be complying.

But I don't see any problem there.

MR. ANANIA: I read something here that may shed some light on this. These are called the short-term exposure limits or I use the old term of excursion value. But the short-term limits represent the maximum atmospheric concentration of a contaminate to which a worker may be exposed for a stipulated time. The concentration represents an upper limit

of exposure and assumes that there is sufficient recovery between exposures before another is initiated. The daily average exposure, including that provided by the short-term exposure limits, shall be such that the standard shall not be exceeded.

So that's exactly what we're trying to say here. We're saying there is a 15-minute time limit, but you've still got to calculate this thing out over an eight-hour period.

THE CHAIRMAN: Well, my suggestion is we drop that "as determined" and just say that he shall not be exposed in excess of 10 fibers per cubic centimeter, and let it go at that. You've already got your eight-hour.

MR. ANANIA: You can't do that because then he could be exposed to nine or ten.

THE CHAIRMAN: Wait, wait, whoa. This is a definition. This is only a definition. This says this is a definition of the ceiling's concentration.

MR. FARMER: But, Fred, they can't do it in just one minute. What they're trying to do, as I see it, is they need a time interval there.

THE CHAIRMAN: What do we care about that, whether it takes 15 minutes to determine it or whatever?

MR. WARREN: Well, the way the draft reads you can exceed the 10 for a shorter period than 15 minutes, so you could exceed the 10 for say five minutes and still have

reached 10 over the 15-minute period.

THE CHAIRMAN: Then this is not a ceiling concentration.

MR. WARREN: We can't have an instantaneous ceiling. It's impossible. That's the reason the ceiling has to be written in terms of a standard period. You'd like an instantaneous ceiling, never to exceed 10, even for a few seconds.

MR. STEFFAN: I think you've made a good point, that you have a definition and you're writing a requirement into it. This definition should be a definition and not a standard. This says no employee shall. It's a requirement. It shouldn't be that way in the definition. You know, if you're going to write requirements, you should write them in the text.

MR. ANANIA: You've got a build a definition there, if you don't put a time limit.

MR. STEFFAN: You can put a time limit in the definition, but you shouldn't say no employee shall be exposed --

MR. ANANIA: It's part of the definition though, the time limit.

MR. STEFFAN: It's a requirement.

THE CHAIRMAN: No, he's talking about the way this is written.

One at a time, please, fellows, or we're going to be all day getting through this one page.

This should read: Ceiling contration. Ceiling concentrations shall be 10 fibers per cubic centimeter of air, as determined over a 15-minute period, and so forth. That's the way it should read. It's a definition.

MR. FARMER: Fred, I agree with that, but just put a period after the word "period," and I think you'd have it.

THE CHAIRMAN: Period where? Oh, okay.

MR. FARMER: And drop the rest. I think you'd have what we're trying to get.

THE CHAIRMAN: Okay. Do you want to make that a motion and read it out for the young lady?

MR. STEFFAN: I think that the ceiling definition should be defined as the concentration determined as averaged over a 15-minute period and that's all it should say.

THE CHAIRMAN: That's what he's going to say.

MR. FARMER: Number (2) is Ceiling concentration shall be airborne concentrations of asbestos fibers in excess of 10 fibers per cubic centimetar of air, as determined over a 15-minute period.

I make that a motion.

THE CHAIRMAN: Do you want to second it?

MR. ANANIA: I just want to --

THE CHAIRMAN: Just a second. Well, make your comment. Go ahead.

MR. HEYER: George Heyer, Gypsum Association.

You are not dealing with definitions. You're dealing with permissible exposures, in which case it is a standard.

MR. STEFFAN: I think you should leave the 10 fibers to a cc out of the definition.

THE CHAIRMAN: It's not a definition. I'm wrong.

MR. STEFFAN: I'm sorry. We're out of definitions. I'm out of it.

THE CHAIRMAN: We're wrong here.

MR. STEFFAN: I'm wrong; I'm sorry about that.

THE CHAIRMAN: We're all wrong. Why don't we leave it just the way it is, put a period after the 15.

MR. FARMER: Mr. Chairman, if we just put the "no employee" in and put a period after the word "period," I think we'd have a requirement as we're trying to develop here.

I'll read it once more than. Number (2) Ceiling concentration. No employee shall be exposed to airborne concentrations of asbestos fibers in excess of 10 fibers per cubic centimeter of air, as determined over a 15-minute period.

MR. ANANIA: Can I ask a question?

THE CHAIRMAN: Yes.

MR. ANANIA: You've got to have a sampling rate.

THE CHAIRMAN: You don't have a sampling rate in the one above.

MR. ANANIA: Well, you've got to have a sampling rate somewhere, because you could use a high volume sampler, getting where you're pulling in 30 cc's of air, when, actually, you only want two liters per minute; and, if you pulled in 30 cubic feet a minute, you're going to have 10,000 fibers on that thing, and you'll always be in violation, so you've got to have some kind of sampling rate.

THE CHAIRMAN: Doesn't that belong under your Section (a)?

MR. ANANIA: No. Section (a) is only an analytical procedure.

THE CHAIRMAN: No, it's a method of determining.

MR. ANANIA: It says methods of measuring, doesn't it, (c)?

THE CHAIRMAN: E.

MR. FARMER: Tom, we're talking about ceiling concentration.

MR. ANANIA: Well, still, you can have 30 cubic feet a minute of air going through a high volume sampler.

THE CHAIRMAN: You don't say that above here on your eight-hour weighted average, Tom.

MR. ANANIA: But that's what I'm saying. You're going to have a limit somewhere of what you're pulling in. Don't you agree, Cliff?

MR. FARMER: I agree in part, but the other part, I

think, and this is confusing to me, with the addition of what we have in here, you've got a time period, a 15-minute time period. Do you agree with me on this? We're going to take a sampling over a 15-minute time period and we're talking about a ceiling concentration on exposure in excess of 10 fibers per cubic centimeter of air. Isn't that what you're trying to say? We've got a ceiling concentration that's going to be measured over a period of time, 15 minutes, and you want -- You do not want in excess of 10 fibers per cubic centimeter of air.

MR. ANANIA: Right. But what I'm saying, you've got to have a sampling rate because at two liters per minute for 15 minutes, you've got 30 liters per minute, right?

THE CHAIRMAN: But you're saying --

MR. ANANIA: I mean you've got 30 liters, right? Okay. If you have a high volume sampler and you're sampling at 30 cubic feet per minute over a 15-minute period, you're going to have 450 cubic centimeters of air.

DR. BROWN: That's all right.

THE CHAIRMAN: That doesn't matter. You say 10 fibers per cubic centimeter of air. It doesn't matter how fast you bring it through there, if you don't have more than 10 fibers per cubic centimeter of air, whether you do it all day long.

MR. ANANIA: Okay, I see.

MR. FARMER: That would be a ceiling concentration. I

make it a motion.

MR. AMANIA: I second it.

THE CHAIRMAN: All in favor?

(Committee responds.)

THE CHAIRMAN: Okay, we accept the motion. Motion accepted.

Now, Frank?

MR. MEMMOTT: Yes.

THE CHAIRMAN: We're coming down here and we're working on this stuff on the side, but when we accept these things or don't accept them on the side, number 1, Asbestos. (a) Definitions, we are keeping (a)(1).

MR. MEMMOTT: Right.

THE CHAIRMAN: We're keeping (a)(2), as we decided, on this page one.

MR. MEMMOTT: Right.

THE CHAIRMAN: We're amending (b)(1) to read as it reads on the right.

MR. MEMMOTT: Right.

THE CHAIRMAN: We're amending (b)(2) for the ceiling concentration that we just finished.

Now, we have to have a motion to delete (3); is that correct?

MR. MEMMOTT: Correct.

THE CHAIRMAN: Okay. I'd like to have a motion to

delete (3).

MR. ANANIA: I'll make that motion.

MR. FARMER: I'll second it.

THE CHAIRMAN: All in favor?

(Committee responds.)

THE CHAIRMAN: Number (3) as it stands in the standard, we recommend the deletion thereof.

THE CHAIRMAN: On page two, (c)(1) reads: Engineering controls such as, but not limited to, isolation, enclosure, exhaust ventilation, and dust collection, shall be used to meet the exposure limits prescribed in paragraph( b) of this section.

All right. I think we can put in "where practical." Later on, we change it.

MR. ANANIA: Who's going to determine where it's practical?

THE CHAIRMAN: Well, when you turn over to the next page, it says: Insofar as practicable, asbestos shall be handled, mixed, applied, and so on. Number (iv), the Advisory Committee added -- Number (iv) says: Where engineering controls or wet methods, as defined herein, are not practicable, personal protective equipment shall be used, and so on.

That's not really important because we take care of it there, drop it.

Then we come down to the next suggestion. Did we delete -- Frank, did we delete this local exhaust ventilation thing?

MR. MEMMOTT: Yes, you did that in your 1910-26, in the original. On the left side, gentlemen, is the recommendation of the 1926-1910 committee, which I believe you were chairman of,Fred. And then what was over here was the new recommendations.

THE CHAIRMAN: Okay. So then -- Well, how does this get to be (iii) then, at the bottom, on the righthand side?

MR. MEMMOTT: Page three?

THE CHAIRMAN: No, page two. The only item that you have here is -- You've got (c)(i), and then this has to be (ii), doesn't it?

MR. MEMMOTT: Yes. I think that should be changed to (ii). It's a typographical error.

THE CHAIRMAN: Okay.

MR. MEMMOTT: It was copied from the lefthand column.

THE CHAIRMAN: And this is the recommendation contained in the draft of the standards group, which reads: Particular tools. All hand operated and power operated tools which may produce or release asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section, such as but not limited to saws, scorers, abrasive wheels, and drills, shall be provided when available, with local exhaust

systems to reduce the airborne concentrations of asbestos fibers to or below the exposure limits prescribed in paragraph (b) of this section.

What do you need that for?

What does this do that isn't already done up in (1)? "When feasible" takes the sting out of it?

MR. ANANIA: That's right. That was my question. When feasible.

MR. FARMER: Tom, didn't we call for this over in (b), just what we're referring to underneath (c)(ii)?

MR. ANANIA: Yeah. Actually, what they're doing here is they're telling you how or pointing out ways that you can cut down exposure, and I don't know if it's really necessary or not.

THE CHAIRMAN: Isn't it taken care of up in (1)?

MR. ANANIA: Yes.

THE CHAIRMAN: Then we don't need it.

MR. ANANIA: So, actually, it's just a method of compliance.

THE CHAIRMAN: Then we don't accept it.

MR. FARMER: It's not a requirement.

MR. ANANIA: No.

THE CHAIRMAN: It's not a requirement.

MR. ANANIA: All OSHA requires is you keep it two fibers per cc over eight hours, and you've got that covered already.

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MR. FARMER: It's not a requirement.

MR. ANANIA: No.

THE CHAIRMAN: It's not a requirement.

MR. ANANIA: All OSHA requires is you keep it two fibers per cc over eight hours, and you've got that covered already.

MR. FARMER: In (a)(ii).

MR. ANANIA: You may have other ways of doing it.

THE CHAIRMAN: Okay. Let's go to page three then.

For the record, this is not accepted.

We accepted (ii) and the Advisory Committee has suggested that (ii), Roman numeral ii, be amended to read: Particular products and operations. No asbestos cement, mortar, coating, grout, plaster, or similar material containing asbestos shall be removed from bags, cartons, or other containers in which they are shipped without being either wetted, enclosed, ventilated, or otherwise handled so as to prevent effectively the release of airborne asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section.

Do we need this? It says almost the same thing over here in (2) and I don't think we need either one, if we go by our limits that are set forth in (b)?

Yes, sir.

MR. MEYER: George Meyer, Gypsum Association. This is methods of compliance, not standards, not limits.

MR. SHORT: Well, it becomes a standard when you say "it shall." It's telling you how you comply with it, and the fact that you're wetting the product down --

MR. MEYER: Yes. It's methods of -- It comes under methods of compliance with how to meet section (b), permissible exposure.

MR. FARMER: That's correct, and that's what they call a performance-type standard.

MR. ANANIA: It's a good work practice.

THE CHAIRMAN: We don't need it.

MR. MEMMOTT: Fred, on clarity here, from standards, I agree with Cliff. When you set a method or a criteria that is a performance standard --

THE CHAIRMAN: Well, you go through the whole ball of wax here, wetting, enclosed, or ventilating.

MR. FARMER: It'll be one of the three, Fred.

THE CHAIRMAN: What else is there?

MR. FARMER: Leave it in the bag.

THE CHAIRMAN: I personally don't feel you need it. You're saying you can't have an exposure of asbestos fibers over so much, so we don't need this thing. No matter how you do it, you can't expose the people.

MR. STEFFAN: Well, the advantage of having a work practice, the work standard to work here, would be the amount of sampling you'd have to do, and, since sampling is such a terrific problem for the construction industry, it seems like it would be desirable to have the work practices specified. If you complied with those, you'd be about half-way there.

THE CHAIRMAN: Well, I feel this way about the whole business. Anytime you're handling asbestos, you've got to sample it, no matter what the devil you're doing.

MR. ECKSTEIN: I think that's what it says, isn't it?

THE CHAIRMAN: Basically, if you're going to be able to say you don't have an exposure or danger of exposure, you're going to have to sample.

MR. FARMER: Wouldn't that increase the numbers of the times you'd have to sample, if you've gotten exposures?

MR. STEFFAN: I don't basically think that's the intention of the standard.

THE CHAIRMAN: Gentlemen, we've got to talk one at a time. If you want to talk, raise your hand and I'll recognize you; but, if we're having someone talking up here, I don't want to have the interruption.

MR. STEFFAN: I'm sorry.

THE CHAIRMAN: If you'd like to go ahead now.

MR. STEFFAN: My name's Bill Steffan. I'm with the State Department of Health.

It seems to me that the intent of the standard is to get people to work below a certain level, where they don't have to provide by monitoring, where they don't have to provide medical surveillance and where they don't have to do anything except provide certain work practices, which they have assurances will prevent exposure; and, if you can do this, you can save yourself, you know, a tremendous amount of problems, because if you stay below some level, centrally an action level, stay below that, then you don't have to do

anything except provide good work practices, wetting down, exhaust ventilation, so that they stay below the allowable standard once and then provide good work practices from then on, you just get yourself out of an awful lot of work.

THE CHAIRMAN: I don't really see how you're going to get away from testing, so as to prevent effectively the release of airborne asbestos fibers in excess of the exposure limits prescribed.

MR. FARMER: Fred, what I was getting at --

THE CHAIRMAN: If you don't test, you don't know.

MR. FARMER: True. You have to test, but I'm talking about the numbers of tests that you'd be involved in.

THE CHAIRMAN: It'd only take one.

MR. FARMER: Right. So you're exposed. You have an exposure then. You don't have this as a requirement, performance standard, and you continually have to make tests.

THE CHAIRMAN: All right. Let's not beat this any further.

MR. FARMER: Okay.

THE CHAIRMAN: Somebody move that we either take it or get rid of it.

MR. FARMER: I'll move that we take it.

MR. ANANIA: I'll second it.

THE CHAIRMAN: You want to replace this with the present (2)?

MR. FARMER: That's right.

MR. ANANIA: Do they read any different?

MR. FARMER: I couldn't tell any different.

MR. ANANIA: I couldn't tell any difference there.

THE CHAIRMAN: I don't think they do.

MR. ANANIA: I don't think so either.

DR. BROWN: Dr. Brown, State Standard Board. The difference between the two paragraphs is that you added"or otherwise handled."

MR. ANANIA: That's the only thing.

MR. FARMER: Thank you.

THE CHAIRMAN: Are you still moving to accept it?

MR. FARMER: I do. I move that we accept the one on the righthand side.

THE CHAIRMAN: The switching, or the replacement thereof?

MR. FARMER: Right.

THE CHAIRMAN: Okay. The proposal set forth by the Health Standards Group, you're moving that that replace the present (ii), Roman numeral ii, on page three?

MR. FARMER: That's right.

THE CHAIRMAN: Any further comment?

(No response.)

THE CHAIRMAN: Accepted? Those accepting it? Those in favor?

(Committee responds.)

THE CHAIRMAN: Okay. It's accepted. This is deleted.

Now, the next one is to replace item iii, presently in the standard, with item (iii), Spraying, demolition, or removal. Employees engaged in the spraying of asbestos, the removal or demolition of pipes, structures, or equipment covered or insulated with asbestos, and in the removal or demolition of asbestos insulation or covering shall be provided with respiratory equipment in accordance with paragraph (d)(2)(ii) and (iii) of this section and with special clothing in accordance with paragraph (d)(3) of this section. Where products have been modified by a bonding agent, coating, binder, or other material so that during spraying, demolition or removal, no airborne concentration of asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section will be released, these provisions do not apply, except that the provisions of paragraph (d)(3) of this section will still apply, where applicable, to the requirement for the use of special clothing.

Where monitoring experience at the breathing zone of employees indicates the maximum concentration of airborne asbestos fibers, which are produced from a specific operation involving spraying, removal or demolition, the need for a specific respirator or special clothing may be determined by

this monitoring experience. However, the provisions of paragraph (d)(3) of this section will still apply, where applicable, to the requirements for the use of special clothing.

What I said --

MR. ANANIA: What'd you say?

THE CHAIRMAN: I don't know. What I said, I don't believe is any more clear than what is already here.

MR. FARMER: You mean the original?

THE CHAIRMAN: Yes. That's already contained in the standard.

MR. FARMER: For the record, Mr. Chairman, is the intent of this to provide special clothing and what other equipment would be necessary to protect the worker where spraying, demolition, or removal of asbestos is being performed? Is that basically what the two paragraphs --

THE CHAIRMAN: It sort of looks like that to me.

Frank, can you give us any enlightenment?

MR. MEMMOTT: Fred, as you know, I'm a safety engineer and we look to our Health Group for their recommendations, and this is our recommendation.

Tom represents NIOSH on this Advisory Committee and the full Committee. Tom, what is your recommendation to us?

MR. ANANIA: Frank, I get lost definitely after the first

paragraph when you start talking about (d)(2), (ii) and (3), and etc.

THE CHAIRMAN: It's the same in the other one though. These are the same references.

MR. ANANIA: I think it's a lot of hodge podge. Most of it is brought out actually in section 2, Roman numeral iii.

THE CHAIRMAN: That which is already contained in the standard.

MR. ANANIA: Yes.

MR. MEMMOTT: Mr. Chairman, although Bill is new as a Project Officer under the Health Group, Bill Warren may be able to explain to the Committee and the public here as to what the change is or why the recommendation.

MR. WARREN: I'm just looking at this myself, as you see. It seems he's added some exceptions here, where the products had been modified by a binding agent, and so on. That's not in the other standard, is it, at this point? I can't find his comment regarding that change.

MR. ANANIA: Also in that third paragraph on page 3a, if I may, it says: Where monitoring experience at the breathing zone of employees and so on from a specific operation involving spraying, removal, or demolition, the need for a specific respirator or special clothing may be determined by this monitoring experience. The specific respirator, I

don't really know what they're talking about because it's going to have to be a NIOSH-approved respirator anyway, when you're working with asbestos, so you're just really adding superfluos wording there actually.

If you talk about a special respiratpr, then you're going to have to put an air-line, if that's what you're talking about.

THE CHAIRMAN: Doctor?

DR. BROWN: Harold Brown with the Cal/OSHA Standard Board.

Table 1 presents various types of respirators that are required for different levels of exposure. I suspect that what they're referring to is this -- Table 1.

MR. ANANIA: Is that page 5a, Doctor?

DR. BROWN: Yes.

MR. ANANIA: So you say it's covered in the standard already, back there.

THE CHAIRMAN: As has already been pointed out, this bonded business is not in there, but if it's bonded, it doesn't produce an exposure, does it?

MR. ANANIA: Only when you rip it up. They're talking about demolition there.

THE CHAIRMAN: I know. The product has been modified, it says, by bonding and so on. These provisions do not apply if there is no exposure. If there's no exposure, why --

MR. FARMER: Mr. Chairman, on the last paragraph, it's completely redundant. I was looking at this one; even in relation to the one prior to it, it seems like it's all covered in the one prior to it. Although it's still kind of wordy. All we're trying to say in here is that special clothing and respirators will be required where there's concentrations of airborne asbestos in the operations of spraying, demolition, or removal of asbestos material.

THE CHAIRMAN: That's true. But this one doesn't say it.

Yes, sir?

DR. BROWN: Dr. Brown, Cal/OSHA Standard Board again. The old statement of paragraph (3) simply stated that if you're doing this type of work, you shall wear respiratory equipment and clothing. You've changed it to make it permissive, whereas if you are working with bonded material which will not release asbestos fiber, then you don't have to wear respiratory protection, because, it won't be needed. You won't have the fibers.

Now, the original statement didn't take account of the fact that you might have an operation which did not release fibers. It simply said that you would wear respiratory protection. It was mandatory.

THE CHAIRMAN: Then all we need to do then, if that's the case, and I think it's true, is to add into the old wording a sentence sort of to the effect --

MR. FARMER: We could use this one right here, on page 3a. We could insert that somewhere in there: Where products have been modified by a bonding agent, coating, binder, or other material so that during spraying, demolition or removal, no airborne concentration of asbestos fibers in excess of these exposure limits will be released.

THE CHAIRMAN: Why don't we just add that at the end of that section (iii)?

MR. FARMER: Okay. Do you want me to make a motion?

THE CHAIRMAN: Yes.

MR. FARMER: I make a motion, Mr. Chairman, that we accept the original wording on the lefthand side of the page and include the following wording: Where products have been modified by a bonding agent, coating, binder, or other material so that during spraying, demolition, or removal, no airborne concentrations of asbestos fibers in excess of the exposure limits will be released.

MR. ANANIA: It's really confusing, because you're really going to have to sample anyway to determine if you're going to have any kind of a release.

THE CHAIRMAN: I suppose -- Yes, sir?

MR. STEFFAN: I don't see that it makes any difference during the spraying operation whether asbestos fibers will be released during subsequent demolition operations. This seems to throw them all in together. We're concerned whether

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fibers are released during any subsequent operation and also I really don't feel very confident that there are any bonding agents that will protect during demolition anyway.

THE CHAIRMAN: You have your hand up.

MR. BRADSHAW: Mr. Chairman, Don Bradshaw, NICA. Looking at it from a very practical standpoint here, removal of insulation that does not contain any binders or other treatment so as to contain the fibers within the material, frequently, we may go into the hold of a ship to remove some old insulation for 15 or 20 minutes. Then the men apply new insulation materials. We're saying by this regulation here, that those men would have to wear special protective clothing for that period of time because it's removal of old insulation or demolition.

I empathize with the difficulty of trying to write regulations to fit the industry, but it becomes highly impractical to think in terms of short exposures.

We now require all our people, if they use any materials containing asbestos fibers, that they wear what are to the best of our knowledge currently-approved masks for protection against asbestos fibers, and we're giving them this protection, but it's becoming just very, very impractical in small time-frames when you perform some of these operations, to define them by a regulation that is really practically workable in the field. and I can think of many, many circumstances that

would qualify under this particular section that we're studying now, which could not be major undertakings in demolition or removal, and if you take your time-weighted average of two fibers per cubic centimeter, time-weighted average over an eight-hour day, we're thinking in terms of special protective clothing because of the transfer of asbestos in a man's clothing from the work site perhaps to his home, or wherever else he may go, and, yet, a man who is working with asbestos materials with a very low concentration that could come within the two fibers, working eight hours a day day in and day out, could accumulate far in excess of the number of fibers without protective clothing that a man could, for a very short exposure period, under the terminology of demolition or removal of old insulation, so it becomes very difficult to define this. And, as I say, I empathize with the Committee, but it's going to create some real practical problems in the field.

And what concerns me more is not a contractor's intelligent response to the protection of a man, but our friends in OSHA who inspect our jobs and see a condition that would qualify under the regulation and simply say, whether it be five minutes or 30 minutes, "You're removing old insulation and, therefore, protective clothing shall be worn."

THE CHAIRMAN: Of course, we've already required to have that.

MR. FARMER: Mr. Chairman, in response to Mr. Bradshaw, if we accept what I made into a motion, maybe that would take care of what you're talking about, when we say no airborne concentrations of asbestos fibers in excess of the exposure limits will be released. You're going to be working within these limits and, if you exceed them, then it would be a requirement for the special clothing, as we have it, and this would be a requirement anyway.

MR. ANANIA: Question. You say that sometimes you work just 15 minutes there, right?

MR. BRADSHAW: Indeed, sir, yes.

MR. ANANIA: So, actually, when you put a time limit on this, how can you go down there and sample for that 15-minute period if it's up indeed in that period of time? I think we're going to be a little permissive here by allowing a person to determine that there isn't going to be any exposure because they have a bonding agent or something when they're spraying or demolishing equipment.

If they're going to demolish and so forth, I say that they've got to wear -- or I personally, they should wear the respiratory equipment until -- if it's a long, drawn out job and they determine over a sampling period that there isn't indeed any exposure, then maybe they could do away with the respiratory protection, but, until they determine through sampling that there is no asbestos, then they should wear

them.

MR. BRADSHAW: Standards for the respirator itself and then --

MR. ANANIA: And the clothing itself.

MR. BRADSHAW: If I read you correctly, sir, you're saying if there's continued high exposure, then the protective clothing should also be worn.

MR. ANANIA: What I'm saying is protective clothing should be worn when you first go on that job to demolish or to spray because you really don't know what you are releasing until you do sampling. Am I correct?

MR. BRADSHAW: This could be true, yes.

MR. ANANIA: Could you tell me that if a few people are going into the hold of a ship and tear out some old asbestos pipe coating that they're not going to be exposed in excess of the ten fiber ceiling for that 15-minute period?

MR. BRADSHAW: No.

MR. ANANIA: So what I'm saying, to be positively sure, those people should wear proper respiratory clothing, until you do determine, even though there is a bonding agent, because we're going to be too permissive here in allowing these people to be exposed when they shouldn't be.

MR. FARMER: Well, Tom, from a practical point of view, in other words, you're saying that all personnel wear the

special clothing and respirators. They've got a couple of pipes and they're going to do some demolition and cut into them with asbestos, they should wear this, or this should be a requirement?

MR. ANANIA: Yes. Because you may be exposed to a hundred fibers in that 10-minute period.

MR. FARMER: Well --

MR. ANANIA: We found this out, that there's a tremendously high exposure to people unless they actually wet this material down, that you do get a very high exposure in demolition.

MR. SHORT: Mr. Chairman, being practical about it, in the construction industry, to me, I think we're saying that the employer -- Let me give you a hypothetical case.

We've got a bunch of pipes up here and they're all insulated and, whether I'm working on it or not, I'm still exposed to it. To me, I think we're making a requirement that the employer must furnish respirators and special clothing for everybody in that area, whether they're on his payroll. Somebody's got to protect those people, and I'm not sure that's practical in the construction industry.

You take the insulating contractor, who has a contract to do that demolition work. There may be many other contractors with people in that area. I've gone into big rooms in power houses and it's a complete white haze. Nobody's got a

respirator on, not even the people that's removing it; but, to me, everybody in there is being exposed to the fibers. And can we make the requirement that the -- Are we being fair to make the requirement that the -- I want the people protected, but I also want to be practical with the situation.

To me, the cost on the part of the -- providing everybody with the proper clothing and the proper respiration equipment is prohibitive. I'd rather see them outlaw the use of asbestos completely. But I'm not sure we can do that.

MR. ANANIA: Can you be practical and fair at the same time? There are situations where you can't, like you say, in the situation you're talking about. I don't think it's fair to send me into an area where you're putting up or tearing down asbestos and telling me to work on electircal fixtures, and I'm being exposed to asbestos when I shouldn't be, and I'm going to contact cancer, just because you didn't think it was practical.

MR. SHORT: Yeah.

MR. ANANIA: Because you didn't think it was practical. Mayba we're going to have to change the whole work practice, procedures. If somebody's in there tearing down, nobody's allowed in there except the people that are demolishing the place.

MR. SHORT: Is that a practical way?

MR. ANANIA: Well, I don't know. You see, there's got to be some happy medium somewhere, where maybe you try to be practical and fair, but you can't expose a man just because it isn't practical.

MR. FARMER: Tom, I think the point that's probably bothering maybe John, myself --

THE CHAIRMAN: It's bothering me too.

MR. FARMER: Is basically when you have to take a sample or something, to know that you have the exposure. Otherwise, you're going to be providing people with all kinds of equipment, and you won't know whether there's an exposure.

MR. ANANIA: Exactly. That's what I'm saying. What I'm taking is the other point of view. I'm going around the positive view. I'm saying there is asbestos there, until I prove there is not by sampling; but we can say there's none there until I do sample. Do you see what I mean?

I'm saying if you go in and tear down some asbestos pipe, that there is asbestos in there. Now, you prove me wrong, and the only way you can do it is through sampling.

MR. FARMER: I'm taking the other point of view. How do we know there's asbestos on it if it's wrapped with something that is not asbestos?

MR. ANANIA: You don't know, but you've got to assume that it is until you --

THE CHAIRMAN: It might be fiberglass, and --

MR. ANANIA: Until you determine it, you've got to assume it's asbestos.

THE CHAIRMAN: Now, you're getting a little bit ridiculous.

MR. ANANIA: I don't really think that is ridiculous, because what if you do find out after five days that it is truly asbestos and you've got counts of 100 and 200?

THE CHAIRMAN: You're going to know as soon as you cut into it.

MR. FARMER: When you take a sampling, at that time though, somebody'd be there making a sampling to determine.

MR. ANANIA: Can you get an instantaneous sample?

MR. FARMER: No.

MR. ANANIA: That's what I'm saying. It'll take probably five days for it to come back from the lab so you can expose these people to 200 fibers cc for five days and then say, "Jesus Christ; it was asbestos!"

MR. FARMER: Strike that from the record.

MR. ANANIA: Strike that from the record. You see, we've got to take the positive approach and say that it is definitely asbestos until we prove that it isn't.

MR. FARMER: They're going to be working, Tom, in all kinds of different materials in demolition, you know. What it would mean if we take that point of view, we'd provide clothing, respirators, shoes, and everything for these

people and maybe 90% or 50% of the time, they would not be exposed to it, to any asbestos.

THE CHAIRMAN: I still think, Tom, you've got to put it tied to the exposure or eight-hour exposure.

MR. ANANIA: How're you going to do it if you don't know?

THE CHAIRMAN: You'll have to find out.

MR. ANANIA: If you don't tear anything down, you don't have anything.

THE CHAIRMAN: You've got to get a quicker method to find out. That's what you fellows have to do.

MR. ANANIA: That's the only method we have at this particular time.

THE CHAIRMAN: Yes, sir?

MR. STEFFAN: Bill Steffan with the Department of Health.

I think that some exclusion is necessary so you don't have to wear respirators under all conditions. There are asbestos paints and things like this, which don't give out the asbestos fibers during the spraying operation. There are heavy paints that you spray on as a coating material, and this would require respirators, whether they would need it or not, and I think that where you have experience in sampling, the record would show that this type of an operation is safe, that you shouldn't be required to wear a respirator.

THE CHAIRMAN: You made a motion, didn't you?

MR. FARMER: Yes, I still think it's good. I know, Tom --

THE CHAIRMAN: Anybody second it?

MR. ANANIA: Maybe we should do this. You should make two sections here, one on spraying and one on demolition. When you lump them all together, you can't -- I see no practical way that you're going to segregate, if you're going to lump them together. True, what you say; there are paints containing asbestos. That's a wetted operation. Once you spray it on, there's very little exposure, if any at all; but, if you go back and you demolish that, what is saying that you won't get asbestos exposure when you tear that out?

MR. STEFFAN: I think you could improve this a little bit by saying -- I'm on page 3a on about the third line. Three a. Where products have been modified by a bonding agent, coating, binder, or other material so that during say such operations, referring back to the operations before, rather than indicating each one of these operations in here, and then so on.

MR. FARMER: Excuse me, Bill. When you say "such operations," but if we cancel, which we are proposing, the forepart of this paragraph wouldn't be "such operation."

THE CHAIRMAN: It's included over here.

MR. FARMER: It would clean up maybe the wording, but it

would mean the same thing, Bill.

THE CHAIRMAN: I think it's got to be done this way.

MR. STEFFAN: The thing that bothers me is that you have all this -- Spraying is one thing and demolition is a completely different thing.

If you have to have a binder that's certified not to allow anything to be released during spraying or demolition, it's a much more difficult type of a binder problem than it is if you just have to take care of it during spraying and let someone else worry about demolition. If you're on a demolition job, then you're concerned about whether the binder is safe for demolition.

And I'm trying to set it up so that the thing you're concerned about with respect to the exposure limits is the job that you're doing at that time, not all three of them.

MR. ANANIA: During spraying operations, is asbestos always wetted? Is there a wetting agent at all times when you spray?

MR. STEFFAN: Yeah. The wetting and spraying operation varies considerably in effectiveness. Some of them mix the asbestos in the nozzle, which tends to give you a pretty bad mix, and others mix it in a cement mixer type of an operation and spray it out wet, and it's not too awfully dusty, except the stuff falls on the ground and dries up and gets trampled on. But, if you're not careful, and don't clean up all the

time. But I could see where people could misinterpret this bonding agent, coating, binder, as applying to almost every operation.

THE CHAIRMAN: It's qualified. Exposure limits are set here. It's qualified, as a matter of fact, Tom, in spite of the fact.

MR. STEFFAN: I think if you need respirators, you have to have them. If you don't need them, you don't need them, and many people think it's not necessary. I think someplace else, you cover the use of respirators when you exceed certain levels, and that's all you need.

MR. ANANIA: Who's going to determine that? That's what I'm getting at. How're you going to determine what the concentration is, if you don't sample?

MR. STEFFAN: Who's going to approve the bonding agents?

MR. FARMER: We're not, according to this.

MR. STEFFAN: You see, there's a requirement in California at the present time which says duct work has to be coated with an approved bonding agent that would prevent fibers from ever being released, and there is no such thing.

THE CHAIRMAN: Well, to answer your question, though, all spray asbestos, as far as insulation is concerned, is wetted, but you still get an airborne concentration of asbestos fibers, even though it is wet.

MR. ANANIA: That's what I was driving at, because they

have outlawed open spraying in these high-rise buildings, right, unless it's enclosed, and this type of thing?

THE CHAIRMAN: I'm not really concerned too much with the spraying of asbestos in the insulation field, because most of your contractors now have gone completely away from asbestos, and you don't run into it anymore.

MR. ANANIA: Not at all.

THE CHAIRMAN: Hardly ever. I don't know whether they're manufacturing it anymore. I don't think they do.

MR. BRADSHAW: The major manufacturer of asbestos spray has now gone over to a product they call ceramo spray, which is a mineral fiber, rather than asbestos fiber. This is for insulation applications, rather than fireproofing.

THE CHAIRMAN: Would it work for fireproofing; do you know?

MR. BRADSHAW: There are some mineral walled base fireproofing material, certainly, yes.

MR. ANANIA: But if 95% have transferred over, still, there's 5% that's got to be protected under here. You've got to lay some kind of groundwork for even that 5%. To exclude them, period, I mean that's giving them just a free hand to do what they want.

MR. FARMER: Tom, with the spray like Mono-coat, using some of the other names, there's less than 10% of asbestos in this type of material. Not now. At one time, when we were

making an investigation, there was less than 10%, even at that time, when they dropped it. I kind of agree with Fred on this, that this is almost nil as far as being used in spraying operations at this time.

MR. ANANIA: You know, it doesn't take too much of a percent to make two fibers per cc for eight hours.

MR. FARMER: Right. And once outside the proposal that we had before us on this, is in excess of the exposure limits, I think that would handle them too, once it was sampled.

THE CHAIRMAN: I think we've beat this around enough. Would you read your recommendation again, or your motion, whichever?

MR. FARMER: I make a motion that we accept the number 3 on the righthand side with the addition of this wording: Where products have been modified by a bonding agent, coating, binder or other material, so that during spraying, demolition, or removal, no airborne concentrations of asbestos fibers in excess of the exposure limits will be released.

THE CHAIRMAN: Okay. All in favor? Did I get an aye?

All in favor, again?

(Committee responds.)

THE CHAIRMAN: That's three ayes.

All opposed?

MR. ANANIA: I'll say aye.

THE CHAIRMAN: Okay. Now, the full Advisory Committee

added the recommendation (iv), or added number iv as a recommendation.

Okay, we're finished with that.

(A recess was taken.)

THE CHAIRMAN: Let's move forward now and get back on the record.

The item on page 3, (iv), which is a recommendation that the full Advisory Committee approved, reads: Where engineering controls or wet methods, as defined herein, are not practicable, personal protective equipment shall be used in accordance with Subpart E of this part.

That's page 3. I don't propose that we would do anything with this, unless you want to leave it out.

MR. WARREN: Mr. Chairman, have you left three now, (iii)?

THE CHAIRMAN: Yes, sir. It's only modified by a paragraph, which has to do with the bonding, and what not.

MR. WARREN: We were discussing that at the break, and realizing --

THE CHAIRMAN: Cliff is going to study that and see whether he feels we've got the right thing. We may come back to that.

MR. WARREN: Fine.

MR. ANANIA: Move we accept (iv.)

THE CHAIRMAN: Well, whether we accept or not, that's

already in there, by the Advisory Committee. This -- It would just be that we want to take it out, if that was the point.

MR. ANANIA: Oh, okay, all right.

THE CHAIRMAN: And now we go to page 3(b).

Now, how does that fit, Frank?

MR. MEMMOTT: As far as the number's concerned?

THE CHAIRMAN: I've got lost with this one, because I don't know where it fits.

MR. MEMMOTT: Oh, yeah. One of our friends put that in, but I think it fits in sequence, doesn't it?

MR. ANANIA: I don't know where five is. Maybe I've lost it somewhere.

MR. MEMMOTT: Look on page 3d. There's small Roman numeral five.

MR. MEYER: You already have a c(iv). There should be a (c), five and six, c, two, four. It's the one you just read in.

MR. MEMMOTT: That's four.

MR. ANANIA: That's the modification.

See, I couldn't follow that.

THE CHAIRMAN: Asbestos cargo. Propose to amend c, two, and c, two, is back here. We already talked about c, two.

MR. ANANIA: And four's been put in there, right?

THE CHAIRMAN: C, two, doesn't talk about what we really --

By adding paragraph c, two, four, which is loading, and unloading, and storing asbestos cargo, c, two, five would read as follows:

This five doesn't mean anything.

MR. MEYER: However, you already have a four, so it should be c, two, five, and c, two, six.

THE CHAIRMAN: That's correct. Five and six. We'll discuss them under the numbers that are actually on this page and let the standards people correct the lettering. All I don't want to do is to accept something here, which deletes something here, so that on page 3b, this iv, Roman numeral iv, would be in addition. It has to do with loading, unloading, and storing asbestos cargo. Railcar, truck, ship, or other carrier. This seems to be designed for something other than construction, considerably other than construction. I don't know that we've ever received asbestos by railcars.

If I'm correct, we already have taken care of this bagging bit.

MR. ANANIA: No.

THE CHAIRMAN: Yes, we are. Bags or otherwise handled, on page 3. C, two, Roman numeral ii.

MR. ANANIA: See, it says from bags. Here, you're talking about unloading from railcars and so forth.

THE CHAIRMAN: No. They may do it at their warehouse

location, as far as --

MR. ANANIA: What about a truck?

THE CHAIRMAN:--manufacturers.

MR. ANANIA: How do they get it to the construction site?

THE CHAIRMAN: Truck it. But you've already taken care of it, Tom. It says: No asbestos cement, mortar, coating, grout, plaster, or similar material containing asbestos shall be removed from bags, cartons, or other containers in which they are shipped without being either wetted, enclosed, ventilated, or otherwise handled so as to prevent effectively the release....

MR. ANANIA: What they're doing here on the other one is about the trucks. If it's released inside the truck or other railcar.

THE CHAIRMAN: If you want it, how would you reword it? It certainly goes way beyond what you can accept now.

MR. ANANIA: It seems okay to me.

THE CHAIRMAN: I suggest we delete the whole thing.

MR. SHORT: Frank, I have a question. As a compliance officer, how could you issue a citation based on what we have written here, prior to unloading, the visual inspection of the cargo? Does the employer have to load that inspection?

THE CHAIRMAN: How do you inspect a cargo anyhow without unloading it?

MR. MEMMOTT: Joe, as I read this -- You know, I'm not the author of this. This comes from, you know, the Health Branch.

THE CHAIRMAN: Oh, come on now.

MR. MEMMOTT: No, that's right. As applying it to a compliance officer, my experience, as a safety engineer, prior to unloading bags or other containers of asbestos fiber from railroad, truck, ship, or other carrier, a visual inspection of the cargo and cargo space shall be made to determine if leakage or spillage of asbestos cargo has occurred, and the extent of loose asbestos fiber, if any. Without having documentation required there, although many times, an employer would have it, and enforcing that particular regulation, I would ask you, and I also would ask employees in my walk-around, had you visually inspected to determine any leakage of those broken bags; and, if you had not done this, and there was no documentation of it, I would get statements from employees supporting the evidence that I needed, and that's how I would apply that particular section.

THE CHAIRMAN: Well, answer me a question. On a loaded car, truck, or whatever, without unloading it, how can you inspect it?

MR. MEMMOTT: I believe, Fred, you'd certainly have to be removing cargo, removing bags, before you could inspect?

THE CHAIRMAN: That's right. I recommend we delete it.

MR. FARMER: Fred, you're saying you recommend deleting all of?

THE CHAIRMAN: All of four. I don't know about five yet. All of what's on page 3b, 3c, and the top of page 3d.

Yes, sir?

MR. STEFFAN: Bill Steffan with the Department of Health. It seems that four c might be useful.

MR. MEMMOTT: Yes. That's a much better statement from the enforcement standpoint or the compliance standpoint, than a.

THE CHAIRMAN: Precautions have been taken to minimize employee exposure. What does that mean? You're a compliance officer. What does it mean?

MR. MEMMOTT: The IH. Listen, I'm a compliance officer. I'm a safety engineer. And from the IH standpoint, I'll refer that to Tom here, or Bill.

MR. ANANIA: It doesn't read too good when you say "minimize exposure."

MR. MEMMOTT: Bill, do you have any comments on that?

MR. WARREN: Oh, I don't know what I can add to that. It's just saying protect or take the precautions.

THE CHAIRMAN: We've already made comments in the standards.

MR. WARREN: We can refer to other parts of the standards perhaps to see what precautions would apply there.

THE CHAIRMAN: We've already said we have an eight-hour exposure, and that person can't be -- can't exceed -- We've said where you have the exposure of asbestos fibers, you've got to do certain things such as ventilate, wet, other things. If you're getting exposure of the individual in the loading of asbestos fiber and the handling of this thing, you have prescribed things which you must do. I think this is redundant. We don't need it.

MR. FARMER: Let's take a situation, Fred. In construction. It says here "visual inspection of cargo, cargo space, baggage, or the containers damage or loose asbestos fiber and dust at any time, unloading of cargo shall not proceed until precautions have been taken to minimize employee exposure.

THE CHAIRMAN: Put a respirator on, say, "Go to work."

MR. FARMER: Don't we call for it if you have the exposure, anyway, in any operation?

THE CHAIRMAN: Yes, that's what I'm saying.

MR. FARMER: We have the eight-hour time-weighted exposure here.

THE CHAIRMAN: We have a mix.

MR. FARMER: Bill, I'm just talking to you now. Don't you think that would be covered though by the eight-hour time-weighted?

MR. STEFFAN: Everything's covered by that.

MR. FARMER: How would this help it then?

MR. STEFFAN: Well, this would -- This is more like a work practice. It says that if you -- You assume the containers are sealed and you don't need any protection. You break open the container and it says broken containers require some protection. Then you have to have respirators or monitoring or something. Respirators would probably be the most practical thing, because it's a temporary loading job, and once you get that box car emptied, your problem is gone.

The next one, hopefully, all boxcars don't have broken bags.

MR. FARMER: In other words, if a compliance officer is making an inspection out there, and sees the bag's broken open, at that time, he could go into these other precautions, wear a respirator, or something like that.

MR. STEFFAN: Yeah. As I say, as I see this, this is guidance towards voluntary compliance for some employers. It says this is something you should look out for. It seems obvious to me that maybe -- I don't know whether you feel that's so obvious that it shouldn't be included.

THE CHAIRMAN: Yeah. Well, we put so much in the standards that a fellow's got so much to read that he doesn't read it all. He doesn't understand it. He already knows that he's got to do certain things, monitor, not let the

fellows be exposed to certain degrees of danger, or he has to ventilate, wet, or other things, and I just feel that this is a little bit too much.

MR. FARMER: I think it's good guidance on this, but I don't think that a compliance safety engineer can enforce that. In other words, you'd have, until precaution had been taken -- Now, he could say, "Well, I told the men not to work over there. There were some broken bags." So I don't think it's really a requirement or a standard that would be enforceable.

THE CHAIRMAN: Frank, do you want to say something?

MR. MEMMOTT: Yes, Fred. I'd like to call your attention for your consideration to 1926.21 in the construction standards, and that will be under .21(b)(3), and that's on page 22807.

MR. FARMER: B(2), did you say?

MR.MEMMOTT: B(3). Employees required to handle or use poisons, caustics, and other harmful substances shall be instructed regarding their safe handling and use, and be made aware of the potential hazards, personal hygiene and personal protective measures required.

MR. FARMER: I think that handles it.

THE CHAIRMAN: I don't think we need it.

MR. MEMMOTT: And, as you gentlemen know from past meetings we've had, where I've been involved, this is one of

my favorite sections, and it was one of my favorite ones when I was in the field making inspections.

MEMMOTT: To answer your question, Fred, I have no problem with this, but I agree with the gentleman. I think from the State of California that this is a work procedure in process, and it fits that more than it does the standard, and I think, when you compare it to 21, where we do have it in a couple of places --

Of course, in my experience, also, Fred, in the field with contractors and subcontractors, has been that many times they read only the section to the particular work they're involved with at that time. It's in another section somewhere; I've found that many times they'll -- the document, the whole regulations, are not read thoroughly.

THE CHAIRMAN: Well, protective measures required are included in this particular section. I recommend we again do not include this as a recommendation to the Advisory Committee, that we delete it entirely.

MR. SHORT: I so move, Mr. Chairman.

MR. FARMER: You're making a motion then to remove a, b, c, d, e, f?

THE CHAIRMAN: No, not a. Under five -- All right. Three.

MR. FARMER: Through g.

THE CHAIRMAN: The stuff on page 3b,3c, and 3d at the

top, g at the top. Is that clear?

MR. FARMER: I'll second the motion.

THE CHAIRMAN: All in favor?

(Committee responds.)

THE CHAIRMAN: There's none opposed. It's carried.

Now, we come to five, Introduction of Asbestos Fiber into Manufacturing Processes, and when you put that in, what'd you have in mind, Frank?

Now, wait a minute. This document comes from you, doesn't it?

MR. MEMMOTT: Oh, yes, I sent that to you and we received this from the Health Standards crew; so, regarding any of the technical side of the Health, why, Mr. Bill and Mr. Tom is your man. But I'll be happy to explain anything you ask me.

MR. ANANIA: Well, tell me, from a construction standpoint, do you get asbestos raw, out of a bag?

THE CHAIRMAN: No.

MR. ANANIA: You get it in some form like a pipe covering or a sheet that you can put up, right?

THE CHAIRMAN: Or in a dry mortar.

UNIDENTIFIED PERSON: You get it in a dry mortar and pack it.

MR. ANANIA: It would have a mortar mix, right?

THE CHAIRMAN: Yeah, it's a mortar mix, and the spray

thing is -- Well, it's been prepared. It's got all the ingredients in it, and all you really add to it is water, I guess.

MR. ANANIA: I don't know how this would apply then. We're talking about --

THE CHAIRMAN: We're mixing it really. It's a mixing process, not a manufacturing process.

We've already taken care of that with the opening bags and what-not.

MR. FARMER: So about the only way I see it, on construction sites, it's either in bags or something that they're going to open up or throw into a mixer, or use it that way, or some material. You're going to wrap a pipe or something like that.

MR. ANANIA: Now, where you're saying it's mixed with plaster and so forth, you have to take the precaution there of mixing this under ventilation, proper ventilation, right?

MR. FARMER: Well, usually, it's done outside, right. You wouldn't have a ventilation problem. If you do it inside, you could have a ventilation problem, but if it was putting this through a mixer at a construction site, usually it's outside the building. No ventilation is required. They can take sampling tests there.

MR. ANANIA: Well, something -- I'm sure if they would mix it in that situation, Cliff, that some precautions would

have to be taken, don't you think, because when you throw it in and stuff flies out all over the place and the wind is blowing?

MR. FARMER: You've got a concentrated area where it could come back out of the mixer, that's true.

MR. ANANIA: In a situation like that, I think something would have to be covered, but the rest of this doesn't seem to apply to the construction industry. Of course, it does apply in fixed industry, or the manufacturing process.

MR. FARMER: Tom, what we're trying to do -- I know we all know it -- We're trying to have a vertical set of standards for construction where the horizontal standard in the general industry will not apply; so, if we have a topic on asbestos, this would be a vertical standard, no matter what they have in 1910, will not apply once we finish this document.

THE CHAIRMAN: It doesn't apply anyway.

MR. FARMER: Right.

MR. ANANIA: I think this is already covered really back here, where you're talking about -- Was it on page 3? On page 3, there, the first paragraph: No asbestos cement, mortar, coating, grout, plaster, etc. shall be removed from bags, cartons, which are shipped without being either wetted, enclosed, ventilated, so as to prevent the release of asbestos, so that's what you're really after, and this, into

the manufacturing process, I think, is -- It doesn't apply.

MR. SHORT: Mr. Chairman, I'd like to ask Mr. Bradshaw a question.

Where in the construction industry would you -- would a contractor be introducing asbestos fiber into a manufacturing process? What do you manufacture on a construction job site using asbestos?

MR. BRADSHAW: Mr. Short, my interpretation of a manufacturing process, there is no place on the construction sites that I would classify as manufacturing in the sense of manufacturing. The closest approach I can think of is in fireproofing, where the bags of fireproofing material, which can contain asbestos fibers, there are still products on the market containing asbestos fibers for fireproofing, has to be handled. It has to be put into the machine. As Mr. Farmer indicated, it's usually a hopper on the top of the machine. The bags are raised or conveyed to the hopper. They're slit open. There's a recommended technique for opening the bags by double v, slitting, and peeling the bag back, so that it spills out naturally, rather than having to shake it, and that is the closest approach I can think of to anything that would resemble manufacturing.

MR. SHORT: That answers my question. I couldn't fathom how it could be done unless you were, you know--using another example, if you mix sand and mortar together for the

brickmason, is that a manufacturing process? But, to me, that's what they do in the insulation, or they do it with asbestos. They may mix it there, this machine, but I wonder if they're manufacturing anything?

MR. BRADSHAW: Not as such, sir, no. They're preparing a premixed product.

THE CHAIRMAN: Yes, sir.

DR. BROWN: This is Dr. Brown again. You could perhaps change the title to make it more appropriate by saying: Introduction of Asbestos Fiber into Construction or Repair Processes.

Then in paragraph a under that, just delete the word "production" at the beginning. Then you're talking about operations that could occur at a construction site.

MR. ANANIA: But that's covered back there, Doctor, on page 3, I think.

DR. BROWN: In that case, you could delete it.

MR. ANANIA: See if you concur. On page 3 there, that first paragraph on your right. Actually, under this, you might add this.

DR. BROWN: The only difference is -- Wait a minute. They talk about -- In here, they talk about how you remove the material from the bag, whereas the items on page 3d talk about how you shall handle the bag and the outside of the bag.

MR. ANANIA: Okay, but Fred brought up something here

that on page 3d, you add b, five b and c to Roman numeral two. That would take care of disposal of the bags.

MR. STEFFAN: I think there's a --

THE CHAIRMAN: Yes, sir.

MR. STEFFAN: On page 3, they're talking about mixers, asbestos cement, coating, grout, plaster, and on page 3d, they're talking about adding pure asbestos in some kind of an operation like -- like mortar or stucco or something.

MR. ANANIA: You could just add another word there. No asbestos, asbestos cement, mortar, etc. shall be removed from bags.

THE CHAIRMAN: Well, it looks to me like we should delete the whole thing here and forget about it.

MR. ANANIA: Can I make a motion?

THE CHAIRMAN: Sure.

MR. ANANIA: That on page 3, after two, Roman numeral two, we add the word "asbestos," and let it read the way it is. And also, from page 3d, add under Roman numeral two, five b and c.

MR. FARMER: I got lost there. What are you going to do?

MR. ANANIA: On page 3, after the word "no" under Particular products and operations, put "asbestos," so it would read: No asbestos, asbestos cement, mortar, etc. And then from page 3d, you lift five b and five c and add them under Roman numeral two.

MR. FARMER: So I've got it right. It's the old four, isn't it? Five. Okay.

MR. ANANIA: Yeah, that's five, and let Frank and his crew straighten out the numbering system.

MR. MEMMOTT: Fine.

THE CHAIRMAN: You made a motion. Does anybody second it?

MR. FARMER: Yes. Let me catch it a minute. This would mean then we'd delete a.

THE CHAIRMAN: We'll just take what is listed as five b and d, which is listed on 3d, page 3d, which is listed as five b and c. Just take it and move it over; put it under page 3, item two, Roman numeral two.

MR. FARMER: I'll second it.

THE CHAIRMAN: In its proper numbers.

MR. FARMER: Okay, I'll second that.

THE CHAIRMAN: Joe, do you go along with that?

MR. SHORT: I just have one more question.

THE CHAIRMAN: Go ahead.

MR. SHORT: Directed to Frank. What kind of a citation would you issue when you say the fiber bags shall arrive at the work station in clean condition free of loose fiber on the bag's surface?

MR. MEMMOTT: In that case, Joe, applying that particular regulation, if there were -- was any evidence of asbestos fiber on the bag, outside the bag, then I could issue a

citation, using that key.

MR. ANANIA: I'd like to ask a question.

MR. MEMMOTT: But remember one thing here, Joe. We're talking exposure too. Is someone exposed? Is an employee exposed to that condition? And the burden of proof would be upon me as a compliance officer.

MR. ANANIA: Can I ask you another question, Frank?

MR. MEMMOTT: Sure.

MR. ANANIA: Are we writing this just for you to nail somebody if you see this, or are we writing in the true sense of the law, where it says that the employer shall provide a safe and healthful work place for the employee?

Now, if we're writing this just so a compliance officer can go out and make a citation, let's throw the whole damn thing out, because there's going to be a lot of times you're not going to be able to catch them, but I think, in the true sense of the law, aren't you supposed to write this so that you're going to protect the employee also, and give the employer guidance to protect the employee?

MR. MEMMOTT: Do you have a copy of the law, the legislation, Jay? Can you get a copy of that for each one of us here?

THE CHAIRMAN: Well, the standards are written to provide protection for the employee, but the only way -- It's like a traffic law. They say you're supposed to go in bad weather at

a speed which is safe to drive on a particular highway. If it's not safe, you can get a ticket. The only way you can enforce -- you can make sure that it's being done, you've got to get out and enforce it.

MR. ANANIA: I follow that, but, yet, you still tell that guy that you don't drive 75 miles an hour when that road is wet. You give him conditions under which to drive, right?

THE CHAIRMAN: I don't say that. I say it's reckless driving if you're going too fast for the conditions of the road.

MR. ANANIA: Well, I think we should take a look at this and approach it from the standpoint that we're going to give this employer some guidance on how to protect this employee, and how to protect himself in case the compliance officer does come.

MR. SHORT: Well, somebody today used the term "guidance for voluntary compliance" and I sum that up in one word: harassment, and, to me, I think that's what we're going when we permit such language as this. I don't think it would be enforceable for a compliance officer. I don't think you could issue a citation and be successful with it, on this type of language.

MR. ANANIA: Why not?

MR. SHORT: When you say the bag shall arrive at a work station in clean condition free of loose fiber on the bag

surface, let's be practical. Construction work isn't the cleanest work in the world.

MR. ANANIA: True.

MR. SHORT: And I just can't understand how a compliance officer could issue a citation to an employer. I know the theory is to protect the employee, and provide him with the removal of the hazard, but I don't think this lends anything to the operation, or the development of the standard, to put such things as this in there.

MR. ANANIA: But doesn't the employee also have the right to complain to OSHA if he feels he's being over-exposed and so forth, and if these bags come in, they're all broken and everything, and they're laying there, they can say, "We don't feel this is right?" "Let's call OSHA in."

THE CHAIRMAN: Okay. Then they would have to prove that they're exposed to a harmful concentration.

I'm with Joe on this one.

MR. SHORT: I don't think we're adding anything to the standard by having this type of -- I don't know. Maybe they call them working conditions or something.

I just can't see.

MR. FARMER: Well, what we've got, Joe --

THE CHAIRMAN: Well, I can see item c, Joe, in which you take bags which have had the stuff and they're already open.

MR. SHORT: Right.

THE CHAIRMAN: And you want to contain the material that may be left in them.

MR. ANANIA: Why do you want to do that?

THE CHAIRMAN: Because you have a great deal of it then.

MR. ANANIA: What do you mean, "have a great deal?"

THE CHAIRMAN: Well, you're opening a number of bags.

MR. ANANIA: If you break it and it's all over the place, you're going to have a great deal of it. The thing is if the limit is two, the limit is two.

THE CHAIRMAN: This doesn't say anything about broken bags.

MR. SHORT: No, it says empty bags or other containers which have contained asbestos fibers. That's something you can put your hat on. I mean the compliance officer could hang his hat on that. And he could issue a citation, but I don't know just how in the hell -- To me, b is nothing but harassment to the employer.

MR. ANANIA: Okay. In other words, if a bag comes that is broken -- it's on a pile that is broken, there's nothing anybody can do about it; is that right?

MR. FARMER: That won't fit b then.

THE CHAIRMAN: It won't fit b, that's right. That's what I'm saying.

MR. FARMER: If we do that, which I did second it, but I'm having second thoughts on it. In those operations where

bagged asbestos fiber is being used, the fiber bags shall arrive at the work station in clean condition free of loose fiber on the bag's surface. As Frank pointed out, you can make a judgment, but it makes it a real difficult situation for, you know, a compliance safety engineer there.

And then it goes on. It says: If the bags are stacked on pallets, the pallets must be clean and free of loose fiber. It doesn't say how much. It might be one fiber. It's too much of a judgment, Tom.

See, what we're trying to do is have a standard, minimum standard now, that a compliance safety engineer can go out and enforce as best he can, and the last thing, I think, that person wants to do is have something that would be, as Joe says, a harassment, but he'd have to make a judgment here, and it doesn't give him any really guidelines to, you know, enforce this particular standard.

MR. ANANIA: So you've answered my question. We are only interested in enforcing it. You're not interested in any health problems. You're only interested in enforcing what you can write down here.

MR. FARMER: No, Tom.

MR. ANANIA: You just said you've got to make it so that thecompliance officer can enforce.

MR. FARMER: As a minimum standard, yes.

THE CHAIRMAN: Everything that's written has got to be

enforceable, Tom, in some way.

MR. FARMER: If you don't do that, then we don't have minimum standards.

THE CHAIRMAN: It's also got to be compliable. You know what I mean by that.

MR. FARMER: You've got to think of a guy out there, Tom, and that's the -- There's two people that's going to be using this. It's the employers, the employees, and then the safety engineers, that's going to enforce it. There has to be a meeting of the minds. They both understand it, in other words. The employer says, "All right." He reads the statement; he says, "Oh, that's how I'll comply with this." Then also the safety engineer has to be able to read it and say, "If he doesn't meet the standard, then he's not in compliance." So that's a separate thing.

MR. ANANIA: Well, there's something going to have to be put in here about broken bags, etc. then.

MR. FARMER: Agreed. I think we can do something. Don't we have -- Let's see. In this --

THE CHAIRMAN: Yes?

MR. STEFFAN: Bill Steffan, Department of Health.

I agree with Mr. Short that b is going to be a problem if we adopt that. I think what you mean -- need is a statement, I think you're going to get to, that spill should be cleaned up properly, and something like that, and I think

you probably have it in there someplace else.

MR. FARMER: I think, Tom, what's going through all our minds here on the broken bag or spill or something, rather than just a few fibers on a bag, if we use c, if you're amenable to it, because I seconded the motion, is to just include c, empty bags, broken bags, or other containers which have contained asbestos, wouldn't that pretty well spell it out?

MR. ANANIA: No, because an empty bag -- I mean a broken bag doesn't necessarily mean it's empty. What c is saying here, you've got to dispose of the empty bag properly.

THE CHAIRMAN: I thought we took care of that, but I can't find it. I think we took care of this when we first did it.

MR. FARMER: How about on page 3? Wouldn't that cover it? Or otherwise handled so as to prevent effectively the release of airborne asbestos fibers for the excess of the exposure limits prescribed?

MR. ANANIA: You're talking about removing, but you still haven't talked about a broken bag yet, and I'm sure that on a construction site, if you do bring raw asbestos in, you're going to have a few broken bags.

MR. FARMER: That's true.

THE CHAIRMAN: What would you suggest, Tom?

MR. ANANIA: Well, you know, when you said this about --

and you do read it over carefully, I suppose it is pretty nebulous, but I think the intent was in case there is a break.

THE CHAIRMAN: That doesn't say it.

MR. ANANIA: That's right. I say it's pretty nebulous, but what they're probably implying is if there is a broken bag or something, and Cliff is right.

THE CHAIRMAN: Why don't you add this at the end of this b?

MR. FARMER: You mean modify b or put it below c?

THE CHAIRMAN: C. I'm sorry.

MR. FARMER: Okay.

MR. ANANIA: I'll back off my motion, and we'll delete b.

MR. FARMER: I'll retract the second then.

THE CHAIRMAN: You want to add C and, you see, not all ofthis is set here for our acceptance. When we don't accept it, we don't do anything with it.

MR. ANANIA: Well, add c under 3, page 3 there.

THE CHAIRMAN: Your motion is that you recommend that we accept c be put on --

MR. ANANIA: Under two, Roman numeral two.

THE CHAIRMAN: Roman numeral two on page 3, in the proper sequence.

MR. ANANIA: Right. And maybe we should also, if it

isn't covered in here, say something about broken bags. What do you do in case there are broken bags and so forth, that they do arrive at a construction site?

THE CHAIRMAN: What you're really saying is a bag is broken, there's spilled asbestos fibers, you're going to clean them up, and --

MR. ANANIA: Properly.

THE CHAIRMAN: What does that mean?

MR. ANANIA: You sweep them with a broom.

THE CHAIRMAN: When you say "properly," what does it mean?

MR. ANANIA: What I'm saying is it's got to be developed. I don't know exactly how we're going to do it right now, but the language has got to be developed.

THE CHAIRMAN: All right. Between now and tomorrow morning, you're going to develop that language, all right?

MR. ANANIA: That's fair.

MR. MEMMOTT: You took the words right out of my mouth.

THE CHAIRMAN: We have a motion. Do you second it here?

MR. FARMER: I have a question. This is b that you're referring to?

THE CHAIRMAN: It's not this b. It's not the one above it. Exposure limits are the ones we set forth in 1910, whatever that number is, 1926.55(a)(a), (b), 1926.55(c), (b)(1) and (b)(2).

MR. FARMER: The staff can clean that so it makes sense.

THE CHAIRMAN: Did you catch that, Frank?

MR. MEMMOTT: Right.

THE CHAIRMAN: You're going to clean that up, right?

MR. MEMMOTT: All right. Oh, yeah.

THE CHAIRMAN: You second that?

MR. FARMER: I'll second it.

THE CHAIRMAN: All in favor?

(Committee responds.)

THE CHAIRMAN: No opposed.

Yes, sir.

MR. BRADSHAW: Mr. Chairman, Don Bradshaw, NICA.

In the language here, and I don't mean to pick on words, I don't know of any specific instance where raw asbestos fiber would ever be used on a construction site. I think the wording needs to be checked rather carefully. They're really asbestos-containing materials, rather than bags of asbestos fiber. It's a fine point, but I find as we go through your proposed regulation here, there are several places where perhaps the terminology needs to be checked rather carefully.

NICA did put out about three years ago a little safety and housekeeping booklet that you may have seen, and we covered in detail, in very simple language, all this problem of broken bags and housekeeping and so forth, that probably

could be of help in just putting this simple wording in here, in recommendations for compliance.

THE CHAIRMAN: Are they available?

MR. BRADSHAW: They are available, sir, yes.

THE CHAIRMAN: How quickly are they available?

MR. BRADSHAW: I have some in my office and, if I'm here tomorrow morning, I can bring one for every member of the Committee.

THE CHAIRMAN: Would you do that?

MR. BRADSHAW: I will.

MR. ANANIA: One question. In here, what are you referring to as asbestos?

MR. BRADSHAW: I was looking at paragraph b under five, the old five, in which it says: In those operations where bagged asbestos fiber is being used.

MR. FARMER: That's cancelled.

MR. BRADSHAW: Yes. We cancelled b entirely?

MR. FARMER: Yes.

MR. BRADSHAW: Okay, and we're just now staying with c.

MR. ANANIA: Right.

MR. BRADSHAW: And not referring to b at all?

MR. ANANIA: That's correct. That's what I thought you were referring to here, because we say here "containers which contained asbestos," so anything that did contain would refer to what you're saying, that it would be mixed with

something else?

MR. ERNSTEEN: That's right.

THE CHAIRMAN: Yes, sir?

MR. MEYER: George Meyer, Gypsum Association.

If you look on paragraph d on page 5b, just a slight change in that would handle your broken bags and dust. Just change it from "any loose asbestos fiber present in the process,"delete "of unloading or storage areas -- at present in the process shall be removed by vacuum cleaning or other suitable methods that do not themselves produce any viable dispersion of asbestos fiber and so forth and so on.

That could be used and that'd handle your broken bags.

THE CHAIRMAN: We're on page four. What time do you want to go to lunch? First, let's settle this. What time do you want to go to lunch?

MR. SHORT: Since when did the Chairman grant so much democracy to the members of this committee?

THE CHAIRMAN: Do you want to go to lunch now?

MR.SHORT: It suits me.

MR. MEHMOTT: There's something -- I want an answer here first, or when you come back, either way. He asked me a question, and I've got some material for you.

THE CHAIRMAN: Let's do it after we eat then. We'll come back here in an hour.

(Whereupon, at 12:20 p.m. a lunch recess was taken.)

ALL ROOM SESSION

1:45 p.m.

THE CHAIRMAN: We're ready to go to .

MR. MERRITT: You are recognizing me?

THE CHAIRMAN: Yes. You wanted to talk before we left.

MR. HEMMOTT: Yes, Mr. Chairman. I was asked to answer a question by Tom regarding what the intent of the regulations in the OSHA Act is, and have secured for each one of you members of the Subcommittee, including Tom, and I believe the young lady there. I call your attention, Tom, to Public Law 91-596, which was the reason that we have Advisory Committees and the reason that we're here reviewing the asbestos standards set by the Health Group.

In the preamble to the law itself, it states: To assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, information, and training in the field of occupational safety and health; and for other purposes.

So, Tom, the answer to your question is yes. As I understand, as I read this, enforcement is a factor in the OSHA Act, and this was the wish of Congress. This was what they said when they wrote the Act. And the standards develop-

work, yes. You develop standards which may be used as guidance, as I understand it, by employer employees, states, otherwise; but, having been a compliance officer and still a compliance officer and safety engineer, enforcement is one of the many factors -- I won't say it's the only one -- to consider when you're writing and considering standards. You have to consider the application, how it's going to be applied. Is there an understanding, not only by the enforcement official, but the labor official, the management official; and, above all, like somebody said here a little while ago, which I can agree, and this is my policy, and whatever is recommended by the Committee and you all, and my input will be I will try to make sure that it's in language that is clear and crisp and simple as possible so that the employee understands. Because, if you don't do it that way, my experience also has been through the years that they won't read the standards, if you make it too complex.

I'm not saying that, you know, they can't go to get information, guidance, somewhere, someplace else, from the technical side; but, where you can put it clear and simple, that's the best standard, not only from the enforcement standpoint, but from the standpoint of accomplishing the performance and a safe workplace which the Act calls for.

MR. ANANIA: So in other words, --

MR. MEMMOTT: Hold it. And I'd like to read your

attention to May 7, 197-. I wrote you all a letter, and it was actually to Fred, but each of you have a copy. It said: "We are sending you copies of two (2) proposed health standards to give you an indication of how the Occupational Safety and Health Administration (OSHA) division of health standards is addressing the monitoring of employee exposure (medical examinations and air sampling.)

Subcommittee members should review these documents to see if an acceptable pattern for this type of standard can be developed for construction when you meet with the representatives of our division of health standards."

And at this point that is Bill Wagner who's the project officer on health standards.

"The technical staff of the division of health standards is pinpointing the hazard of a given substance, relating to the level or degree of exposure that is harmful in an enclosed or confined area, and the methods of determining the degree of workers' exposure. They are looking to the Construction Safety and Health Advisory Committee, through the subcommittee, for suggestions and advice on how to address the problem within a construction site environment.

This means that your consideration should include:

1. What engineering controls are possible and needed at the construction site; in new construction above or below ground; in confined areas; during repairs, remodeling, and

demolition.

2. Where engineering control is not feasible, what administrative actions are feasible. Define various ways that employees can be kept from excessive exposure.

3. Where engineering and administrative controls are not feasible, outline how personal protective equipment (PPE) needs should be furnished; ways that the PPE can be kept in the condition necessary to be effective during use; how PPE can be kept available; how it should be maintained between uses and be safe for reuse; the disposition of contaminated PPE, clothing, filter replacement, etc.

4. Answers to the above considerations should determine the requirements for initial and periodic medical examinations. The legislation has made the employer responsible for carrying out whatever is necessary to assure safe and healthy conditions for his employee(s) during the time of employment. Our concern is to define how each employer can fulfill his obligation to his employees.

We are sending you information on asbestos under separate cover. Please advise if we can be of any further assistance. Frank C. Memmott."

MR. FARMER: What's the date on that, Frank?

MR. MEMMOTT: May 7, 1975.

MR. ANANIA: Well, all you say is good, Frank.

MR. MEMMOTT: Well, that's the substance of what we're

talking about here. I mean it's part of it, of the standard.

Did you get that letter?

MR. ANANIA: I didn't, no. Did you?

THE CHAIRMAN: I don't remember it either, and I can't find it here.

MR. HEMMOTT: Listen, Fred, I know you got it because we discussed this back in Washington at the June 3rd meeting.

THE CHAIRMAN: It was that far ago?

MR. HEMMOTT: Right. It was before then. This was sent to you on May 7, '75.

MR. ANANIA: Frank, if you say the intent of the law is for authorization of enforcement only --

MR. HEMMOTT: I didn't say that.

MR. ANANIA: Well, by the Act here.

MR. HEMMOTT: That's what you say.

MR. ANANIA: No. I'm saying is that all we're going to do is enforcement?

MR. HEMMOTT: No, you're not listening.

MR. ANANIA: Because all we've got to do is say the standard is two fibers per cc and you shall not exceed. Now, that is the law. Now, we'll give you some guidance, the rest of this, if you want to follow it. This is the way we could show you that you're [illegible] it.

but I don't think that we should go through and say, "You shall this," because we can enforce it; you can't enforce this so it doesn't apply. You know. Let's just give the whole thing -- Say this is a standard of two fibers per cc and that's it. Okay. Research information. What is research information? We're going to give them information on how to stay below two fibers per cc, and we'll give you information on how the standard was set, why those two fibers per cc was set, and that's all that it calls for here.

I don't see why we have to go through this document really and point out some things that -- you shall do this because we know you can enforce it, but we can't do these other things because we can't enforce it. Just say these are guidelines only, performance standards, period.

MR. MEMMOTT: Would it be proper to consider -- Fred, I'm asking really you this -- from the standards standpoint -- I mean we would accept this recommendation from you all, that if you want performance criteria on how to govern, but maybe make it as a notation under the standard. This is up to you. This is your job.

THE CHAIRMAN: You mean a Perdex type of thing?

MR. AUANTA: I think that may be the way to do it.

MR. MEMMOTT: As I understand, the State of California does do this type of authorship in their standards. Is that right, Cliff?

MR. FARMER: Yeah. That they do, is, if you want to have a requirement, you write it as a requirement and it's promulgated and adopted and they can enforce it as a requirement. Put a note underneath. And this would be as a guidance to the employer, maybe, on how he can do it, or the performance type of standard that he can work with, but it wouldn't be something that the client sitting here would use as a requirement. That would take it out of the requirement category, and it would be a guidance or something that would be helpful to the employer.

MR. ANANIA: You see, I don't see how we can set a standard -- Well, I'm sorry. We can set the standard, two fibers per cc, but then to tell this guy you've got to wet this down; you've got to do this; and you have to do that; and, if you don't do it, you're out of compliance, why is he out of compliance? However he meets that two fibers per cc, that's his business, so the rest of this should be a performance standard saying you should, if you're going to do this, you should do it this way and this way and these are guide points.

MR. FARMER: Oh, but the other point, Tom, is we're telling them the type of equipment, you know, the respirators and protective clothing.

MR. ANANIA: You can make that a requirement. If you use a respirator, it's got to be a MIOSH-approved respirator.

MR. FARMER: That's true.

MR. ANANIA: But on demolition and spraying and so forth, why do you have to say, "You've got to do it this way or you're out of compliance?"

MR. FARMER: Cause you're talking about exposure now. That's what you're getting at.

MR. ANANIA: Sure. I mean from the health standpoint. Actually, this is more of a health document than a safety document.

MR. FARMER: No problem there.

MR. ANANIA: Do you see what I'm getting at?

MR. FARMER: Yes, I do.

MR. ANANIA: I mean if there is a point in here where it says, okay, when you talk about respirators, that's got to be a NIOSH-approved respirator because, if you use one of those surgical masks, you're not doing anything, so that stuff is taboo. We will show you that this is what you shall do, but to say that you've got to wet that whole room down when you demolish, I see no reason why you have to make that a shall, and then say something about we can enforce that, but we can't enforce asbestos fibers laying around or pallets and so forth.

MR. FARMER: I think we removed all that, Tom. I mean as we've been going through it, we've been removing that.

MR. ANANIA: No. That's through the whole document

there though. That's what I'm getting at. These shalls, that you've got to do this, you've got to do that. Why don't we make that a performance standard, say you should do this; you should follow these recommendations, and the only thing that you shall do is like the respirators, and you shall follow the standard?

MR. FARMER: So that you will not have the exposure. If you do have the exposure, you use this type of equipment. I think the document is going to reflect that as we work through it.

Does Mr. Warren have anything? Let's ask Mr. Warren his thoughts on that.

MR. WARREN: As I understood that, you were discussing basic philosophy of writing standards, really, and I don't know if we can get into that here. The term "performance standard" to me means the setting of the limit; you won't expose people beyond a certain level; and, however you do it would be left to the employer. I believe that's what performance standards means, as we use it anyway, and specification standards would be defined in exactly how you proceed to do it. In other words, you'll have so much ventilation, so many feet per minute, and that kind of thing. It's specifications, rather than performance, in our terminology anyway.

And getting back to this [illegible] you could always

say, "Don't do this to employees," and stop, and we can't really do that. So I think most of our standards are kind of mixtures. Here, we set a performance standard saying not to expose beyond a certain level, and then we put in certain work practices, certain specifications, that we believe will achieve this.

But you could just have the performance requirement and stop, with nothing more. It'd be a very short standard. And our philosophy now is not to stop that short anyway.

Does that answer the question?

MR. FARMER: Yes. I think you hit it on the head. To me, anyway.

As I get back to Tom, just to see if we're thinking alike on it, as a Committee member, if you have the specifications here, you know, as whatever we're going to allow a limit per exposures to asbestos at a work site, we can put that as we have at the head of the standard, you know, as we come along. We outline that. We outline the type of protective equipment, including the respirators and so forth. Then you can go into the note or something else as a recommendation. Have a little different term on the performance standard. This would be a performance with the contractor, what he would do. That wouldn't be what you call as a requirement, see, for the compliance officer to enforce. This would be recommendations tothe employer, how he could -- there -- This would tell the

about writing down this and this and this; but, if he does exceed the limit, in excess of what we say here, exposure limits, then he would be required to have the protective equipment, but we're going to need the monitoring procedure in there anyway and the testing procedures.

MR. ANANIA: Okay, monitoring; but, here, for instance, on page -- I suppose this is 3, where you say: No asbestos cement, mortar, coating, etc. shall be removed from bags, cartons or containers and shipped without being wetted, enclosed, or ventilated. I mean who says so? Why do you have to? Why do you have to really nail it down that specific when the guy may have a lot of other things that he can use to stay below the limit? I mean if you're looking for compliance. I can see this from a health standpoint, which I want in here also. I do want some specific health requirements. That is my only safety -- I know very little about safety.

MR. FARMER: I think if you look at it in the combination though, Tom, let's say safety people will be enforcing this, even though it's a health standard. Basically, I think these will be safety engineers out there. I'm taking one aspect of it.

MR. ANANIA: Well, I hope not. I hope OSHA has industrial hygienists.

MR. FARMER: They'll be a backup; but, as I understand

it --

MR. ANANIA: Won't you send your industrial hygienists out to a place where they're using asbestos, or is that all done by a safety compliance officer?

MR. MEMMOTT: Tom, in that respect, I have broken in industrial hygienists in making inspections. I mean there are certain areas that maybe each individual may have more expertise than another and, because you maybe hang the label of IH on somebody, that doesn't make them an expert in taking particular samples of the particular substance, and we utilize IH's wherever we have them because this is what the direction is, is the health side, taking samples, and the chemistry of that, because, primarily, they'll be trained in that respect, but there are offices, and one which I worked in, we didn't have anyone labeled per se as an IH. When one came aboard, why, I helped train him in the compliance activity, health side and safety side. I don't think it -- Personally, I think a safety engineer is just as competent and, in many of these areas as an industrial hygienist.

MR. ANANIA: Oh, I wish you hadn't of said that. Just saying an industrial hygienist is not as competent as a safety engineer in the safety field, unless he has had that training. I'd never be able to buy that, I think.

MR. MEMMOTT: You didn't let me finish. I was going to

point out that you have training in the area. It's like saying you need someone of a specific background to take a particular sample, or to read a chart. Would you say that, Tom, you couldn't train the average safety specialist or safety engineer to read out, as he's properly trained, at NIOSH, at OSHA's training, at some other institution, that he wouldn't be competent and qualified to hang a tester on someone, a gravimetic tester, if he knew where and how this should be done?

MR. ANANIA: But that is not an industrial hygienist. You could take anyone with a high school education and say --

THE CHAIRMAN: I think you're beating a dead horse now, between you. Safety engineer and an industrial hygienist. That's not why we're here.

MR. ANANIA: No, but you've got to have competent people in the field to do the competent work, and you don't send a safety engineer to make industrial hygiene judgments, and vice versa, but that's beside the point.

MR. FAIRER: Not judgments.

THE CHAIRMAN: Go ahead.

MR. STEFAN: Bill Stefan with the Department of Health. I think that if you have a work practice, which you know is going to be hazardous at any time it's accomplished, that this would be a mandatory prohibition against it, if you can define that type of work practice, or that type of a

job, where every time it's done that way, it's -- For example, if you're going to hand out some asbestos and you know from experience that you're always over 10 fibers per cc, then you could have a work practice provision prohibiting that type of thing, unless they wet it down, unless they take the precautions, and I think that the standards are based on experience, and the testimony of experts and things like this, where you're going to recommend. There are a lot of areas where people don't understand what they should do, and they can put in a recommendation too; but I think where you have a high degree of knowledge that if you do this, it's going to be dangerous, you can write a work standard which is mandatory and which has to be followed in every case, and, every case that they don't follow it, they're going to be in trouble.

Now, if you can define these things, you're in pretty good shape. They're hard to define.

As an example of one, it was typed as a percentage and standard which has absolutely no allowable levels in it. Everything in it is a work practice standard.

MR. ANANIA: Recommendations can not be enforced. You were saying something about recommendations. They can not be enforced.

MR. STEFFAN: All right. As a matter of fact, it's more or less our experience that if you're going to cite some

body for a violation of the asbestos standard, you're going to have to take measurements and find that they exceed the allowable levels, regardless of what the regulations say, because if you don't show there's a health standard, you're going to get tossed out when you get to the appeals board, if you haven't taken any measure and you don't know anything's wrong, except you saw some asbestos on the ground. Even though it might be a violation of the standard, you might cite them. You're not going to be able to get the thing through the appeals board cause they're going to say, "What's the problem?"

MR. ANANIA: I agree.

MR. STEFFAN: So unless you have a high degree of confidence, if they do this, they're not going to exceed the allowable concentrations, there should be recommendations, it seems to me, for allowable work practices, and if you know there's going to be a violation every time you do it, you should write it as a requirement. I think you can use some judgment.

MR. ANANIA: It's going to vary from company to company and from worker to worker.

MR. STEFFAN: There are certain types of jobs --

MR. ANANIA: I mean I try to be very thorough in my work, but you may be very meticulous, and you're going to make sure that you're going to be as close to that standard as possible,

and I don't care; all I can do is give that stuff up and get it over with, you see. So the standard is going to be written for me. Why should you get child for it also, if they say something about you've got to wet it down; you have to do this?

So I'm saying if we're going to throw the health part out of this mostly, then we should just give recommendations and set the standard as two, 110 an upper limit of 10 for 15 minutes, and that's it. Now, how you accomplish this is your business, but we'll give you some guidelines on how we think you could best accomplish it. That is what I'm getting at.

MR. STEFFAN: I have no objection to doing it that way, except that I think you have an obligation, if you know there's going to be a hexavalent chromium developing, that this type of job is done in this particular way, you can write a prohibition for that in the standard. I don't think there's any reason for not.

MR. AMANIA: I just pointed it out. My work practices are different from yours.

MR. STEFFAN: You shouldn't put trivia in there that doesn't apply to anybody, but if you, you know -- if you're sure that everybody that does it in violation of whatever you're going to write is going to be in trouble if you don't provide respirators, then you're not violating the thing

because there is not [illegible] to be maybe [illegible] you mentioned. If they do it carefully, they're not going to be overexposed; everybody will be overexposed. It's just a question of how much and, if you have some type of a situation, you can write it as a mandatory requirement, just from experience and knowledge, and that's testimony. This is done all through the standards.

MR. FARMER: Tom, this is where you have -- From your experience, if you know there's going to be an exposure if you do this type of an operation, you know these items; you make those requirements for the right of an operation, and you control it, sort of. That's the best we can do -- the contractors doing it. They're shoddy, you know they'll have to come up to this level there but other folks working within that particular standard will be fine. It would be a minimum standard then. But this is where it would be known.

MR. ANANIA: But you're still only giving guidance, right?

MR. FARMER: No, that'd be a regulation but then.

MR. ANANIA: Is there any situation where you really know that this is going to happen all the time?

MR. FARMER: Well --

MR. ANANIA: See, I know probably what we're talking about here, as we're kicking this thing around, but you've got to be, like the man says, you're going to have to

know that every time I do this thing -- that they cut this piece of pipe or something, pipe covering, that this is going to happen, and that is not true.

MR. FARMER: No, not every time. This is the usual work practice and this is the kind of conditions that will be developed, that will usually cause exposure that would exceed the limits that you have here.

MR. ANANIA: That's what I'm saying then. You can follow these rules if you think this is going to happen to minimize that.

MR. FARMER: But, see, with a standard like we're working with, I think what Bill is trying to point out, then you can set limits on that type of an operation to control it before they even get tothe exposure.

MR. BRADSHAW: Don Bradshaw, NECA.

Mr. Chairman, I think in kicking around the philosophy here of the Committee, arriving at a recommendation on the regulation, we've finally come home to the heart of the problem, and I would heartily endorse that the regulation be extremely limited in context, namely to the standards of asbestos fiber exposure to which a man could be exposed.

Secondarily, I would recommend the consideration of perhaps mandatory work practices, keeping them to an absolute minimum, and not unless they're absolutely important.

And thirdly would be recommended work practices that

enable people of the construction industry, and specifically certain specialty areas of the construction industry, to use them as guidance to be able to obtain the standards set in the regulation and the reason is this, and you pointed it out, Mr. Annnie: Each man can perform a task in a different manner. You can take off -- You can demolish old pipe covering. Now, I talk about pipe covering because I'm representing the insulation industry. If you're up high on a ladder, and you're taking it off on the top side and cutting the wires that have held it in place, and you lower it down gently below you, you can avoid the fallout of all the dust that would come off it from it having been for many years in service, in many instances. If you're underneath it, you'll be in the direct fallout of the dust that falls, which contains asbestos fibers. If it's off material containing asbestos. You can take insulators that contain asbestos fibers and you can take two men and you will get widely divergant dust counts from those two men mixing that same bag of cement. It becomes a recommended work practice, and we do have these now in the insulation industry, in a small booklet which I'll bring in this morning. have all this in.

But these are the types of situations that happens [illegible] industry. The last thing we need are a lot of hog-tying, binding [illegible] that really serve the purpose that they're intended to [illegible] I think that would

of the Committee can l[illegible] extremely effectively because we have one objective and that is to stop the [illegible]on of asbestos fibers wheresoever they occur, and we can do it by establishing standards and by perhaps a few vital mandatory procedures that would be of excellent assistance to a compliance officer, because I'm going to be on the fixing line and I'm going to be doing battle with that compliance officer over dust counts when the regulation goes into effect.

And as we look through the pages, we have provision in the regulation, as it's presently been drafted, whereby, I believe, in one instance, and I can't quote it exactly, it talks about if it has been proven that a particular type of usage, application, whatsoever it may be, through dust count samplings does not exceed the threshold limits, that you no longer have to conduct this testing. Well, that sure in itself is a never, never land that's going to be very, very difficult to tie down.

I want to say to this Committee right now that I think every member of the insulation contractors industry is going to be vehemently opposed to this dust count testing procedure, as important as it may be, and he's going to avoid that procedure like the plague if he possibly can.

Fortunately, there are few instances, few places left in the insulation industry anymore, where we're using any

material with asbestos in it, and this has come about in the past three years. But our problem still remains in the area of demolition, removal of old materials, and the very occasional use of one of the last remaining materials containing asbestos.

So I beseech you as a Committee to give this very careful thought from several approaches: the practicality of the regulation itself, but for the protection of the man's health, but specifically from the standpoint of the field compliance officer's interpretation of the regulation, so that he can act responsibly and know what is required of him. He won't, going in. I can see it being an educational process where an industry helps the compliance officer understand the industry until he becomes better versed with the small technicalities of the industry, and the better the regulation can be written, the easier or probably with total ease, he will be able to act in a responsible manner for the man who's working with the materials, as well as being able to relate to the employer in the implementation and the interpretation of the regulation.

MR. FARMER: Mr. Chairman, I was looking through the pages that we've covered like Mr. Daddow was explaining his philosophy, which I thought was good, and I think we're all heading in the right direction. We have about four or five or six sheets that we've covered so that we can get rid

of the type of standard that would be a recommendation, that would pull it out. I think in the areas of what we're trying to do, Tom, is what you're saying. Now, we're going to be moving into the area of monitoring next, which the Chairman will take up in a few minutes, but I think we've got it basically down pretty well at the present time. There might be a little wordage changes, but just what you're saying. You're the expert in the health, but we call for the limited exposure and the type of equipment required. We have a few other items in here like you mentioned on three, but, overall, I think we're pretty well getting down to what they can work with. This'll be before the full committee at another time. I think we should take some of these items --

THE CHAIRMAN: I think we have to discuss it.

Joe, do you have any comments to this at this point?

Okay. We duly note on the record your comments, and I thank you.

MR. ANANIA: Thank you.

MR. MEMMOTT: Mr. Chairman?

THE CHAIRMAN: Yes, sir.

MR. MEMMOTT: For the gentleman from the audience there, I would like to point out that as far as testing is concerned on counts, it's my understanding that all these go to two laboratories, one in Salt Lake City, and another one in Cincinnati, and they are then, by technicians, you know

counted in a consistent way so that there isn't the deviation and possibility of wide variation of interpretation. It's like reading an X-Ray.

Fred, you may get a different picture than myself reading, or Jay or Cliff. If I'm taking a 50 count, which I've taken, I guess, thousands of air samples in my life, this, I will interpret at the time of the inspection, you know with the detector tube, or if it's an explosive meter or a methane detector or this type, then that will be done by the compliance officer, whether that compliance officer is a safety specialist, a safety engineer, or an IH, industrial hygienist, but the complex ones are sent off and done in the lab, and a report comes back.

MR. BRADSHAW: Yes, indeed, Mr. Hammot, and that is perhaps the initial concept of the regulation that sent us all into orbit at that time, as we investigated the available sources for the fiber counts and recognized the logistics of the whole program.

In trying to handle it in a practical manner, we came to a conclusion at one of our special meetings that we could train our own people, I believe as has been voiced here today, to take the dust counts themselves; but then, of course, having taken the cartridges, they must be very, very carefully packaged and sealed and mailed to the two sources that you mentioned, which would then take, we say two or three weeks to

# UNITED STATES OF AMERICA

DEPARTMENT OF LABOR

**Stenographic Transcript Of**

**HEARINGS**

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**IN THE MATTER OF:**

ADVISORY COMMITTEE ON CONSTRUCTION
SAFETY AND HEALTH - ASBESTOS SUBGROUP

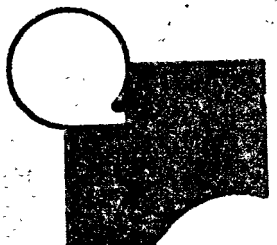
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get our results back is to do this.

THE CHAIRMAN: You see, that's kind of something. It's something disgusting to me. It takes so long to get the results of a testing program. How the hell you going to keep a job going?

MR. MEMMOTT: Is that out of Cincinnati? Maybe Tom can answer why it takes so long. It's one of his labs.

THE CHAIRMAN: If we're requiring contractors to test and they have only two places where they can send this sampling for reliable results. That's a pretty poor commentary on what the heck's going on here as far as testing is concerned.

MR. ANANIA: No, let me clear that up. Only OSM sends to Salt Lake City and Cincinnati.

MR. STEFFAN: They don't have those that available to them.

MR. ANANIA: Who doesn't? The contractor, right. He's got to get his own. Or, like I say, you could set up a field office out there and then you place contrast, microscope, etc., and you could do your own, if people were trained properly.

THE CHAIRMAN: All right. I think we've beat this about enough. Let's move on to this document, or we will not get through in two days.

We're on page 4 now. The full text of my remarks, Thank

deleted this, eliminated whatever this personal protective equipment section is on page four. You've got it crossed out.

MR. MEMMOTT: I believe, Ted, that was done by the 1910-26 Committee, was it not?

MR. FARMER: The National Advisory Committee, we voted on this and this was, to my knowledge -- I don't know verbatim but everything that should be here, you know, is what we had at the National Advisory Committee when we met and voted at that time. I have it across the street. I can bring it over.

MR. MEMMOTT: Cliff, do you have that file with you on asbestos, from your records?

MR. ARNOLDUS: (Nods no.)

MR. MEMMOTT: Fortunately, Cliff, you'll have that and we can check, but this was done, as you know, by the Secretary at that Committee, you know, the time you were --

THE CHAIRMAN: By the Secretary?

MR. MEMMOTT: Yeah. Brenda put this -- This would be her lined through here of crossing this out.

THE CHAIRMAN: Okay, that means we knocked it off, the full Advisory Committee.

MR. MEMMOTT: That's what I'm saying.

THE CHAIRMAN: Whereas the title for this thing is The Recommendations of the Construction Safety Advisory Committee

on the 1926/1910 Project on Asbestos.

MR. MEMMOTT: So I assume that this is correct, from the actions of the full Committee.

THE CHAIRMAN: Who produced this document? You did, didn't you?

MR. MEMMOTT: Yes.

THE CHAIRMAN: And this was eliminated, and you're suggesting that we put back in here some --

MR. MEMMOTT: We felt in working, Fred, to explain the document; we felt in working the recommendations of the Health Group and their new proposed asbestos, that this was where this was, you know, best fitted for your working document. This is the reason it was sent to you with the cover letter that I mentioned a little while ago.

MR. FARMER: Frank, did this come from Bill? How was this worked up is what I was wondering.

MR. MEMMOTT: What we did in-house was to take the document which we got from Bill's shop, he submitted to us, and then we broke this down to a side by side as a cross-reference to help you work with this prior to coming to the meeting.

MR. FARMER: On page four of this thing, the items that were put in in double i there, in reading that, Mr. Chairman, it says: In work situations in which the methods prescribed in paragraph (c) of this section are either not feasible or

feasible to an extent insufficient to reduce the airborne concentrations of asbestos fibers to or below the exposure limits prescribed in paragraph (b) of that section.

And I was wondering what we're saying there.

MR. MEMMOTT: Bill?

MR. STEFFAN: Is this (d)(1) -- is this -- I can't read the letter, in the text.

MR. FARMER: Four.

THE CHAIRMAN: I don't know what it means either.

MR. FARMER: It just doesn't make any sense.

MR. WARREN: I don't understand that doesn't make sense. It doesn't make sense without part of this that you crossed out because it was a part of it. I didn't understand why that was crossed out in that manner. What Mr. Gilbert has drafted included the left part and the part on the right where his -- were his changes, and the changes are a part of the whole, and you've taken out the whole and left a little part, so it doesn't make sense by itself.

MR. ANANIA: Because actually, what you're saying here, is you can eliminate engineering administrative controls and go directly to respirators, which is not right.

MR. WARREN: That's a situation where the respirator is allowed, you see. You have to read the first part of what you crossed out.

MR. FARMER: On the left?

MR. WARREN: On the exit. This would be when you can wear the respirator, when the other methods aren't feasible or they're not feasible to the extent that they take care of the problem.

MR. STEFFAN: Does somebody have a clean draft of this? Is that a (d), personal protective equipment?

MR. HARLEM: Wait a minute, where are you?

MR. ANANIA: Yes. In the standard, 1910 standard, it's (d).

MR. FARMER: That's the original one?

MR. ANANIA: Yeah, on the original.

MR. STEFFAN: That referred to (d)(1) in paragraph two down here.

MR. ANANIA: That's a (d)(1).

THE CHAIRMAN: Okay. We're going off the record.

(Discussion off the record.)

THE CHAIRMAN: If we wish to consider what's on the right on page four, then we're going to have to reinstate some of the material, which has been crossed out.

MR. FARMER: Mr. Chairman, in looking at 1926.103, which the items here are to replace, 1926.103 is on respiratory protection only, and, looking at the draft that was crossed out, it discusses personal protective equipment, which would probably include more than that. So, respiratory is fine.

THE CHAIRMAN: It's all respiratory equipment.

MR. FARMER: Okay. Now, Mr. Chairman, you mentioned that you're going to reconsider --

THE CHAIRMAN: If we feel that this part is applicable and necessary, then we would have to do something to kick it into the standard somewhere.

MR. FARMER: If we do, according to Mr. Warren then, correct me if I'm wrong, but that would be in relationship to 1926.103 now.

MR. WARREN: Well, I don't know what you're --

THE CHAIRMAN: Not necessarily.

MR. ANANIA: I'm sorry. Actually, I think that (d)(1) and then one, Roman numeral I, can be left in because if you go back, all it's referring to back here is (b), which is the eight-hour time limit average, and (c), which is a method of compliance about engineering enclosures, and so forth, and then come in with this Roman numeral two or the two i's, because actually all you're doing is reiterating that you don't use respirators, period.

First, you -- That's not a method of compliance.

THE CHAIRMAN: It isn't.

MR. ANANIA: You can in emergency situations.

THE CHAIRMAN: You jumped on a different horse, my friend.

MR. ANANIA: How's that? You only use that in an emergency condition.

MR. ANANIA: It says engineering controls in the Act. It's shown in here that engineering controls, administrative controls second, and, if that doesn't work, then you can ask for a variance on the use of respirators and that's not -- That's the words in here. It's not my words. Using them in an emergency situation, so I don't know how I could agree that it's against the rules here, Fred.

THE CHAIRMAN: Well, you did, or it wouldn't be there.

MR. ANANIA: There was a lot of things I disagreed with in this. If you remember, that's why we're back here, where we are, because we couldn't get it through the full Committee.

THE CHAIRMAN: You remember the discussion on ventilation?

MR. ANANIA: In what respect?

THE CHAIRMAN: Ventilating where you have a concentration of asbestos.

MR. ANANIA: I don't recall any specific thing.

THE CHAIRMAN: Or ventilation on any part of a construction project?

MR. ANANIA: Probably, if you refresh my memory.

THE CHAIRMAN: Well, we finally agreed that setting up these needed ventilation controls, it could be foreseeable on a temporary basis, which it would be on a construction job, and you had the right to do it.

MR. ANANIA: Yeah, I at what I agreed to is that you have

to change your work practices, if you remember, and if you're going to cut pipe or insulation to fit into a building, then you do it in an operation. You may have to go down five floors to do it, but you do it in that area and you take it up there and do it, rather than cutting it all on a job and so forth. If you remember, I also stated that. Right? You changed your work practices.

THE CHAIRMAN: Oh, let's not get into that. We're going back too far, to try to be accurate. You did agree to it. Let me put it that way.

MR. ANANIA: You've got to clarify it, or you're going to put me in the hole.

THE CHAIRMAN: It wouldn't be that a if you didn't agree to it.

MR. ANANIA: You're going to put me in the hole.

THE CHAIRMAN: All right. What are we going to do with this page four? We're sitting around here for an hour now without having moved an inch.

MR. ANANIA: Well, I make the motion that we take (d)(1)(i), or (d)(i) -- isn't that a d? According to this book over here, it's d. In other words, personal protective equipment.

MR. FARMER: It is d.

MR. ANANIA: Move one and one(i) over.

THE CHAIRMAN: One and one (i) over?

MR. ANANIA: One of this one here.

THE CHAIRMAN: Over where?

MR. ANANIA: Make it part of this.

THE CHAIRMAN: No, you're making this a part of this. You're going to reinstate this. Is that what you're saying?

MR. ANANIA: Right, okay.

MR. FARMER: Which one again?

THE CHAIRMAN: He's talking about (d)(1)(i).

MR. FARMER: (d)(1)(i).

THE CHAIRMAN: To be ---

MR. ANANIA: Reinstated.

MR. FARMER: No, (d)(1).

THE CHAIRMAN: (d)(1) and (d)(1)(i) to be reinstated. And to accept the use of double i over on the right.

MR. ANANIA: Right.

MR. FARMER: Are you taking into account number 2 down here too?

MR. ANANIA: We're going to get to that in a little bit because I want to make a comment on that, but I think two should be brought over also.

MR. FARMER: Okay. We're coming down to (d)(1) and (d)(1)(i) and (d)(1)(ii), as I call it. What we're saying here then: In such situations in which the methods described in paragraph (c) of this section are either not feasible or feasible to an extent insufficient to reduce the airborne

concentrations of asbestos fibers to not below the exposure limits prescribed in paragraph (.) of this section.

MR. ANANIA: That's paragraph c.

THE CHAIRMAN: Where are you now?

MR. ANANIA: Here on one (i).

MR. FARMER: Double i.

THE CHAIRMAN: I see what you're referring to. I think this is in opposition to what we've already approved and recommended, the main Committee approved a long time ago, which is four on page three, iv on page three.

MR. ANANIA: As you said, the full committee. We can do anything we want to about there but we're going to present it to the full Committee again, right?

MR. FARMER: Excuse me, Tom. If you take that double i and put it off again in this number two, because it doesn't tell us anything till we get down to the bottom. It says: The employer shall select and provide the appropriate respirator.

THE CHAIRMAN: You've got to go over to Table 1.

MR. FARMER: Table 1, right.

MR. ANANIA: Okay. The thing that I wanted to bring out here, Cliff, like I said, I'd like to see two, but they have no provisions here about respirators, a respirator program, where a guy's got a heard on this type of thing.

THE CHAIRMAN: Yes, we do

MR. ANANIA: Where?

THE CHAIRMAN: On page 5(d) in the middle, which is typewritten. Personal protection. 1. Employer shall not assign employees to tasks requiring the use of respirators based upon his most recent examination determines that the employee will be unable to function normally wearing a respirator, or that the safety and health of the employee or other employees will be impaired by his use of a respirator.

MR. ANANIA: What they're talking about here is pulmonary functions.

THE CHAIRMAN: But then we have to go further on.

MR. ANANIA: I didn't see it, but it may be here.

THE CHAIRMAN: Something to the effect that we -- Respirators shall not be put on a person where it won't function, like a hard hat, for example. They won't fit properly.

MR. ANANIA: No. I'm just raising the question. I didn't see in here where it made any provisions that if you're going to wear a respirator that there are certain types or there are certain things that you've got to -- certain rules that you've got to follow, and one of them, if a guy doesn't have a beard and this type of thing.

THE CHAIRMAN: It's not in there. It's in the respirator part of it.

MR. SELFFAN: Isn't that covered in 1910.134 b, d, e,

and 2?

MR. ANANIA: We're on 1910.

MR. FARMER: Well --

MR. STEFAN: You refer to it in paragraph a on page 5.

THE CHAIRMAN: Two is a misspell.

MR. ECKSTEIN: Harry F. Eckstein, Jay F. Atkinson Company.

We've gotten this kind of information in a letter from a doctor, telling us that an individual with a beard and somebody's bad emphysema, diabetes, and whatever, can't use a respirator, and when you refer to a written respiratory program and that letter from doctors included, like it is in the California standard, that comes in the letter from the doc, if you can find one that'll give you a letter, so that's where maybe it's included in this request.

THE CHAIRMAN: Tom, that's included in the respiratory. We discussed this. You brought this matter up when we were discussing in 1926, and I agreed with you.

MR. ANANIA: But should it be referenced then?

THE CHAIRMAN: Personal protective equipment has to fit. I've forgotten what exactly were the words we used, but it took into account all personal protective equipment.

In other words, respirators, airline masks, face masks.

MR. ECKSTEIN: One other point. Section (d)(1) doesn't make any allowance for a very short duration type of

something. But by giving a guy -- See, that's what I'm saying.

THE CHAIRMAN: That paragraph is in, so, if it works for you, even if you put this in, it's still there.

MR. ANANIA: You're going to give a guy a free hand.

THE CHAIRMAN: Are we going to put this in the respiratory deal, or are we going to keep it there?

MR. FARMER: I was reading through 1926.103 to see if it took care of what Tom had in mind.

THE CHAIRMAN: What do you mean, about beards and what have you?

MR. FARMER: Yes, the general statement. In emergencies or some other words.

MR. ANANIA: I can't find it, and I didn't find it in Subpart d.

THE CHAIRMAN: We're going to have to get Frank to dig it out.

MR. ANANIA: Okay.

MR. FARMER: On the motion that Tom did make to --

THE CHAIRMAN: Did he?

MR. FARMER: Did you make a motion?

MR. ANANIA: Yes.

MR. FARMER: Right.

THE CHAIRMAN: Nobody seconded it.

MR. ANANIA: Right.

MR. FARMER: Right. Do you have to second it before you talk about it? I don't know if I want to second it or not.

THE CHAIRMAN: You can talk about it if you want to.

MR. FARMER: Okay. I second it, with reservations, Tom.

In taking (d)(1)(i) and the double i there, I'm trying to make sense out of -- During the time period necessary to install the engineering controls and institute the work practices required by paragraph (c) of this section. Then we go in work situations again in which the methods prescribed in paragraph (c) of this section are either not feasible or feasible to an extent insufficient to reduce the airborne concentrations of asbestos fibers to or below the exposure limits prescribed in paragraph (b) of this section.

Then I'll drop down to the bottom of 2. The employer shall select and provide the appropriate respirator from Table 1, and ensure that the employee uses the respirator provided.

MR. ANANIA: I'm saying that's all good. The only thing we have is if we don't specify that guys with beards -- because it does on the other page here talk about pulmonary functions, but it doesn't specify. In other words, what we're saying here, the employer says, "Here's a respirator. It's the proper one. You wear it." But you've got a beard, so it really doesn't give you any protection.

MR. FARMER: The respirator is proper for what he's going

to be exposed to, but it may not be proper for his physique?

MR. ANANIA: Right.

MR. FARMER: Don't we use the word "appropriate" somewhere in here? I guess -- I think we do.

MR. ANANIA: It may be an appropriate respirator, but it doesn't say anything about --

MR. FARMER: In 1926 --

THE CHAIRMAN: All right, let's not belabor that. Let's get to the point of getting this -- Either we accept it or we don't accept it. We can get to your point later on. I'm sure that it's taken care of in another --

MR. ANANIA: If it's taken care of, that's fine.

THE CHAIRMAN: Because I remember the discussion.

MR. ANANIA: I only brought the point out. I move that we accept that like it is. Not like it is, but with the motion I made, and also include two in there.

MR. FARMER: I'll second that.

THE CHAIRMAN: ii, you mean?

MR. FARMER: And number two.

MR. ANANIA: And number two.

THE CHAIRMAN: Isn't that part of ii?

MR. FARMER: No. ii is part of one and then we have (d)(1), (d)(1)(i), (d)(2)(i).

THE CHAIRMAN: Are we going to go into this business here of specifying specific respirators, or are you going to

put that in the respiratory protective area? Is this different than it was before? Are these requirements different than the requirements we had before?

MR. SHORT: As I read it, Fred, all they've done is omitted the word "technically," the submission from the Health Group. They've omitted the word "technically" and ii and they've inserted the words down in the last sentence, "to or," and the word "exposure." That's the only change I see, and I'm not sure they changed the meaning.

THE CHAIRMAN: Well, one of the points that I'm making here is that this whole thing was knocked out because it was supposedly contained in the respiratory protection portion of the standard, and is it -- Is this different now? Is this respiratory requirement different? This business. You're going to Table 1.

MR. ANANIA: It is because I've never seen that before. Did OSHA come up with that?

MR. WARREN: This Table 1 is arranged as the standards completion project, is arranging their tables for respirators, and I don't know that there's any big difference between it and what was required, but it's written differently, and it's gone through their logic that they used to determine what respirator is to be used under the standards completion.

MR. ANANIA: For six keytones and this type of thing?

MR. WARREN: Yes, they're all subject to the same type of

logic, and the same kind of resulting table. So that's why it's written in this fashion, of whether it actually -- I think there's a little change from the previous. It was written in paragraphs here before, and there is a change, I think, also.

MR. FARMER: Bill, would this be the same proposal in the 1910, same table?

MR. WARREN: Yes. As I learned during the last break -- I'm learning these a little at a time -- this righthand column as written here was the draft proposal of Mr. Gilbert.

THE CHAIRMAN: Excerpted. It's not all there. It's only partially there. The whole draft isn't on this. It's just excerpted where it might apply.

MR. WARREN: I'm not sure. I thought that letter said it was all --

THE CHAIRMAN: No, no, just parts. He can tell you. Again, not all of it. I'm sure that document's much bigger than this one.

MR. WARREN: I've got his right here.

THE CHAIRMAN: It's been moved and seconded.

MR. ANANIA: There's one other thing that I wanted to say. We've got to stipulate here on my motion. We've got to stipulate down here that they do cover the beards, etc.

THE CHAIRMAN: Frank, we've got to find out if a revision in the respiratory or personal protective portion of where we

were -- Revisions were made under the 1910-26 standard that fit, because of beard, because of wide head, because of various problems with people, make a particular personal protective device inappropriate or nonfunctioning, if that's covered. Is it covered?

MR. MEMMOTT: Yes. We -- Fred may have to bring that forth on a vertical standard, but that is covered in 1910 because it is the full Ancy Standard.

THE CHAIRMAN: We had a discussion on that. I want to know if we had a revision somewhere, that is still approved.

MR. FARMER: I think, Mr. Chairman, can I interject?

MR. MEMMOTT: Excuse me, Bill, are you revising over in Health the respiratory protection?

MR. WARREN: The section 134 is not a revision.

MR. MEMMOTT: Is not?

MR. WARREN: We had considered it earlier. Right now, it's not being revised, but these tables, as a part of new standards, are different than the older arrangement.

MR. MEMMOTT: I think that answers the question, Fred. Bill Warren advises me that no, they are not revising the respiratory protection section.

THE CHAIRMAN: I'm not talking about 1910.

MR. MEMMOTT: I know.

MR. FARMER: The 1926 and 103, I think, will cover it.

MR. ANANIA: This one here? I've read the whole thing.

It just says "appropriate respirator," but that doesn't say anything about a guy with a beard. Sure, you can get a NIOSH approved respirator, but it doesn't say anything's going to protect him if he's got a beard out here. See, that's what I was --

THE CHAIRMAN: But it's not in the standard now, but it's in one of the revisions on the 1910-1926 --

MR. ANANIA: I thought we discussed it, Fred. I thought we did too, but evidently, it didn't make it into the --

THE CHAIRMAN: It wouldn't be here.

MR. ANANIA: It didn't even make it into here.

THE CHAIRMAN: None of them have made it into here yet.

MR. ANANIA: This is the latest one.

THE CHAIRMAN: The 1910-26 revisions are still kicking around someplace. They're not -- They haven't even been published, have they?

MR. ANANIA: Cee whiz. That should have been in here a long time ago when you first start writing about respirators.

THE CHAIRMAN: Let's not get into that. We're going to start talking about why are the tunnels dark.

MR. ANANIA: When you start talking about respiratory protection --

MR. MEMMOTT: Look. For the record here, and my own experience using self-contained apparatus and also respirators, each person in many cases has to be adapted to a particular

respirator. Even some manufacturers' fit one person better than another.

Is this not your experiance, Fred? How about you, Joe?

MR. SHORT: That's my experiance.

THE CHAIRMAN: How about you, Tom?

MR. SHORT: It's individual for the most part.

MR. MEMMOTT: That's right. We have different facial features.

MR. ANANIA: Sure, that's good for the respiration itself, but it doesn't say anything.

Well, anyway, with the exception of -- We'll find out what it does with the beards.

THE CHAIRMAN: Frank, would you make due note of that, please, sir?

MR. MEMMOTT: I certainly shall. In fact, I will give a call in the morning.

THE CHAIRMAN: It's been moved and seconded that we reinstate the personal protective equipment, one and one (i) and that we --

MR. FARMER: Two also.

THE CHAIRMAN: What two? We're talking about this two, aren't we?

MR. FARMER: No, this two.

MR. ANANIA: This one also.

MR. FARMER: This one isn't complete without this last

statement.

THE CHAIRMAN: All right.

MR. FARMER: So we have to have the two in there.

THE CHAIRMAN: All right. Let's do it in two ways. Will you move that we reinstate (d), personal protective equipment, one and (i), okay?

MR. ANANIA: One, one(i), two (i) and --

THE CHAIRMAN: No, no. One and one (i) because if you go to two (i), you're reinstating this.

MR. ANANIA: Reinstating what?

THE CHAIRMAN: That. Let'd do this in steps. Will you reinstate this much?

MR. ANANIA: Okay.

THE CHAIRMAN: Okay?

MR. ANANIA: Reinstate (d)(1) and(1)(i) under personal protective.

THE CHAIRMAN: Any second for that? We've gone this far. We're going down this far.

MR. FARMER: Okay, to there, but including this?

THE CHAIRMAN: No, we're not doing that yet.

MR. FARMER: Just to here?

THE CHAIRMAN: Yes.

MR. FARMER: Okay, I'll second that.

THE CHAIRMAN: Okay. All in favor?

(Committee responds.)

THE CHAIRMAN: All right. Now, make a motion to accept this.

MR. ANANIA: Move two (i) over and also Arabic two.

THE CHAIRMAN: Move to accept?

MR. FARMER: I'll second that.

THE CHAIRMAN: ii of the Health Section's recommendation and Arabic two of the Health recommendation. Any second to that?

MR. FARMER: I second that.

THE CHAIRMAN: All in favor?

(Committee responds.)

MR. ANANIA: Then we can make a recommendation to delete the last --

THE CHAIRMAN: No, no. It's already deleted as far as we're concerned.

MR. ANANIA: All right then.

THE CHAIRMAN: The rest of it's already deleted. We reinstated this part.

MR. ANANIA: Okay.

THE CHAIRMAN: That's why I want to do it in sections.

Does Table 1 go in here now? Where does Table 1 go, here?

MR. MEMMOTT: Yes.

MR. SHORT: Table 1 is --

THE CHAIRMAN: It on page 5a, 5b, 5a, 5b. Now, in

accepting two, are you including -- Well, let's make a motion to include this thing.

MR. ANANIA: Okay. I make a motion that we accept Table 1, respiratory protection for asbestos fiber, page 5a and 5b.

MR. FARMER: I'll second that discussion. I think I have a right. The same criteria which you presented on 1910, will be the same type of a table, on the righthand side that we're going to vote on?

MR. WARREN: Yes. At the moment, this is a very identical thing, draft proposal.

THE CHAIRMAN: Is there any further comment on the exception of -- on accepting table 1 on page 5a and 5b?

No comments. All in favor?

(Committee responds.)

THE CHAIRMAN: None opposed. Okay.

Now, we go back to page 5.

MR. FARMER: Mr. Chairman, this is going to be a vertical standard, with no references, as I understand it, to 1910.

THE CHAIRMAN: That's right.

The ii, establishment of a program, a and b, b and d are the same. And I don't think the standards can tell us to transfer a guy to a job that has the same pay. It's not their position. They're way out of line with that. That has nothing to do with safety.

MR. MEMMOTT: Bill, do you have any comments on that?

MR. WARREN: Well, I just know that that's a point we've discussed considerably, and I believe it's in the standard now, and it was decided to leave it in this draft proposal, but not all of us agree with that, but that's --

MR. MEMMOTT: It's in the existing?

MR. WARREN: I think it is, isn't it?

THE CHAIRMAN: We didn't move it over from 1910. I can tell you that.

MR. WARREN: On page 5, at the very bottom of the lefthand column, that's a copy of the existing standard on the left side, right, and you crossed out that one?

MR. FARMER: That was crossed out, excuse me, by the Subcommittee and the full Committee too.

MR. SHORT: Right.

THE CHAIRMAN: So, actually, what has already been accepted by the full Committee, this d is the only thing that should be left there. In other words, the vii, establishment of program, a and b are redundant, so we don't have to do anything if we don't want to on that.

Any comments?

MR. SHORT: My comments are the same as they were before. I appreciate the fact that they want to put in a safety standard wages and conditions, but I don't think it's appropriate.

MR. FARMER: Not on the safety.

MR. SHORT: And it'd be easy to give them the same seniority. Who in the hell has it in the construction industry anyway? But it's superfluous as far as I'm concerned, and I don't think it should be there.

THE CHAIRMAN: Okay.

MR. MEMMOTT: No. It's really a labor-management operation, contract.

THE CHAIRMAN: Okay, we'll leave the d, whatever. We're going to leave the d, personal protection, (1).

I don't know, is that (d) proper? Wall, you've got to figure the right number.

MR.MEMMOTT: We'll have to take care of that in-house.

THE CHAIRMAN: Personal Protection. 1. Employers shall not assign employees to tasks requiring the use of respirators if based on his most recent examination, an examining physician determines that the employee will be unable to function normally wearing a respirator or that the safety and health of the employee or other employees will be impaired by his use of the respirator.

MR. FARMER: I make a motion we accept.

THE CHAIRMAN: No, no. You don't have to do that. It's already in here.

MR. FARMER: How about this?

THE CHAIRMAN: We don't accept that.

You see, this, we have to accept. This and this, that's already there. This, we did. This was already done by the Advisory Committee.

MR. FARMER: On the national? Okay.

THE CHAIRMAN: And we're either reinstating or leaving it as is.

Yes, sir.

MR. BRADSHAW: Mr. Chairman, do we have a repetition there between 7(b) and 7(d)?

THE CHAIRMAN: Seven a and b are from the Health program or Health recommendation or Health proposal, which we would have to accept. We did not accept it. Okay? D is something that the full Advisory Committee has already put into the standard or recommended.

MR. BRADSHAW: Which really repeats just what we have about there on 7(b).

THE CHAIRMAN: But that's not something that's going to be in there. That's out. Okay?

MR. BRADSHAW: Okay.

THE CHAIRMAN: We're on page six now.

MR. SHORT: Mr. Chairman, wasn't there a motion to reject the Health recommendation?

THE CHAIRMAN: No, we don't have to vote to reject it. We have to vote to accept it.

MR. ARNOLOUS: But there was no motion to accept it.

THE CHAIRMAN: There was no motion to accept it.

MR. SHORT: All right.

THE CHAIRMAN: I mean that's the way I've been proceeding here.

MR. ARNOLDUS: That keeps it in the record.

THE CHAIRMAN: If you want me to do it another way, just speak up.

MR. ARNOLDUS: If we just note that there was no motion, then it's easier from the record to pick out from the transcriber.

THE CHAIRMAN: Well, just so we don't accept it. That's all.

Now, we come to page six, which has to do with clothing. Is there any comment on what's been renumbered to two?

MR. FARMER: Excuse me?

THE CHAIRMAN: Is there any comment on this two?

MR. FARMER: It says --

THE CHAIRMAN: It requires clothing --

MR. ANANIA: I move we accept that.

THE CHAIRMAN: No, we don't have to move to accept it. It's already in. We're just after comments.

MR. FARMER: We have the words: Any employee exposed to airborne concentrations, the employer shall provide and require the use of special clothes, such as coveralls, and/or body clothing, head covering, gloves, and foot coverings

for any employee exposed to airborne concentrations which exceed --

THE CHAIRMAN: This exceeds the ceiling level.

MR. FARMER: Okay.

THE CHAIRMAN: That's okay. No comments on that. How about this next one that's crossed out? Is that three?

MR. MEMMOTT: It looks like three to me, yes.

THE CHAIRMAN: Is this three over on the right, which is the Health Group's proposal, draft?

MR. ARNOLDUS: I think if you go to the next page, you will find that there are proposed revisions by the Health Group.

THE CHAIRMAN: This is something that the Advisory Committee added?

MR. MEMMOTT: Right. That's yours, Fred. That's typed out. Wherever it's typed, it's yours from the Advisory Committee before and then, of course, on the left, you know what that is.

THE CHAIRMAN: All right. Is there any comment on that?

MR. SHORT: Fred, even though we can't -- To me, I'm getting a little bit confused here. I'm not sure the numbering is correct, but I read the --

THE CHAIRMAN: Well, three on the next page. Six (a) has to do with three on page six, which is what we're talking

about now.

MR. SHORT: Okay.

MR. FARMER: Is that exactly what this said, we discussed here? This three over here? It seems to me I'm reading --

THE CHAIRMAN: No, it's different. There's something wrong with this whole bit over here. It doesn't make sense, if you read what is -- what the Advisory Committee recommendation was -- Three reads: Employees regularly exposed to asbestos dust in excess of the exposure levels described in paragraph (b) of this section shall be provided with a change room. Prescribed. Then over here it says, which would indicate you're taking on from there, place of employment, exposed airborne concentrations of asbestos fiber in excess of exposure limits prescribed in paragraph (b) of this section, the employer shall provide change rooms for employees working regularly at this place, would indicate to me that this three replaces all of this.

MR. ANANIA: No. This three here is what they're talking about.

THE CHAIRMAN: No, no, no. This three has to do with what we did, the Advisory Committee, this one. That's a straight line. That's what he says. This is the recommendation or the proposal of the Health Group on page 6a.

MR. ANANIA: Okay.

THE CHAIRMAN: It's departing somewhat from the format that we're accustomed to at the start of this document.

MR. MEMMOTT: Yeah. I think, Fred, wouldn't that show in Cliff's document from the meeting, when that was covered, to show whether -- I believe now that I look at this, three is special clothing, which is noted, two, and then change rooms would be four, which we include from the time of your recommendation for three. I believe that's a four there.

THE CHAIRMAN: I don't know about the numbers.

MR. MEMMOTT: But, Cliff, is that in your document?

MR. FARMER: This part where the three is special clothing. We said no and then we went to cancel out four since employees regularly exposed to asbestos dust by their work shall be provided with change rooms.

MR. MEMMOTT: That's the same as we have in this document.

MR. FARMER: Yeah.

THE CHAIRMAN: That's the same.

MR. FARMER: Required a change room.

That would be in the original document before the full Committee.

MR. MEMMOTT: Change rooms and clothing.

THE CHAIRMAN: This one?

MR. MEMMOTT: This one here.

THE CHAIRMAN: Okay. How about this one? Laundry.

MR. FARMER: A closet, container, such as, but not limited to a locker, bag, can, or bin shall be provided for the contaminated clothing of employees in order to prevent contamination of the employee's street clothese, from his workplace.

THE CHAIRMAN: Okay, that's been reworded, but it says the same thing.

MR. MEMMOTT: And that's the clothing portion.

MR. FARMER: Laundry over here.

MR. MEMMOTT: Yeah, and laundry.

MR. FARMER: This is the proposal.

MR. MEMMOTT: No, over here. I'd say that's out and this is what you recommend. I'd say the laundry is crossed out and the new laundry in five is in. That's on page 6.

THE CHAIRMAN: On page six. These items -- What we were doing here is correcting the work document so that it truly reflects what the Advisory Committee has done and so on, so then we've got these three items that, three, refer over to page six (a) for the Health Group's proposal to see whether this is something which we want to replace our three with. I don't think so. I don't think so. I think this is ours. Keep it.

MR. FARMER: Which one is that?

THE CHAIRMAN: This is ours.

MR. FARMER: Three and four are?

THE CHAIRMAN: No, three, four, and five are. On page six, three, four, and five are.

MR. FARMER: Okay.

THE CHAIRMAN: Now, when you come to page 6a, this special clothing bit, we're going to run head-on into trouble on the job if we say for any employee exposed to airborne asbestos. We've got to talk to the guys who are regularly exposed.

MR. ANANIA: Fred, can I ask a question?

THE CHAIRMAN: Yeah.

MR. ANANIA: On page six, item five, does that make any sense to you?

THE CHAIRMAN: I didn't really read it.

Does it make sense to you, Cliff?

That makes sense to that point, and shall be done so as to prevent the release of airborne asbestos fibers in excess of the exposure limits prescribed under paragraph b of the section.

MR. ANANIA: What the hell does that have to do with laundering,you know, that last part, laundering of --Where you come down to "shall be the responsibility of the employer," that sounds good, but laundering isn't going to prevent the release of airborne asbestos fiber.

MR. STEFFAN: It has to be done in such a manner as to prevent it.

MR. ANANIA: Laundering isn't going to prevent the release of --

MR. STEFFAN: It's going to cause it if you don't --

THE CHAIRMAN: I think it makes sense.

MR. STEFFAN: If you put it in the drier.

THE CHAIRMAN: It can be done.

MR. STEFFAN: Put the clothes in a drier and fan it into a room where people are working.

MR. ANANIA: I think that wording's going to have to be changed a little bit, but that just doesn't make a whole lot of sense. It sounds like the laundry --

THE CHAIRMAN: Well, it says it should be done to prevent. I don't know what kind of laundering system would be applicable here.

MR. WARREN: I think he's saying that it's really just a matter of wording, that it reads, that the laundering will prevent the level. What it really means is that the laundering will be done in a manner so that the laundering itself doesn't create these high levels.

MR. ANANIA: Or that the launderer doesn't become contaminated.

MR. WARREN: Or anybody else in the laundering operation.

MR. ANANIA: Okay.

MR. MENDONI: That's easy, Mr. Chairman. If that's being done at the site, I'm making an inspection, construction

construction site. Anyone that's involved in that activity at the construction site is covered, you know, by this regulation if he sends the contaminated clothing off to the city laundry, then that's under your 1910.

THE CHAIRMAN: All right. Now, we come to page 6a. Is there any reason to substitute these three for the three that's on page six?

MR. ANANIA: I see no reason.

THE CHAIRMAN: Is there any reason to substitute four for what's on page six, number six (b)?

MR. FARMER: How about (i)? Where do you want that?

THE CHAIRMAN: There's four and i. It's all one, isn't it?

MR. FARMER: Okay.

THE CHAIRMAN: And on page six (b), youhave b and c.

MR. ANANIA: I can see b. You have to inform that guy that's doing the laundry that those clothes are contaminated with asbestos so he could dress himself accordingly, and I think that's a requirement. Anything that contains asbestos has got to be labeled asbestos, right? So I move that actually we move (b), (4)(b) over under (5).

THE CHAIRMAN: You're talking about the (b) on top of page 6?

MR. ANANIA: On the top of page 6(b), right.

THE CHAIRMAN: Go ahead.

MR. ANANIA: And put it under (5)(b), or I mean make it a part of (5) on page 6.

THE CHAIRMAN: Well, you'd have to fix this. Why don't we -- Why don't you suggest this? Just take that first --

MR. ANANIA: Could you clean up those letters and numbers there, Frank?

MR. MEMMOTT: That'll all be taken care of in-house.

MR. ANANIA: I think (c) should be brought over also because here again, it tells you how you should transport this contaminated clothing.

THE CHAIRMAN: How much of (b) are you going to transpose? How much are you recommending?

MR. ANANIA: All of it, and then Frank's to clean up the letters and so forth.

THE CHAIRMAN: How about this: To effectively prevent the release?

MR. ANANIA: Oh, I see.

THE CHAIRMAN: Yes, sir?

MR. STEFFAN: I think that this is one of the places where you might refer to 1910, because the laundering problem --

THE CHAIRMAN: We can't.

MR. STEFFAN: The laundering will probably be under the requirements of 1910-1926.

MR. FARMER: But, Bill, some of the facilities

under construction --

MR. STEFFAN: That would be other than an employer's responsibility; but, if you sent it to a commercial laundry, it'd be under 1910.

MR. ANANIA: I make a motion, Mr. Chairman, that we add under (5) on page 6, 4(b), and read: Any employer who gives asbestos-contaminated clothing to another person for laundering shall inform such person of the requirements in paragraph (d)(3)(i)(a) of the section.

THE CHAIRMAN: Okay. And delete the rest of it, "to effectively prevent..."

Now, do you want to continue?

MR. ANANIA: And also I move that (c) should be brought over and placed under (b). Contaminated clothing shall be transported in sealed or closed containers impermeable to asbestos fibers.

MR. SHORT: Question. Don't we already have it on page 6 on the bottom on the lefthand side?

THE CHAIRMAN: Oh, that's right.

MR. ANANIA: Good. I didn't see that. Okay. So we can effectively forget about (c).

THE CHAIRMAN: So your motion reads that you want to bring (b) from page 6(b), which reads: Any employer who gives asbestos-contaminated clothing to another person for laundering shall inform such person of the requirements in

paragraph (d)(3)(1)(a) of this section, and we intend to make that (5)(1) or (2), whatever. Put it under (5) on page 6; is that correct?

MR. ANANIA: Yeah. But in looking at it now, it's already in here, under (2), but we have it crossed out over here. Any employer who gives asbestos-contaminated clothing to another person for laundering shall inform such person of the requirements of this subdivision. So, actually, we could just reinstate that.

THE CHAIRMAN: Okay. Why don't we just reinstate that.

MR. ANANIA: Reinstate that.

THE CHAIRMAN: Is that your motion, to reinstate?

MR. ANANIA: I'll make that motion now.

THE CHAIRMAN: What is it?

MR. ANANIA: That would be (2) -- Is that (3)?

THE CHAIRMAN: It's the second from the last paragraph on the lefthand side of the page, which reads: Any employer who gives asbestos-contaminated clothing to another person for laundering shall inform such person of the requirements in (a). This subdivision (2). Effectively prevent the release of airborne asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of the section.

MR. ANANIA: That isn't the motion. I wanted to take out after subdivision, period, to effectively prevent the release.

THE CHAIRMAN: Okay. Read your motion again and identify where you're getting it.

MR. STEFFAN: I think it would be much more helpful to the person that's transferring this equipment to the laundry to put in a statement of what he should say to the person. You know, just say, he shall notify him of the following, and then put in a statement.

THE CHAIRMAN: And if he doesn't do it exactly that way, he's citable.

MR. STEFFAN: Well, at least he's going to do it right. This way, geez, the guy's got to find (d)(3)(i)(a), which he'll probably never find, and he still won't know exactly what to say. If you say "or equivalent," it's not exactly, you know, but if you just make a simple statement that this material contains asbestos and it should be laundered carefully and so on.

MR. ANANIA: Where do you get "equivalent?"

MR. STEFFAN: It would be very helpful to the employer if he just told him what he has to say. Send a note along with the laundry to the laundry and just tell them what he has to tell them, and then he can just tear this thing out of the book and mail it with the clothes.

MR. ANANIA: I don't think that's our responsibility, is it?

MR. STEFFAN: Well, what the hell, responsibility, if it's

going to be helpful to the guy that's going to use the regulations.

THE CHAIRMAN: You could word it so that he shall inform such person that the clothing contains asbestos. That might be pretty workable, Tom.

MR. ANANIA: Who makes the statement though?

MR. FARMER: Make it part of the standard.

MR. ANANIA: Can we make that part of the standard? Can we put new words into the standard?

THE CHAIRMAN: Go ahead.

MR. MEMMOTT: Sure. That would follow suit, Fred, with 1926-21(b) that we were talking about this morning because that particular section places an obligation on the employer to advise you as an employee of any hazard that you may be exposed to, and, if it happens to be an asbestos fiber in clothing or whatever you're going to be handling, you have that obligation already, so to say how this is done, I see nothing wrong with that.

THE CHAIRMAN: All we need really say is that we shall inform such person that the clothing contains asbestos, free asbestos fibers.

MR. ANANIA: It's right there. We shall be informed of the requirements, so the guy's got to do it already. I don't understand what we're talking about. If I send you something, I've got to send you the requirement of how these

things have got to be laundered, evidently. That's what it says.

MR. MEMMOTT: Tom, I was thinking that you felt that this was important earlier today, that we do --

THE CHAIRMAN: You're right. He's got to go and tell him about what's required.

MR. ANANIA: Well, it already states it there.

THE CHAIRMAN: Okay.

MR. ANANIA: Doesn't it? I mean --

THE CHAIRMAN: I think you're right.

MR. SHORT: Sending him a note along with it. That doesn't relieve the contractor that's sending this clothing out to be laundered. I don't think that really relieves him of liability or the responsibility.

Going back to what Tom is saying, you have to be specific on what you tell this guy, and it's his responsibility then to find out what sections this is covered under.

THE CHAIRMAN: All right, Tom, go ahead. If I know your motion correctly, it is to take the second paragraph from the bottom and reinstate that portion which reads: Any employer who gives asbestos-contaminated clothing to another person for laundering shall inform such person of the requirements in (a) of this subdivision.

MR. ANANIA: Right.

THE CHAIRMAN: Is that seconded by anybody?

MR. FARMER: Where'd you stop on that one?

THE CHAIRMAN: I stopped right here.

MR. ANANIA: In fact, it's almost exactly the same.

MR. STEFFAN: What is (a) in this section?

MR. ANANIA: That's (d)(3)(I)(a).

THE CHAIRMAN: Huh?

MR. ANANIA: It's exactly the same thing as this.

THE CHAIRMAN: Where?

MR. ANANIA: Only they brought it out a little and the way it's --

THE CHAIRMAN: I see.

MR. ANANIA: The way the motion reads, exactly the same thing, except here we're saying "subdivision" and there, they're saying "section."

MR. STEFFAN: What is the employer required to notify the laundry?

MR. ANANIA: I don't know. I haven't read (d)(3)(I)(a). I haven't read it.

THE CHAIRMAN: I don't know where the hell it is now.

MR. STEFFAN: Where the hell is it?

MR. ANANIA: Let me look at the asbestos thing, part (g).

MR. STEFFAN: I mean it's not a trivial problem. Just think of the poor guy that's never seen the stuff before.

MR. FARMER: (d)(3)(I)(a). I must be getting tired. I can't find it.

MR. STEFFAN: You don't have any requirements on placarding and labeling in here?

MR. ANANIA: I'm sure there is, isn't there? On labeling. You have to label if it contains asbestos; it has to be labeled asbestos?

MR. MEMMOTT: (Nods yes.)

MR. ANANIA: I thought that was a requirement.

MR. FARMER: Even if we -- We're about on page 9 here, labeling specifications. Such labels shall be affixed to all mixtures, scrap, waste, debris, and other products containing asbestos fibers.

MR. STEFFAN: Why can't you just tell them to put that label on it, on a package of laundry?

MR. FARMER: For laundering purposes?

MR. STEFFAN: What more do you want to tell them?

MR. FARMER: I can't find (d)(3)(i)(a) and if I --

MR. ANANIA: Actually, if you look on page 23544, it talks about the laundering; and here again, you were right, Fred, it is. It says: Any employer who gives asbestos-contaminated clothing to another person for laundering shall inform the person of the requirement in (a) of this subdivision. Now, I suppose (a) is a definition. Asbestos includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.

MR. FARMER: Would there be a necessity for the

compliance safety, or for that employer who's going to give this to somebody to do the laundry, to tell him all the requirements? Wouldn't that be his responsibility as another employer to know the standards?

MR. ANANIA: Right. That's what I'm saying.

THE CHAIRMAN: Why don't you just have that -- Inform such person that the clothing contains free asbestos fibers?

MR. ANANIA: Or contains asbestos.

MR. FARMER: I'd sure buy that. I'll second that.

MR. MEMMOTT: That should do it.

THE CHAIRMAN: Read it that way now.

MR. ANANIA: Okay. Any employer who gives asbestos-contaminated clothing to another person for laundering shall inform such person that the clothing contains asbestos.

MR. FARMER: I'll second that.

THE CHAIRMAN: Any more discussion?

(No response.)

THE CHAIRMAN: All in favor?

(Committee responds.)

THE CHAIRMAN: Okay. It's carried. And we have that one that's already there, so we don't have to worry about that.

Now, we go to page 7, which (c) at the top of the page deals with measurement, and it reads: Method of measurement. All determinations of airborne concentrations

of asbestos fibers shall be made by the membrane fiber method at 400-450 times (magnification) and (4 millimeter objective) with phase contrast illumination.

And, if I'm correct, the Advisory Committee added: All such laboratory determinations shall be conducted by a qualified person.

And a qualified person is defined.

MR. FARMER: That's correct.

THE CHAIRMAN: Is there any reason to change that?

MR. SHORT: I move acceptance.

THE CHAIRMAN: No, we don't have to accept it. It's already there.

MR. FARMER: This one, the statement?

THE CHAIRMAN: Yeah. Is that approximately what you say in 1910, or what you propose to say in 1910?

MR. WARREN: I think it would be. I'm sorry, I didn't bring that page with me. My page 13 isn't here. I'll have to look at another source.

THE CHAIRMAN: Now, we're moving. We're not doing too bad.

MR. FARMER: This is for all of us, these two sheets here, from PG&E, to review the whole thing. It's a written statement.

THE CHAIRMAN: Jay?

MR. ARNOLDUS: Sir?

THE CHAIRMAN: Do you want to label this properly, whatever exhibit label? Are you doing this? And then we can put it in the record.

MR. ARNOLDUS: Do you want me to put it in tonight or --

THE CHAIRMAN: Tomorrow's all right. That's all right with you?

MR. FARMER: That's great.

THE CHAIRMAN: I don't have any comments on the method of measurement.

MR. WARREN: I can't find it, so I'll have to look in my standard.

MR. ANANIA: That's fine.

THE CHAIRMAN: All right. Unless there's some very disagreeable disagreement. Well, we'll leave it as is.

Now, under "Monitoring," it says under "monitoring," Every place of employment where employees may be exposed to airborne asbestos fibers shall be monitored in such a way as to determine whether every employee's exposure to asbestos fibers is below the limits prescribed in paragraph (b) of this section. If the limits are exceeded, the employer shall immediately undertake a compliance program in accordance with paragraph (c) of this section.

What the hell does that mean?

MR. SHORE: What it really means is that we'd better do something because he's going to be receiving a citation.

MR. FARMER: You're right.

THE CHAIRMAN: You know, this is the first time it's been put in this particular way. You monitor to find out whether it's below, not above.

MR. ANANIA: I wanted to add a couple of words there.

THE CHAIRMAN: Well, all right. This thing is up for discussion at the moment. If you have something you want to put there or want to add or detract, or what.

MR. ANANIA: What I was going to say: Every place of employment where employees may be exposed to airborne asbestos fibers shall be monitored to determine exposure -- to determine employees' exposure. That's what you monitor for. You don't monitor to see if they're low or high. You monitor for his exposure.

MR. FARMER: You monitor to insure that it doesn't exceed the maximum allowable limit. Isn't that right?

MR. ANANIA: No. You monitor to determine his exposure. Then you take measures, if he is above, to find out what you do. If he's below, you're okay. You don't have to worry about it.

THE CHAIRMAN: Well, do you want to leave in "if the limits exceed" or "exceeded" rather?

MR. ANANIA: Yeah.

THE CHAIRMAN: How is it going to read? How are you going to revise it to read?

MR. ANANIA: Okay. Every place of employment where employees may be exposed to airborne asbestos fibers shall be monitored to determine employee's exposure to asbestos fibers. Okay? Then if the limits are exceeded, the employer shall immediately undertake a compliance program in accordance with paragraph (c) of this section.

Let's see; that's way back here. So what I'm --

THE CHAIRMAN: Okay; is there a motion?

MR. ANANIA: Yes. I make the motion.

MR. STEFFAN: Let me make one comment.

THE CHAIRMAN: Let me get a motion and a second first, if I can get a second.

MR. FARMER: I'll give you a second.

THE CHAIRMAN: Okay.

MR. STEFFAN: Okay. You have every place of employment where employees may be exposed to airborne asbestos fibers. Now, this is kind of an open-ended requirement, because the asbestos fiber concentration in this room at this time is around a thousand fibers per cubic meter and the whole San Francisco Bay Area is about the same level, and every employee in the whole Bay Area is exposed to asbestos fibers all the time. And I think if you don't specify a level above which you're going to start requiring monitoring, you're kind of in a very strange situation.

MR. ANANIA: Well, if you had a level where they're

going to start sampling, then you're talking about an action level; and, if you're talking about an action level, you're talking about one fiber per cc.

MR. STEFFAN: That's what I'm talking about.

MR. ANANIA: So what you're saying is you're going to determine employees' exposure first.

MR. STEFFAN: Well, the way you would have to read this, if you know that the concentration of asbestos in this area is over a thousand fibers per cc and you read this thing, it would mean that every employee in this area would have to -- you'd have to monitor for asbestos, no matter where they were, whether they were working with asbestos or anything else. The whole area around here. The overburden is all serpentine and serpentine is full of asbestos.

MR. ANANIA: You've got a thousand fibers per cc in San Francisco?

MR. STEFFAN: Per cubic meter.

THE CHAIRMAN: He said cubic meter to start out with.

Do you want to make a comment?

MR. BRADSHAW: Don Bradshaw, NICA. I think we've just about eliminated asbestos from the construction industry. To be a little facetious, in this particular sector though, seriously, the major area is going to be the fireproofing. We've just about reached the point where the whole system is coming to a screeching halt and on a construction job, where

fireproofing is done, you get all crafts working on all different floors. You may isolate one or two floors and drape tarps around the outside of the building. Take San Francisco as a graphic example of many other cities. The wind blows through and carries the fibers and you are sending this out. And the gentleman here just made a general level comment of asbestos fibers for other reasons; but the way this is worded has really opened Pandora's Box. Number one, who is the employer on a construction site? There are several employers. Who's the employer who shall first determine what the concentration level is? Naturally, we assume it is the employer of the men who are using the asbestos fibers, but it says it shall be monitored where all employees are working, and they're going to be pipefitters, plumbers, laborers, asbestos workers, and carpenters, and all kinds of people working in this building, and you're going to get levels of asbestos fiber in many places in that building during the fireproofing spraying. It's just about said farewell to asbestos fibers in fireproofing with the regulation. Maybe that's what you want. But this is -- You've just about put the insulation contractor out of the asbestos business, period, and now goes the fireproofing, and I think we've just about reached the end of the road on that. I don't think the regulation here is going to be able to be administered at all.

THE CHAIRMAN: Well, you do have a good point. I think you have a great point, and I do not agree with this particular wording. Transite, for example, contains asbestos.

MR. BRADSHAW: Indeed.

THE CHAIRMAN: And Transite is in constant and general use throughout the land in construction and maintenance and other places, and it is generally used with saws to cut it which produces dust, which opposes people to asbestos fiber.

I would like to have a little more discussion on this thing and, before we get into it, take it home and rest with it.

MR. SHORT: I've got one comment I would like to ask since we're still on the question. I'd like to know how long does it take for -- if the monitoring is going to be done -- to do it. Do you have instant monitoring?

THE CHAIRMAN: No, we --

MR. SHORT: Then how can you -- I don't understand. You go out and you take your air samples and you send them off to the laboratory, and you get a five-week wait before you get the results back? Then it says: If the limits are exceeded, the employer shall immediately undertake -- Five weeks later, he undertakes a program to clean it up and the work probably has already been done.

MR. ARANT: You're assuming that everybody that takes a sample has got to send it away, and that's not true. You

know, you can institute your own program right at the site.

THE CHAIRMAN: We're talking about people who -- you're talking about people, Tom, in the business who have no way of buying the equipment, being able to pay for it, and then having a guy who's going to be able to do all of the things that are necessary to make a final accurate determination of what's there. You're not going to be able to pay this guy; you're not going to be able to handle the equipment, and it's not going to be economical for them to do it every once in awhile.

MR. ANAMIA: So it goes right back to the things we're talking about in the beginning. If you can't live with this, the guys have got to be protected some way, and we don't care how you do it, but I don't think that because you can't meet a two fibers per cc that that's any reason to expose them, so the hell with him and let him go on down the road and be exposed four or five other times down there. I'm concerned about workers' health. You guys are concerned about his safety.

MR. BRADSHAW: We're concerned about his health, have been for the past three years or longer, very much so.

THE CHAIRMAN: We wouldn't be here if we weren't concerned.

MR. ANAMIA: But it seems like you keep hollering about compliance, and you're going to drive everybody out of

business. The standard is there. All we've got to do is work around the standard. We did not set the standard at two. We didn't set it at five or ten, but it's there. You've got to work around it. If they say you can't expose a guy over two, then you can't do it.

THE CHAIRMAN: Well, damnit, you've got to make the monitoring system practical, and it isn't. You scientists have got to get together and get yourselves some good way of determining how many fibers per cc are in the air.

MR. ANANIA: That's kind of hard right now.

MR. STEFFAN: I'd like to speak to both of those aspects a little bit.

First of all, the practicality of it. It would require -- noise surveys and a lot of industries have formed together through associations they belong to to hire one person to do all of these noise surveys for the whole industry, and I don't see why similar things couldn't be done by the groups that are doing a lot of asbestos work. Get the association that they belong to to pay for one guy, charge them all a hundred dollars a year, and pay for his salary and get him a microscope and have him run samples for them.

You know, if you look at the thing positively, some of these things can be accomplished. I don't see how you're going to get out of monitoring and out of all the work practices and out of everything else. You know, you're going

to have to do something, unless you just want to say that everybody who works near anybody that's working with asbestos wear a respirator, and forget about all the regulations. But if you want to keep people out of respirators and use engineering controls and work practices, wetting transite when you cut it, or things like this, which are safe and don't need respirators, then you're going to have to prove it to some extent, and these things are not as impossible as everybody says. They're difficult. The nice thing about this standard is it is measuring the thing that's hazardous and it's measuring it directly. The old standard for asbestos used to be a dust counting standard, and it wasn't even looking at asbestos fibers. It was looking at whatever dust happened to be around at the time you were working with asbestos. At least, this one is specific for the problem and, if you've got a problem,you know it's a problem; whereas, before, you had a lot of talc dust and you'd be in violation of the asbestos standard because you had some asbestos thing.

We've talked to a number of people in the industry around here in the manufacturing business, manufacturing asbestos, who do their own dust counting, and we've done samples alongside them and counted them ourselves, and they've counted them, and we've gotten the same results. We've checked them out as being competent laboratories, and, you

know, it's not as impossible as it sounds, although I haven't seen anybody say that they can't be wondering at all --

MR. AMANIA: Plus I think it was you a while ago, Cliff, when we were talking about performance standard and work practices, where if you do enough sampling, like you say they hire a guy and he visits all these places, when they do a specific operation, he gets a lot of data and, statistically, they can say, "Okay, you have never met a two fiber per cc while you were doing that operation. Therefore, when you do it, you've got to put these people on respirators," and by the same token, you say, "Every time we've sampled, we've found we were below." You don't have to monitor." I think this is probably one of the ways you're going to have to go.

MR. FARMER: I think it's right inbetween, Tom. I know what Bill's saying and I do agree with what we talked about earlier; but, at this point, I'd like to think about it tonight, what the Chairman said; and let's start out with it in the morning, if it'd be all right with the Chairman.

THE CHAIRMAN: Okay.

MR. FARMER: Cause I think there's a lot of input that needs to be on this particular section.

THE CHAIRMAN: Okay. We stand adjourned at this point, until tomorrow morning at nine o'clock.

(Whereupon, the hearing in the above-entitled matter was

adjourned until Thursday, August 14, 1975, at nine o'clock a.m.)

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CERTIFICATE

I hereby certify that this is the transcript of the meeting of the Advisory Committee on Construction Safety and Health Asbestos Subgroup held on August 13, 1975, at San Francisco, California, and that this is a full and correct transcript of the proceedings.

CSA REPORTING CORPORATION

Sharon Ahrens