



Memorandum

February 21, 1984

TO: ORC Asbestos Task Force

From: Darrell K. Mattheis

Subject: Report of February 9, 1984 Task Force Meeting and
Announcement of the next Task Force Meeting

Next Task Force Meeting

The next meeting of the Asbestos Task Force will be on March 26, 1984 at ORC Offices in Washington D.C. The meeting will begin at 1:00 pm and last to approximately 5:00 p.m.

Purpose of the February 9, 1984 Meeting

The Task Force met to decide what kind of a response should be made to the OSHA Notice of Proposed Rulemaking (Draft) that had previously been distributed.

Defining OSHA's Intent

The draft NPR is so vaguely worded that it is difficult to determine just what OSHA has in mind. The NPR rather than outlining what OSHA intends to do, asks for comments at every critical juncture, and says that final action will depend on the comments that it receives! This format gives the agency almost complete freedom of action to do what ever it wishes, since in addition to the comments that they already have, they will receive additional arguments on both sides of every question asked. This will enable OSHA to shape its response to meet the demands of the moment, rather than be locked into a clearly outlined position.

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Given the fact that OSHA's risk assessment was developed with the assistance of Dr. Selikoff's group at Mount Sinai, and that labor, NIOSH and some environmental groups have pushed very hard for a PEL of 0.1 fibers/cc, it seems possible that with appropriate pressure, OSHA could be persuaded to lower the PEL to 0.1 fibers/cc. 

NPR At OMB (EARLY MARCH PUBLICATION POSSIBLE)

At the moment, OSHA seems to be committed to a PEL of 0.5 fibers/cc with reasonable flexibility allowed for the use of respirators. OSHA sent an asbestos NPR to OMB on February 10, 1984, and it is said to be very similar to the early draft released to the Construction Advisory Committee. The draft sent to OMB discussed 0.5, 0.2 and 0.1 fibers per/cc as a possible PEL. It is possible that the NPR will be published by the beginning of March 1984, as OMB has seen it already, and it is being handled on an "expedited" basis.

What Should Our Strategy Be?

To be most effective, we must be positive in our comments. If we wish OSHA to continue to support a PEL of 0.5 fibers/cc, it is important that we give the agency positive comments designed to strengthen the 0.5 PEL.

This does not mean that we cannot be critical of the risk assessment or other assumptions made in the document. Indeed, it is imperative that we take care to point out (in a positive way) that because of the very conservative assumptions made in the risk estimate, the number of actual cases of disease that may result from exposure to asbestos fibers in the modern working environment is likely to be significantly smaller than those in OSHA's risk estimate.

The Task Force should concentrate on those elements of the NPR where we have good data, or where we know that OSHA is weak. This means that we need to respond to individual elements of the risk estimate as well as many of the specific questions that OSHA is asking.

Responding To The Risk Estimate

The first thing we need to do here is to carefully read the OSHA ETS, because it contains a much more detailed discussion of their risk estimate than the NPR. Additionally, I will obtain a copy of the risk estimate that OSHA entered into the record and make this available to those who request it.

Several elements of the risk estimate lend themselves to immediate analysis: (1) The assumption of 45 years of exposure, and (2) The assumed exposure to a given level of asbestos fibers, 8 hours a day, 5 days a week. The 45 year assumption, which is key, can be attacked on a number of basis, including the known turn-over-rate in a number of major industries. (3) The number of workers exposed to asbestos fibers at concentrations above 2 fibers/cc is small (found mainly in businesses making asbestos products) and rapidly declining. (4) The great majority of those occupationally exposed to asbestos fibers have quite low, intermittent exposure. (5) The number of industrial plants with significant amounts of installed asbestos is steadily declining with time.

We need to collect data on the turnover rate in individual jobs or industries, on the known exposures, the amount of disease that actually has resulted, and critiques of the studies that were used as the basis for OSHA's risk estimate, and the number of industrial plants remaining with significant amounts of installed asbestos, as well as their rate of removal.

A useful tool for our comments on the OSHA risk estimate is an affidavit of Dr. Kenny Sherman Crump concerning the OSHA ETS. I am including that document with this report.

Another area of concern is that of friction products, since one of the major remaining uses of asbestos is in the production, installation, repair and replacement of brake linings and clutch facings. We need to collect as much as possible of the pertinent data published in this area, and where it is available, unpublished data that would assist us in making our case.

Preparing Our Response

We should re-submit to OSHA, and wherever possible in our comments answer by reference to, the ORC Recommended Revision of 1970.1001.

In our comments to OSHA we need to present data showing that the actual, as opposed to calculated, hazard at 0.5 fibers/cc is small, and that with appropriate measures, personal exposure levels should be much lower than 0.5.

The comments should emphasize that in general industry, where most of the potential exposure to asbestos fibers exists, exposures are low, intermittent, often not feasible to engineer out, and that in any case the individual is protected through the use of personal protective equipment.

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We need to make the point that in a practical sense, the quality of the protection received by the employee depends more on the quality of the safety and health program and its enforcement, than it does on setting a low PEL.

We need to find data to back up the point that for a high percentage of general industry exposure, the nature of the work being done makes the use of engineering controls almost impossible. Thus, most of the employees doing work where there is a potential for the release of asbestos fibers, will use a combination of work practices and respirators to prevent exposure to dangerous levels of asbestos fibers.

We need to make it clear that while we would like to keep the ambient levels of asbestos fibers as low as possible, it is often difficult to keep them below 0.5 while a job is being done. Thus the use of fit-tested, efficient respirators can and does reduce employee exposure far below 0.5 fibers/cc. We need to emphasize that it does not make sense to equate ambient air concentrations with employee exposure, and present data to back up that contention.

We need to comment on fiber type and industrial process as important determinants in the kind and amount of disease found among those exposed.

Our Time Is Limited!

We need to carefully read OSHA's ETS and NPR; Dr. Kenny Crump's affidavit, and we should look over the OTA paper. Then, as individuals, determine which of OSHA's questions we can best answer. We should begin this reading and selection process as early as possible, since once the NPR is published, we are only going to have 45 days to prepare and submit our written response.

What I Am Requesting

I would like to request that as you read over the questions that OSHA has asked, or as you contemplate the larger questions involved, you select a question or questions that you would feel comfortable answering, and write up your thoughts and bring them to the March 26 meeting of the task force. Once you have chosen a topic or question if you would give me a call to let me know what you have selected I would appreciate it. That way I can coordinate things so we have the most complete coverage of the questions.

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OSHA's Questions

Beginning on page 7 in the draft copy of their NPR OSHA lists 19 questions that cover, in a general way, the areas where they want some answers. These questions do not necessarily match those that OSHA asks in the course of the discussion. Thus it is important to carefully examine both sets of questions to determine what the agency really wants.

I have reproduced the initial 19 questions, (attached) and in the following, I list the questions OSHA asks in the course of the NPR discussion and the page they are on. I urge all to read the whole discussion however, because the intent of the questions becomes clearer in context.

Definitions

Page 28: "OSHA requests comments on how the nonasbestiforms or varieties of the mineral should be regulated. A change in definition would mean that the mineral fibers that are now regulated as asbestos under the OSHA standard would no longer be specifically regulated, but would rather fall into the nuisance dust category. OSHA requests and encourages public comments on whether the mineralogic definition of asbestos fibers should be used in OSHA's definition for protecting worker health. OSHA requests comments on how mineral fibers that are not asbestos in the mineralogic sense should be regulated.

page 28: "Another issue concerning the definition of asbestos is whether asbestos which has been chemically treated or altered should be regulated the same as untreated or unaltered asbestos."

Page 29: "Public comment is requested regarding whether asbestos that has been chemically treated and/or altered should be regulated to the same extent as other forms of asbestos."

PERMISSIBLE EXPOSURE LEVELS

Page 32: "OSHA believes however, that a PEL lower than 0.5 fibers/cc maybe desirable to reduce risk for any fiber type if measurable, and OSHA is encouraged that the British appear to have had success with the 0.2 f/cc limits for certain fiber types. OSHA requests comments on whether the scientific evidence is sufficient to support differences in the asbestos standard for some fiber types and whether such differences are feasible."

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ACTION LEVEL

Page 37: "Also, although OSHA recognizes the potential uncertainty of asbestos measurements at air concentrations below the proposed PEL, OSHA seeks comments on the question of whether measurement unreliability limits OSHA's ability to adopt an action level, and if so, how. Greater uncertainty may be tolerated at the action level than at the PEL. OSHA seeks comments on this issue." "OSHA requests comments on whether an action level should be adopted, and if so, what requirements it should trigger."

EXPOSURE MONITORING

Page 38 "OSHA requests data, information and comments concerning any changes that should be made in the monitoring provisions of the current asbestos standard."

REGULATED AREAS

Page 39: "OSHA anticipates that the regulated areas may be established at the action level. OSHA requests comments on whether this is appropriate, and what additional activities should be required or prohibited in the regulated area."

METHODS OF COMPLIANCE

Page 41: "OSHA solicits comments concerning the methods of compliance. The agency is particularly interested in receiving comments, information, data and other evidence concerning the extent to which respirators may provide effective protection against asbestos exposure and may be relied upon as a substitute for engineering or work practice controls."

Page 42: As an alternative to proposing a flexible compliance requirement for all asbestos workplaces, OSHA is considering a limited exemption from an engineering control requirement for intermittent exposure situations. "OSHA requests comments regarding the application of an exemption from engineering controls for intermittent exposures to asbestos and how it can be applied to the types of exposures in the affected industries." "In any case OSHA intends to maintain the existing requirement for engineering controls to reduce exposures to 2 f/cc. This will prevent massive release of asbestos fiber in the working environment."

PERSONAL PROTECTIVE EQUIPMENT

Page 44-45: "OSHA believes that advances in work practices since 1972 have reduced exposure levels in these operations

and therefore always requiring Type "C" supplied air respirators may no longer be necessary in all cases. OSHA is also considering whether other types of respirators should be required for this type of work. For example, powered air purifying respirators have become widely available since 1972 and may suffice under present conditions in the workplace. OSHA recognizes, also, that a reduction in the PEL will result in requiring improved respirator types at lower ambient air levels. OSHA requests information and comments regarding this issue and, in particular, whether it is practical to require the use of supplied air respirators.

MEDICAL SURVEILLANCE PROGRAM

Page 47: Although the current standard lacks clarity, by administrative interpretation and judicial decision, the medical surveillance provisions are not triggered at the 0.1 f/cc level. Included for discussion are whether:

- (a) The action level concept is appropriate for medical surveillance and what action level should apply;
- (b) The frequency of chest x-ray examinations should be decreased for young employees or employees with short duration exposures;
- (c) There should be a clarification of the time within which the employer must conduct preplacement examinations after hiring employees;
- (d) There should be any additional tests or procedures (such as use of questionnaires) for the purposes of early diagnosis of any disease, including asbestosis; and
- (e) There should be screening tests for colo-rectal cancer such as tests for occult blood in the feces; and (f) Only "B" readers should interpret x-rays.

METHODS OF MEASUREMENT

Page 49-50: "One issue raised in the record to date is whether phase contrast microscopy analysis is capable of reliable measuring airborne concentrations of 0.5 fibers/cc and less." "It may be possible that phase contrast microscopy errors can be reduced if improved and standardized procedures are followed, perhaps by adding requirements to the standard."

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"In revisions to the permanent asbestos standard, OSHA may, therefore, mandate technical training, laboratory certification, and laboratory participation in a round robin testing program. OSHA may require that laboratories receive passing grades in the program. Finally, OSHA is considering adopting verbatim or with modifications, the NIOSH analytical procedure (EX. 84-62), the procedures recommended by the AIA (EX. 86-002) or procedures of the kind described by Chatfield (EX. 84-319)."

"Comments on this issue and on regulatory language to be used in these provisions are requested. OSHA also requests technical comments on which analytical procedure provides the best results and whether OSHA should specify the procedure in the revised asbestos standard."

MEDICAL SURVEILLANCE PROGRAM

Page 51-53: "OSHA also has considered whether other analytical methods, in particular electron microscope analysis, should replace phase contrast microscopy as the required method for measuring airborne concentrations of asbestos. At this time, OSHA believes that it is not practical or necessary to modify its standard to require electron microscopy analysis instead of phase contrast light microscopy."

"OSHA requests information relating to the relative merits of the electron microscopy and phase contrast microscope methods, and to the feasibility and appropriateness of other methods of measurement for airborne asbestos fibers. OSHA also requests data on the statistical limits of measurements at the 0.5 f/cc, 0.2 f/cc and 0.1 f/cc levels and comments on whether OSHA should choose an action level which is more uncertain in terms of measurement than the PEL."

CLOSING COMMENT

These are the main questions OSHA is asking in the body of its DRAFT NPR. These questions, plus those listed initially represent a lot of work if we try to answer all of them, but I do not think we can answer them all in the time available. Again I want to remind you that we may see the NPR published by the beginning of March 1984.

Daniel H. Matthews

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