

PLAINTIFF'S EXHIBIT

CAP-1847

CAPCO PIPE COMPANY, INC.

Birmingham, Alabama

January 29, 1981

TO: Mr. E. A. Farrell

FROM: Mr. W. T. Whitley

SUBJECT: Cement-Asbestos Pipe Correspondence

Attached are some letters from our files that speak specifically to the use of A/C water pipe. These are very much in our favor and really represent the first times, to our knowledge, government agencies and water boards have made favorable comments regarding the use of A/C pipe. I am sure these will be of interest to you.

WTW/gj
Attachments



CAPCO JEN 0006814

FROM: CITY WATER BOARD 10/10/80
(Jack Mullen, Brooks & Associates, 227-3454)

Asbestos cement pipe used by the City Water Board in its water distribution system represents the least health risk to customers, according to a letter received by the utility from the Environmental Protection Agency's regional office in Dallas.

Replying to a request from Robert P. Van Dyke, CWB general manager, seeking EPA's opinion on acceptable water pipeline materials, Mac A. Weaver, the region's acting chief of water supply said:

"Extensive evidence indicates that in systems having an Aggressive Index (AI) greater than 12.0, asbestos cement pipe does not dissolve and thereby release asbestos fibers. Such material does represent the lowest health risk pipe material for non-aggressive waters according to the best information available to us at this time."

Van Dyke explained that using this Index San Antonio's water is classified as mildly aggressive to non-aggressive and is suitable for pipelines made of asbestos cement.

He said CWB will continue its investigation of materials being used in the utility's water distribution system to insure they meet all existing regulations and present the least health risk to water users.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

October 6, 1980

Mr. Robert P. Van Dyke
General Manager
City Water Board
1001 E. Market St.
P. O. Box 2449
San Antonio, TX 78298

Dear Mr. Van Dyke:

Thank you for your letter of September 16, 1980 requesting information on the health risks associated with various pipe materials.

The Environmental Protection Agency shares your concern. Studies are underway in the following areas:

- * Animal studies of health effects of ingested asbestos;
- * Corrosive effects of various water qualities upon asbestos cement pipe and other pipe materials;
- * Leaching effects of water on organic chemicals associated with various pipe materials.

There is also a question of the chemicals used in pipe processing. Organic chemicals can be part of the pipe composition, or a residue of a sealing or coating material. In addition to vinyl chloride, polynuclear aromatics, epichlorohydrin and polychlorinated biphenyls mentioned in the Region IV response paper, tetrachloroethylene, a carcinogen, has also been detected as a contaminant in vinyl lined asbestos pipe.

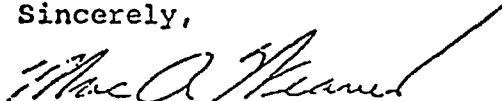
We agree with the opinions expressed in Region IV's response paper, but caution that it is difficult, if not impossible, for EPA to be aware of the consequences of all processes used by the many manufacturers of pipe materials. Additionally, these manufacturing processes change, and a pipe material which was unsuitable several years ago may be the best choice today due to changes in technology. The reverse could also be the case. It is hoped that pipe manufacturers are becoming more aware of the health effect ramifications of their materials and processes.

EPA has not established a list of approved pipe materials, but a major section of the August 27, 1980 Amendments to the National Interim Primary Drinking Water Regulations deals with corrosion control. We are enclosing a copy of these amendments for your information. Although you state that your source water is non-aggressive, I suggest you review the corrosion control section of the Amendments. There are several indices for determining the corrosive potential of waters. Extensive studies have shown that these indices are not conclusive indicators of corrosivity of all waters, due to complexity of the corrosion phenomenon and the differing corrosion mechanisms. Determination of the corrosivity is extremely important in selecting the best pipe material.

quote "Extensive evidence indicates that in systems having an Aggressive Index (AI) greater than 12.0, asbestos cement pipe does not dissolve and thereby release asbestos fibers. Such material does represent the lowest health risk pipe material for non-aggressive waters according to the best information available to us at this time."

I hope this information is helpful to you. Should you require clarification or more information, please contact Mr. Warren Norris, P.E., (214) 767-1762.

Sincerely,



Mac A. Weaver
Acting Chief, Water Supply Branch (6AWS)

Enclosure

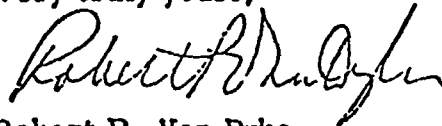
16 September 1980

Mrs. Adlene Harrison
Regional Administrator
Environmental Protection Agency, Region VI
First International Building
1201 Elm Street
Dallas, Texas 75210

Dear Mrs. Harrison:

The attached response paper from Region IV, United States Environmental Protection Agency regarding water pipeline materials is most informative. Water utilities are most perplexed in trying to select a pipe material that does present the lowest health risk. I would appreciate your review of this response paper and your confirmation that the opinions expressed do represent the present thinking of the Environmental Protection Agency. The City Water Board is presently reviewing our present practices to insure that the material being used for our water distribution system meets all the existing regulations and presents the least health risk to our customers. As you know, the City Water Board's source of supply is the Edwards Aquifer which is classified as a nonaggressive water and according to the response paper asbestos cement pipe should be the best selection. However, your comments regarding the opinions expressed in this response paper are requested to insure that an erroneous conclusion is not reached.

Very truly yours,



Robert P. Van Dyke
General Manager

Enclosure

OAB:ld

CAPCO JEN 0006818



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

335 COURTLAND STREET
ATLANTA, GEORGIA 30303

August 20, 1980

REF: 4W-MS

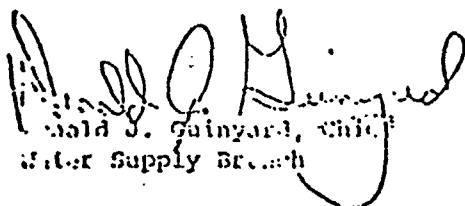
Mr. T.R. Williams, Superintendent
Water Division
Department of Electric and Water Utilities
P.O. Box 368
1060 East Parker Street
Lakeland, Florida 33802

Dear Mr. Williams:

Thank you for your letter of August 6, 1980, requesting information about various pipeline materials which are under consideration for the Lakeland distribution system upgrading. We have attempted to answer your questions in detail, expressing what, in our opinion, is the direction of the Environmental Protection Agency's thinking on these various materials for use in potable water application. The answers to your questions are enclosed as an attachment to this letter.

If I can be of further assistance in this matter please contact me.

Sincerely yours,


Gerald J. Guinyard, Chief
Water Supply Branch

Enclosure
Response Paper

CAPCO JEN 0006819

RESPONSE TO LAKE LAND FLORIDA QUESTIONS CONCERNING
POTABLE WATER PIPE MATERIAL

August 20, 1980

1. The agency has done no research into cement lined ductile pipe. The seal coat, applied in order to promote proper cure of the cement, is usually a petroleum based material obtained from the "bottom" of the distillation process. We have on record, in Region IV, one instance in which this coating material was found to be contaminated with low levels of polychlorinated biphenyl (PCB). The agency does not have the resources necessary to determine if contamination such as this occurs frequently. It is not expected to be the normal situation, but it is an example of a problem which might occur with this type of pipe.

Iron pipe lined with various types of coating material, other than cement, is also widely used in the water supply industry. Coating materials used are, coal tar derivatives, vinyl, epoxy and other types of resin based coatings.

The agency, in an ongoing study, has monitored water coming from a large water storage tank to which a coal tar coating was applied. More than twenty organic compounds which could be directly attributed to the coating material have been detected in the water. A number of these were polynuclear aromatic compounds (PAC). The health community has expressed concern about human consumption of PAC in general because several are known or suspected human or animal carcinogens. In the current study, even after more than two years of continuous use PACs are still detected in the water at approximately one tenth (0.1) the original concentration.

In a situation with a vinyl coated pipe material the solvent that was used to clean the pipe and thin the coating for application was found to be present in the water at the parts per million level. Studies looking for vinyl chloride in water from vinyl coated pipe have not been conducted at this time. Thus, the possibility for vinyl chloride contamination of water passing through such pipe is only conjectured.

The agency has expressed concern for the fact that many epoxy coatings use epichlorohydrin in their formulation since this compound has been determined to be a carcinogen. A study to determine if this material is present in water contacting epoxy coatings will need to be conducted in order to determine the significance of the agency's concern.

Many coating products have components for which the agency health effects personnel have concern when considering long-term human consumption even at very low concentrations because of their identification as known or suspected human or animal carcinogens. As indeed these same individuals have a similar concern for the long-term ingestion of asbestos fibers.

2. An agency study of installed polyvinyl chloride (PVC) pipe found low levels of vinyl chloride in the water after transmission through the main. Vinyl chloride has been linked with increased incidence of liver angiocarcinoma among the vinyl chloride industry employees. Both long-term and high level exposure to vinyl chloride has produced the same type tumors in laboratory animals. The National Academy of Science (NAS) assessment is that, vinyl chloride is a human and animal carcinogen. The NAS assessment of carcinogenic risk to the human population indicates that there would be a risk of one additional cancer per million persons consuming water containing 2.0 micro-grams per liter for a lifetime.

Other plastic materials have not received widespread use in the water supply industry for pipe diameters to which you refer; therefore, discussion of the appropriateness of their use in your system will not be addressed.

3. The aggressiveness of the water has no known affect on the leachability of chemical compounds from PVC pipe or the various coating materials previously discussed. The leaching process will occur, on a continuous basis, from the pipe or coating into the water based completely upon the laws of physical chemistry. The driving force for the transfer from the pipe or coating (organic phase) into the water is the difference in concentration for a given component in each phase. This force is independent of the aggressiveness of the water. On the other hand asbestos-cement pipe suffers dissolution of the cement in a chemical reaction in which the cement is dissolved releasing the asbestos fibers which is very dependent upon the chemical quality of the water, specifically its aggressiveness.
4. Since, as indicated previously, there are some health risks associated with use of most of the pipe materials in question, it would appear that selection should be toward the one in which the suspected health risk can be reduced or eliminated. Since the problem with the coatings is a leaching of contamination from the film into the water and independent of water quality, and the problem with the asbestos-cement pipe is dependent upon the water quality which can be (and in the proposed application will be) controlled through treatment, then it would appear that the pipe system with the least negative health effect prospects would be the asbestos cement pipe.

The chemical reaction between water and cement has been successfully stopped by two methods. One is the application of treatment which alters the aggressiveness of the water so as to make it nonaggressive (as defined by the equation for the Aggressive Index). The other is the addition to the water of a zinc salt which allows the formation of a zinc hydroxide precipitate on the pipe wall thereby establishing a protective barrier between the water and pipe.

Where treatment to adjust the water quality so that it is no longer aggressive is available, this is the best approach in controlling asbestos cement pipe degradation.

The health risk associated with use of any of the pipe systems discussed would indeed be very small. The general order of increasing health risk for nonaggressive water would be asbestos cement less than cement lined less than polyvinyl chloride, vinyl coated, epoxy coated, other resin base coated, with coal tar coated the greatest.

The fact that Lakeland has several hundred miles of asbestos cement pipe already in use should not influence the decision to use asbestos-cement pipe in the proposed project. What must be considered is how will the use of such pipe in this project impact the public health. From the proposal it is clear that the utility intends to use this pipeline to convey only stable nonaggressive water to its customers. Thus, the pipe would not degrade and asbestos fibers would not be present in the water and the public health would not be endangered.

The facts have been established by EPA studies that asbestos-cement pipe has been used across the United States for many years conveying nonaggressive water without the slightest indication of deterioration or asbestos fibers in the water. However, aggressive waters have been found in many places to cause pipe deterioration resulting in asbestos fibers in the water.

Lakeland's drinking water is of such quality that there is indication that asbestos-cement pipe deterioration has apparently already occurred in the 300 miles presently installed. The utility's plans for construction of a complete treatment facility, which will provide stabilized water that will put an end to further pipe deterioration, should be quickly accomplished in order to eliminate whatever asbestos fiber health hazard that may presently exist.



A/C Pipe
Producers Association

Copy: Bennett Staff
12-11-80
Internal Correspondence

TO: Public Affairs Committee
International Affairs Committee

FROM: *J. F. Welch*
J. F. Welch, Director, Public Affairs

DATE: November 12, 1980

SUBJECT: Field Problem - San Antonio, Texas

REF: Regulatory Affairs, Field Problems and Asbestos Research Report, October, 1980

ACTION REQUIRED: *Review for information and dissemination*

Enclosed is correspondence from the Acting Chief, Water Supply Branch, Environmental Protection Agency, Region 6 to Robert Van Dyke, General Manager, San Antonio Water Board describing the Region's position on the potential health risks of A/C pipe. This opinion is not dissimilar from that of EPA Region 4 (previously routed) in that it is stated that the use of A/C pipe in non-aggressive waters, i.e., Aggressive Index greater than 12.0, represents the lowest health risk of all pipe materials.

Also enclosed is a press release made by the City Water Board on receipt of the EPA letter.

Staff recommends that the Region 6 letter be disseminated to field sales personnel for use in counteracting field problems.

JFW/ajb

Enclosures

cc: A. Kahn, Esq.
N. Rahn, Esq.
B. Pigg (AIA/NA)
N. Battle (L&G)

copies to: Public Affairs Committee

H. Olson
I. Adams
B. Cook
✓ W. Perrell
J. Woods
J. Baker
T. Dougherty
D. Stinson
W. McCallie

International Affairs Committee

R. Dorner
E. Van Der Rest
B. Giboin
C. Walters
R. Hobbs
A. Saoulis
R. Jalan
V. Pattabhi
H. Hudson
C. Barton
S. Al-Tarkait

FP/1
Chrono



CAPCO JEN 0006823



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VI

1201 ELM STREET

DALLAS, TEXAS 75270

October 6, 1980

Mr. Robert P. Van Dyke
General Manager
City Water Board
1001 E. Market St.
P. O. Box 2449
San Antonio, TX 78298

Dear Mr. Van Dyke:

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The Environmental Protection Agency shares your concern. Studies are underway in the following areas:

- * Animal studies of health effects of ingested asbestos;
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There is also a question of the chemicals used in pipe processing. Organic chemicals can be part of the pipe composition, or a residue of a sealing or coating material. In addition to vinyl chloride, polynuclear aromatics, epichlorohydrin and polychlorinated biphenyls mentioned in the Region IV response paper, tetrachloroethylene, a carcinogen, has also been detected as a contaminant in vinyl lined asbestos pipe.

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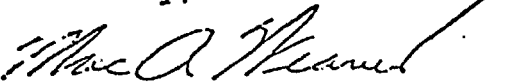
CAPCO JEN 0006824

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Sincerely,



Mac A. Weaver
Acting Chief, Water Supply Branch (6AWS)

Enclosure

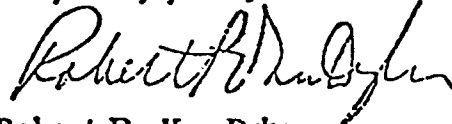
16 September 1980

Mrs. Adlene Harrison
Regional Administrator
Environmental Protection Agency, Region VI
First International Building
1201 Elm Street
Dallas, Texas 75210

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Very truly yours,



Robert P. Van Dyke
General Manager

Enclosure

OAB:ld

CAPCO JEN 0006826

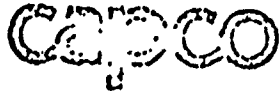
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Van Dyke explained that using this Index San Antonio's water is classified as mildly aggressive to non-aggressive and is suitable for pipelines made of asbestos cement.

He said CWB will continue its investigation of materials being used in the utility's water distribution system to insure they meet all existing regulations and present the least health risk to water users.



CAPCO PIPE COMPANY, INC.—A Subsidiary of ASARCO Incorporated
1400 Twentieth Street, South • P. O. Box 3435 / Birmingham, Alabama 35255 • Phone 205 • 933-7281

CARL D. WOODWORTH
General Sales Manager

October 14, 1980

Mr. William Gillespie
City of Gastonia
Post Office Box 1748
Gastonia, North Carolina 28052

Dear Bill:

Per your request, I have attached a copy of "A/C Pipe and Health" which should answer any questions you have. I have also attached a copy of a recent letter from the EPA Division IV which put out an opinion on pipeline materials for Lakeland, Florida when a concern was raised over asbestos and water.

If you have any further questions, please do not hesitate to call.

Yours very truly,

A handwritten signature in cursive script, appearing to read 'C. B. Woodworth', written over a horizontal line.

C. B. Woodworth

CBW:mf

Attachments

bcc: Mr. A. B. Stapp II

Quality Piping Materials

CAPCO JEN 0006828



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30308

August 20, 1980

REF: 4W-WS

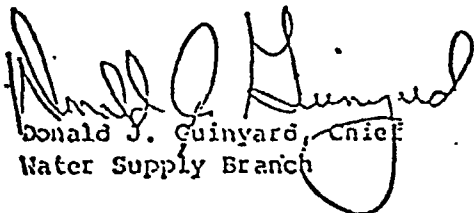
Mr. T.B. Williams, Superintendent
Water Division
Department of Electric and Water Utilities
P.O. Box 368
1000 East Parker Street
Lakeland, Florida 33802

Dear Mr. Williams:

Thank you for your letter of August 6, 1980, requesting information about various pipeline materials which are under consideration for the Lakeland distribution system upgrading. We have attempted to answer your questions in detail, expressing what, in our opinion, is the direction of the Environmental Protection Agency's thinking on these various materials for use in potable water application. The answers to your questions are enclosed as an attachment to this letter.

If I can be of further assistance in this matter please contact me.

Sincerely yours,


Donald J. Guinyard, Chief
Water Supply Branch

Enclosure
Response Paper

CAPCO JEN 0006829

RESPONSE TO LAKELAND FLORIDA QUESTIONS CONCERNING

POTABLE WATER PIPE MATERIAL

August 20, 1980

1. The agency has done no research into cement lined ductile pipe. The seal coat, applied in order to promote proper cure of the cement, is usually a petroleum based material obtained from the "bottom" of the distillation process. We have on record, in Region IV, one instance in which this coating material was found to be contaminated with low levels of polychlorinated biphenyl (PCB). The agency does not have the resources necessary to determine if contamination such as this occurs frequently. It is not expected to be the normal situation, but it is an example of a problem which might occur with this type of pipe.

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In a situation with a vinyl coated pipe material the solvent that was used to clean the pipe and thin the coating for application was found to be present in the water at the parts per million level. Studies looking for vinyl chloride in water from vinyl coated pipe have not been conducted at this time. Thus, the possibility for vinyl chloride contamination of water passing through such pipe is only conjectured.

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A/C Pipe
Producers Association

Copy: Bennett Stapp
12-11-80
Internal Correspondence

to Public Affairs Committee
International Affairs Committee

FROM J. F. Welch
J. F. Welch, Director, Public Affairs

DATE: December 2, 1980

SUBJECT: Environmental Protection Agency - Region 6 Letter on A/C Pipe

REF: JFW correspondence, "Field Problem - San Antonio, Texas," November 12, 1980

ACTION REQUIRED: *Review for information and dissemination*

Enclosed is additional correspondence from the Water Supply Branch of Environmental Protection Agency Region 6 explaining its position on A/C pipe. This letter, provided to Staff by the San Antonio Water Board, appears to be written to a concerned citizen.

This second letter is, in Staff's judgment, even more positive in tone than the letter to the San Antonio Water Board. Not only does the author reaffirm the nonsubstitutability of asbestos in A/C pipe, but also states:

No conclusive scientific evidence has yet linked gastrointestinal cancer incidence with ingestion of asbestos through drinking water.

Staff recommends that the Region 6 letter be disseminated to field sales personnel for use in counter-acting field problems.

JFW/ajb

Enclosures

cc: A. Kahn, Esq.
N. Rahn, Esq.
N. Battle (L&G)

copies to: Public Affairs Committee

H. Olson
I. Adams
B. Cook
✓ W. Perrell
J. Woods
J. Baker
T. Dougherty
D. Stinson
W. McCallie

International Affairs Committee

R. Dorner
E. Van Der Rest
B. Giboin
C. Walters
R. Hobbs
A. Saoulis
R. Jalan
V. Pattabhi
H. Hudson
C. Barton
S. Al-Tarkait

HEGA/1
Chrono



CAPCO JEN 0006833



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

October 30, 1980

Marilyn Rife
101 Arcadia Place, #310
San Antonio, TX 78209

Dear Ms. Rife:

Thank you for your letter of October 2, 1980. We share your concern with reports of asbestos in drinking water.

The Environmental Protection Agency (EPA), Region 6 office, has been in communication with the Texas Department of Health, the Edwards Underground Water District, and the City Water Board of San Antonio since reports of asbestos in San Antonio's water began. We have also consulted with our own EPA research and health effects laboratories and our technical support division.

Based upon our findings, we do not believe the citizens of San Antonio are subject to any measurable health risk from asbestos in their drinking water.

There are two possible sources of asbestos in San Antonio's water. These are from naturally occurring sources in the ground water, and asbestos fibers from the asbestos-cement water pipe.

In our communications, the Edwards Underground Water District has confirmed that portions of the Edwards Aquifer have asbestos-bearing rock formations which yield small amounts of asbestos to the ground water. Present scientific information does not indicate that these levels represent a significant health risk. However, water samples of the source ground water in the San Antonio municipal water supply do not indicate the presence of asbestos.

The second possible source is asbestos-cement pipe. Asbestos-cement pipe has been widely used throughout the United States for over 40 years. Its advantages are high strength, relative low cost compared to other materials, and resistance to soil corrosion. This high strength results from asbestos fibers mixed in the cement which act as reinforcing agents in the hardened concrete. Despite extensive research, no satisfactory substitute for the asbestos in the compound has been discovered.

When asbestos-cement pipe is used to transmit highly corrosive waters, deterioration of the concrete can occur, releasing some of the asbestos fibers. Asbestos-cement pipe has been the subject of extensive studies, and these indicate that noncorrosive source waters such as found in San Antonio, do not attack asbestos-cement pipe, and no fibers are released.

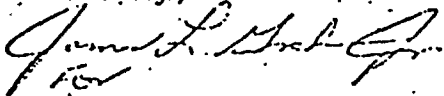
CAPCO JEN 0006834

San Antonio recently conducted tests to determine if a commonly used method of drilling and tapping for new connections released asbestos particles into the water. Samples taken during this testing confirmed the release of fibers and the method of drilling and tapping has been changed so that these particles are prevented from getting into the water. Subsequent tests show no detectable levels of asbestos in the water.

Because of the acknowledged health problems related to asbestos inhaled and/or ingested by workers in occupational exposure, it is natural for people to extend this concern to other exposures. EPA and the scientific community have felt that extensive study is justified to determine if there is a level at which asbestos in drinking water might represent a measurable risk to public health. No conclusive scientific evidence has yet linked gastrointestinal cancer incidence with ingestion of asbestos through drinking water.

I appreciate your concern for public health protection. Please be assured that we will continue to stay in touch with the agencies involved in maintaining the quality of water in the San Antonio area, and we will advise them of the continuing research findings both in our own agency and the scientific community at large.

Sincerely,



Mac A. Weaver, Acting Chief
Water Supply Branch (6AWS)

cc: C. K. Foster, P.E.
G. H. Schervitz, Jr., P.E.
Thomas P. Fox
Robert P. Van Dyke ✓
U.S. Environmental Protection Agency
Washington, D.C. 20460
Water Supply Staff



Letter to J. F. Welch
**A/C Pipe
Producers Association**

Internal Correspondence

Public Affairs Committee
TO International Affairs Committee

J. F. Welch
FROM J. F. Welch, Director, Public Affairs

DATE: February 4, 1981

SUBJECT: Philadelphia, Pennsylvania - Television Program on A/C Pipe

ACTION REQUIRED: *Review for information*



On January 7, 1981, Lewis & Gilman reported that Certain-teed Corporation had been approached by WPVI (ABC)-Channel 6 Philadelphia to participate in a series of broadcasts on asbestos in drinking water. Certain-teed declined participation on the basis that it would be more appropriate for AACPP to appear on the industry's behalf. Lewis & Gilman recommended that AACPP Staff be interviewed for the program since it would be broadcast in any event and it would be more desirable to put forth the industry's position on the safety of A/C pipe. It is probable that WPVI's interest in this subject resulted from either a series of consumer advocate articles on asbestos in Philadelphia area schools or the Ocean County, New Jersey field problem. An article in the Ocean County Reporter (Attachment 1) claims credit.

On January 7, 1981, the President was interviewed for approximately 25 minutes by WPVI reporter Jim O'Brien. The interview was simultaneously video-taped by a firm retained by Lewis & Gilman. Tapes of the broadcast also were obtained by L&G.

The three part series, entitled "Trouble in the Tap," aired on the 11:00 p.m. "Action News" program January 12, 13 and 14. The comments conveyed to Staff by industry viewers suggest that the impact of the program was negative. The reporter characterized A/C pipe as a controversial product about which much is unknown. Officials from EPA (Jim Millette), the Fox Chase Cancer Center and private water utilities also were interviewed. As expected, their respective views on safety of A/C pipe fell into the classic pigeon holes. AACPP's comments on air were related to explaining the ban in Connecticut and the release of potentially toxic substances from other pipes.

The last part of the series listed sources of information on asbestos and drinking water. L&G was successful in having AACPP's address and telephone number shown along with that of the Fox Chase Cancer Research Center. If viewer response is a valid barometer of public concern then the series may not be as negative as perceived. AACPP received only four telephone calls and one letter. Moreover, a discrete call to Fox Chase Cancer Center revealed that it was advising the public that there is no evidence that asbestos in drinking water is dangerous.

CAPCO JEN 0006836

It also is likely that the series resulted in the publication of a news article (Attachment 2) in the Burlington County (New Jersey) Times.

If you have any questions, please do not hesitate to call.

JFW/ajb

cc: A. Kahn, Esq.
N. Rahn, Esq.
M. Greenberg, Esq.
N. Battle (L&G)

copies to: Public Affairs Committee

H. Olson
I. Adams
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J. Baker
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D. Stinson
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International Affairs Committee

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FP/1
Chrono

Philadelphia TV airs asbestos alert

"Trouble at the Tap," a three-part news series broadcast by WPVI, Channel 6 in Philadelphia, has alerted thousands of television viewers in the Delaware Valley area of the potential health problems posed to humans by asbestos - cement pipes when they are used to convey corrosive drinking water supplies.

Following the lead of investigations being conducted in Ocean County,

WPVI proceeded with an independent search for information about the controversial asbestos-cement pipes.

Eric Schoenfeld, producer of the special series, said the station was not trying to frighten its viewing audience by presenting the unanswered questions about the dangers of ingested asbestos to human beings.

Schoenfeld said that right now, he personally, is

not worried about drinking water supplied through asbestos - cement pipes. He does not believe, however, that we should adopt the philosophy that no one has proven there is any positive danger, therefore nothing is wrong, as stated in part two of the series by a representative of the Asbestos - Cement Pipe Manufacturer Association.

In part three of the series this week, WPVI told viewers that the primary bur-

den for protecting drinking water supplies will fall on the water companies because standard home filters have no effect on microscopic asbestos fibers.

Environmental Protection Agency officials told Channel 6 that water companies, in addition to adding lime to water to make it non - corrosive, can re-line the inside of pipes to prevent asbestos fibers from entering the water supply.

No 'proven' risk

Are asbestos pipes harmful?

By MARK S. GURALNICK
Of the BCT Staff

Major water utilities serving Burlington County rely partly on underground pipes made with asbestos, a known cancer-causing agent. And a special scientific formula which would determine the risk of drinking that water shows, in fact, that most of the water companies fall within the danger zone.

However, while the risk exists theoretically, there is no proof that any asbestos has ever leached into any local water system. What's more, there is no medical evidence that anybody has ever contracted an asbestos disease from drinking water.

The pipes, which have recently become the focus of widespread media coverage, are known as A-C pipes. The initials stand for the two key components—'asbestos and cement. Most A-C pipes also contain sand, known in the industry as silica.

About ten percent of the Medford Water Company's piping system is A-C Pipes. The Mount Holly Water Company is 30 percent A-C Pipes, and the New Jersey Water Company is about 8 percent. The Lake Valley Water Company, serving 28 apartment buildings in Pemberton Township, uses all A-C pipes.

Scientists say it is possible for the asbestos to flake off the inside of the pipes and travel through the system to home water taps if the acid content in the water becomes too high.

When the water becomes acidic, it becomes aggressive, in water company terms. Aggressive water can cause pipes to deteriorate.

Scientists have developed a complex formula to determine the aggressiveness of the water one drinks and to determine thereby if he is running the risk of asbestos deterioration in the pipes.

Since asbestos fibers are minute and often invisible, the average homeowner could not determine the potential purity of his water without this formula or some kind of microscopic analysis.

The main factor in the formula is the pH of the water. The pH refers to how acidic the water is and is measured on a scale of 0 to 14. A pH of 1 is highly acidic. A pH of 14 is "basic," meaning the water contains a high alkaline content. A pH of 7 is neutral. Many people purchase pH-7 based shampoos because of the favorable effect it has on their hair texture.

In this region, the pH of well water is normally 6.2 or slightly acidic. So, to increase the pH, water utilities often feed caustic soda or lime into the piping system.

The New Jersey Water Company, for example, pumps caustic soda into the system to raise the pH to 7.2.

There are two other key factors in the formula. The first is the alkalinity. The second is a number assigned to the hardness of the pipe. The alkalinity is multiplied times the hardness number. Then the logarithm of that product is determined. A logarithm is the exponent indicating the power to which ten must be raised to get the number in question.

Once that number is determined, it is added to the pH to determine if the water is aggressive or not. If the sum falls between 6 and 10, the water is considered highly aggressive. Between 10

and 12, the water is aggressive. Above 12, the water is non-aggressive, and the risk of contamination is minimal.

By using this formula, the Burlington County Times has determined that several water utilities serving the county fall between 10 and 12—the aggressive zone.

For example, the Medford Water Company, which serves some 1,800 customers north of Tuckerton Road in Medford Township, has a pH of 7.5, according to the plant operator, Bill Fearn.

The alkalinity of the company's water equals 90, and the hardness of the pipes equals 32. The product of those two factors multiplied together is 7,380. The logarithm of 7,380 can be rounded to 3.9. When 3.9 is added to the pH (7.5), the answer is 11.4. That means the Medford Water Company's water, using this formula, falls within the aggressive zone.

The same holds true for the New Jersey Water Company, which rates 11.1 on the aggressiveness scale, and the Mount Holly Water Company, which rates 12.

These statistics alone would suggest that many utility customers in Burlington County are consuming water which is possibly aggressive enough to deteriorate the insides of the pipes through which it travels.

However, the pipe manufacturers, utility companies and medical researchers argue that there is little, if any, proven risk.

For example, the New Jersey Water Company in Palmyra uses a chemical sequestering agent known as sodium hexamete phosphate. Tanks of this compound are stored inside the Cooper Street station in Edgewater Park—among other places—where they are pumped into the water supply to hold the iron and manganese particles in suspension.

By doing so, the iron and manganese won't oxidize and the water won't turn to another color.

The process also makes the water less aggressive, according to Kenneth Wrang, the manager. But he said that since the scientific formula doesn't factor in the effect of the sodium compound, people may think the company's water is more aggressive than it really is.

The Mount Holly Water Company, a wholly-owned subsidiary of the Elizabethtown Water Company, has been using A-C Pipes for 40 years. About 30 percent of the company's system has Transite pipes, the trademark for Johns-Manville Company's A-C pipes.

"You'll find a great many places, Willingboro and a lot of other areas, have used asbestos pipes," explained Arthur Cross, president of the company. "There's never been any proven bad effects from the use of the pipes themselves. We keep our pH between 7.8 and 8 all the time."

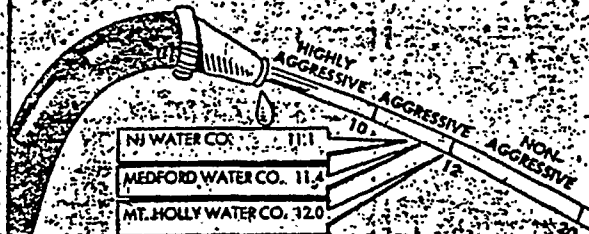
Cross said that monthly chemical analyses of the company's water supply have revealed no asbestos content whatsoever.

The Lake Valley Water Company, which serves 450 units in 28 apartment buildings in the Lake Valley section of Pemberton Township, has been using all A-C pipes since the system was built between 1958 and 1970. John Stroka, the

SUNDAY, JANUARY 18, 1981

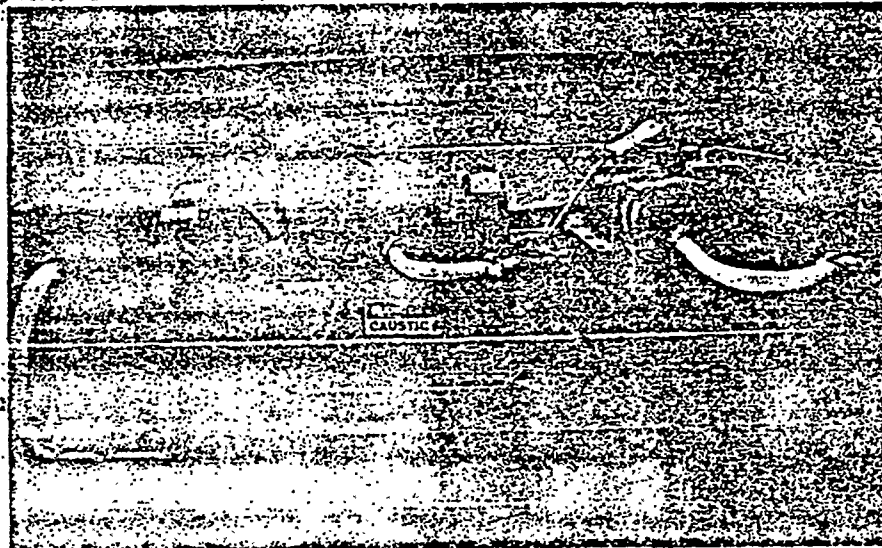
Caustic soda, pumped into local water supplies through this equipment (below) at the New Jersey Water Company's Cooper Street station in Edgewater Park, raises the pH of the water and decreases the risk of deterioration of asbestos pipes.

HOW PURE IS YOUR WATER?



Scientists determine the purity of water through a formula known as the aggressive index (explained in story). If the index falls below 10 the water is highly aggressive, between 10 and 12 they are aggressive, and above 12 they are non-aggressive. The NJ Water Co. reported an average of 11.1, which would fall within the aggressive zone. However, the company claims that the water is not aggressive because of a special treatment fed into the system to control other elements in the water.

BCT CHART BY STEVEN ADAMS



BCT Photo by Cindy DeSan

company president, said he didn't know the aggressive index of his water or any of the factors to the formula. However, he said, "We don't have any aggressive waters."

The New Jersey Department of Health has conducted no studies to determine the aggressiveness of water, and if, in fact, aggressive water has resulted in health hazards, according to Amy Schemella, a spokeswoman.

No other state agency has disclosed any hazards — if there are any — or promulgated any regulations on permissible aggressivity levels.

Consequently, the data available to the public is derived from the utility companies themselves.

But even if the information were inaccurate, there is no medical proof that anybody has taken ill as a result of aggressive waters traveling through asbestos pipes.

"I'm astounded at some of the inaccuracies that are being published," claims Neal Amarino, a spokesman for Johns-Manville in Chicago. "It's a very involved subject."

McCallie pointed out various scientific studies which have failed to draw a correlation between stomach cancer and urinating water. But he admitted, "There is no jurisdiction in the world and certainly not in the United States that limits either the amount of asbestos that can be in the water or the asbestos flowing through the pipes."

He stressed that the formula to determine aggressiveness has "nothing to do with health." It deals with the durability of the pipe. However, others

charge that a deteriorated pipe poses a potential public health problem.

McCallie claims there has never been a demonstrated health risk from asbestos in pipes, but points out that if the water is aggressive, "it will eat copper pipe, iron, copper fittings and iron fittings."

CertainTeed Corporation in Valley Forge is another major producer of A-C pipe used by local water companies. A fact sheet printed by CertainTeed claims "A/C pipe is safe to use" and adds, "There is no evidence that anyone in the general public has ever contracted any disease from naturally occurring asbestos found in most water systems."

Three key epidemiology studies have also failed to prove any risks:

- In 1976, the American Journal of Epidemiology reported the findings of a study of Duluth, Minn. In the article entitled, "Investigating Possible Effects of Asbestos in City Water," the Journal reported that where as much as 600 million fibers per liter of an asbestos-like mineral were present in the water, no carcinogenic effects were apparent after 17 years.

- In Canada, a study of 22 towns with high concentrations of naturally occurring asbestos in the water failed to reveal any excess cancer attributable to the water.

- In Connecticut, a study funded by the Environmental Protection Agency concluded there were no changes in incidence rates for cancer of the stomach, colon or rectum between 1935 and 1973 — even though in 1950 A-C pipes

were introduced into many of the water systems.

To date, only one study has come close to placing blame on A-C pipes for gastrointestinal cancer rates. The study was performed in the San Francisco Bay area by Dr. Robert Cooper and his student, Marty Kanarak, of the University of California. The results pointed out a weak statistical correlation.

"The significance of the Kanarak study is greatly disputed in academic circles," said McCallie of Johns-Manville. "Some have declared it totally invalid because it failed to take into consideration the urban density factor, the fact that San Francisco is a dense city."

A magazine entitled California Builder & Engineer claims the entire question being studied is superfluous because all pipes pose hazards.

"Any pipe that transmits water is subject to deterioration caused by the water," the magazine says. "Galvanized iron pipe can contribute minor amounts of cadmium, lead and zinc to water. PVC pipe can release vinyl chloride monomer. A-C pipe, when carrying very aggressive water, can impart asbestos to the water. Asphalt of coal tar lined iron or steel pipe can release polynuclear aromatic hydrocarbons (PAHs) to the water. All of these are recognized carcinogens."

The magazine concluded that the key question is what levels of chemical contamination are acceptable in drinking water. The answer? The magazine wrote, "The levels currently in existence are very acceptable."

ASBESTOS INTERNATIONAL ASSOCIATION

(Limited by Guarantee)

68 GLOUCESTER PLACE, LONDON W1H 3HL

MEMORANDUM

TO: . . . Member Associations

AIA/i2/REG

FROM: Director General

22nd February 1982

Subject: Summary of Main Features of Asbestos/Health Regulations

We are enclosing a copy of this schedule which shows the main features of asbestos regulations in countries where known as at 11 February 1982.

We would be pleased to hear from any member who feels we have omitted any important items of legislation that would be useful to other members.



DIRECTOR GENERAL

Enc.

CAPCO JEN 0006841

ASBESTOS INTERNATIONAL ASSOCIATION

AIA Information Memorandum No. AIA/11th February

Summary of Main Features of Asbestos/Health Regulations

COUNTRY	REGULATIONS	STANDARD CONCENTRATION	REMARKS
<u>Australia</u>	Regulations determined by each State are based on model Asbestos Regulations prepared and recommended by the National Health and Medical Research Council of Australia.	2 f/ml(1) - all types	Use of Crocidolite severely restrict all States. Special approval for its is required. Application of asbestos by spraying requires special permission in all States. In all States a medical examination including a chest X-ray has to be provided for each employee within 90 days of commencement of employment and thereafter at intervals of 3 years. In the State of Victoria only (at this stage) employees must refrain from smoking at work.
<u>Austria</u>	July 1980	a. 1 f/ml - all types. b. 1.5 mg/m³(6) airborne dust (dust containing 1-15% asbestos) 0.2 mg/m³ airborne dust (dust containing 51-100% asbestos) c. 800 particles/cm³ (dust containing 1-15% asbestos) 200 particles/cm³ (dust containing 51-100% asbestos)	Prohibition of asbestos for: spray thermal and acoustic insulation and decorative purposes.

EACH MEASUREMENT ACCORDING TO THESE THREE METHODS

COUNTRY	REGULATIONS	STANDARD CONCENTRATION	REMARKS
<u>Belgium</u>	Royal Decree of 15.12.78 Published 2.2.79. Effective 1.1.80 as a whole and 1.4.79 for particular points.	All types except Crocidolite: 2 f/ml. For pure Crocidolite dust: 0.2 f/ml. For fibre mixtures containing x% of Crocidolite: Total asbestos fibre reading $\times \frac{x}{100}$ must be < 0.2 . TLV over 4 hour period. Temporary higher concentrations allowed but average over 10 minute period not to exceed 12 f/ml.	Authorisation must be obtained from Ministry of Labour and Employment for the handling of all types of raw as- bestos fibres and for both manufactur- ing and handling of products containing or almost no binder, such as yarn, cloth, packings, felts, millboard, No authorisation is needed for the handling of finished products where asbestos is locked in (such as asbe- cement, vinyl tiles, etc).
<u>Canada</u>	Special regulations for mining.	Different standards in each Province varying from: 2 f/ml to 5 f/ml.	
<u>Denmark</u>	Ministry of Labour Regu- lation No. 468 as amended 30.4.81 but effective from 1.1.80.	1 f/ml - (during 8 hours) combined with a ceiling value of 5 f/ml (measur- ing period of 15 minutes) for all fibres except Crocidolite. 0.1 f/ml (TLV(3) & Ceiling value) for Crocidolite.	Ban on manufacture, import and use of asbestos or asbestos containing mat- erials of all kinds. Following exemptions until 1.4.82: unbonded packing mate- rial " 1.1.85: asbestos cement mater- ial " 1.1.90: commutators until further notice: friction mate- rial bonded packing materi- al and bearing linings.
<u>Finland</u>	July 1977	2 f/ml - all types.	Spray is prohibited. Use of Crocidolite is subject to exemption by Labour Pro- tection Board. With effect from 31. asbestos waste and products that can cause cancer must be labelled; a/c products are excluded.

COUNTRY	REGULATIONS	STANDARD CONCENTRATION	REMARKS
<u>France</u>	Decree No. 77-949 17.8.77	2 f/ml - all types.	Decree 3492 1.7.77. Spraying of asbestos-base finishing dwellings is prohibited. Dust sampling must be done every 3 months if results are below 1 f/ml or every month if above 1 f/ml.
<u>Germany</u>	January 1979	Effective 1.7.82 and for New Plants before this date 1 f/ml 0.05 mg/m ³ (6) asbestos airborne dust. 2.0 mg/m ³ airborne dust containing asbestos. For existing plants - double these values until 1.7.82.	April 1980 New Draft Regulations for Material: 1. While handling asbestos fibre, 1 hour week has to be introduced. 2. Asbestos products have to be labelled as products which could cause cancer. 3. Proof that substitute products not available had to be provided. 2nd Amendment to Industrial Safety Regulation-Dust Restriction applied on asbestos use Spraying; Insulating Materials; Filters (except for Food & Drink Medicine); Paint Fillers; Putty & Adhesives; Mortar & Surface Filler; Floor Coverings (vinyl underlay, carpets); and Road Surfaces.
<u>Greece</u>	Elot 445 "Methods and measures for the protection of the workers exposed to asbestos fibre at work places."		Draft regulations completed and awaiting public opinion (expiry date 31.8.81)

COUNTRY	REGULATIONS	STANDARD CONCENTRATION	REMARKS
<u>Ireland</u>	1972	2 f/ml - Chrysotile, Amosite. 0.2 f/ml - Crocidolite.	No prohibitions. Special requirement exist when Crocidolite is involved, marking of containers, notification Inspectors.
	1975	Amendments to widen scope to include all situations in addition to manufacture.	
<u>Israel</u>	Effective 1.1.80.	1 f/ml - all types.	Standards not prescribed by law. Authority given to Labour Inspectors For work places over 1 f/ml the concentration should be brought to under 1 in a period of one year.
<u>Italy</u>	July 1979 Nat. Contract Asb & Asb. Cem. Indus. and all Trade Unions.	2 f/ml - for all types.	The maximum limit for Crocidolite proposed by National Institute for Accidents Prevention (Istituto Nazionale per Prevenzioni degli Infortuni - INPI), an 8 hour exposure, wearing a personal protector is equal to 2 f/ml but with a personal protector is equal to 0.2
<u>Japan</u>	May 1976	5 f/ml - for all types. Standard concentration of 2 f/ml is generally applied to all types except Crocidolite of 0.2 f/ml in accordance with the recommendations (Gyosei Shido).	1976: any product containing 5% or more asbestos content must have warning label attached to it.

COUNTRY	REGULATIONS	STANDARD CONCENTRATION	REMARKS
<u>Netherlands</u>	Asbestos Decree dated: 1.4.77 1.7.78 1.10.78	2 f/ml except Crocidolite. Crocidolite and Spraying prohibited.	April 1980: household products and other goods in which the asbestos fibres are not firmly bound are prohibited. Fibres with 'locked in' fibres are allowed as a/c flower boxes) but a/c products be labelled (AIA label accepted). Use of Crocidolite and the manufacture, marketing and use of Crocidolite-containing articles is prohibited. Exemptions granted by a special tripartite Advisory Committee on Asbestos. Article 4, prohibiting the use of asbestos-containing products for thermal and acoustic insulation, and for preserving or decorative purposes, is not yet in force.
<u>New Zealand</u>	Effective 1.5.79.	2 f/ml - TWA - all types. (The Director General of Health has the right to: a. Vary the concentration from time to time if circumstances so warrant. b. Designate different concentrations for different types of asbestos should such be deemed necessary.)	Use of Crocidolite restricted; special approval needed. There is a requirement for medical surveillance.
<u>Norway</u>	April 1977	2 f/ml - all except Crocidolite.	PROHIBITIONS: Crocidolite fibre; special electrical, acoustic and condensate insulations; a/c pipe for carrying ing water; a/c products for ventilation Effective 1.1.80: a/c roofing will be prohibited and all a/c products on ing sites. Asbestos to be substituted whenever technically possible.

COUNTRY	REGULATIONS	STANDARD CONCENTRATION	REMARKS
<u>Singapore</u>	Factories (Asbestos) Regulations 1980 - Effective 15.5.80.	TLV's not prescribed.	a. Notification of asbestos process required. b. Exhaust ventilation equipment and protective equipment required. c. Medical examinations required prior to employment and every subsequent months. d. Persons under 18 years of age not permitted to be employed where asbestos dust could be present.
<u>South Africa</u>	Act No. 45/65 Act No. 78/73	Government Mining Engineer Directive limits mines to 5 f/cc and mills to 10 f/cc knifemeter spot checks, but if above 12 f/cc respirators must be worn. Voluntary reduction to 5 f/ml TWA membrane filter w/f. 1.1.80. Manufacturing: Voluntary 2 f/ml TWA membrane filter.	
<u>Spain</u>	None	'Servicio Social' preparing regulations based on USA standards. In meantime A/C Industry applying UK standards on voluntary basis.	April 1980: new regulations being drawn up with the help of the Industry. This is for 2 f/ml with no discrimination compulsory labelling might be required with certain articles.
<u>Sweden</u>	1st July 1982	The Regulation calls for a principal ban of asbestos and asbestos-containing products. There are careful instructions for use where asbestos and asbestos-containing products are authorised.	Usage of asbestos and asbestos-containing products may be allowed where no technically feasible substitutes are available but only after approval has been obtained from the Authorities.

COUNTRY	REGULATIONS	STANDARD CONCENTRATION	REMARKS
<u>Switzerland</u>		2 f/ml - all types.	None
<u>UK</u>	1969 Effective 16.3.81 "The control of pollution (special waste) regulations 1980" Statutory Instrument No. 1709, 1980.	2 f/ml - all types except Crocidolite. When measurements are averaged over a 4 hour period.	Voluntary ban on use of Crocidolite. Voluntary labelling scheme. ACA(5) report (October 1979) Recommends amongst 41 items: 1 f/ml for Chrysotile; 0.5 f/ml for Amosite; Ban on Crocidolite; Obligations to consider substitution 7.1.82: These are still under consideration by the various Ministers.
<u>USA</u>	1.7.76 OSHA (Occupational Safety & Health Administration)	2 f/ml - all types.	Regulations issued by various States EPA - Environmental Protection Agency FDA - Food and Drug Administration; MSHA - Mine Safety & Health Administration CPSC - Consumer Product Safety Commission DOT - Department of Transport.
<u>USSR</u>	1954	Mining & Milling areas: 2 mg/m ³ - fibre content in dust not more than 10%. At lower fibre content 5-6 mg/m ³ is allowed. Asbestos Cement Manufacture - 6 mg/m ³ .	Asbestos industry workers have a short working week and longer paid holiday

Index of Abbreviations

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|----------------------------------|--|
| 1. f/ml - Fibres per Millilitre. | 4. A/C - Asbestos Cement. |
| 2. TWA - Time Weighted Average. | 5. ACA - Advisory Committee on Asbestos. |
| 3. TLV - Threshold Limit Value. | 6. mg/m ³ - Milligrams per Cubic Metre. |



ASBESTOS INFORMATION ASSOCIATION

1745 Jefferson Davis Highway, Crystal Square 4, Suite 509
Arlington, Virginia 22202 • (703) 979-1150

SECURITY ATTENTION
PLEASE

Copy to:
Mr. M. J. Mull
Mr. T. O. O'Leary
4/20/83

Info:
W. J. W.
J. B. K.
W. L. P.
J. L. T.
L. J. - J. B.

April 14, 1983

Memorandum For:

MEMBERS

Subject:

Expected Action by OSHA to Lower the
Permissible Exposure Limit in the
Standard for Exposure to Asbestos Dust

This memorandum will be as brief as possible because of its urgency and to minimize time in reading.

The U.S. Occupational Safety and Health Administration (OSHA) has recently announced that it will accelerate the schedule for revision of the permissible exposure limit (PEL) in the current asbestos standard. This information was initially made known to the Association in a meeting with OSHA Head Thorne Auchter on April 7, 1983 when a recommended standard for occupational asbestos exposure in construction work was delivered to the Agency following extensive coordination with the Building and Construction Trades Department, AFL-CIO staff. Specifically, Auchter read a letter to the group that he subsequently signed to George Taylor, director of occupational health and safety, American Federation of Labor and Congress of Industrial Organizations. A copy of Auchter's letter dated April 11, 1983 as well as Taylor's letter of March 11, 1983 are enclosed for your information.

The current intentions of OSHA are summarized below:

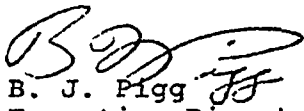
1. Publish a notice in the Federal Register in late May or early June 1983 which would announce that a hearing to address primarily the PEL issue will be held in late August 1983 based on OSHA's October 9, 1975 notice of proposed rulemaking. The scope of the 1975 proposal would be expanded to include the construction industry for purposes of PEL. (Note: It will be recalled that OSHA's 1975 proposal would reduce the PEL from 2 f/cc to 0.5 f/cc and the construction industry was excluded.)
2. A final rule establishing a revised PEL will be issued in the Fall of 1983.
3. At the time a final rule with the revised PEL (applicable to both manufacturing and construction sites) is published, it is planned that a proposal addressing development of special provisions for the construction industry, as well as updating the medical and hygiene provisions of the existing standard, will be issued.

As reported at the March directors meeting, and as stated in Auchter's letter to Taylor, OSHA was planning to publish a proposal on the asbestos standard in June 1984 with a final rule to be issued in September 1985. The only discernable reason for OSHA's acceleration of its schedule is political in nature.

The AIA/NA Executive Committee met April 12. This matter was the major agenda item discussed. It was concluded that the Association should, among its initial efforts, urge members to send a letter to appropriate congressmen (particularly those whose districts include plant sites) requesting that they contact OSHA (Auchter). The purpose of such contact would be to request that Auchter reconsider his announced approach toward resolution of the asbestos issue and proceed in a more balanced and reasonable fashion.

A draft letter as a basis for corresponding with members of Congress is enclosed for your consideration. You may wish to add specific information concerning number of employees affected and payroll involved. In any event, your timely attention to this matter is essential.

As a related item, the above subject will be a major topic of discussion at the June 7, 1983 meeting of directors. Particulars concerning the June meeting will be forwarded in the near future.


B. J. Pigg
Executive Director

Enclosures

U.S. Department of Labor

Assistant Secretary for
Occupational Safety and Health
Washington, D.C. 20210



11 APR 1983

11 APR

Mr. George H. R. Taylor
Director
Department of Occupational Health and Safety
American Federation of Labor and Congress
of Industrial Organizations
815 Sixteenth Street, N.W.
Washington, D.C. 20005

Dear George:

I want to assure you that I fully agree with you that revision of the asbestos standard is a project which deserves high priority. Personally, I am very concerned about the asbestos problem. My staff has briefed me on Dr. Selikoff's report to which you referred in your recent letter. In addition, I recently met with Dr. Selikoff to discuss asbestos and will be talking with him further. I have spent a fair amount of time lately with my senior health staff discussing asbestos.

In your letter of March 11, you asked why OSHA did not release the draft of its risk assessment for asbestos until very recently. In fact, OSHA published the numerical results of the analysis, the numbers which you quoted, in a Federal Register notice on January 13, 1982, only a few months after the draft was completed. This gave the public notice of the risk as we viewed it. The draft released more recently was considered by us to be an internal document, neither sufficiently polished nor complete enough for release to the public. A senior staff member within the Directorate of Health Standards (HSP) is currently revising the document and the new version will be published as soon as it is completed. We do not expect any significant changes in the estimate of the risk to result from this revision.

I agree with your criticism of the previous administration's lack of action on this issue. In contrast, once this administration had the beginnings of a regulatory agenda underway, last spring, one year ago, we created a preliminary regulatory development team to review the need for and develop recommendations concerning revision of the asbestos standard. The team includes members of our HSP staff, economists from our Office of Regulatory Analysis and an attorney from the Office of the Solicitor of Labor.

Since its formation, this team has prepared three documents for my office, a Research and Analysis Plan, an Assistant Secretary's Summary, and an Action Recommendation. The Action Recommendation was completed February 23. The recommendation was made that the standard be revised in its entirety, with revision of the PEL one of the most important tasks. The principal dates in the plan proposed in the Action Recommendation were:

CAPCO JEN 0006851

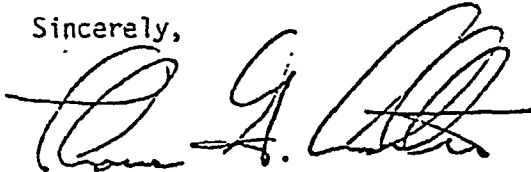
Publication of Notice of Proposed Rulemaking: June 1984
Publication of Final Rule: September 1985

Because of the very serious nature of the hazards presented by exposure to asbestos, I have decided to accelerate this schedule. Accordingly, we will publish a notice this summer scheduling a hearing based upon the 1975 notice of proposed rulemaking. We will update the 1975 notice to discuss risk assessment and significance of risk issues. We also plan to expand the scope of the proposal to include the construction industry. Reduction of the permissible exposure limit would be the primary issue of this rulemaking and a final rule on that issue would be promulgated in the Fall of this year. At the same time we publish that final rule, we plan publication of a proposal addressing development of special provisions for the construction industry, as well as updating the medical and hygiene provisions of the existing standard.

I have asked the heads of OSHA's Directorates of Health Standards Programs and Technical Support, Leonard Vance and Edward Baier, to meet with you and/or members of your staff to discuss, both generally and in detail, the timetables and technical details involved in revising the standard. Of course, I am always available to meet with you as well. Indeed, OSHA staff already have met with Roy Steinfurth, the administrator of the Asbestos Worker's Health Hazard Program, to discuss the standard. Further, as I mentioned earlier, I have personally met with Irving Selikoff on the issue, and have scheduled a meeting with him and members of my senior staff in the very near future.

I think it is clear from the above that OSHA intends to act quickly on this issue and, as we do on other issues, involve Labor extensively and substantively in the process. I look forward to working with you on this very important standard.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Thorne G. Auchter', with a stylized, flowing script.

Thorne G. Auchter
Assistant Secretary

American Federation of Labor and Congress of Industrial Organizations



815 Sixteenth Street, N.W.
Washington, D.C. 20006
(202) 637-5000

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March 11, 1983

Mr. Thorne G. Auchter
Assistant Secretary
Occupational Safety and
Health Administration
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, D.C. 20210

Dear Thorne:

During the recent court case on ethylene oxide before the U.S. Court of Appeals for the District of Columbia, OSHA released as part of its case a paper entitled "Preliminary Risk Assessment for Asbestos." This document shows that workers exposed to current permissible levels for asbestos are at high risk of dying from lung and other kinds of cancers.

It points out that as many as 8-260/1000 workers exposed over a working lifetime to levels at the current standard may die from asbestos related lung cancers. Even at reduced levels of exposure (0.5 fibers/cc and 0.1 fibers/cc) the assessment predicts significant levels of risk for deaths from lung cancers and other cancers. Thus, many thousands of the more than 2 million workers exposed to asbestos at or below the standard will die of asbestos-related diseases in the coming years.

The asbestos risk assessment was prepared by the agency in August, 1981. Nevertheless, for a year and a half it was withheld from the public until it surfaced in the ethylene oxide case. Contrast this silence with the zeal displayed by the Agency in calling attention to studies by industry tending to downplay the effects of toxic materials on workers, and factoring them into its health standards review process.

In the ethylene oxide case, OSHA's counsel for appellate litigation told the D.C. Court of Appeals that rulemaking on asbestos "admittedly hasn't gotten off the ground..." With the attention of Congress and the public presently focused on the enormity of the asbestos problem from past exposure and associated costs of compensation and third party law suits, the AFL-CIO finds this admission, plus OSHA's withholding of important information assessing the excessive risks of workers to asbestos-induced cancers, both incredible and irresponsible.

There is something dreadfully wrong with OSHA when its program embodies no new initiatives on health standards, rejects petitions requesting accelerated rule-making on unstandardized toxic substances threatening the lives and health of workers, and allows the weeds to grow up and obscure the asbestos problem. Indeed, OSHA has deployed its limited resources in an all-out campaign to weaken existing health standards in order to make them more acceptable to the business community.

CAPCO JEN 0006853

You may be aware that the Congress, in the course of passing the Occupational Safety and Health Act of 1970, called special attention to the widespread infection of workers from occupational exposure to asbestos, "... another material that destroys the lives of workers..." Although its effects had been known for 40 years nothing had been done about it.

OSHA at that time did not act on its own to respond to the Congress, but reacted affirmatively to a petition by the Industrial Union Department (AFL-CIO) and promulgated the Agency's first occupational health standard on asbestos. The 1972 standard which established an initial level of 5 fibers/cc, to be lowered to 2 fibers/cc in 1976, was based on the British standard and addressed only the risk of asbestosis. The risks of lung cancer, mesothelioma and other cancers were not addressed by the standard.

Even at the time of the promulgation of the original asbestos standard in 1972, evidence was available indicating that the risks from asbestos exposure were far greater than risks considered by the standard. And since that time additional evidence on cancer risks and the risk of developing asbestosis have confirmed that the current 2 fibers/cc is grossly inadequate.

Under previous administrations, OSHA initiated but failed to complete action to strengthen the asbestos standard. In October 1975, the Agency issued a notice of proposed rule-making to lower the asbestos standard to 0.5/cc. Information was gathered but no hearings were conducted, and the standard remained unchanged.

In the fall of 1979, a joint NIOSH/OSHA committee was formed to review the updated scientific information concerning asbestos-related disease and to assess the adequacy of the OSHA 2 fiber/cc standard. The committee report issued in November 1980 recommended a significant reduction in the permissible exposure limit for asbestos:

"Given the inadequacy of the current 2,000,000-fiber standard the committee urges that a new occupational standard be promulgated which is designed to eliminate non-essential asbestos exposures, and which requires the substitution of less hazardous and suitable alternatives where they exist. Where asbestos exposure cannot be eliminated, they must be controlled to the lowest level possible. A significant consideration in establishing a permissible exposure limit should be the lowest level of exposure detectable using currently available analytical techniques. At present this level would be 100,000 fibers greater than 5 um in length per cubic meter averaged over an 8-hour workday."

NICSH
SHH

As a result of these findings, in 1980 OSHA followed its decision to revise its asbestos standard by publication of an advance notice of proposed rule-making. The (ANPR) was scheduled for the 4th quarter of FY 1981.

Unfortunately, with the change in administration regulatory action on asbestos ceased. The 4th quarter FY 1981 deadline for an asbestos ANPR was not met. Nor was a 3rd quarter FY 1982 target deadline established in January 1982 by your administration. Even though the asbestos standard was approved as an item for review and updating in OSHA Regulatory Agendas and the Calendar of Federal Regulations during 1981 and 1982, there has been no perceptible action by the agency to reduce the asbestos standard.

Given the high level of risk and danger posed by the current asbestos standard, its revision must be a top priority for OSHA and the AFL-CIO so urges. The agency must ~~move expeditiously to implement the findings of the joint OSHA/NIOSH workgroup to~~ reduce significantly the permissible exposure limit for the substance. The publication in June, 1982 of the study for the U.S. Department of Labor prepared by Dr. Irving Selikoff of the Mt. Sinai Hospital estimated that there are presently 8,200 annual excess cancer deaths from asbestos exposure, and that this number of deaths will peak at about 9,700 during the 1990's. OSHA must move to protect workers presently exposed or this toll will go unabated into the next century. } C1/2

The AFL-CIO desires the following information:

1. Why OSHA failed to release its 1981 Preliminary Risk Assessment for Asbestos for 1½ years?
2. What action has OSHA taken during the past two years to revise the asbestos standard (initiation/completion of an advance notice or notice of proposed rule-making; initiation/completion of a regulatory impact assessment) etc?
3. What is the agency's timetable for the promulgation of a final revised asbestos standard?

We would appreciate an early reply to this letter.

Sincerely,



George H.R. Taylor
Director
Department of Occupational
Safety and Health

GT:bl
opeiu 2 afl-cio

D R A F T L E T T E R

(date)

The Honorable
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. :

This letter concerns a matter of some importance since it relates to a prospective action by the U.S. Occupational Safety and Health Administration (OSHA) which affects directly our company. We feel that a recently announced initiative by OSHA, as described below, is ill conceived and is being taken solely for self-serving and political reasons.

Specifically, OSHA has made it known in a letter dated April 11, 1983 to the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO), which has been made public, that the Agency's plans for further regulation on occupational exposure to asbestos have been accelerated significantly. The generalized reason given by OSHA Head Thorne Auchter is "because of the very serious nature of the hazards presented by exposure to asbestos."

Rather than publishing a proposed rule in June 1984 and a final rule in September 1985, as previously stated, OSHA now plans to schedule a hearing in August 1983 based on a proposal which was issued by the Agency on October 9, 1975. It appears questionable at best for OSHA to commence rulemaking action on a proposal that is almost eight years old as well as is the public record which was filed in response to that proposal. Basically, my company feels that OSHA's sudden disregard

CAPCO JEN 0006856

of a previously announced orderly approach and its rush into a hearing four months hence without giving due consideration to the current status of all aspects of the asbestos issue (medical, technological, economic, risk, etc.) is patently irresponsible. I wish to emphasize that resolution of the long outstanding regulatory initiative on asbestos by OSHA should be accomplished, but not in such an arbitrary and illogical manner.

You should know that, coincidently to learning of OSHA's intended action described above, the Asbestos Information Association/North America (AIA/NA) which represents producers and users of asbestos in North America submitted to OSHA on April 7, 1983 a recommended standard for occupational asbestos exposure in construction. Development of this recommendation was accomplished in coordination with organized labor representatives. Both industry and labor, as well as OSHA, have long recognized that fixed-site regulatory requirements are ineffective and impractical for construction which is typically characterized by small, transient employers, high employee turnover, and outdoor work activities the nature and sites of which are continually changing.

These problems have made the current asbestos standard virtually unenforceable for construction job sites with the consequence that many millions of potentially exposed workers are deprived of the health protection provided to the far smaller number of workers (less than 20,000) who work in asbestos product plants. Because this problem demands immediate attention, AIA/NA has placed top priority on the development of an alternative approach that would provide greater health protection to construction workers while assuring users that asbestos products can be safely installed and used.

AIA/NA recommended to OSHA, and my company strongly supports, that the Agency's first order of business on asbestos should be to publish a proposed standard for the construction industry. Reevaluation of OSHA's general industry standard should proceed in an orderly way to ensure that the current status of the industry (as contrasted to that which existed in 1975) and other relevant information are fully considered.

In regard to the latter comment, both the Province of Ontario and the United Kingdom will be completing studies on asbestos regulatory issues later this year. The reports issued by these two governments will contain comprehensive data on the asbestos-health relationship which were developed following full participation by many international experts. For example, the Ontario Royal Commission on Matters of Health and Safety Arising from the Use of Asbestos is presently compiling its final report based on the testimony of experts from the international scientific community who were subject to cross examination by both industry and labor groups. These reports relate directly to permissible exposure limits for workers exposed to asbestos dust, the matter of primary interest to OSHA.

In view of the above, it would be greatly appreciated if you would contact Mr. Auchter on an urgent basis and prevail upon him to abandon his recently announced plan for resolving the asbestos issue and proceed in such a way that would be of greatest benefit to all concerned (workers, government, society and industry).

Thank you in advance for your efforts on our behalf. I look forward to receiving your reply.

Sincerely,

(MR B AUSTIN
(MR F BACHMAYER
(BRIG. D B KAPOOR
(MR D BOUIGE
(MR M CABRERA
(MR R CAIRNS
(MR L CEJUDO ALVA
(MR P G COZZI

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MR R SCHWARZ
MR M TANABE
MR B TAYLOR
MR G TRUEDSON
MR H VANHERLE

(TELEX NO: AIA/168
(3 APRIL 1984

(ILO CODE OF PRACTICE ON ASBESTOS
(???

- (1. THE ILO SECRETARIAT HAS APPROACHED MR EMILIO COSTA ASKING HIM IF
(HE COULD LET THEM HAVE ANY BLACK AND WHITE OR COLOUR PHOTOGRAPHS
(FOR POSSIBLE REPRODUCTION ON THE COVER OF THE FORTHCOMING ILO
(CODE OF PRACTICE 'SAFETY IN THE USE OF ASBESTOS'.
(2. ILO FEEL THAT THE COVER SHOULD APPROACH THE SUBJECT POSITIVELY AND
(DYNAMICALLY AND PERHAPS SHOW A PARTICULAR FACTORY IN WHICH
(TECHNICAL CONTROL MEASURES HAVE BEEN INTRODUCED TO MAKE THE
(HANDLING OF ASBESTOS SAFER.
(3. HOWEVER THEY ARE HAPPY TO CONSIDER ANY OTHER SUGGESTIONS INDUSTRY
(MIGHT HAVE. THIS IS A MOST HELPFUL AND COOPERATIVE ATTITUDE.
(4. THEY ASK FOR A NON-EXCLUSIVE WORLD LICENCE TO REPRODUCE THE
(PHOTOGRAPH WHICH THEY CHOOSE AND WOULD LIKE TO KNOW THE CREDIT
(LINE TO BE USED.
(5. THE CODE WIL BE PUBLISHED IN ENGLISH, FRENCH AND SPANISH.
(6. MR COSTA HAS THANKED THE ILO AND SAID THAT HE HAS REFERRED THE
(MATTER TO AIA IN ORDER TO GET A WIDER SELECTION OF PHOTOTGRAPHS
(FOR ILO TO SEE.
(7. THIS IS AN EXCELENT OPPORTUNITY FOR INDUSTRY TO CROWN A
(SUCCESSFUL TEXT WITH A POSITIVE COVER AND I DO ASK YOU PLEASE TO
(RESPOND.
(8. SINCE TIME IS SHORT WOULD YOU PLEASE SEND PHOTOS DIRECT TO ILO
(AND PLEASE NOTE THE TWO REQUESTS AT PARA 4 ABOVE.
(9. I WILL INFORM ILO WHAT AIA IS DIONG AND THAT HOPEFULLY PICTURES
(WILL BE ARRIVING SOON.
(10. PLEASE SEND TO:-

(MR R S KIRKMAN
(CHIEF OF BOOK PUBLISHING SECTION
(EDITORIAL AND DOCUMENT SERVICES DEPARTMENT
(ILO
(GENEVA
(SWITZERLAND

(KIND REGARDS
(JIM STACK IYQI INTA G
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Agency's Suggestion Would Make the Workplace Safer for 375,000 in Industry

By BEN A. FRANKLIN

Special to The New York Times

WASHINGTON, April 9 — The Reagan Administration today proposed a big reduction in the amount of asbestos permitted in workplaces.

The proposal by the Labor Department's Occupational Safety and Health Administration, which is to be published Tuesday in the Federal Register, would affect 375,000 industrial workers.

It would cut the permissible exposure level from 2 fibers of asbestos for each cubic centimeter of workplace air, which has been the Federal standard since 1976, to either 0.5 or 0.2 fibers for a cubic centimeter.

The final choice between the two levels, among other options of a highly technical nature, are to be made later this year after a 60-day period in which the safety agency will receive written comments and hold a public hearing on all aspects of the revised asbestos regulations.

The Standards and Deaths

After a working lifetime of exposure, the safety agency said, the current standard would result in 64 more cancer deaths per thousand workers than would occur among a thousand people not exposed to asbestos. The standard of 0.5 fibers per cubic centimeter would result in 17 additional cancer deaths for 1,000 workers, the agency said, and there would be 7 more cancer deaths for 1,000 workers at the level of 0.2 fibers per cubic centimeter.

The formal publication of the asbestos proposal comes a week after the resignation of Thomas G. Auchter as the Administrator of the agency. Mr. Auchter was a Reagan Administration appointee who was frequently accused by labor unions of "gutting" occupational health and safety enforcement. Last November Mr. Auchter tried to put into effect the 0.5-fiber standard as an emergency regulation, but the asbestos industry sued immediately to block it.

The emergency regulation was overturned on March 7 by the United States Circuit Court of Appeals for the Fifth Circuit. The court questioned the Government's data submitted to back up its claim.

Asked today for his view of the safety agency's new proposal for a permanent standard as low as 0.2 fibers a cubic centimeter, B. J. Pigg, the head of the Asbestos Information Association, the industry group which sued to block the

emergency rule, said: "We have no plans for further litigation."

'Impossible to Meet'

But at the safety agency's regulatory hearing set for June 12 he said the association would oppose a standard of 0.2 fibers as "impossible to meet."

"The industry will oppose putting its people in respirators eight hours a day," Mr. Pigg said.

There have been scores of deaths linked with the disease. Representatives of Labor and Congress of Industrial Organizations have pressed OSHA to lower the asbestos standard to 0.1 fibers a cubic centimeter. Kevin Foley, assistant director for health and safety of the federation's building trades department, said, "We would be very happy with the level of 0.2 fibers, but we are still saying we want 0.1."

He cited studies by the Federal safety agency that showed that even at the 0.1-fiber exposure level there would be three excess cancer deaths for 1,000 workers.

Support for lower standards has also come from the American Lung Association and cancer groups. The asbestos standard, which changed last year to the 0.5-fiber level, was adopted by the Manville Corporation, which had bankruptcy to avoid the full costs of hundreds of millions of dollars in damage claims.

Federal studies of the asbestos work force, however, have found that thousands of other groups of workers were even more highly exposed. According to the safety agency, those most at risk, that is exposed to as many as 20 fibers of asbestos a cubic centimeter of air, are 13,000 building demolition and dry-wall removal workers.

OSHA Proposal to Set Tougher Standard For Asbestos Exposure Offers 2 Choices

By JOANN S. LUBIN

Staff Reporter of THE WALL STREET JOURNAL

WASHINGTON—The Labor Department, uncertain how much it should tighten occupational-exposure limits for asbestos, is seeking public comment on a proposal to set the limits at one of two levels.

The department's Occupational Safety and Health Administration is trying to decide whether it should set maximum workplace exposure for asbestos at 500,000 fibers a cubic meter of air or at 200,000 fibers a cubic meter. The current level is two million fibers. The proposal had been expected. Asbestos has been linked to cancer and respiratory diseases.

OSHA officials aren't sure whether all employers could measure such minute air concentrations as the 200,000-fiber level. The White House Budget Office found that there would be little cost differences for compliance with one level or the other.

According to a subsequent OSHA analysis, using respirators to reduce exposure to the 500,000-fiber level would cost employers about \$65 million initially and more than \$53 million annually, compared with more than \$55 million in initial costs and almost \$54 million a year thereafter at the tougher 200,000-fiber level.

OSHA also raised the possibility of other approaches to curbing workplace asbestos exposure. While a single limit likely will be set, one agency official said the rule-making procedure will consider whether "to make some distinction for (different) fiber types of asbestos." Some scientists suspect certain types may be more likely than others to cause mesothelioma, a cancer of the lining of the lungs.

An OSHA spokesman said the agency will accept comments on its latest proposal until May 25 and begin public hearings June 19.

Whatever exposure limit is chosen, the OSHA proposal would require employers to teach workers about the health effects of asbestos, proper use of respirators, and proper work practices for handling the substance. The current standard, set in 1976, doesn't mandate any training, although most other OSHA health rules do.

OSHA is also considering a requirement that employers take some protective steps,

such as medical monitoring, at the stricter 200,000-fiber exposure level. If it adopts the 500,000-fiber limit, employers wouldn't have to carry out the full range of compliance measures unless exposure reached 500,000 fibers.

In addition, OSHA said it is considering a separate asbestos rule for the construction industry, partly to take into account the transient nature of such work.

The job safety agency estimates about 375,000 U.S. workers are exposed to asbestos, including 19,000 exposed at above the 500,000-fiber level and 4,000 at above the 200,000-fiber level but below the 500,000-fiber level. Lowering exposure limits "will reduce the risk of death for workers exposed to asbestos by at least 75%," said Patrick Tyson, OSHA's deputy chief. Asbestos is used in manufacturing, automotive repair, shipbuilding, ship repair and construction.

Last month, a court struck down a temporary OSHA limit on occupational exposure. The suit, brought by the asbestos industry, attacked the agency for lowering the limit to 500,000 fibers a cubic meter of air without following regular rule-making procedures.

THE WALL STREET JOURNAL
Tuesday, April 10, 1984

OSHA Plans Tougher Standard on Asbestos

By Pete Earley

Washington Post Staff Writer

The Labor Department said yesterday that it will set a tougher work-place standard for asbestos this year to protect an estimated 375,000 industrial workers from the cancer-causing agent.

But the Occupational Safety and Health Administration said it wouldn't decide how stringent the new standard will be until it reviewed public comments, which will be accepted until May 25, and conducted public hearings slated to begin June 19.

OSHA said it is trying to decide whether the maximum work-place exposure limit for asbestos should be lowered to 0.5 or 0.2 fibers for each cubic centimeter of air. The current level is 2 fibers per cubic centimeter of air.

The Asbestos Information Association, an industry group, successfully blocked OSHA from adopting an emergency regulation last year that would have lowered the exposure limit to the 0.5 fiber level.

Since then, there has been spec-

ulation that the industry would accept the 0.5 fiber level, but would work to block adoption of the 0.2 fiber limit—the first choice of labor and consumer groups.

The Environmental Protection Agency also has moved to reduce worker exposure to airborne asbestos, which can settle deep in the lungs and cause severe illnesses, including cancer, sometimes as long as 40 years after exposure.

EPA has published in final form a number of rules under the Clean Air Act that were invalidated by the Supreme Court in 1978 for technical reasons. Among other things, the rules prohibit workers doing demolition work from throwing asbestos to the ground or to a lower floor. They also require workers to keep asbestos wet until it is removed from the work site.

Asbestos is used in manufacturing, construction, auto repair, shipbuilding and ship repair, but OSHA said the workers that are most heavily exposed are demolition workers and dry wall removers.

Under the current 2 fiber exposure level, OSHA said there were 64

additional cancer deaths per 1,000 workers exposed to asbestos during a working lifetime than found in a similar group that wasn't exposed.

The agency estimates that the number of additional cancer deaths would drop to 17 per 1,000 workers if the 0.5 standard were adopted, and to seven per 1,000 if the 0.2 fiber standard were adopted.

OSHA said that about 49,000 U.S. workers are now exposed above the 0.5 fiber level.

One way to protect workers is by requiring them to wear respirators. It would cost the industry about \$68 million initially and more than \$53 million annually to provide respirators if the 0.5 fiber standard were adopted, OSHA said. The cost for the 0.2 fiber standard would be \$69 million initially and \$56 million a year thereafter, the agency estimated.

Wednesday, April 11, 1984

THE WASHINGTON POST