ASARCO

PLAINTIFF'S EXHIBIT

ASA-646

K.W. Nelson
Vice President
Environmental Affairs

February 6, 1976

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DOCKET OFFICE

Docket Officer
Docket H-033
U.S. Department of Labor
Room N3620
200 Constitution Avenue, NW
Washington, DC 20210

Dear Sir:

ASARCO Incorporated hereby submits its comments with regard to the October 9, 1975, notice of proposed rulemaking, as set forth in the Federal Register, Volume 40, No. 197, and requests an informal hearing on this proposed revision to the asbestos standard.

Very truly yours,

K W Nelson

KWN/jak
enclosure
(submitted in
quadruplicate)

Comments of ASARCO Incorporated on the
OSHA Proposed Asbestos Standard
as contained in the Federal Register
Vol. 40, No. 197 (October 9, 1975)

ASARCO Incorporated, hereafter also termed the Company, is a large non-ferrous metals producer and operates two asbestos-cement plants, among others. Both plants produce asbestos-cement pipe which is used in a variety of commercial and industrial applications. These plants are new and modern (one constructed in 1967 and one in 1971) incorporating high-velocity local ventilation with baghouse controls.

The Company welcomes this opportunity to submit the following comments on the OSHA proposed asbestos standard:

Paragraph (b)(1)

The definition of "asbestos," although technically correct, unnecessarily includes tremolite, anthophyllite, and actinolite as regulated substances. The medical data (to date) do not support the inclusion of the above.

Paragraph (c)(1)

The 8-hour time-weighted average concentration of 0.5 fibers per cubic centimeter is too stringent. The "0.5" figure appears to have no basis in fact. Asarco believes that evidence is needed to justify changing the existing 2 fiber/cc standard. Simply to lower number standards without evidence of need and

thereby to cause great unnecessary expense to industry without discernible benefit creates waste of dollars and energy that could be more productively used.

Paragraph (d)

The "work area where a person may be exposed to airborne concentrations of asbestos fiber..." (emphasis added) is much too general and vague. As an illustration, employees at some Asarco metal smelters repair brake linings, or make bonded asbestos gaskets, or use asbestos rope caulking on an irregular basis for short periods of time (1-15 minutes). Exposure samples show very low concentrations of asbestos. /See Table I/ Designation of these areas as "regulated areas" and maintenance of a roster borders on the ridiculous. Asarco suggests that the language be changed to "work area where asbestos is regularly and routinely handled and airborne concentrations of asbestos fiber exceed the standard."

Paragraph (e)(1)

As in paragraph (d), the need for monitoring "where asbestos fibers may be released" is too general and vague. The Company suggests that initial monitoring be required for industries normally and/or routinely using asbestos, or where a qualified industrial hygienist could reasonably expect the two limits prescribed in paragraph (c) to be exceeded.

Paragraph (e)(2)(i) and (ii)

Monthly sampling is much too frequent and burdensome. Asarco's two asbestos-cement plants employ about 210 people of which 200 may be exposed above the proposed 0.5 fiber/cc standard. For accuate counting and construction of an 8-hour time-weighted average, as many as 5 samples per employee per shift may be needed (as noted in Appendix B, Section IV, paragraph A of the proposed standard). Therefore, Asarco's two small asbestos-cement plants may need to collect 1000 samples per month at an estimated cost of $50 per sample plus salaries for two additional technicians for a total of $52,000 per month, costs which can positively be termed "unreasonable."

Asarco suggests monitoring every three months in areas exceeding the 2 fiber/cc 8-hour time-weighted average (as previously proposed by Asarco). Annual plant surveys are also suggested.

Paragraph (e)(3)

The membrane filter method, using phase contrast illumination, is basically inadequate for asbestos sampling. OSHA should recognize this and make some provision in this paragraph for alternative and improved methods. Asarco notes that the proposed asbestos standard is the only new standard that does not contain a paragraph on the "Accuracy of Measurement" (which usually requires an accuracy to a confidence level of 95%). To illustrate

the inadequacies of the membrane filter method, OSHA should examine the results of the NIOSH PAT program, an interlaboratory testing program which gives out known samples to a number of laboratories. Asarco's Department of Environmental Sciences Laboratory participates in this program. Data supplied from PAT (consisting of histograms or asbestos fiber counts) show that a given count of fibers by the membrane filter method is considered valid if it is within 35% of the mean value. In addition, the membrane filter method does not positively identify any fiber as being asbestos. Only asbestos-like fibers are counted. Asarco has found that fiberglass and even finely dispersed toilet paper fibers may be counted as asbestos using the membrane filter method. Unfortunately, the proposed asbestos standard of 0.5 fibers/cc is an absolute number. The regulation should address itself to the concept of standard deviation and/or experimental error. These are concepts which are inherently important in any analytical measurement and should be included, especially with an inadequate method like the membrane filter method.

Paragraph (f)(1)

The two asbestos-cement plants, operated by Asarco, already use high-velocity pick up ventilation and total enclosure of the process, where feasible. The older plant, constructed in 1967, recently installed a new ventilation system to comply with the existing asbestos standard of 2 fibers/cc (taking effect in

1976). In fact, the system is so new that air sampling data are not yet available. Air sampling data are available for the plant constructed in 1971. This plant uses the best available engineering control technology, in our opinion. The results of the latest regular six-month asbestos survey of this plant are shown below.

ASARCO Lab No.	Sample No.	Sampling Rate	Fiber/cm^3
1297	2001	2 L/min. - 120 min.	0.67
1298	2002	" 120 "	0.82
1299	2005	" 120 "	0.32
1300	2006	" 120 "	0.18
1301	2008	" 120 "	0.10
1302	2010	" 120 "	0.01
1303	3002	" 120 "	0.20
1304	3003	" 120 "	1.12
1305	3004	" 110 "	0.36
1306	4000	" 105 "	0.20
1307	4002	" 90 "	0.30
1308	4003	" 105 "	1.10
1309	4004	" 90 "	2.52
1310	5001	" 120 "	0.12
1311	5002	" 120 "	0.24
1312	6001	" 90 "	0.21
1313	6002	" 90 "	0.14
1314	6004	" 120 "	0.20
1315	6006	" 110 "	0.48
1316	8005	" 240 "	0.01

A blank filter was also counted and was found to be very low. The blank was subtracted from the above results.

As can be seen, even with the most modern technology, six of the twenty samples (30%) exceed the OSHA proposed limit of 0.5 fibers/cc. Thus, full compliance with the 0.5 fibers/cc limit using engineering controls is not only highly doubtful, but promises to be prohibitive from a cost standpoint.

Paragraph (4)(i)

Wet methods are specified "insofar as practicable." However, so far as Asarco can determine the definition of "practicable" has never been fully delineated by OSHA. This paragraph should be expanded and clarified to include the concept of economic feasibili as an integral part of any definition of "practicable."

Paragraph (f)(6)

Measurements to demonstrate the effectiveness of the ventilation system every three months are unneeded because the technology involved with high velocity ventilation minimizes the possibility of accretions or build-ups which would alter the effectiveness of the system. An annual survey would be adequate.

Another set of ventilation measurements within five days of "any change of production, process, or control" is vague and much too general. At asbestos cement plants, production and process chemistry can change on an hour-to-hour basis although exposures will not change and ventilation volumes will not change. Asarco recommends that this requirement be deleted.

Paragraph (g)

Asarco disagrees with OSHA over the use of respirators and feels that respirators are a viable compliance method. We urge that compliance with whatever standard is ultimately adopted should include the use of respirators to augment reasonably available engineering controls.

Paragraph (g)(3)(iv)

Asarco feels that this entire paragraph is unnecessary. The Company's experience has been that employees unable to function while wearing a respirator will report to their safety personnel, who will make every effort to rotate them to another job. However, we do not believe OSHA has the authority to require that an employee be given the same seniority status and rate of pay. This mandate also removes a viable respirator use enforcement technique which would require that an employee use a respirator and, if his respirator use does not improve, then he can be transferred to a lower paying job.

Paragraph (h)

The requirement for protective clothing for employees exposed above the limit of 0.5 fibers/cc is ridiculous because the standard is so low that virtually no deposition of asbestos fibers is likely. Asarco suggests that personal protective clothing be provided only for employees exposed above the ceiling concentration of 5 fibers.

Paragraph (i)(6)

The prohibition of smoking or non-food chewing material in regulated areas is virtually impossible to enforce.

Paragraph (j)(1)

OSHA should be aware that many states require that medical examinations be provided at no cost to the employee. This is the case where the two asbestos-cement plants are operated by

Asarco. Therefore, the language which makes medical examinations "available at the employers cost" is superfluous.

The present language requires pre-placement, annual, and termination medical exams for employees working "in an area exposed to airborne concentrations of asbestos fibers." This language is much too general and has been a very great problem to Asarco in attempting to comply with the existing standard. As stated previously in the comments on paragraph (d), employees at some Asarco metal smelters repair brake linings, or make bonded asbestos gaskets, or use asbestos rope caulking on an irregular basis for short periods of time (1-15 minutes). Exposure samples show very low concentrations of asbestos. Asarco feels that medical examinations should only be required for employees that work in areas exceeding the 8-hour TWA or the ceiling limit. Paragraph (j) combined with paragraph (n) essentially constitute a massive epidemiological study which OSHA is requiring that industry finance to justify OSHA's number of 0.5 fibers/cc. This responsibility should be placed on OSHA and NIOSH and not on industry.

Paragraph (j)(6)

In this day of malpractice suits and lack of occupational health physicians, Asarco feels that many local physicians would be reluctant to provide a written opinion for every employee examined. Asarco suggests that OSHA investigate this problem more thoroughly before including it with any of the proposed standards. Asarco

feels that it is obvious that a physician will err on the side of caution, making some men needlessly unemployable because of the written opinion.

Paragraph (m)(1)

The language requiring that exposed surface "be maintained free of accumulations of asbestos fibers, which, if dispersed, would create an airborne concentration in excess of the exposure limits" is much too vague. Any minor spill of asbestos fibers could violate this requirement, especially at the low number standard proposed by OSHA. The language should be clarified to say that "all exposed surfaces in the place of employment will be kept reasonably clean and spills should be cleaned up with caution to avoid dispersing asbestos fibers."

Paragraph (m)(2)

OSHA should recognize that other types of waste disposal methods, such as pellatizing, or otherwise bonding asbestos waste, are possible. OSHA should not limit the waste disposal methods to sealed impermeable bags or other containers. EPA's NESHAP program has recognized that pelletizing or bonding asbestos waste is essentially harmless. This section needs to be rewritten to reflect these facts.

Paragraph (n)

The entire section on record keeping is unduly onerous. As stated previously, OSHA appears to be requiring a massive epidemiological study to justify the proposed standard.

The records of mechanical ventilation measurements and employee training should not be required to be kept more than one year.

Paragraph (n)(6)(ii)

Although Asarco agrees that exposure measurements should be available to employees, the Company feels that the language "designated representatives" should be clarified to read "legally designated representatives" which would allow greater confidentiality of these records.

Paragraph (n)(7)(ii)

The need to notify, by letter, every employee and former employee of a transfer of records would be a Herculean task for many industries. For example, one of the company's asbestos cement plants has a 70% turnover rate. Therefore, the number of former employees is very high. Asarco feels that the transfer of records should be advertised in the legal notices of local papers.

Title	Job or Operation	Frequency of Operation	Sampling Date	Sampling Time (Min.)	Asbestos Fibers (>5 u/cm^3 Air)	8-Hr. Time-Weighted Average (>5 u/cm^3 Air) **
Brick-mason	Mixing asbestos cement dust with water*	Once/week	7/31	1	3.40	0.007
Brick-mason	" "	Once/week	1/18	4	4.7	0.04
Brick-mason	Bricking up load settler and working in No. 1 blast	Part of usual duties	10/10	470	0.02	0.020
Brick-mason	Caulking Blast Furnace	Part of usual duties	1/21	102	0.4	0.085
Brick-mason	Same as above	Twice/month	10/10	469	0.03	0.029
Machine Shop Welder	Punching asbestos gaskets in blacksmith's shop	Twice/month	10/10	112++	0.15	0.035
Mechanic	Drilling, countersinking, and riveting brake shoes for zinc plant crane	Twice/month	10/10	108 -	0.16	0.036

* A hand-held sample was also collected from the cloud of dust generated during the dumping of the dry cement. This 1-minute sample contained 6.11 asbestos fibers per cubic centimeter of air and represents the maximum possible exposur The 8-hour average exposure would be 0.013 fibers >5 u/cm^3 air.

NOTE The 8-hour averages assume that employees received no further exposures to asbestos fibers in the remainder of their work shift.

** OSHA Standards for Asbestos: 8-hour time-weighted average airborne concentrat = 5.0 fibers >5 ulong per cm^3 of air.

Ceiling concentration (not to be exceeded) = 10.0 fibers >5 ulong per cm^3 of a

\+ Sampling times generally represent the entire length of operation.

++ Usualy time for operation is two to three hours.

NOTE:

All employees were observed to wear respirators during these operations. The employees also reported that respirators were routinely worn during such activities. Good respirator use would, of course, result in lower individual exposures than the concentrations of asbestos fibers reported.