



THE CHLORINE INSTITUTE, INC., 2001 L STREET, N.W. WASHINGTON, D.C. 20036

PLAINTIFF'S EXHIBIT

DOW-683

202-775-2790

Fax 202-223-7225

Telex 276636 CHLO UR

July 7, 1989

Charles E. Stewart *Chairman*
Michael J. Ferris, *Vice Chairman*
Dr. Robert G. Smerko, *President*

TO: Environment and Health Committee

Loren Anderson, PPG (FAX 412-434-2137)
Don DeNoon, LCP (FAX 304-843-1310)
Pat Gilby, Du Pont (FAX 302-774-9770)
Hu Hogeman, Olin (FAX 615-336-4505)
Tom Parrott, Vulcan (FAX 205-877-3448)
George Woehr, Oxy (Hand-delivered)

Jerry Boller, GE (FAX 812-838-7942)
Paul Donovan (FAX 202-628-2087)
Brian Hagan, GP (FAX 206-676-7217)
Joe McDade, Dow (Hand-delivered)
Hiromichi Seya, Asahi (Fax 011-813-215-0527)
Robert Yohe, Olin (FAX 203-356-2064)

Asbestos Technical Task Group

Tom Marshall, GA Gulf (FAX 504-687-1924)
Cliff Barr, Pioneer (FAX 702-565-7145)
B.J. Mentz, CanOxy (FAX 604-929-7610)
Paul Donovan (Also on EAH Committee)
Sid Dahl, Oxy (FAX 214-404-3312)
John Heilala, Vulcan (FAX 205-877-3448)

Richard Lodmill, Wyrhsr. (FAX 206-924-3671)
John Capriccioso, Dow (FAX 202-429-3467)
Ken Burgess, Dow (FAX 517-636-1875)
Hu Hogeman, Olin (Also on EAH Committee)
Dick Samelson, PPG (FAX 412-434-2137)
Vic Coates, Vulcan (FAX 216-529-7552)

FM: Art Dungan

RE: EPA's Asbestos Ban - Final Rule

Attached are highlights of the EPA's final rule concerning the asbestos ban regulation. The following is included:

- o Pages 1-4 of EPA Fact Sheet
- o Portions of the final rule outlining reasons not to regulate asbestos diaphragm (pages 198-201)

Certain types of packing and certain uses of specialty industrial gaskets are also among the items excluded from the rule. I have included the section on gaskets as it possibly could include gaskets used in chlorine piping systems.

Asbestos diaphragm used in chlor-alkali manufacture are excluded from the rule.

The final rule is scheduled to be published in the July 12, 1989, Federal Register.

AED:mmh
Asbestos.Ban
7789

Enclosure

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THE CHLORINE INSTITUTE, INC., 2001 L STREET, N.W., WASHINGTON, D.C. 20036

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- o Pages 1-4 of EPA Fact Sheet
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AED:mmh
Asbestos.Ban
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Enclosure

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Rick

7/12/89

Copy of package from CI re asbestos
as requested - Joe McDade

7-6-89

FACT SHEET:

**FINAL RULE BANNING THE MANUFACTURE, PROCESSING, IMPORTATION AND
DISTRIBUTION IN COMMERCE OF MOST ASBESTOS PRODUCTS**

SUMMARY OF ACTION

The final Asbestos Ban and Phaseout Rule prohibits the manufacture, processing, and importation of most asbestos products at staged intervals over seven years. Distribution in commerce is prohibited for products banned in the first stage two years after the effective date of the first stage ban. For products banned in the second and third stages, distribution in commerce is prohibited one year after the effective dates of each of the second and third stage bans.

As part of EPA's overall strategy to prevent environmental pollution, this action will reduce long-term asbestos contamination by phasing out most asbestos products which account for major releases of asbestos. Given the long history of asbestos usage in our society and its ongoing release throughout the life cycles of products, asbestos has become a ubiquitous environmental contaminant. This banning action is unique in that it will help break the cycle of asbestos loading in the environment. Unlike other regulations which are limited to remedial actions, this ban will go far in preventing future asbestos exposure risks to human health and the environment.

This strategy is based on recognized human health risks, the exposure potential to asbestos in products throughout their life cycle, the availability of substitutes, and the likely development of additional safer and less costly substitutes during the phaseout period.

The final rule will eventually ban about 94% of asbestos use in the U.S., based on 1985 production volume estimates.

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STAGED BAN APPROACH

The rule prohibits, at staged intervals, the future manufacture, importation, processing, and distribution in commerce of certain asbestos products. Manufacture, importation, and processing is banned for products in the first stage ban one year after the rule becomes effective (i.e. in 1990), after four years for products in the second stage ban (1993), and after seven years for products in the third stage ban (1996). The distribution in commerce ban becomes effective two years after the manufacture, importation and processing ban for products in the first stage (1992); and after one year for products in the second and third stages (1994 and 1997 respectively).

A listing of the products and the respective stages of their ban appears below:

First Stage Ban

Manufacture, Importation, and Processing

One Year After Effective Date of Rule (1990)

Felt products

- Pipeline wrap
- Roofing felt
- Flooring felt

Asbestos/Cement (A/C) Products

- A/C sheet, corrugated
- A/C sheet, flat

Products out of use

- Vinyl/Asbestos floor tile
- Asbestos clothing

Distribution in Commerce Ban for Products in First Stage Ban becomes effective two years after the manufacture, importation, and processing ban (1992).

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Second Stage Ban

Manufacture, Importation, and Processing

Four Years After Effective Date of Rule (1993)

Friction Products

- Drum brake linings [Original Equipment Market (OEM)]
- Disc brake pads for light- and medium-weight vehicles (LMV) (OEM)
- Disc brake pads for heavy-weight vehicles (HV) (OEM)
- Clutch facings
- Automatic transmission components
- Industrial and commercial friction products

Gaskets

- Beater-add gaskets (except certain industrial uses)
- Sheet gaskets (except certain industrial uses)

Distribution in Commerce Ban becomes effective one year after the second stage of the manufacture, importation, and processing ban (1994).

Third Stage Ban

Manufacture, Importation and Processing

Seven Years After Effective Date of Rule (1996)

Coatings

- Roof coatings
- Non-roof coatings

Paper Products

- Commercial paper
- Rollboard
- Millboard
- Corrugated paper
- Specialty paper

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Friction Products

- Brake blocks (OEM)
- Brake blocks [Aftermarket (AM)]
- Drum brake linings (AM)
- Disc brake pads, LMV (AM)
- Disc brake pads, HV (AM)

A/C Products

- A/C pipe
- A/C shingle

Distribution in Commerce Ban becomes effective one year after the third stage of the Manufacture, Importation, and Processing Ban (1997).

Products Outside the Ban

The following asbestos products are not banned by the rule. They constitute a relatively small percentage of asbestos use (approximately 6% of U.S. asbestos consumption). These products are not only costly to ban because of the unavailability of reasonable-cost, suitable substitutes, but the release of asbestos over their life cycle does not result in particularly high exposure concerns in most cases relative to the products that are banned by this rule:

- o acetylene cylinders
- o arc chutes
- o asbestos diaphragms
- o battery separators
- o high-grade electrical paper
- o missile liners
- o reinforced plastic
- o sealant tape
- o asbestos thread
- o packings
- o certain industrial uses of both sheet gaskets and beater-add gaskets

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after the effective date of this rule's bans poses an unreasonable risk of injury to human health: (1) the development of substitute fibers, (2) the potential for high lifetime risks related to exposure to asbestos due to the manufacture, importation, processing, and use of new asbestos products, (3) the likely escalation of environmental loading of asbestos if the manufacture, importation, processing, or distribution in commerce of new asbestos products were allowed, (4) the speculative benefits of new uses of asbestos, and (5) the absence of costs related to modification of existing capital equipment. Therefore, EPA finds that the benefits of banning new commercial asbestos products outweighs the costs of such a ban. Should a new use of asbestos be developed which meets the criteria applied to exemptions for existing asbestos products, set out in Unit III.E of this preamble and § 763.173, an exemption should be applied for and may be granted.

1. Categories and activities not subject to this rule's ban. This grouping includes acetylene cylinders, arc chutes, asbestos diaphragms, battery separators, high-grade electrical paper, missile liners, packings, reinforced plastic, sealant tape, specialty industrial gaskets, and textiles. These products were generally proposed for a third stage ban or a ban via the operation of a permit system. These products are exempted from the final rule's bans because, based on currently-available information, EPA has not found that they pose an unreasonable risk of injury to human health under the criteria of TSCA section

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6. EPA will reconsider its decision whether to include these products within the ban if more information about them becomes available.

The following paragraphs discuss EPA's findings for the various products in this grouping.

~~1. Acetylene cylinder filler. These products are used as filler in steel cylinders used to store acetone in oxyacetylene torches. Benefits derived by banning this product would total less than one tenth of a cancer-case-avoided. Exposures during primary manufacture are low due to the enclosed nature of the product's production process. Exposures in stages of the product's life cycle beyond primary manufacture are likely to be limited, relative to other product categories, because the product is enclosed and there is little exposure during product repair or disposal compared to other products analyzed for this rule.~~

EPA does not believe that a ban is appropriate for this product category for the following reasons: (1) current substitutes are more expensive than asbestos products and little information is available on the relative performance characteristics of substitutes; therefore, reasonable cost, suitable substitutes may not be available for all applications of these products; (2) this product category accounts for only a minuscule portion of U.S. asbestos consumption (approximately 584 tons in 1975); and (3) a ban on this product category would result in only minimal benefits because asbestos exposure is

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limited in most life cycle stages, relative to other products analyzed for this rule.

ii. Arc chutes. These products are used to guide electric arcs in products including motor starter units in electric generating plants. The benefits derived from a ban on this product would total only a small fraction of a cancer-case-avoided. Although EPA has no data on exposure for products in this category, exposures in product life cycle stages beyond primary manufacture are likely to be limited, relative to other product categories, because the asbestos is bound in ceramic in the end use product.

EPA does not believe that a ban is appropriate for this product category for the following reasons: (1) insufficient information was available regarding exposure to determine the benefits of banning this product; (2) this product category accounts for only a minuscule portion of U.S. asbestos consumption (approximately 13.5 tons in 1985).

iii. Asbestos diaphragms. These products are used primarily in the chlor-alkali industry in the production of chlorine, caustic soda, and other products. Benefits derived by banning this product would total approximately three tenths of a cancer-case-avoided. Exposure to asbestos during the life cycle of this product is limited because the product is generally fabricated on site, used saturated with solution, and disposed of while wet. Asbestos is not prone to be released into the ambient air during stages after product fabrication. Further,

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insufficient information exists regarding the availability of substitute products for diaphragms in existing chlorine production plants to justify a ban. The cost of modifying existing plants to accept new membrane cell technology in response to a ban on asbestos use in this product may be very high. Based on available information, the total cost of banning this product is estimated to total more than \$2 billion. However, suitable substitutes now exist for asbestos diaphragms for use in more recently-constructed chlorine product plants. Therefore, EPA specifically recommends that users of asbestos diaphragms use non-asbestos diaphragm cells in facilities that will accept them and in the design of new facilities.

EPA does not believe that a ban is appropriate for this product category for the following reasons: (1) insufficient information was available to determine whether suitable product substitutes will soon be available for use in existing chlorine production facilities; (2) the cost of banning this product category would be very high; (3) this product category accounts for only a minuscule portion of U.S. asbestos consumption (less than 1,000 tons in 1985); and (4) a ban on this product category would result in only minimal benefits because asbestos exposure is limited in most life cycle stages, relative to other products analyzed for this rule.

~~iv. Battery separators. These products are used to insulate or separate the polar terminals in batteries or fuel cells, primarily in highly-specialized military and aerospace~~

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Does this include asbestos gaskets ^{containing}
used in chlorine service?

Category 4 of items not included
in the asbestos ban

207

→ x. Specialty industrial gaskets. The production of most asbestos-containing gaskets is banned in Stage 2 (see Unit V.F.g). Excluded from the rule's bans are gaskets that are manufactured, imported, processed, or distributed in commerce for specialty industrial uses. This exclusion is limited to asbestos-containing gaskets that are designed for industrial uses in either (a) environments where temperatures are 750 degrees Fahrenheit or greater, or (b) corrosive environments. An industrial gasket is one designed for use in an article which is not a "consumer product" within the meaning of the Consumer Product Safety Act (CPSA), 15 U.S.C. 2052 or for use in a "motor vehicle" or "motor vehicle equipment" within the meaning of the National Traffic and Motor Vehicle Safety Act of 1966, as amended, 15 U.S.C. 1381. A corrosive environment is one in which the gasket is exposed to concentrated (pH less than 2), highly oxidizing mineral acids (e.g., sulfuric, nitric, or chromic acid) at temperatures above ambient. For example, gaskets used in automobiles or consumer products would not be excluded from the rule's bans, even if a particular application was designed for use in a corrosive environment or an environment of greater than 750 degrees Fahrenheit. On the other hand, gaskets used in industrial machinery would be excluded from the rule's bans if the gasket application were designed for use in a corrosive environment or in one of greater than 750 degrees Fahrenheit.

Gaskets are used to seal one compartment of a device from another in static applications. This portion of the beater-add

My opinion
is that
chlorine
would not
fall under
this exclusion.

A.D.

- Paul
Dowd's
Rn is
looking
at this

ST0278954

and sheet gasket product categories is not being banned because: (1) according to commenters and the RIA, industrial applications above 750 degrees Fahrenheit and industrial uses in corrosive environments contain many specialized uses of asbestos gaskets, including advanced technology and military applications, and available information indicates that substitutes for these industrial applications are less likely to be available than for lower temperature, non-corrosive, or consumer (e.g., automotive) applications, (2) due to the nature of their applications, the potential hazards created by failure of specialty industrial gaskets might be greater than for other categories, (3) these applications account for only a small portion of the gasket product categories and a very small portion of U.S. asbestos consumption, (4) industrial applications have relatively lower overall exposure levels and smaller exposed populations than do uses with potential consumer exposures, (5) the benefits resulting from a ban of these applications (approximately 6.6 cancer cases) would be small relative to the benefits derived from including the rest of the gasket categories in the ban. The cost of banning these portions of the gasket categories would be high because available evidence indicates that suitable substitutes do not exist and are unlikely to soon be developed for a significant number of applications and a number of existing substitutes are very expensive. The total cost of banning these applications is estimated at approximately \$95 million.

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2020 636-1321 89/07/10 11:02:05

From: U024863 --S21VM Date and time 07/07/89 15:39:16
To: U061644 --S08VRNA BURTCH, THOMAS E. U434126 --MADECD CORAM, PAUL P T
U118663 --TXDECD GOLDEN, CHARLIE C U074699 --MACAMS GRAY, JOHN J A
U432154 --MADECD GROSS, JOHN W. J W U067860 --S08VRNA GROSS, R. M. / 202
U422297 --S08VRNA MCDAD, JOSEPH J.

FROM: KEN BURGESS HES 1803 636-3177

SUBJECT: EPA ASBESTOS RULE

John and I have read Chlorine Inst. excerpts from the 200 page rule. Assuming that there is nothing hidden in some very strange place, the asbestos diaphragm is not banned or controlled in any way. EPA does say that they may come back some day but it looks like it would take a whole new rule procedure. WE HAVE A WIN. In fact it is probably a big enough win that NRDC will sue EPA. CI needs to be preparing a court defense.

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THE DOW CHEMICAL COMPANY

1803 BUILDING
July 17, 1989

MIDLAND, MICHIGAN 48674

RECEIVED
JUL 18 1989

T. Burtch, 2020
P. Coram, 2511 Plaquemine
C. Golden, A1230 Freeport
J. Gray, 2030
J. Gross, 2511 Louisiana
R. Gross, 2020
J. McDade, 2020

ENVIRONMENTAL AFFAIRS

ASBESTOS FINAL RULE

The attached Federal Register document is lengthy with very little reference to asbestos diaphragms. Basically, EPA has identified all product categories that contain asbestos and specifically banned those products where they can justify a ban. The actual rule, which is all that will appear in the code of Federal Regulation starts on page 29507 and does not even mention asbestos diaphragm except to define and to say (763.163) that they are not included in the undefined product listed as "new."

Some significant points are:

- pg. 29461 Provisions of the Rule - Ban on manufacture, import, processing and distribution of product. Asbestos Diaphragms are not included. The proposed rule also banned mining and import of asbestos. The final rule does not.
- pg. 29468 Column 1 claims 202 cancers avoided at a cost of \$459 million and allowable uses (non-regulated) amounting to 6% of 1985 use of asbestos. The uses allowed have minimal exposure, questionable substitutes and high cost.

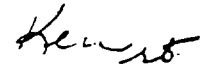
It appears that the key section for asbestos diaphragms is Section V part F Summary of Product category. This starts on pg. 29490 reviewing each product category that is banned [i.e. (a) = felt product etc.] and going on to V(F)(1) pg. 29560 Column 2 - "Category and activities not subject to this rules ban". Part iii (Column 3) is our protection.

Just to try to clarify our position in the rule itself, Asbestos diaphragms are defined along with all other product categories. Several specific categories are banned in different stages. Asbestos diaphragm is not mentioned in any of

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the stages, therefore; we are not banned. The reason for not banning this product is given in the preamble at Section V(F)(1)(iii) pg. 29500. I am spelling this out because the rule covers what is banned without saying what is not banned, although 763.160 - Scope (29507) says "prohibit...products identified ... in 763.165, 167 and 169. We are not in those sections.

I am a little concerned about the definition that is included in this rule. John Gray and I will review this and other parts in more detail.



K. L. Burgess
Legislative Affairs
Health and Environmental Sciences

rt

attachment

STO278957A



DOW CHEMICAL U.S.A.

2020 BUILDING
September 28, 1990

WILLARD H. DOW CENTER
MIDLAND, MICHIGAN 48674

S. L. S. Dombrowski
J. M. Capriccioso
Environmental Health &
Government Affairs
2020 Willard H. Dow Center

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OCT 1 1990

Environmental Affairs

cc: W. B. Horton, 2512, Plaquemine
T. E. Burtch, 2020 WHDC
R. D. Bridges, B-2234, Freeport
M. R. Gambrell, 2020 WHDC
G. L. Stevens, A-1230, Freeport
J. J. McDade, 2020 WHDC
D. M. Heydanek, 2020 WHDC

U. S. ASBESTOS REGULATIONS

I am beginning to hear more and more Dow folks associated with our chlor-alkali business, express concern that the asbestos regulations pertaining to our diaphragm cells could change quickly, and the suggestion that this might be in the air today in Washington.

Between the two of you, I'm confident that you will be able to tap all of Dow's Regulatory expertise in short order to get some data and hard facts.

My understanding is as follows:

1. First, asbestos chlor-alkali diaphragms are excluded from the current regulations - not an exemption. This is a very significant difference.
2. The currently covered items in the regulations, e.g. asbestos pipe, roofing materials, etc., have until 1997 to remove all of the asbestos from their products. This was an 8-year phase-out from 1989 when the regulations were promulgated.
3. Since asbestos chlor-alkali diaphragms are excluded (point #1), it would require the complete rule-making process (e.g. ANPR, public comment period, etc.) to change this, a process that normally takes 1-2 years.

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S. L. Dombrowski
J. M. Capriccioso
September 28, 1990
Page Two

4. Finally, my sense of the current mood is a growing understanding that the cost of removing asbestos from buildings over the past decade was way out of line with the benefit gained.

If my understanding of the current status and process is correct, I conclude that if the shoe dropped tomorrow it would be ~2000 before non-asbestos Q/A diaphragms would be required.

Stan and John, please get the facts together and the collective wisdom of our Dow regulatory experts within the next couple of weeks.



R. M. Gross
Chemicals & Metals
6-5726

slo

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2020 636-1321 90/10/04 14:46:09

.....
From: U072882 --S08VRNA Date and time 10/04/90 13:44:00
To: U070137 --S08VRNA KROKOSKY, JOHN A. U064901 --S08VRNA CAPRICCIOSO, JOHN

FROM: STAN DOMBROWSKI, ENV. AFFAIRS, C&M 2020BLDG.
SUBJECT: ASBESTOS REGULATORY ANALYSIS
JOHN, I MEANT TO DISCUSS WITH YOU BUT KEEP FORGETTING AND WITH OUR SCHEDULES WHO KNOWS WHEN WE WILL CONNECT SO I THOUGHT I'D SEND THIS NOTE. I HAVE ASKED JOE MCDADE TO PUT TOGETHER A DRAFT RESPONSE TO RICK GROSS'S REQUEST OF SEPT. 27. IN JOE'S CURRENT ASSIGNMENT IT WOULD BE BENEFICIAL TO HIM AND WOULD BE THE RESOURCE FOR FURTHER ASSISTANCE AS NEEDED. JOE WILL GET A REGULATORY ANALYSIS TOGETHER FOR RICK AND RUN IT BY US TO ASSURE WE ARE ALL ON BOARD AND CONSISTENT IN OUR UNDERSTANDING OF THE LIKELY SCENARIOS. AT FIRST PASS I CONCUR WITH RICK'S ANALYSIS BUT HE WOULD VALUE FURTHER ELABORATION AND COLLABORATION.

cc: U422297 --S08VRNA MCDADE, JOSEPH J. U067860 --S08VRNA GROSS, R. M. / 202

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.....
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2020 636-1321 90/10/04 14:46:44

.....
From: U073763 --S08VRNA Date and time 09/28/90 15:51:06
To: U074974 --S08VRNA GAMBRELL, MIKE M R U422297 --S08VRNA MCDADE, JOE J J

FROM: RON MCCREEDY, CHLOR-ALKALI TS&D, 2020 WHDC/MIDLAND, 6-1824
SUBJECT: Asbestos Regs & Development

I've been asked to update (and monitor) the current asbestos regulations and any pending developments for the C/A CMT. Do you have any suggestions for contacts on this issue? Ken Burgess and Ton Burtch have been involved in this issue in the past. With Ken's retirement, who is following this now?

I'm trying to put together a summary by 11/1/90 and your help is greatly appreciated.

Thanks, Ron McCreedy (6-1824)

cc: U073763 --S08VRNA MCCREEDY, RON U070137 --S08VRNA KROKOSKY, JOHN J A
U080355 --S08VRNA MCGREW, DENNIS U067090 --S08VRNA GINTER, SALLY S P

ST0279016



Dow U.S.A.

The Dow Chemical Company
Midland, Michigan 48674

2020 DOW CENTER
October 19, 1990

RESTRICTED FOR USE WITHIN DOW

S. L. S. Dombrowski, C&M Environmental Affairs, 2020
R. M. Gross, C&M R&D Admin., 2020

cc: R. D. Bridges, B-234, Freeport
T. E. Burtch, 2020 Dow Center
J. M. Capriccioso, 2020 Dow Center
M. R. Gambrell, 2020 Dow Center
D. M. Heydanek, 2020 Dow Center
W. B. Horton, 2512, Plaquemine
D. R. McGrew, 2020 Dow Center
G. L. Stevens, A-1230, Freeport

U. S. ASBESTOS REGULATIONS

We have been asked to review the four points detailed in the Rick Gross memo dated September 28, 1990 on the referenced subject. Our response is as follows:

1. "First, asbestos chlor-alkali diaphragms are excluded from the current regulations - not an exemption. This is a very significant difference".

Response: Asbestos diaphragms are excluded from this rulemaking (out of the ban until EPA does something to change this situation - see point 3 below). An exemption requires action on the part of an interested party, i.e., submit the exemption, collect and maintain data, submit reports, re-apply for continuation of the exemption at periodic intervals, etc., all of which are subject to Agency approval or denial.

NOTE: This total product category exclusion accounts for about 6 percent of U.S. asbestos consumption (>1,000 tons in 1985).

2. "The currently covered items in the regulations, e.g. asbestos pipe, roofing materials, etc. have until 1997 to remove all of the asbestos from their products. . .".

Response: Correct. The final rule (Fed. Reg., 54(132):29460-29513, 7-12-89) prohibits, at three staged intervals, the future manufacture, importation, processing and distribution in commerce of most asbestos products (1992, 1994 and 1997). Piping and roofing materials are in the third stage ban (1997).

NOTE: Implementation of the final rule will result in the loss of about 94 percent of the asbestos used in the U.S. As this phase down occurs, asbestos for allowed uses may dwindle in availability and escalate dramatically in price. U.S. mining could cease and foreign supply may be the only available source of asbestos for U.S. operations.

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2105-2010

3. "Since asbestos chlor-alkali diaphragms are excluded (point #1). it would require the complete rule-making process (e.g. ANPR, public comment period, etc.) to change this, . . .".

Response: Correct. In granting an exclusion for the category (acetylene cylinders, arc chutes, asbestos diaphragms and seven others), EPA found that they did not pose an unreasonable risk of injury to human health under the criteria of TSCA section 6. The Agency made a strong case to support its action in excluding asbestos diaphragms: (1) benefits derived by banning this product would total approximately three tenths of a cancer case avoided; (2) a ban would result in only minimal benefits because asbestos exposure is limited in most life cycle stages, relative to other products analyzed for this rule; (3) insufficient information was available to determine whether suitable product substitutes will soon be available for use in existing chlorine production facilities; (4) the cost of banning this product would be very high (<\$2 billion). EPA specifically recommends that users of asbestos diaphragms use non-asbestos diaphragm cells in facilities that will accept them and in the design of new facilities. See attachment for more details.

This exclusion for asbestos diaphragms requires EPA to initiate action to change the existing situation. In order to bring about such change, the regulatory development process requires the Agency to go through the stepwise process Rick described. This is a slow process and could take 2-3 years to complete. Once a final rule is promulgated, an implementation period of at least 5 years might be expected to be granted, thereby putting any final action some 7-8 years into the future.

Some past Agency rulemaking time frame examples include:

1. Asbestos regulations: ANPRM, 10-17-1979; final rule, 7-12-1989; effective dates, 1992, 1994 & 1997 (10 years for regulations)
2. Drinking water stds (Phase I VOCs): ANPRM, 3-14-1982; final rule, 6-19-1987 (5 years for regulations)
3. Effluent guidelines, Org. Chems, Plastics & Syn. Fibers (OCPSF), Clean Water Act: Data gathering started during 1978 (308 surveys); several final rulemakings struck down by litigation; latest final rule, 11-5-1987, litigation, portions remanded to Agency; settlement agreements expected soon. (9 years for regulations, not enacted because of pending litigation)

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In an emergency, EPA can override this procedure, but in so doing, the reason(s) must be documented and well defined. Currently, we are not aware of any forces (internal or external) at work to pressure EPA into action regarding the asbestos diaphragm issue.

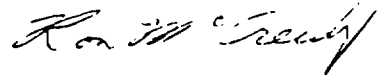
4. "Finally, my sense of the current mood is a growing understanding that the cost of removing asbestos from buildings over the past decade was way out of line with the benefit gained."

Response: The final rule phases out asbestos-containing products. It does not require removal of installed products during or after implementation of the final rule.

Please call if you have any questions, comments or concerns on the information provided.



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Attachment

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