



CEMENT ASBESTOS PRODUCTS COMPANY

2144 Highland Avenue, South • P. O. Box 3433 / Birmingham, Alabama 35203 • Phone 205 • 953-7281

W. H. BEASLEY
Vice President-Controller

January 12, 1976

Mr. Kelly M. Peil
Roy F. Weston, Inc.
Weston Way
West Chester, Pennsylvania 19380

Dear Kelly:

Please find enclosed the completed industry questionnaire regarding the asbestos study for AIA. As you recall, we agreed to make one report that would include numbers for both plants. You will notice I am attaching the flow diagram with the numbered steps for references.

If further information is desired please do not hesitate to call.

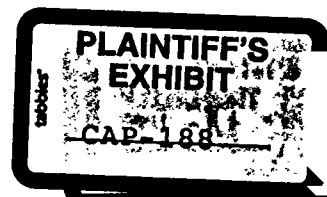
Sincerely,


W. H. Beasley

WHB:mf

Enclosure

bcc: Mr. A. E. Alpine
Mr. W. R. Bond
Mr. I. L. Taylor
Mr. S. D. Weaver



CAPCO ALV 0032022

ROY F. WESTON, INC.
WESTON WAY
WEST CHESTER, PA. 19380
PHONE: (215) 692-3030
TELEX 83-5348



As indicated in Mr. Robert Mereness' recent letter to you, Roy F. Weston, Inc. has been engaged by the Association to gather information and prepare a report on the technological feasibility and economic impact of the proposed revision to the OSHA Asbestos Standard. This report will be based upon the data and opinion provided by your company. We believe it is in the best interest of your company, and the industry as a whole, to participate in achieving a reasonable Standard.

Weston's plans are to contact you to discuss the attached questionnaire. Depending upon the project schedule (Weston's report will be issued to AIA/MA no later than 2 February 1976), a member of our project team will:

- Set up an appointment for a plant site visit, or
- Record your input by telecon, or
- Provide mailing instructions for your response.

To assure confidential treatment of your input, the cover sheet of the questionnaire will be coded, detached from the questionnaire, and kept separate. The cover sheet and questionnaire will not be duplicated.

Your data will be kept by Weston until the rule-making process is completed. At that time, your original input will be returned to you.

A questionnaire for each plant is required. If you have more than one plant, please duplicate the attached questionnaire.

Very truly yours,

A handwritten signature in cursive script, reading "Jerry L. Hebb".

Jerry L. Hebb
Manager, Occupational
Health Management
Department

JLH:jwg
Attachment

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ROY F. WESTON, INC.
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ASBESTOS INFORMATION ASSOCIATION/NORTH AMERICA

INDUSTRY QUESTIONNAIRE⁽¹⁾ (2)

Company Name Cement Asbestos Products Company
Plant Address 2144 Highland Avenue South, Birmingham, Alabama 35205
Corporate Affiliation ASARCO Incorporated
Name of Plant Contact W. H. Beasley Title Vice President-Controller
Phone Number (205) 933-7281

Note: This cover page will be detached from the remainder of the questionnaire to insure confidential handling of all information.

- (1) For assistance in completing the information in this questionnaire, please contact Mr. Jerry L. Hebb, Roy F. Weston, Inc., phone (215)692-3030.
- (2) If, for any reason, you do not choose to participate in the study by completing this questionnaire, please return it directly to Mr. Jerry L. Hebb at Roy F. Weston, Inc.

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I. General Product/Process Information

1. Which of the following industry segments best describes the asbestos-containing products in your operations? (Check more than one, if appropriate).

- ☒ Asbestos Cement Products (pipes, sheets, siding shingles)
☐ Asbestos Paper Products (asbestos felts, latex sheets, underlayments, electrical and commercial papers)
☐ Floor Tile
☐ Coatings (roof coatings, caulks, sealants, paints, adhesives and undercoatings)
☐ Friction Materials (automotive linings, disc components, blocks, clutch facings)
☐ Gasket, Packing, Sealing Devices
☐ Joint Cements
☐ Asbestos Reinforced Plastics
☐ Asbestos Textiles
☐ Asbestos Drilling Muds
☐ Asphaltic Paving
☐ Distribution/Resale
☐ Miscellaneous (Specify) _____

2. Which of the following categories best describes the operation at your plant? (Check more than one, if appropriate).

- a. ☒ Manufacture a product where raw asbestos is used.
What tonnage of raw asbestos do you use per year? 14,000 tons
b. ☐ Process a product which already contains asbestos.

3. In reference to Question 1, for each industry segment, give the specific asbestos end product(s) (siding, pipe, etc.) manufactured, handled, or used at this location and the annual volume of each (in pounds, tons, square feet, etc.).

<u>Industry Segment</u>	<u>End Product(s)</u>	<u>Annual Volume</u>
A/C Products	Pipe	32,000 tons - Ragland
		38,000 tons - Van Buren
		70,000 tons - Total

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4. What was the aggregate sales value of asbestos containing products manufactured at this plant during the last five calendar years: 2 Plants

1971	\$	<u>6,500,000</u>
1972	\$	<u>8,000,000</u>
1973	\$	<u>10,000,000</u>
1974	\$	<u>14,700,000</u>
1975	\$	<u>13,000,000</u>

5. What was the level of capital expenditure for plant improvement and expansion of production facilities for asbestos containing products during the last five calendar years? (Include capital expenditures for environmental control, plant improvement and expansion).

1971	\$	<u>2,000,000</u>
1972	\$	<u>500,000</u>
1973	\$	<u>100,000</u>
1974	\$	<u>300,000</u>
1975	\$	<u>700,000</u>

6. What is the total plant employment at this location? 274
7. Give the approximate percentage of the employees whose asbestos exposure falls in the following categories:
- Continually in the work environment (operating, production, materials handling personnel) 201
 - Frequently in the work environment (maintenance, supervisory personnel) 54
 - Only occasionally (less than 5 times per week) in the work environment (management, engineers) 10
 - Never or very infrequently enter the work environment (secretaries, sales personnel) 9
8. What unions (locals) represent your employees, if any? _____

- a. How active have the unions been in the area of employee health and safety (demands for hazard pay, shorter work periods, etc.)?

<u>Active Area</u>	<u>Extent of Activity</u> (V--Very, M--Moderate, N--None)
_____	_____
_____	_____
_____	_____
_____	_____

- b. What is the current pay scale range of unionized personnel? _____

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II. Control Technology/Cost Information

9. Provide a brief description of each step in your operation as it relates to asbestos handling or movement. Interest is primarily in the location of dust sources (bag slitting and dumping, sanding/finishing, etc.) and in dust control at these sources (hoods, etc.) rather than in the production equipment. A block flow diagram is suggested. There should be one such diagram for each product group and/or process used. Include raw materials entry and finished product handling. A blank page has been inserted at the end of this section for the block flow diagram(s) and description(s). If additional space is needed, please attach extra sheets. (See Attached)
10. Has control equipment been installed at each step or combination of steps in the block flow diagram(s) where asbestos is released to reduce worker exposure to airborne asbestos? Yes X No

List control equipment in use:

<u>Step</u>	<u>Type of Equipment</u>	<u>Date Installed</u>
<u>1</u>	<u>Respirators</u>	<u>As Needed</u>
<u>2</u>	<u>Baghouse</u>	<u>Ragland-1965 / 1971-Van Buren</u>
<u>3</u>	<u>Baghouse</u>	<u>Ragland-1965 / 1971-Van Buren</u>
<u>4</u>	<u>---</u>	<u>---</u>
<u>5</u>	<u>Baghouse</u>	<u>Ragland-1965 / 1971-Van Buren</u>
<u>6</u>	<u>Baghouse</u>	<u>Ragland-1965 / 1971-Van Buren</u>
<u>7</u>	<u>Baghouse</u>	<u>Ragland-1965 / 1971-Van Buren</u>
<u>8</u>	<u>Baghouse</u>	<u>Ragland-1965 / 1971-Van Buren</u>
<u>9</u>	<u>---</u>	<u>---</u>
<u>10</u>	<u>Baghouse</u>	<u>Ragland-1965 / 1971-Van Buren</u>
<u>11</u>	<u>Baghouse</u>	<u>Ragland-1965 / 1971-Van Buren</u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>

11. What is the total cost of control equipment listed in Question 10?
- a. Capital cost (installed) \$ 250,000
- b. Operating cost (annual) \$ 100,000
(Note: give horsepower, exhaust volume, etc., if operating costs are unknown.)
- c. What effect has this equipment had on your process, product or production rate? Minimal

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- d. Did this equipment increase or decrease the plant/process energy requirements (electrical power, space heating, etc.)? Increase X
Decrease _____ By how much? 12%
12. What process modifications or work practice changes, if any, were instituted to reduce worker exposure to asbestos? Vacuum Cleaners, Housekeeping, Method of Handling
- a. Capital Cost (installed) \$ 30,000
b. Operating Cost (annual) \$ 5,000
c. What effects have these process modifications or work practice changes had on your process, product, or production rate? None
- d. Did these process modifications or work practice changes increase or decrease the plant/process energy requirements? Increase X
Decrease _____ By how much? 2%
13. Have the control equipment or work practice changes reduced airborne asbestos levels in all of the work areas? Yes X
No _____

List the ranges of asbestos fiber counts in the work areas involved:

<u>Work Area</u>	<u>Range of Asbestos Fiber Counts</u>	
	<u>Before Modifications/ Changes</u>	<u>After Modifications/ Changes</u>
<u>See Flow Diagram</u>	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

14. Have the control equipment or work practice changes reduced air-time-weighted average exposure to airborne asbestos in all of the work areas? Yes X No _____

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<u>Work Area</u>	<u>Range of TWA Asbestos Fiber Counts</u>	
	<u>Before Modifications/ Changes</u>	<u>After Modifications/ Changes</u>
<u>See Flow Diagram</u>		

The present asbestos standard sets a maximum allowable Time-Weighted Average (TWA) exposure of 5 fibers/cc over an 8-hour period. This, by statute, will be reduced to 2 fibers/cc in July, 1976. The proposed standard would reduce this level to 0.5 fibers/cc at some time in the future. If you have already reached 0.5 fibers/cc at each step where asbestos is released into the work place, please go on to Part III; if not, please complete the following:

15. At each location where asbestos dust is released, do you feel you have installed the "Best Available Technology?" Yes X - ^{At the} ~~time~~ No _____
Best Available Technology (BAT) is defined as control equipment, process modifications, work practice changes, or combinations thereof, which have been demonstrated to provide the most effective control or reduction of contaminant emission.
16. If not, what do you consider the BAT to be, and how effective will it be in reducing airborne asbestos at each location? (Can be control equipment, work practices, process modifications, or combinations thereof).

<u>Locations</u>	<u>BAT</u>	<u>Estimated Asbestos Fibers/cc</u>

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17. What is the expected cost of BAT in terms of:

- a. Capital Cost (installed) \$ _____
b. Operating Cost (annual) \$ _____
c. Plant/Process Energy Requirements, Increase _____
Decrease _____
d. Personnel Requirements, Increase _____ Decrease _____
e. Process/Product Effects, Increase \$ _____
Decrease \$ _____
Explain _____
f. By what date could BAT be implemented? _____

18. If the Best Available Technology does not reduce worker exposure to a TWA of 0.5 fibers/cc and a ceiling of 5 fibers/cc at all points, provide your considered judgment on the possibility, cost, and timing to develop new technology to achieve this level. What approach might be used? _____

19. If the proposed 0.5 fibers/cc level is adopted, what action is foreseen at your plant? _____

III. Industrial Hygiene and Health Information

20. The existing and proposed standards require certain industrial hygiene practices where workers are exposed to airborne asbestos below the established TWA or ceiling levels. Do you (provide cost data where available):

	<u>Yes</u>	<u>No</u>	<u>Cost/ Man-Year</u>	<u>Total Plant Cost/Year</u>
a. Provide preplacement employee medical exams?	<u>X</u>	_____	<u>\$ 9.</u>	<u>\$ 2,500.</u>
b. Provide annual employee medical exams?	<u>X</u>	_____	<u>\$50.</u>	<u>\$13,700.</u>
c. Provide termination employee medical exams?	<u>X</u>	_____	<u>\$ 2.</u>	<u>\$ 550.</u>

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	<u>Yes</u>	<u>No</u>	<u>Cost/ Man-Year</u>	<u>Total Plant Cost/Year</u>
d. Retain medical records (20 year period)?	<u>X</u>	<u> </u>	<u> </u>	<u> </u>
e. Maintain records of employee exposure to asbestos fiber (3 year period)?	<u>X</u>	<u> </u>	<u> </u>	<u>Negligible</u>
f. Dispose of waste materials which may contain asbestos in sealed containers?	<u> </u>	<u>X</u>	<u> </u>	<u> </u>
g. Provide caution labels for all material containing unbound asbestos?	<u> </u>	<u>X</u>	<u> </u>	<u> </u>
h. Provide initial monitoring (sampling) of the work place for airborne asbestos?	<u>X</u>	<u> </u>	<u>\$1.</u>	<u>\$ 275.</u>
i. Provide periodic monitoring (sampling) of the work place for airborne asbestos?	<u>X</u>	<u> </u>	<u>\$3.</u>	<u>\$ 825.</u>

21. Certain provisions of the existing regulation require additional industrial hygiene practices where levels of airborne asbestos exceed TWA of ceiling standards. Where these requirements apply to your plant, do you:

	<u>Yes</u>	<u>No</u>	<u>Cost/ Man-Year</u>	<u>Total Plant Cost/Year</u>
a. Have a respirator program (for use in certain work situations or emergencies)?	<u>X</u>	<u> </u>	<u>\$4.</u>	<u>\$1,000.</u>
b. Provide worker rotation where employee is unable to function normally while wearing a respirator?	<u> </u>	<u>X</u>	<u> </u>	<u> </u>
c. Provide protective clothing (for employee exposed to asbestos greater than the ceiling level)?	<u>X</u>	<u> </u>	<u>\$1.</u>	<u>\$ 275.</u>
d. Provide change rooms (where special clothing is required)?	<u>X</u>	<u> </u>	<u>\$1.</u>	<u>\$ 275.</u>
e. Provide separate locker facilities (where special clothing is required)?	<u> </u>	<u>X</u>	<u> </u>	<u> </u>
f. Provide laundering of special clothing?	<u> </u>	<u>X</u>	<u> </u>	<u> </u>
g. Post caution signs (where levels are greater than the ceiling or TWA levels)?	<u>X</u>	<u> </u>	<u> </u>	<u>Negligible</u>

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22. Do you employ a company physician? Yes _____ No X
If yes: Full-Time _____; Part-Time _____ Part-Time hours/
week _____
23. Do you employ an industrial hygienist? Yes X No _____
If yes: Full-Time X; Part-Time _____ Part-Time hours/
week _____
24. Who performs your medical examinations (clinic, resident physician, etc.)?
Clinic and Local Physician
25. The proposed standards expand the scope of industrial hygiene practices into areas such as: shower requirements, regulated areas, expanded respirator programs, and employee education programs. In general, how do you believe your employee will react to such practices? _____
First, some resistance - then will accept whatever is necessary to
comply or be protected.

IV. Economic Impact Information

26. Considering individually the major products manufactured at this location, has implementation of asbestos exposure control procedures and industrial hygiene programs affected the cost of these products? Yes X
No _____
If yes, specify:

<u>Products</u>	<u>Implementation Cost, \$/Unit of Production</u>	
	<u>Increase</u>	<u>Decrease</u>
<u>Pipe</u>	<u>2%</u>	

27. Have you experienced a shift or change in product sales due to the cost impact described in Question 26? Yes _____ No X

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a. If yes, specify:

<u>Products</u>	<u>Sales Change, \$/Year</u>	
	<u>Increase</u>	<u>Decrease</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

b. If sales have decreased, has the demand been satisfied by:

	<u>Yes</u>	<u>No</u>
Other Asbestos Products	_____	_____
Asbestos Substitute Products	_____	_____
Imported Asbestos Products	_____	_____

c. Which of the above has had the greatest impact on your sales?

28. Considering individually the major products manufactured at this location, do you expect the future implementation of SAT control procedures and expanded industrial hygiene programs to effect the cost of your products?

Yes X No _____

If yes, specify:

<u>Products</u>	<u>Implementation Cost, \$/Unit of Production</u>	
	<u>Increase</u>	<u>Decrease</u>
Pipe	Unknown	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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29. Would you expect to experience a shift or change in product sales due to the cost impact described in Question 28? Yes _____ No X

a. If yes, specify:

<u>Products</u>	<u>Sales Change, \$/Year</u>	
	<u>Increase</u>	<u>Decrease</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

b. If you expect a sales decrease, will the demand be satisfied by:

	<u>Yes</u>	<u>No</u>
Other Asbestos Products	_____	_____
-Asbestos Substitute Products	_____	_____
Imported Asbestos Products	_____	_____

c. Which of the above would you expect to have the greatest impact on your sales? _____

30. What is the typical age of production equipment in use at your plant in your particular industrial segment?

<u>Segment</u>	<u>Typical Production Equipment Age, Years</u>			
	<u>0 - 5</u>	<u>5 - 15</u>	<u>15 - 25</u>	<u>25+</u>
A/C Products	_____	5 - 10 yrs.	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

31. In your opinion, with the implementation of BAT and the proposed OSHA standard to control worker exposure to asbestos, what portion of the existing production equipment may continue to be economically utilized? (Consider the portion of capital equipment retained as a percentage of the total production area investment).

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Less than 10%	_____
10 - 25%	_____
25 - 50%	_____
50 - 75%	_____
Greater than 75%	<u>X</u>

32. Within your community, which estimate best describes the portion of the total work force employed at your plant?

Less than 10%	_____
10 - 25%	<u>X</u>
25 - 50%	_____
50 - 75%	_____

V. Information Regarding Manufacturers/Fabricators of Asbestos-Containing Products

The proposed regulations apply to every place of employment where asbestos, or a product containing asbestos, is manufactured, processed, packaged, stored, applied, used, or otherwise handled. It is extremely important to our assessment to include estimates of the number of people involved as your products are ultimately used and the possible asbestos exposure levels of these individuals. Insofar as is possible, kindly provide the following information:

33. Who uses the asbestos-containing products you produce (construction industry, auto repair garage, fabricator, etc.)? _____

Contractors in construction of watermains, etc.

34. Describe how your products move from your plant through the final consumer Primarily common carriers - trucks and rail

35. Estimate numbers of people and what levels of asbestos dust exposure, if any, may occur at each step (from further processing, fabrication, installation, etc.)? Minimal

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36. Provide names of your customers and appropriate trade association so that Weston might obtain more comprehensive information in these areas

AIA and A/C Pipe Producers Association

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