



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

To Companies responding to Weston's Questionnaire

Enclosed is the Questionnaire your company provided to Weston for the Technological Feasibility and Economic Impact Study of the Proposed Asbestos Standard.

As we indicated when you were initially contacted, your company's data were kept confidential. Now that the Weston Report has been released to AIA/NA members and participating companies, we no longer require your questionnaire.

The questionnaire is being returned to you for your ultimate disposition. Weston did not copy the questionnaire. The work sheet for economic impact (Table 3-2, Page 3-9 in our Report) for your company has been destroyed.

It has been our pleasure working with you on this study, and Weston appreciates the cooperation you have extended in compiling data to complete our questionnaire. If you have any comments please contact me.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Jerry L. Hoob".

Jerry L. Hoob, P.E.
Manager, Occupational Health
Management Department

JLH/cm



CEMENT ASBESTOS PRODUCTS COMPANY

2144 Highland Avenue, South • P. O. Box 3435 • Birmingham, Alabama 35205 • Phone 205 • 933-7281

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

Manufacturer of Asbestos-Cement and P. V. C. Pipe

CAPCO JEN 0016775

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



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.

Company Code # 3051

Plant Code # 2

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CAPCO JEN 0016776



Have Two plants —
Ragland, Ala — 1965
Van Buren, Ark — 1971

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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Company Code # 3051
Plant Code # 2

CAPCO JEN 0016777



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 } 134 - England
140 - Van Buren

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.)?

Active Area

Extent of Activity
(V--Very, M--Moderate, N--None)

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

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Company Code # 3057
Plant Code # _____

CAPCO JEN 0016778



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>	Ragland-1965 / 1971-Van Buren
<u>3</u>	<u>Baghouse</u>	Ragland-1965 / 1971-Van Buren
<u>4</u>	<u>---</u>	<u>---</u>
<u>5</u>	<u>Baghouse</u>	Ragland-1965 / 1971-Van Buren
<u>6</u>	<u>Baghouse</u>	Ragland-1965 / 1971-Van Buren
<u>7</u>	<u>Baghouse</u>	Ragland-1965 / 1971-Van Buren
<u>8</u>	<u>Baghouse</u>	Ragland-1965 / 1971-Van Buren
<u>9</u>	<u>---</u>	<u>---</u>
<u>10</u>	<u>Baghouse</u>	Ragland-1965 / 1971-Van Buren
<u>11</u>	<u>Baghouse</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>

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

Additional people because of control equip

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Company Code # 3051
Plant Code #

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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 air-borne asbestos levels in all of the work areas? Yes X
No _____

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

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

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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Plant Code # _____

* have been monitored by OSHA @ various steps of operations. Also done by insurance company. Their own personnel do routine monitoring.

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[illegible]

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).

[illegible]

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Company Code # 3051
Plant Code #



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?
- Need R&D program to develop
BAT.
19. If the proposed 0.5 fibers/cc level is adopted, what action is foreseen at your plant? Would attempt to meet stds;
continue to operate by asking for
extensions while paying fines.

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):

	Yes	No	Cost/ Man-Year	Total Plant Cost/Year
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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Plant Code # _____



	<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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Company Code # 3051
Plant Code #

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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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Plant Code # _____

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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 affect 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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Company Code # 2051
Plant Code # _____

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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:

Products	Sales Change, \$/Year	
	Increase	Decrease
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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

	Yes	No
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?

Segment	Typical Production Equipment Age, Years			
	0 - 5	5 - 15	15 - 25	25+
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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Company Code # 3051
Plant Code # _____

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Less than 10% _____
10 - 25% _____
25 - 50% _____
50 - 75% _____
Greater than 75% X

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

Less than 10% _____
10 - 25% X
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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Company Code # 3051
Plant Code # _____

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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

Stress in final report the lack of
BAT knowledge - what is it?
Large companies may be able to pay
for BAT when proven it will
handle O.S level. Stress the time
delay necessary to R&D and install
BAT.

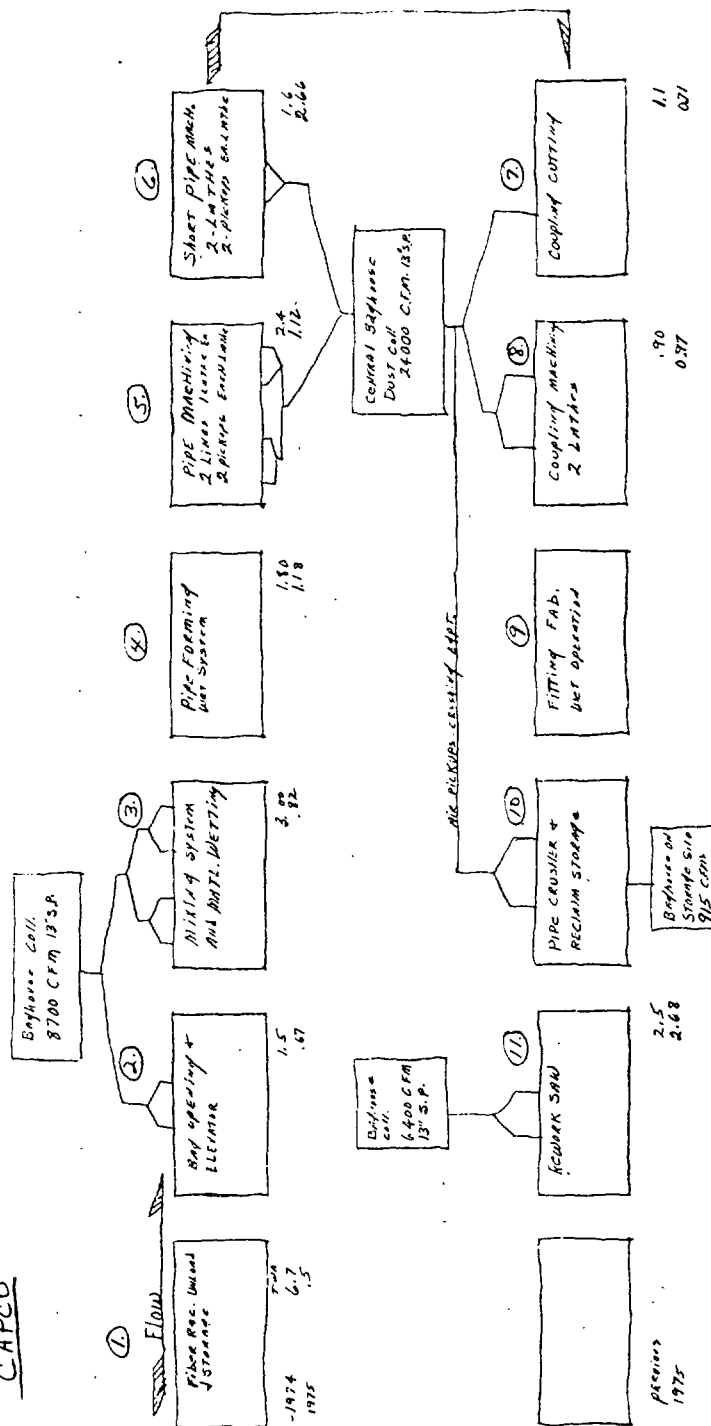
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Company Code # 3051
Plant Code #

CAPCO JEN 0016788

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NOTE: BOTH OF OUR PLANTS ARE BASICALLY THE SAME
AS TO FLOW. TWA WILL RUN ESSENTIALLY THE SAME.