PLAINTIFF'S EXHIBIT

CAP-1188

A/C Pipe
Producers Association

1600 Wilson Boulevard.
Suite 1308
Arlington, Virginia 22209
(703) 841-1556

April 21, 1982

Mr. I. Lee Taylor
CAPCO Pipe Company, Inc.
1400 S. 20th Street
P.O. Box 3435
Birmingham, AL 35205

Dear Mr. Taylor:

REVISED
CONFIRMATION

TENTH ANNUAL MEETING & INDUSTRY CONFERENCE
Cancun Sheraton Hotel
Cancun, Mexico
May 2-6, 1982

File
4-735

[X] According to your instructions, a room has been reserved for the following nights:

	SAT 5/01	SUN 5/02	MON 5/03	TUES 5/04	WED 5/05	THURS 5/06	FRI 5/07	SAT 5/08
SINGLE								
DOUBLE*	X	X	X	X	X	X	X	

*2 Double Beds

[ ] This will acknowledge receipt of your Registration Fee in the amount of:

- [ ] $350 (U.S.) ... Regular Member Company
- [ ] $350 (U.S.) ... Associate Member Company
- [ ] $600 (U.S.) ... Non-Member Company

(PLEASE NOTE: THE CANCUN SHERATON HOTEL HAS DECREASED ROOM RATES TO $75.00/NIGHT, PLUS 10% TAX, SINGLE OR DOUBLE ROOM)

Mary

MANAGEMENT INFORMATION SYSTEM	Number	MIS - 01 - 83
	Issued	10/28/82
	Revised	WEP

Title AACPP FY 1983 BUDGET OPTIONS

	OPTION 1	OPTION 2
FUND BALANCE - January 1:		
Designated (1)	$106,000	$106,000
Undesignated	0	0
Total Fund Balance	$106,000	$106,000
REVENUES:		
Membership Dues		
Regular - Domestic	$100,000	$100,000
Regular - North America (2)	36,000	0
Associate (2)	43,000	55,000
Subtotal	$179,000	$155,000
Miscellaneous Income		
Meeting Fees (3)	$ 10,000	$ 10,000
REP Programs	0	0
Special Assessment	0	0
Other Income	0	0
Subtotal	$ 10,000	$ 10,000
Interest Income	8,000	7,000
Total Revenue	$197,000	$172,000
EXPENDITURES:		
Executive Management (4)	$123,500	$123,500
Office Operating (5)	1,500	1,500
General Operating (6)	24,500	24,500
Research, Education & Promotion	151,500	126,500
Professional Services (7)	2,000	2,000
Other	0	0
Total Expenditures	$303,000	$278,000
FUND BALANCE - December 31:		
Designated	$ 0	$ 0
Undesignated	0	0
Total Fund Balance	$ 0	$ 0

MIS- 01 -83

SCHEDULE A
PROPOSED FY 1983 PROGRAMS EXPENSE

	OPTION 1	OPTION 2
Public Affairs		
PAC-01-83, Municipal Market Program	$ 40,000	$ 40,000
PAC-02-83, State Monitoring Program	30,000	30,000
PAC-03-83, EPA Drinking Water Regulations	15,000	15,000
PAC-04-83, Public Education Program	20,000	5,000
Subtotal	$105,000	$ 90,000
Technical Affairs		
TAC-01-83, Municipal Analysis Program	$ 20,000	$ 10,000
TAC-02-83, San Antonio Flexural Evaluation	*	*
TAC-03-83, "T" Pipe Promotion Program	14,000	14,000
Subtotal	$ 34,000	$ 24,000
International Affairs		
IAC- -83*	$ 12,500	$ 12,500
TOTAL	$151,500	$126,500

*To be determined

NOTES:

(1) Designated Fund Balance per Article I.4 of AACPP/IAI management agreement.

(2) Budget Option 2 reflects conversion of Canadian and Mexican Regular Members to Associate Members in FY 1983 and related dues income per membership category.

(3) Registration fees for Annual Meeting @ $350/Member and $600/Non-member.

(4) Executive Management Fee projected for FY 1983 per AACPP/IAI management agreement.

(5) Projected cost to replenish AACPP stationery in FY 1983.

(6) Projected Annual, Board of Directors and Executive Committee meeting costs in FY 1983; subscriptions and publications; AWWA and ASTM membership dues.

(7) Reserve for medical advisory services in FY 1983.

A/C PIPE LINING: CRITERIA & OPTIONS
THE INDUSTRY PERSPECTIVE

TAC-01-80 4/81

EXECUTIVE SUMMARY

At the recommendation of the Technical Affairs Committee and with approval of the Board of Directors, AACPP Staff has reviewed the advantages and disadvantages of lining A/C pipe for potable water service. The review was conducted via a corporate assessment of policy and technical options, plus marketing impact. To offset industry bias, outside contacts were considered initially but subsequently rejected on the basis they would be premature and inadvisable. Thus, the survey was confined to designated member company personnel.

Twenty-two (22) key senior managers, sales managers, technical/health experts and manufacturing managers were privately and confidentially interviewed utilizing an approved, three part questionnaire comprised of the following survey sections:

General Corporate Policy/Perspectives
Corporate Perceptions of Customer Attitudes
Technology/Manufacturing Data

Each individual responded to the section(s) of the survey which he felt qualified by position and/or experience to address. All survey results were tabulated without reference to individuals or company affiliations. The results are presented in the body of the report.

Current industry practice is to supply lined pipe only upon request or not at all. Less than 2% of U.S. production is lined, virtually all with asphaltic/bitumastic coatings. Corporate policies, where they exist, governing the use of lined pipe in aggressive water regions and applications are not enforced nor considered effective.

The technology for pipe lining is costly and inadequate in the view of most technical and manufacturing personnel. Only 40% of the A/C pipe plants in the United States and Canada are equipped to line pipe. Without exception, those plants that can line pipe are able to handle only small quantities.

Most individuals preferred asphaltic/bitumastic coatings presently used by competitive pipe suppliers, citing the "safety in numbers" argument. Interest in a shared industry effort to develop coating technology is widespread, providing a need to line pipe becomes apparent and antitrust constraints can be satisfied.

Seven policy options, ranging from a "coat all A/C pipe production" to "continue current practices." Three of the options called for an industry wide approach, three posed the possibility of parallel individual company initiatives, and one proposed no change. The latter policy option proved to be the most popular choice among those surveyed, though there was ready and considerable acknowledgement of its shortcomings.

Of the industry wide policy options, selectively lining A/C pipe for sales in aggressive water aplications received the most support. The options of lining all pipe or rigorous policing and prohibiting of installations generally were perceived to by unworkable. The pursuit of parallel options by individual companies as almost universally rejected by the individuals participating in the survey.

When queried about personal impressions of customer attitudes, most respondents believed customers generally are satisfied with current industry practices and believe the industry's position on A/C pipe and health issues.

It is also perceived that customers expect the industry to take the lead in promoting and defending the safety of its product in the public arena. Industry personnel do not believe that customers are willing to modify their water treatment practices to continue using A/C pipe. Rather, customers expect the industry to supply a product which is suitable for the application intended.

In summary, the survey showed a fair degree of unanimity among key industry personnel for cooperative efforts and a receptivity to explore more effective industry policies responsive to asbestos and aggressive water issues. While current practices are perceived by most to be acceptable, some individuals interviewed conveyed a sense of urgency to improve and accelerate industry efforts to support its customers.

BACKGROUND

For the most part, A/C pipe used in potable water service is supplied without an internal lining. On a special order basis, a limited number of customers have been ordering lined pipe. Although there has been some testing of experimental coatings in field installations, on average, less than 2% of the pipe sold in the U.S. is lined, vitually all with bitumastic/asphaltic material.

While accumulating evidence continues to refute the contention that ingestion of low levels of asbestos fiber represents a chronic health risk, the possibility nonetheless exists that market or regulatory forces eventually may compel lining of all or a substantial part of A/C pipe production. The objective of this study was to develop a common decision-making guide for future evaluation of the A/C pipe lining question if deemed advisable of necessary.

Summarized herein are the results of an internal survey of the advantages, disadvantages and considerations for lining A/C potable water service pipe as viewed by a representative cross section of U.S. and Canadian member company personnel.

SURVEY METHODOLOGY

As originally proposed, the sruvey included in addition to industry personnel, key A/C pipe customers and selected state and federal regulatory personnel. However, it was the consensus of the Technical Affairs Committee that inclusion of the latter groups was not desirable at this juncture. Consequently, the survey was confined to interviews with designated management, sales, technical/health, and manufacturing corporate personnel within AACPP member companies.

To eliminate any Staff bias and standardize responses, an interview questionnaire was developed which was reviewed by counsel and approved by the Technical Affairs Committee (TAC) at their January 12, 1981 meeting in Sarastoa, Florida.

The Corporate Survey commenced in January, 1981 and were completed in mid February following Staff visits to Atlas-Turner, Inc., CAPCO Pipe Co., Inc., Certainteed Corporation and Johns-Manville Corporation. At each company interviews with designated individuals were conducted in private and on a confidential basis. Individuals who were unavailable at the time of Staff's visit were queried by telephone at a later date. In each case, Staff asked the questions and recorded the responses directly on the survey questionnaire. No individual was provided with a copy of the survey questionnaire before, during or after the interview.

For purposes of data analysis, the twenty two (22) individuals interviewed were divided into four categories:

> Senior Managers: Corporate/division managers with overall corporate responsibility for all pipe products.
>
> Sales Managers: Corporate managers with direct responsibility for the A/C pipe sales effort.
>
> Technical/Health Experts: Corporate Staff personnel with responsibility for technical product support and/or A/C pipe and health efforts.

Manufacturing Managers: Corporate managers with primary responsibility for product manufacturing and plant managers supervision.

ANALYSIS OF RESULTS

Throughout the interview period, it was evident that there was considerable diversity of opinion within the industry on the question of pipe lining. This opinion was also ranged in intensity. As a result, answers to survey questions frequently did not fall into a simple "yes - no" categorization. Rather, caveats were often tacked on by the person being interviewed to qualify the degree of yes or no answers provided. Accordingly, data analysis and presentation reflects several degrees of positive or negative response plus a "no opinion" position if appropriate.

Although the survey questionnaire was designed to be universally applicable, not every part of the questionnaire was applicable to every individual interviewed. For instance, senior management personnel were able to comment more fully on corporate and sales policy, while most felt that they were not qualified to provide first hand perceptions of customer attitudes. Conversely, technical/health experts and manufacturing managers usually declined to comment on corporate policy. Therefore, survey questions had a varying level of response. Expressing the survey results in terms of percentages allows commonality of presentation and discourages identification of individual respondents or their companys affiliation.

The presentation and discussion of results is arranged by section with a short summary of notable insights and quotable quotes following:

A. Corporate Data
B. Corporate Attitudes and Perspectives
C. Corporate Perceptions of Customer Attitudes
D. Summary and Conclusion

At the end of the Survey Results section, a synopsis of overall impressions received and some interpretation is provided, along with Staff conclusions.

SURVEY RESULTS

A. Corporate Data

1. What is corporate sales policy on lined pipe?

	Yes	No
Supply it	75%	25%
Actively promote it	0%	100%
Supply catalogue literature	0%	100%
Pricing guide available	75%	25%
Provide sales training	0%	100%

Generally, the industry approach is to supply lined pipe only upon request. It is given no special emphasis as a speciality product and training of sales personnel is minimal. There has been some increased emphasis on aggressive water attack on A/C pipe in the absence of remedial water treatment.

2. Do you have a specific corporate policy on lining pipe for aggressive water applications?

	Yes	No
Have policy	50%	50%
Enforce policy	0%	100%
Policy is effective	0%	100%

There was a general perception that where policies exist they were followed only sporadically in the field.

3. Availability of lined pipe.

Linings supplied	
asphaltic/bitumastic	50%
new technology + asphaltic/bitumastic	25%
none	25%
Percent of total pressure pipe tonnage represented by lined pipe.	High 3% Low 0% Avg 2%
Trend in lined pipe sales	
Up	33.3%
Down	33.3%
Flat	33.3%

Lined pipe represents only a very small fraction of pipe shipments. The industry favors known coatings, despite the related taste, odor and potential health considerations (i.e. PAH's), because of widespread waterworks acceptance and use by competitors. Most lined pipe continues to be shipped into the Northeast and Midwest.

4. R&D Activity and Manufacturing Capability.

	Yes	No
Have formal R&D program on coatings	50%	50%
Planning program or doing any related work	50%	50%
Plants equipped to line pipe	40%	60%

None of the North American plants with pipe lining capability aside from epoxy lining for industrial use pipe, can line more than a small amount since the lining operation is not fully integrated into the manufacturing process in any plant.

Of the companies engaged in some form of research activity related to coatings, R&D activities fell in two general areas:

a. Research on improved formulations or new coatings to eliminate taste, odor, and possible health risks associated with asphaltic/bitumastic coatings.

b. Research on improved lining operations that could be fully integrated into the pipe manufacturing process without significantly slowing down current line speeds.

B. Corporate Attitudes and Perspectives

1. Response to following hypothetical options.

	Strong Support	Mild Support	Neutral	Mild Opposition	Strong Opposition
Option 1:					
Industry Wide Policy Line all A/C Pipe sold					
Senior Mgr.	0%	50%	25%	0%	25%
Sales Mgr.	17%	17%	17%	0%	50%
T/H Expert	20%	20%	20%	0%	40
Option 2:					
Industry Wide Policy Line all A/C pipe for aggressive water applications					
Senior Mgr.	0%	75%	0%	0%	25%
Sales Mgr.	50%	33%	0%	0%	17%
T/H Expert	100%	0%	0%	0%	0%

	Strong Support	Mild Support	Neutral	Mild Opposition	Strong Oppositio
Option 3:					
Industry Wide Policy Police pipe applications and prohibit unlined pipe sales where water is corrosive					
Senior Mgrs.	0%	25%	0%	0%	75%
Sales Mgrs.	17%	33%	0%	0%	50%
T/H Experts	0%	20%	20%	0%	60%
Option 4:					
Company Policy Line all A/C pipe sold in North America					
Senior Mgrs.	0%	25%	0%	0%	75%
Sales Mgrs.	0%	17%	0%	0%	83%
T/H Experts	0%	20%	0%	0%	80%
Option 5:					
Company Policy Line all pipe for aggressive water application					
Senior Mgrs.	0%	25%	0%	0%	75%
Sales Mgrs.	14%	14%	0%	0%	71%
T/H Experts	20%	60%	0%	0%	20%
Option 6:					
Company Policy Police and prohibit unlined pipe sales where water is corrosive to A/C pipe					
Senior Mgrs.	0%	25%	0%	0%	25%
Sales Mgrs.	0%	17%	0%	0%	83%
T/H Experts	0%	20%	0%	20%	60%

	Strong Support	Mild Support	Neutral	Mild Opposition	Strong Oppositio
Option 7:					
Continue current industry and individual company practices					
Senior Mgrs.	50%	25%	0%	0%	25%
Sales Mgrs.	33%	33%	0%	0%	33%
T/H Experts	20%	0%	0%	40%	40%

2. Assuming anti-trust constraints can be met, would you be interested in a shared industry effort to develop a common coating.

	Yes	Possibly	No
Senior Mgr.	75	25	0
Sales Mgr.	100	0	0
T/H Expert	83	0	17

3. Do you expect any change in corporate policy regarding lining of A/C pipe?

	Definitely Yes	Possibly Yes	No
Senior Mgrs.	0%	75%	25%
Sales Mgrs.	17%	50%	33%
T/H Experts	20%	60%	20%

A definite split exists both within the industry and several member companies on the desirability and effectiveness of current policies. Strong opinions were expressed on both sides of the issue. One individual stated continuation of current practices would be "catastrophic." Many noted that the cost of lining would severely erode the competitive position of A/C pipe versus other piping materials, particularly PVC. This concern was particularly strong among the sales manager group.

There was little sentiment within any of the member companies for unilateral corporate action. Most rejected Options 3-6 on the basis that if anything is to be done, it should be done on an industry wide basis. In line with this, there was general agreement that a shared industry program to develop common coating technology would be desirable if a compelling need to coat becomes apparent.

Of the industry wide options, Option 2, the policy of selective coating for areas/regions where aggressive waters are common had the strongest support. Nonetheless, the difficulty of delineating "aggressive" regions was considered a technical challenge. Option 1, line all A/C pipe was most frequently objected to on the basis that it would constitute a tacit admission of guilt on the part of the industry and possibly lead to serious questions about installed A/C pipe. Option 3, rigorous policing and prohibiting was criticized by most as impossible to implement and offensive to customers.

The consensus was industry wide action is desirable only if mandated by federal regulations. In that context, Option 2 remained the most desirable approach to the majority of those interviewed. A majority also views a change in current corporate policy as possible or likely in the not too distant future.

3. **Would you prefer a coating that is Generally Recognized As Safe (GRAS), such as used by the ductile iron pipe industry, or new technology coatings that offer significantly better appearance, taste and odor characteristics?**

	GRAS	New Tech.	No Preference
Senior Mgr.	50%	25%	25%
Sales Mgr.	33%	50%	17%
T/H Expert	33%	50%	17%
Mfg. Expert	40%	40%	20%

Answers on pipe lining preference tended to be evenly divided. Those choosing GRAS coatings acknowledged problems with taste, odor and the potential release of recognized carcinogens (i.e.,PAH's), but cited the "safety in numbers" argument as overriding. Coatings which are commonly used and presently accepted by the waterworks industry are thought to be more salable and less vulnerable to future liabilities and as was experienced with Piccotex.

Those who opted for "new technology" approaches to coating did so for several reasons. Senior managers and sales managers picking this option expressed a desire to sell a better product, one without the perceived taste, odor and health implications of asphaltic/bitumastic compounds. Technical/health experts cited the latter as a major concern — they are leary of the potential carcinogenicity of the GRAS coating (i.e., PAH's).

Manufacturing executives who picked the new technology option were concerned about cost and technology deficiencies with current approaches. One executive who has studied the coating dilemna noted that " Getting a coating is no problem... getting one you can afford is the problem." He and others noted that cost and space requirements for currently available continuous coatings systems are considerable. In addition, current technology for continuous bitumastic coating equipment, typified by a Turner-Newell plant in the United Kingdom, is considerably slower in productivity than U.S. pipe production trains. The executive who noted this fact commented that the 25-45 second increase in production time per peice of finished pipe needed to use this equipment would reduce productivity up to 50%, markedly increasing the cost of the finished product.

CORPORATE PERCEPTIONS OCUSTOMTER ATTITUDES

1. **Has your company conducted any surveys of customer attitudes on A/C pipe issues?**

	Yes	No
Survey conducted	25%	75%
Written report available	0%	100%

	Strong Support	Mild Support	Neutral	Mild Opposition	Strong Opposition

2. What do you perceive would be the reaction of customers to policy Options 1-3 & 7?

Option 1: All Pipe Is Lined

Senior Mgrs.	0%	33%	0%	0%	67%
Sales Mgrs.	17%	17%	0%	17%	50%
T/H Experts	0%	25%	0%	25%	50%

Option 2: All Pipe Sold In Selected Regions Is Lined

Senior Mgrs.	33%	33%	0%	33%	0%
Sales Mgrs.	0%	83%	0%	17%	0%
T/H Experts	25%	50%	25%	0%	0%

Option 3: Industry Checks Each Application

Senior Mgrs.	0%	0%	0%	33%	67%
Sales Mgrs.	17%	33%	17%	17%	17%
T/H Experts	0%	50%	25%	25%	0%

Option 7: Continue Current Practice

Senior Mgrs.	0%	33%	0%	0%	67%
Sales Mgrs.	33%	50%	0%	17%	0%
T/H Experts	0%	50%	25%	0%	25%

3. How do you perceive the level of the customer's awareness of A/C pipe and health issues?

	Acute	Moderate	Slight
Senior Mgrs.	67%	33%	0%
Sales Mgrs.	17%	67%	17%
T/H Experts	60%	40%	0%

4. Do you believe the awareness trend is up, down or static?

	Up	Down	Static
Senior Mgrs.	100%	0%	0%
Sales Mgrs.	40%	20%	40%
T/H Experts	60%	0%	40%

5. Do you think that A/C pipe customers believe the industry position on the A/C pipe and health issue?

	Most	Some	Few
Senior Mgrs.	100%	0%	0%
Sales Mgrs.	100%	0%	0%
T/H Experts	100%	0%	0%

6. Do you think that A/C pipe customers understand the need to treat aggressive waters?

	Most	Some	Few
Senior Mgrs.	33%	0%	67%
Sales Mgrs.	25%	75%	25%
T/H Experts	40%	20%	40%

7. Do you think that A/C pipe customers are willing to incur the cost of stabilizing aggressive waters –

   a. For reasons of good operating practice?

	Most	Some	Few
Senior Mgrs.	0%	33%	67%
Sales Mgrs.	0%	0%	100%
T/H Experts	0%	75%	25%

   b. To continue using uncoated A/C pipe?

	Most	Some	Few
Senior Mgrs.	0%	33%	67%
Sales Mgrs.	0%	33%	67%
T/H Experts	0%	33%	67%

Perceived opinions on the policy Options 1-3 & 7 was that customers would be opposed to Option 1 (Line all pipe) and Option 3 (Police and Prohibit) and give lukewarm support to Option 2 (Selective lining) and Option 7 (Continue current practices). It is believed that customers would prefer the selective lining, principally because a large majority would not be affected. Their anticipated reaction to "coat all pipe" is perceived as basically negative since it would call into question current use of lined pipe. A rigorous policing of each application could be expected to be poorly received by A/C pipe customers according to most respondents. They believed such a program would be perceived by customers to be unduly intrusive upon their procurement policies.

Conversely, the "continue current practices" option was not perceived to be a strong customer favorite either. Most felt A/C pipe customers are looking to industry for stronger leadership particularly support them in dealings with water consumers concerned over the health issue. In

the same vein, there would appear to be little customer interest in stabilizing aggressive waters either as part of good operating practice or to continue using A/C pipe. It is believed that expect the industry to provide a product that will withstand their operating environment without need of expensive water treatment.

Although the perceived level of customer awareness is considered to be high, survey participants though that customers in general accept the industry's position on health issues. However, it was repeatedly noted that the water consumer is much less likely to support that position due to the hysteria over asbestos which has been generated in the media. It was strongly stated that A/C pipe customers are looking to the industry for considerable and prompt support in dealing with customer unrest over the use of A/C pipe when and where it develops.

CONCLUSIONS

The current industry approach to marketing lined pipe in the United States and Canada can be characterized as pragmatic. Lined pipe is marketed as a speciality product which represents a very small percentage of total production. There is little effort devoted either to marketing it or assessing the need for lining on specific water projects, Although some effort at educating water utility engineers on aggressive waters is underway.

Industry executives generally perceive the need for industry wide action on aggressive waters, pipe coating and related issues but do not exhibit a strong sense of the form that action should take. They also understand that their customers, though not alarmed for the most part, are quite concerned about the A/C pipe and health issue and are looking to the industry to provide leadership in assuring the public that it is safe to use. Nevertheless, a substantial number opted for the "continue as is" approach, citing a belief that problems are abating. A considerable amount of discussion about coating policy is occurring within several member companies that participated in the survey.

Based on survey results, the technological aspects of pipe lining are not clear cut. One manufacturing executive felt that his company had the technology to produce lined pipe in quantity at reasonable cost. On the other hand, two companies expressed strong beliefs that there are severe cost/technology problems associated with lining. A clear preference emerged for the Generally Recognized As Safe (GRAS) coating approach and there was general support for the concept of a cooperative industry effort to develop a common coating technology, provided to antitrust constraints are not a consideration.