

VINYL INSTITUTE
EXECUTIVE BOARD MEETING
SEPTEMBER 2, 1992

CTL008291



A Division of The Society of The Plastics Industry, Inc.

August 4, 1992

TO: Vinyl Institute Executive Board

RE: Vinyl Institute Executive Board Meeting
September 2, 1992 - 12 Noon to 5:00 PM

Enclosed is the agenda and briefing book for the next meeting of the Vinyl Institute Executive Board which is to be held on Wednesday, September 2, 1992 starting at 12 Noon at the Willard Intercontinental Hotel in Washington, D.C.

As in the past, there will be a Board dinner the evening prior to the meeting to be held at the hotel with cocktails at 7:00 p.m. and dinner at 8:00 p.m. This dinner is will take place in the Hughes Room.

As to the Board Meeting itself, the agenda has been structured so as to allow sufficient time for Board level discussion on those items requiring action and to allow for adjournment by 5:00 p.m. Since we will be convening the Board meeting at 12 Noon, there will be a working lunch served.

I look forward to seeing you in Washington, D.C.


Pat Benkner

/pmb

CTL008292



A Division of The Society of The Plastics Industry, Inc.

P R O G R A M

The Vinyl Institute Executive Board Meeting

Wednesday, September 2, 1992
12 Noon

held at:

The Willard Intercontinental Hotel
1401 Pennsylvania Avenue
Washington, D.C.

CTL008293

VINYL INSTITUTE
EXECUTIVE BOARD MEETING
SEPTEMBER 2, 1992

PROGRAM

I. OPENING OF MEETING AND SELF-INTRODUCTIONS

Executive Board Chairman John Russ will open the meeting with a round of self-introductions.

II. APPROVAL OF MINUTES OF MAY 27, 1992 EXECUTIVE BOARD MEETING

It is in order to approve the minutes of the May 27, 1992 Executive Board Meeting, a copy of which is found under Tab A.

III. REPORT OF JULY 7 AND SEPTEMBER 2 EXECUTIVE COMMITTEE MEETINGS

Mr. Russ will report on discussions held at the September 2, 1992 Executive Committee meeting. Minutes of the July 7, 1992 meeting were previously distributed to members of the Board.

IV. FINANCIAL REPORT

A. Final Report Fiscal Year 1991-1992

A year-end financial statement for 1991-1992 (the period June 1, 1991 through May 31, 1992) is under Tab B. Mr. Burnett will present the information for review and discussion by the Board.

B. Status of Current Expenditures

A cash basis statement ending June 1, 1992 is included under Tab C. Messrs. Patient and Burnett will present that information for review by the Board. If later information is available by the date of the Executive Board meeting, it will be presented at this time.

V. ISSUES MANAGEMENT REPORT

A. Chlorine Issues

1. International Joint Commission Activities

Mr. Meeker will update the Board on the VI activities related to the International Joint Commission's Sixth Biennial Report on Great Lakes Water Quality. His material under Tab D supplement the packet that was issued to VI Board members on June 23. Mrs. Scheck will update the Board on discussions held in conjunction with the 7/29 meeting of the SPI State Government Affairs Committee.

2. CANTOX Progress Report

Mr. Lienhart will update the Board on status of the Chlorine Institute's CANTOX research project. The VI Executive Committee approved a \$50,000 contribution to this project at its March 17 meeting.

B. Solid Waste

1. Implementation of Florida Recycling Program

Mr. Krause will update the Board on the implementation of a project to establish a vinyl recycling program in the state of Florida. Background information is included in the Vinyl Institute Group on Recycling (VIGOR) report, which is under Tab E.

2. Coordination with Programs of the Partnership for Plastics Progress

Messrs. Krause and Burnett will update the Board on the Partnership for Plastics Progress initiatives related to recycling of durable products as well as on programs aimed at tertiary recycling.

3. Clearvue/Envirothene Status

Mr. Krause will update the Board on the status of the vinyl sortation program at Clearvue (Amsterdam, NY). The VI loaned Clearvue a VinylCycle automated sorting device for bottle sortation. Additional pilot tests on vinyl clamshell packaging have been completed.

Mr. Krause will review discussions with Envirothene (Chino, CA) relative to the placement of sortation equipment.

VI. PRO-ACTIVE TASK FORCE REPORTS AND RELATED ITEMS

Background reports on activities of the Vinyl Packaging Council, the Pipe Resource Organization and the Electrical Materials Council are included under Tabs F, G and I respectively. Any updates on this information will be presented by either committee chairs or staff. Questions on activities of these committees are appropriate at this time.

Dr. Gottesman will update the Board on the status of the California Environmental Impact Report (EIR) on expanded use of plastic pipe. Background information is under Tab H.

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VII. TECHNICAL, REGULATORY AND LEGISLATIVE UPDATES

Background information on the following activities are provided under the tabs noted. Updates to supplement materials in the briefing book will be presented at this time by the committee chair, staff or counsel:

Technical Committee	Tab J
Health, Safety and Environment Committee	Tab K
General Counsel's Report	Tab L
Legislative Update	Tab M

VIII. EUROPEAN UPDATE

Mr. Prinselaar will update the Board on activities since the last Executive Board meeting.

IX. OLD BUSINESS

A. Tripartite Meeting

Mr. Burnett will update the Board on the plans for the September 2-4 Tripartite Conference.

B. Other

It is appropriate that other old business items not covered during the course of the meeting be brought up at this time.

X. NEW BUSINESS

It is appropriate at this time that any new business items be discussed.

XI. MEMBERSHIP/ADMINISTRATIVE ISSUES

It is appropriate at this time that any membership or organizational issues be discussed.

XII. FUTURE MEETINGS/ADJOURNMENT

The following Board meetings have been scheduled:

December 9	Dallas, Texas
March 11	New Orleans, Louisiana
May 1993 <i>2/24</i>	Charleston, South Carolina

There being no other business, a motion to adjourn will be in order.

VI EXECUTIVE BOARD MEETING

The Willard Intercontinental Hotel
1401 Pennsylvania Avenue
Washington, D.C.

Wednesday
September 2, 1992
12 Noon-5:00 p.m.

- | | | |
|-------|---|---|
| 1:00p | I. OPENING OF MEETING/SELF-INTRODUCTIONS | J. Russ |
| 1:05p | II. APPROVAL OF MINUTES OF MAY 27 EXECUTIVE BOARD MEETING | Group |
| 1:10p | III. REPORT OF JULY 7 & SEPTEMBER 2 EXECUTIVE COMMITTEE MEETINGS | J. Russ |
| 1:25p | IV. FINANCIAL REPORT
A. Final Report FY 1991-1992
B. Status of Current Expenditures | W. Patient
/R. Burnett |
| 1:45p | V. ISSUES MANAGEMENT REPORT

A. Chlorine Issues
1. International Joint Commission Activities
2. CANTOX Progress Report | D. Meeker
/R. Burnett
B. Lienhart |
| 2:05p | B. Solid Waste
1. Implementation of Florida Recycling Program
2. Coordination with Initiatives of the Partnership for Plastics Progress
3. Clearvue/Envirothene Status | F. Krause |
| 2:40p | VI. PRO-ACTIVE TASK FORCE REPORTS AND RELATED ITEMS (If needed to supplement materials in briefing book) | Staff |
| 2:55p | VII. CALIFORNIA EIR STATUS REPORT | R. Gottesman |
| 3:15p | B R E A K | |
| 3:30p | VIII. LEGISLATIVE UPDATE | M. Scheck |
| 3:40p | IX. GENERAL COUNSEL'S REPORT | P. de la Cruz |

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3:50p	X. EUROPEAN UPDATE	W. Prinselaar
4:05p	XI. OLD BUSINESS	
	A. Tripartite Meeting	R. Burnett
	B. Other	
4:25p	XII. NEW BUSINESS	Group
4:45p	XIII. MEMBERSHIP/ADMINISTRATIVE ISSUES	J. Russ
4:50p	XIV. NEXT MEETING/ANNUAL MEETING DATES	J. Russ
4:55p	XV. ADJOURNMENT	

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CTL008299

EXECUTIVE BOARD MEETING

Ponte Vedra Inn and Club
200 Ponte Vedra Boulevard
Ponte Vedra Beach, Florida

Wednesday
May 27, 1992
7:30 a.m.

Attendees:

Ray Azrak, Union Carbide
Alan Bailey, Occidental Chemical
Pat Benkner, Vinyl Institute
Bob Burnett, Vinyl Institute
Peter de la Cruz, Keller and Heckman
Bruce Duerringer, Kaneka Texas
Rick Flammer, Vista Chemical Company
Lew Freeman, SPI
David Fultz, Elf Atochem
Art Gellner, CertainTeed
Roy Gottesman, Vinyl Institute
William Jenkins, GE Specialty Chemicals
Len Krauskopf, Exxon Chemical Company
Brad Lienhart, Dow Chemical Company
Donna Magill, PPG Industries
Bob Margevich, Akzo Chemicals Inc.
Dave Meeker, Edward Howard and Company
William Patient, BFGoodrich Company
Willem Prinselaar, EVC
John Russ, Borden Chemicals and Plastics
Meredith Scheck, Vinyl Institute
Ed Schiffer, Georgia Gulf Corporation
Erv Schroeder, Shintech Inc.
Bob Smerko, Chlorine Institute (in part)
Nelson Stefany, Rohm and Haas
Vic Struber, Witco, Argus Division

I. OPENING OF MEETING AND SELF-INTRODUCTIONS

Mr. Russ convened the meeting at 7:30 a.m. and asked for a round of self-introductions.

II. APPROVAL OF MINUTES OF EXECUTIVE BOARD MEETING OF MARCH 18, 1992

Mr. Schroeder moved that the minutes of the Executive Board meeting of March 18, 1992 as included under Tab A of the briefing book for this meeting be approved. The motion was seconded by Mr. Fultz and approved without objection.

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III. FINANCIAL REPORT

A. Status of Current Expenditures

On behalf of the VI Treasurer, Bill Patient, Mr. Burnett reviewed the cash basis statement of revenue and expenditures for the period ending April 30, 1992 as attached to the minutes of this meeting.

B. Projection of Final FY 1991-1992 Financial Report

Mr. Burnett noted that with the input of VI Committee Chairmen, Ms. Benkner had prepared a final report for FY 1991-1992 expenses, which takes the actual expenses through April 30, 1992 as reviewed in the Status of Current Expenditures and adds estimated expenses for the month of May 1992. Mr. Burnett commented that this projection includes the payment of the \$50,000 contribution toward the Chlorine Institute's research program at CANTOX which was approved at the March 18, 1992 Executive Committee Meeting. He noted variances in the budget including the higher than anticipated travel budget. Lastly, Mr. Burnett noted that expenses for the Issues Management Program were higher than originally projected, but he noted that 3 months of billing had been absorbed by Edward Howard and Company. He reminded the Board that several previously-unbudgeted public relations programs had been undertaken during the past fiscal year.

C. Proposed Budget for FY 1992-1993

Mr. Burnett reviewed the budget for FY 1992-1993 (the period from June 1, 1992 through May 31, 1993), noting the total assessment level was increased by a total of \$100,000 to reflect the previously-agreed to decision to fund a recycling initiative in the State of Florida. He noted that assessment income reflects the inclusion of Mitsubishi Kasei Vinyl Company, the membership application for which is to be approved during the course of this meeting. Following a brief discussion, Mr. Schiffer moved that the budget for FY 1992-1993 as found under Tab C of the briefing book for this meeting be approved as presented. The second to the motion was made by Mr. Krauskopf and the motion was approved without objection.

IV. MEMBERSHIP

A. Approval of Associate Membership for Mitsubishi Kasei Vinyl Company

Mr. Patient moved that the membership application of Mitsubishi Kasei Vinyl Company as included under Tab D of

the briefing book for this meeting and approved by the Membership Committee be approved by the Executive Board. The motion was seconded by Mr. Lienhart and approved without objection.

B. Westlake Polymers

Mr. Burnett noted that an application for full membership had been received the week of May 18, 1992 from Westlake Polymers. Mr. Lienhart moved that the application for membership in the Vinyl Institute be approved pending the approval of Westlake's membership in The Society of the Plastics Industry Inc. The second to the motion was made by Mr. Schroeder and the motion was approved without objection.

V. OLD BUSINESS

A. Status Report on Plans for Tripartite Conference

Mr. Burnett updated the Executive Board on the status of plans for the scheduling of a conference during September to involve representatives of the Vinyl Institute, the Japan PVC Association and the European Council of Vinyl Manufacturers. He reviewed the outline for this conference and noted that it had been approved in concept by the other organizations. Mr. Patient proposed that a small group be convened as a subcommittee to further refine the agenda. Mr. Russ commented that he intended to assign this responsibility to the Executive Committee.

Mr. Burnett noted that to accommodate the schedules of the delegation from the Japan PVC Association, he was recommending to the Executive Board that the Tripartite Conference be scheduled to begin the evening of September 2, 1992 and continue through mid-day on September 4, 1992.

There being no objection to this recommendation, Mr. Burnett noted that he will proceed with appropriate conference plans.

B. Chlorine Institute Liaison Report

Dr. Smerko, Executive Director of the Chlorine Institute, updated the Executive Board on the status of the work underway at CANTOX on behalf of the Chlorine Institute and its funding partners, including the Vinyl Institute. He noted that the work is now scheduled to be completed in January 1993. Mr. Lienhart, noting that a favorable report is anticipated, stated that it will be available for peer review in November 1992, although he is hopeful

that a preliminary report may be available to use in conjunction with the Third World Conference on Chlorine scheduled for mid-October 1992. Dr. Smerko commented that this study would provide a worldwide inventory of the laboratory work on chlorine.

Dr. Smerko also updated the Executive Board on other Chlorine Institute-funded research projects and policy initiatives.

VI. NEW BUSINESS

Mr. Burnett distributed a report summarizing the results of the recently-completed survey on current work and future direction. He noted that there will be some follow-up discussions with individuals on their suggestions.

VII. FUTURE DATES AND LOCATIONS OF EXECUTIVE BOARD MEETINGS

Following a brief discussion, it was agreed that the next meeting of the VI Executive Board would be Wednesday, September 2, 1992, so those Board members involved in the Tripartite Conference could condense their travel schedules. It was further agreed that the Executive Committee meeting would convene at 10:00 a.m., with the full Executive Board meeting to follow.

The December date/location of December 9/Dallas was approved. Mr. Russ suggested that the location of the March meeting be moved to New Orleans with the date of either March 11, or March 18 to be decided at the next meeting.

At the request of Mr. Burnett, a brief discussion was held on desired location for the 1993 Annual Meeting. Ms. Benkner was asked to review suggested sites in the Charleston, South Carolina area for the month of May, exact dates to be firmed up at the September Executive Board meeting.

VIII. ADJOURNMENT

There being no other business, Mr. Patient moved that the meeting be adjourned at 8:00 a.m.. Mr. Fultz seconded the motion and it was approved without objection.

Respectfully submitted,

Meredith N. Scheck

Meredith N. Scheck

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CTL008304



CTL008306



CTL008308



A Division of The Society of The Plastics Industry, Inc.

June 23, 1992

TO: Vinyl Institute Board Members
FR: Bob Burnett
RE: International Joint Commission
CC: VI Committee Chairmen

At last month's annual meeting, we indicated that a response plan was being formulated by the VI to address the report issued by the International Joint Commission in April. This letter represents phase one of that response plan.

With this letter, I am asking you to do four things:

- 1) Use your company's contacts with the governors, state regulatory officials, legislators and legislative aides in Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin to register your company's disagreement with the recommendations presented in this report. I have included some talking points for you to use in writing to these individuals and have attached addresses for senators and representatives in the eight states.

It's particularly important that we reach those legislators and their aides who are likely to introduce restrictive legislation based on this report. We must stress that these recommendations – especially number seven, which calls for the sunseting of chlorine-based industrial feedstocks – are based on questionable science and that implementing them would have a serious negative impact on the future economic growth of this region. Moreover, implementing them – especially number seven – would not achieve the water quality objectives the IJC has established.

To help your company present its case on this issue, we have prepared the attached position paper. It provides more detail on the vinyl industry's position. You and others in your company who will be making these contacts may want to include it in the materials you provide.

Remember, your company need not be headquartered or have manufacturing sites in one of these states to be affected by this issue. Any of your customers who operate in these states potentially could be driven out of business if recommendation number seven is implemented as proposed.

- 2) Ask your customers in these states to take the same action described above. To assist you in this task, we have prepared the attached draft contact letter for your use. Feel free to adapt it as you see fit. Also, provide your customers with copies of the position paper. We have designed it so that it can easily be mass-produced. Ask your customers to make as many personal contacts as possible. Governors and legislators are most likely to listen to their own constituents – especially in an election year. If you have operations or customers in Ontario and Quebec, they should be involved as well.

- 3) Discuss this issue with your labor relations department. Many of our plant workers are unionized. Recommendation number seven would have a direct impact on their future job security. Can they be mobilized to work with us on this issue?
- 4) Copy the VI on any correspondence you send out to these audiences on this issue.

Simultaneous with your efforts, the Institute will be doing four things:

- 1) Sending out a media backgrounder packet to those media outlets that originally received the IJC report.
- 2) Coordinating a vinyl industry response effort at the federal level with SPI's federal government affairs department. We are asking SPI to take our message to Congress, the White House and appropriate federal agencies.
- 3) Coordinating government contacts in Canada through SPI Canada.
- 4) Monitoring the issue and coordinating activities with the Chlorine Institute and other affected associations.

The IJC report is our number one issues management priority for the months ahead and we will be tracking it closely. I'll keep you posted on any developments that occur.

Bob

CTL008310

**Vinyl Industry Response
to the IJC Report
Talking Points for Legislative/Regulatory Correspondence**

Here are some suggested points about Recommendation Seven to include in your letters to governors and state legislators, legislative aides and regulatory officials:

- If adopted, Recommendation Seven of the report would eliminate most applications for vinyl plastic, a product that has been safely produced and used for over 50 years, and is found in hundreds of industrial and consumer goods.
- In (name of state), about XXX jobs could potentially be lost if this recommendation were adopted. This includes those workers at the (name of company) facility in (name of city or location).
- Much of the IJC report is based on questionable science, and many specific recommendations are incorrectly based on broad generalizations. Recommendation Seven is a good example of this.
- Banning the manufacture of vinyl products is unlikely to achieve the water quality objectives the IJC hopes to achieve. Moreover, it would deprive society of many valuable products that help make life safer and healthier, and contribute to an enhanced standard of living.
- The vinyl industry has invested millions of dollars to make sure that its products are manufactured safely. It is one of the most stringently regulated industries and operates safely throughout the Great Lakes region.
- The IJC needs to rescind Recommendation Seven pending a full review of all available scientific data. Any legislation based on the current recommendation would be counterproductive to the water quality and quality-of-life objectives both industry and government in this region hope to achieve.

distributed 6/23/92

CTL008311

Addresses for Legislators in the Great Lake Region

Illinois State Senate
Capitol Building
Springfield, IL 62706

Illinois House of Representatives
House Post Office
Basement W - Stratton Building
Springfield, IL 62706

Indiana Senate
State Capitol Building
Indianapolis, IN 46204-2785

Indiana House of Representatives
State Capitol Building
Indianapolis, IN 46204

Michigan Senate
P.O. Box 30036
Lansing, MI 48909-7536

Michigan House of Representatives
P.O. Box 30014
Lansing, MI 48909

Minnesota Senate
Capitol
75 Constitution Ave.
St. Paul, MN 55155

Minnesota House of Representatives
State Office Building
100 Constitution Ave.
St. Paul, MN 55155

New York State Senate
Legislative Office Building
Albany, NY 12247

New York State Assembly
Legislative Office Building
Albany, NY 12248

Ohio Senate
State House
77 S. High St.
Columbus, OH 43266-0604

Ohio House of Representatives
State House
77 S. High St.
Columbus, OH 43266-0603

Senate of Pennsylvania
Senate Post Office
Harrisburg, PA 17120

Pennsylvania House of Representatives
Main Capitol Building
Harrisburg, PA 17120-0028

Wisconsin Senate
P.O. Box 7882
Madison, WI 53707-7882

Wisconsin State Assembly
P.O. Box 8952 (Representatives last name A-L)
P.O. Box 8953 (Representatives last name M-Z)
Madison, WI 53708

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address correspondence to:
The Honorable John Smith

begin letters:
Dear Senator (or Representative) Smith

Note to VI members: This letter is designed for you to send to your customers. Feel free to modify the contents to fit your particular situation and customer relationship.

Dear _____:

I am writing to you because I am very concerned that some recent developments in the Great Lakes region pose a very real threat to the future of both our companies. I'm referring to the recommendations issued April 15 by the International Joint Commission in its Sixth Biennial Report on Great Lakes Water Quality which, among other things, call for:

"...timetables to sunset the use of chlorine and chlorine-containing compounds as industrial feedstocks and that the means of reducing or eliminating other uses be examined."

Sunsetting means ending production. And industrial feedstocks means vinyl. If these recommendations become law – and there's a very real possibility they could – many, perhaps nearly all, products made out of PVC could be outlawed!

The most frustrating part of this is that the assumptions on which these recommendations are based are absolutely wrong. We're working with the Chlorine Institute and the Vinyl Institute to convince the Commissioners of this fact, but we suspect they won't be persuaded until they hear it from others, too.

That's where I'd like your help.

In the coming weeks, please take the time to use your contacts with your governor, plus the legislative committees and agencies in your state that may be examining this issue, to tell them what's wrong with the IJC report – especially the part about vinyl. And, if you have operations in other Great Lakes states, make some contacts there, too. I've enclosed a copy of the Vinyl Institute's position paper on the report that provides more detail. You're welcome to distribute it as part of your outreach efforts as well.

At (name of company), we'll be doing the same thing. Hopefully, if enough of us speak out against this report, we'll be able to stop it from influencing legislation. If we do nothing, we'll have only ourselves to blame.

(First name of customer), I know you're busy. We all are. But I assure you, nothing else demands your attention as much as this report. Thanks in advance for your support of our efforts, and please call me if you'd like to discuss this issue further.

Sincerely,

CTL008313

distributed 6/23/92



A Division of The Society of The Plastics Industry, Inc.

Robert H. Burnett
Executive Director

July 31, 1992

TO: Vinyl Institute Board Members
FR: Bob Burnett
RE: International Joint Commission — VI Response

On June 23, I sent you a memo and related materials asking you to undertake a number of activities designed to preempt any anti-PVC developments stemming from the International Joint Commission's report on Great Lakes water quality, issued in April. Among those requests was one encouraging you to use your contacts with the governors, state regulatory officials, legislators and legislative aides in the eight Great Lakes states to register your company's disagreement with the report's recommendations. We suggested that you encourage your customers to take similar action.

We have subsequently met with a number of government affairs representatives from VI member companies who have asked that they take the lead in orchestrating that portion of our response strategy. Accordingly, I am requesting that your company suspend its efforts to contact government officials on this issue until that group — which has since been organized as an ad hoc task force — can formulate its plan and make a recommendation for action.

In the meantime, please continue your efforts to educate employees and customers on this issue, and please let me know if the VI can assist you in any other targeted activity.

I will keep you posted on our government relations plans as they develop.

Bob

CTL008314



A Division of The Society of The Plastics Industry, Inc.

Robert H. Burnett
Executive Director

June 29, 1992

Dear Managing Editor:

In April, the International Joint Commission issued its sixth biennial report on Great Lakes water quality. Your staff probably received word of the report via a press release the IJC issued at that time.

In the months ahead, it's likely that government officials in the Great Lakes region will review the IJC's report as they consider new regulations regarding water quality standards for the Great Lakes basin. If your organization decides to cover these developments, I hope you will refer to the enclosed backgrounder, which was prepared on behalf of the vinyl industry by the Vinyl Institute.

Specifically, a review shows the IJC's recommendations regarding vinyl products are unsupported by scientific fact or practical experience. If implemented as outlined in the report, they would have little, if any, effect on the water quality of the Great Lakes, but they could have serious socioeconomic implications for the thousands of people who live in the region.

I, or one of our member companies, would be happy to speak to you or a member of your staff further if you decide to report on this issue in the future. In the meantime, may I ask you to file this packet for your reference, or pass it on to the person within your organization most likely to follow it?

The enclosed Rolodex card lists the toll-free number for our Vinyl Environmental Resource Center. Please feel free to call us at any time with your questions about vinyl products. If you would like extra copies of the card or the backgrounder, please let us know.

Sincerely,

CTL008315



A Division of The Society of The Plastics Industry, Inc.

A Time for Good Science on The Great Lakes:

**The Vinyl Industry Response to the Sixth Biennial
Report of the International Joint Commission**

Issued June 23, 1992

**by The Vinyl Institute
a division of The Society of the Plastics Industry, Inc.**

On April 15, the International Joint Commission (IJC) issued its sixth biennial report on Great Lakes water quality. The report contains recommendations about many chemical products which, if adopted, could have a detrimental impact on the economy of the region and significantly set back health and quality-of-life standards. Most important, the report seeks to restrict scientifically-based industrial activity based largely on opinion, guesswork and just plain bad information.

One of the specific recommendations in the report (Recommendation Seven) affects vinyl (polyvinyl chloride, or PVC) plastics. This response document has been prepared to address that section of the report and presents the reasons why the vinyl industry believes Recommendation Seven is unfounded and unwarranted, and why it should be rescinded pending further study.

This response was prepared for the vinyl industry by The Vinyl Institute, a division of The Society of the Plastics Industry. The Vinyl Institute is a national trade association representing the leading manufacturers of vinyl, vinyl feedstocks, additives and film and sheet products.

What Are the Problems with the Report?

- *The report treats all chemicals within a class the same, regardless of the safe performance history of individual products within the class.*

Most of the Commission's recommendations center on the concept of "persistent toxic substances" and the incorrect assumption that if one substance in a class of chemicals is considered a persistent toxic substance, then all chemicals in that class must be persistent toxic substances — scientific evidence to the contrary.

- *The report fails to recognize that science is able to measure persistent toxic substances at levels lower than those which would pose a threat to man, animals or the environment.*

In Chapter Two of its report, the IJC says, "The overall strategy or aim regarding persistent toxic substances is virtual elimination, and the tactic or method to be used to

achieve that aim is through zero input or discharge of those substances created as a result of human activity. ...Zero discharge means just that: halting all inputs from all human sources and pathways to prevent any opportunity for persistent toxic substances to enter the environment as a result of human activity. To prevent such releases completely, their manufacture, use, transport and disposal must stop; they simply must not be available. Thus, zero discharge does not mean less than detectable. It also does not mean the use of controls based on best available technology, best management practices, or similar means of treatment that continue to allow the release of some residual chemicals."

- *The report acknowledges, but chooses to ignore, that harmful effects have not been established for many of the substances it examines:*

"The Commission recognizes that scientific data are open to interpretation and that, notwithstanding the confirmed cause-effect link in some cases, unequivocal conclusions may be difficult to reach in others, especially if individual studies are considered in isolation. With low contaminant concentrations, subtle effects and potentially confounding factors, unequivocal evidence of injury to humans by persistent toxic substances may be difficult or impossible to obtain."

- *The report bases recommendations on the number of studies done on a substance, but not necessarily on the validity of those studies:*

"Critics have attempted to find flaws with individual studies in order to discredit findings and conclusions about persistent toxic substances. While limitations to study design may exist, this does not necessarily invalidate the findings and conclusions when considered in a weight-of-evidence context. At some point, the emerging mass of data and information must be accepted as sufficient to prompt or, in the case of the Agreement, ratify action against environmental contaminants. Therefore, the Commission has adopted a 'weight-of-evidence' approach. Taking the many studies that indicate injury or the likelihood of injury together, we conclude that the evidence is sufficient that many persistent toxic substances are indeed causally involved, and there can be no defensible alternative: their input to the Great Lakes must be stopped."

From this "weight-of-evidence" approach, the members of the Commission moved to "sunsetting." They described this as "...a comprehensive process to restrict, phase out and eventually ban the manufacture, generation, use, transport, storage, discharge and disposal of a persistent toxic substance. Sunsetting may require consideration of the manufacturing processes and products associated with a chemical's production and use, as well as of the chemical itself, and realistic, yet finite time frames to achieve the virtual elimination of the persistent toxic substance."

- *The report calls for eliminating the entire class of chlorine-based substances while at the same time acknowledging that many of the chemicals involved have not been demonstrated to pose a threat to man, animals or the environment:*

The IJC agreement defines a persistent toxic substance as "Any toxic substance with a half-life in water of greater than eight weeks." The IJC also believes that the definition of persistent toxic substance should be expanded "to encompass all toxic substances with a half life in any medium — water, air, sediment, soil or biota — of greater than eight weeks, as well as those toxic substances that bioaccumulate in the tissue of living organisms."

The report claims, "Even though many of these substances have not been proven to be individually toxic, it is likely that many of these chemicals — because of their chemical characteristics — will be identified as persistent toxics and hence substances to be virtually eliminated and subject to zero discharge. ...Thus, it is prudent, sensible and indeed necessary to treat these substances as a class rather than as a series of isolated individual chemicals."

- *The report erroneously concludes that chlorine-based manufacturing is an uncontrollable process and that the environmental impact of that process is unknown and unpredictable:*

"We know that when chlorine is used as a feedstock in a manufacturing process, one cannot necessarily predict or control which chlorinated organics will result, and in what quantity. Accordingly, the Commission concludes that the use of chlorine and its compounds should be avoided in the manufacturing process."

- *Recommendation Seven of the report calls for the elimination of those chlorine-containing compounds used as industrial feedstocks without demonstrating any specific risks these products present to man, animals or the environment. The recommendation reads:*

"... that the Parties, in consultation with industry and other affected interests, develop timetables to sunset the use of chlorine and chlorine-containing compounds as industrial feedstocks and that the means of reducing or eliminating other uses be examined."

The Vinyl Industry's Objections to Recommendation Seven:

Recommendation Seven is unwarranted, and unsupported by scientific fact and practical experience. The Commission has used a process of faulty logic to arrive at an erroneous conclusion. The weight-of-evidence approach to regulating substances may make sense when the science on which the recommendations are based is sound; however, many of the studies on which these conclusions are based are known to be flawed.

To suggest that the manufacture of PCBs or DDT has the same environmental impact as that of making vinyl house siding violates common sense, let alone good science. Scientists who are familiar with the hundreds of compounds that exist within the chlorine family know that each is different and distinct from the rest and their impact on the environment can range from problematic (in the case of PCBs) to benign (in the case of vinyl plastics). It is the equivalent of saying water is as dangerous as hydrogen cyanide because both contain the element hydrogen. Much of the chlorine industry acknowledges that some chlorinated compounds are of questionable value and need to be carefully examined and perhaps phased out of production. Vinyl, however, is not one of these substances.

The truth is that chlorine has been safely used as a feedstock in the manufacture of vinyl chloride monomer (VCM) — from which vinyl is made — for more than 50 years. The process is one of the most exact in all of manufacturing and is a classic case of waste minimization since virtually all material used to make VCM is recycled back into the process.

Additionally, vinyl is the most stable and least environmentally dispersed end-use for chlorine, leaving the chlorine in a form more inert than the salt from which it was made. That's why vinyl is so valuable to society.

Vinyl and the Environment — The Facts

Many of the allegations set forth in the Commission's report are presented without substantiation. Little scientific evidence is presented to demonstrate that vinyl products actually present a hazard to the environment in general, or to the Great Lakes in particular. The vinyl industry, on the other hand, has safely operated in this country for over 50 years:

- The manufacture of vinyl chloride (and polyvinyl chloride) is a sophisticated but well-understood process that is entirely predictable and controllable. All of the by-products are known and quantifiable.
- The overall production process has a 99+ percent conversion process. By-products are either contained, neutralized, recycled or incinerated, or disposed of in an environmentally approved manner. There are no unknown effluents, and water effluents generated by the process show quantitatively negligible to no amounts of chlorinated compounds present after the effluents have been properly treated.
- Vinyl chloride has the additional advantage of being one of the most studied and carefully regulated chemical substances in use today. There are strict controls in place to measure and limit all environmental emissions — including water effluents. Since the 1970s, the industry has reduced its VCM emissions in the U.S. by 95 percent.
- Vinyl production consumes about one-quarter of all chlorine produced — a benign end-use for a material that has thousands of vital uses on its own and is crucial to the production of caustic soda as well.
- Polyvinyl chloride — the plastic material made from vinyl chloride monomer — is a non-hazardous substance. There is no "persistent toxic risk" associated with polyvinyl chloride. PVC is an inert substance that does not break down when buried or landfilled. It can be incinerated safely when proper operating conditions and controls are observed. These controls should be observed whether or not vinyl plastics are present in the incinerator waste.
- Vinyl products need not be landfilled or incinerated when they have reached the end of their useful life. Vinyl is one of the most recyclable plastics, with over 100 potential uses in second-generation products.

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- The vinyl industry was one of the first extensively regulated industries. Those regulations, along with the industry's voluntary efforts, have significantly reduced emissions and virtually eliminated any health hazards to workers and plant-site communities resulting from those emissions.
- The safety of vinyl products has been reaffirmed by a number of federal agencies and standards-setting organizations. For instance, vinyl is cleared by the U.S. Food & Drug Administration for food contact applications, and is approved by the National Sanitation Foundation for potable water piping. Vinyl does not bioaccumulate in humans or other species.
- In Europe, where environmental scrutiny of products is even more intense than it is in North America, many groups have recognized the environmental soundness of vinyl:
 - * The Norwegian environmental group Bellona recently concluded "a generally reduced use of vinyl plastics will, given today's circumstances, lead to a worsening of the environmental situation."
 - * Switzerland's largest retailer, Migros, has stated that once the country's incinerators are equipped with scrubber technology, "our whole attitude to PVC will change. It has outstanding performance not easily matched by alternatives."
 - * In Britain, the retailing giant Marks & Spencer has announced its commitment to vinyl over other plastics "... because we regard PVC as a highly environmental friendly material."
 - * In Britain, the Green Consumer's Supermarket Shopping Guide calls PVC "one of the most energy efficient materials."

A Brief Profile of The Vinyl Industry:

Polyvinyl chloride is the second-largest volume plastic produced in the world. U.S. production alone currently exceeds 9 billion pounds annually, and Canadian output is about 600 million pounds per year. Applications are found in virtually every industry, including health care, communications, aerospace, automotive, retailing, textiles, construction, durable goods and agriculture.

The industry and its direct customers employ approximately 100,000 people in the United States, and thousands more in Canada. Approximately 60 percent of the industry's employment is concentrated in the Great Lakes region.

It is impossible to estimate how many more thousands are employed in allied and supplier roles to the vinyl industry in such areas as transportation and contract services, or in end-product production that is dependent on vinyl as a raw material.

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A Vinyl Shutdown — Who Gets Hurt:

Obviously, a "sunsetting" of vinyl production would directly affect thousands of individuals employed by the vinyl industry. On a broader scale, the elimination of vinyl would affect virtually every individual in the country. While some products could be made satisfactorily out of alternative raw materials, many others would likely become more expensive and/or perform poorly in the use for which they were intended.

Major uses for vinyl include:

- Construction — house siding; water distribution piping (including irrigation pipe); wire and cable insulation; electrical conduit; floor and wall coverings; window frames; gutters and downspouts; single-ply roofing; landfill liners; piping used in food processing, chemical processing and other manufacturing; fire-sprinkler piping; fencing.
- Electronics/appliances — keyboards; component housings; jacketing for electrical cords; fiber optics; floppy disk jackets; various parts and components in phone systems, power tools, refrigerators, washers, air conditioners, computers.
- Automotive — body side moldings, windshield system components, interior upholstery, under-the-hood wiring, under-the-car abrasion coatings, floor mats; other structural components such as dashboards and arm rests.
- Consumer goods — toys, sporting goods, footwear, credit cards, swimming pool liners, patio furniture, garden hoses, upholstery fabric, shower curtains.
- Packaging — rigid bottles, flexible meat wrap, shrink wrap, blister packaging, tamper-evident shrink bands, bottle cap liners.
- Medical products — surgical gloves, blood bags, IV bags, tubing, heart catheters, single-dose medication packaging.

What benefits do vinyl products provide society? Here are a few examples:

- Pipe made from vinyl economically delivers pure water to even the remotest region. Rural water districts and irrigation systems especially benefit from vinyl.
- Medical goods and pharmaceutical packaging made from it help provide a higher, safer standard of health care.
- Vinyl wiring insulation and electrical conduit provide safe, dependable electrical service.
- Construction products made from vinyl make housing more affordable.
- Packaging made from it reduces food spoilage and waste.

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Why Recommendation Seven Must Be Rescinded

People in the vinyl industry agree that the Great Lakes are one of the greatest natural resources on Earth and that they must be protected and improved. In fact, vinyl industry companies that operate in the Great Lakes region have already invested millions of dollars to help protect this resource. Their employees are among those who enjoy the quality of life the Great Lakes provide.

Other efforts to improve water quality in the Great Lakes region must likewise be based upon good science and reasoned approaches to pollution control. Not only must they consider the potential health and environmental impact of each compound on the Great Lakes, they must also consider the socio-economic realities of the nearly 100 million people living in the Great Lakes states and provinces. The vinyl industry has spent many years monitoring and assessing the potential environmental and health effects of its products. We are prepared to share that research with the members of the International Joint Commission and others who wish to examine these issues.

In its current form, Recommendation Seven will not help the IJC achieve the water quality objectives — or the quality-of-life objectives — it has established. We urge the Commission to rescind this recommendation until a full review of all available scientific data can take place and all the implications of potential marketplace restrictions can be fully evaluated.

About the Vinyl Institute

The Vinyl Institute is a national trade association representing the leading U.S. manufacturers of vinyl, vinyl chloride monomer, vinyl additives, and vinyl film and sheet products. Founded in 1982, the Institute serves as the voice of the vinyl industry, with a dual charter to promote and protect the industry and the markets it serves. The Institute's principal activities are education and advocacy, and include the sponsorship of extensive scientific research conducted on behalf of the industry to confirm the safe performance of vinyl products. The Vinyl Institute is a division of The Society of the Plastics Industry, Inc. and is headquartered in Wayne, New Jersey. For more information about vinyl and the environment, call the Vinyl Environmental Resource Center at 1-800-969-8469.

CTL008322

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Chicago Tribune

April 15, 1992, Wednesday, FINAL

SECTION: NEWS; Pg. 3; ZONE: M

LENGTH: 166 words

HEADLINE: Panel urges chlorine ban to reduce toxins in lakes

BYLINE: From Chicago Tribune wires.

DATELINE: WASHINGTON

BODY:

Chlorine, used to bleach paper, make plastics and produce hundreds of other items, should be phased out in manufacturing because of potentially toxic combinations with other substances, a report said. "We know that when chlorine is used as a feedstock in a manufacturing process, one cannot necessarily predict or control which chlorinated organics will result, and in what quantity," said the sixth biennial report on Great Lakes water quality issued by the International Joint Commission. The report was released Monday. The report by the independent panel of U.S. and Canadian representatives said trying to regulate toxic substance discharges into the five lakes and the St. Lawrence River hasn't been successful enough. "Since it seems impossible to eliminate discharges of these chemicals through other means, a policy of banning or setting their manufacture, distribution, storage, use and disposal appears to be the only alternative," it said of toxic substances in general.

TERMS: SCIENCE; GROUP; REPORT; ENVIRONMENT; ISSUE

CTL008323

Copyright 1992 Southam Inc.
The Ottawa Citizen

April 14, 1992, Tuesday, FINAL EDITION

SECTION: NEWS; Pg. A12

LENGTH: 396 words

HEADLINE: Commission urges ban on some toxins near Great Lakes

BYLINE: TOM SPEARS; CITIZEN

BODY:

Canada and the United States must ban some toxic chemicals near the Great Lakes because trying to limit their discharge doesn't work, the International Joint Commission says.

"The philosophy of zero discharge (a total ban on the chemicals) thus must become a reality as soon as is technologically possible," says the Canada-U.S. body, which oversees the Great Lakes.

The commission wants to phase out all chlorine use in industries, as well as all industrial processes, such as pulp mills that produce long-lasting toxic chemicals such as dioxin, furans, and hexachlorobenzene. These are widely suspected of causing reproductive and developmental problems among humans and wildlife.

"It seems impossible to eliminate discharges of these chemicals by any other means," the commission says in its latest report.

The commission, which reports every two years on the state of the lakes and St. Lawrence River, is an advisory body to both countries' federal governments.

"That's our line," said John Jackson, president of Great Lakes United, when he heard of the proposed phase-out of toxic chemicals Monday. "I like it. . . . Wonderful."

Jackson's group is a coalition of nearly 200 residents' associations and environment groups on both sides of the lakes.

But the group's executive director warns that the commission's message "isn't getting through" to governments in Canada or the U.S.

"There are a lot of committees, a lot of paperwork, but not a lot of action," said Phil Weller.

There has been more evidence in the past two years that chemicals such as dioxins and PCBs (polychlorinated biphenyls) are dangerous to wildlife and humans, the commission report says.

Future generations are also at risk, it says, since it's the children of people exposed to these chemicals who run the greatest health risk.

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Recent research shows the risks include damaged reproductive systems, low birth weights, and slow mental development. The risk comes mainly to people and animals that eat fish from contaminated parts of the lakes, most of which are near cities.

In early 1991, Environment Canada said it was considering a ban on toxic dumping into Lake Superior, with or without American participation. But it backed off a few days later, saying it wasn't committed to anything, and ordered its Great Lakes office to stop talking to reporters.

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Great Lakes Go Chlorine-Free

By Jack Weinberg

In April, the International Joint Commission (IJC), a joint U.S. and Canadian environmental agency which oversees the Great Lakes, became the first governmental agency in North America to call for an end to the use of chlorine in industrial processes. The IJC came to the decision after concluding that chlorine in the ecosystem poses a danger to humans and the environment, and called on both the U.S. and Canada to "develop timetables to sunset [end] the use of chlorine and chlorine-containing compounds as industrial feedstocks."

The decision followed last summer's Greenpeace-organized Zero Discharge Tour, which called attention to chlorine pollution with rail and ship blockades, smokestack climbs and hundreds of community meetings. At the tour's finish in September, Greenpeace and local activists organized a Zero Discharge Mobilization at the Sixth Biennial Report Meeting of the IJC in Traverse City, Michigan.

The victory is a solid boost to the activists who spoke out for the health of the Great Lakes ecosystem. For a free copy of "The Sixth Biennial Report on Great Lakes Water Quality," write: The International Joint Commission, 1250 23rd St., N.W., Suite 100, Washington DC 20440.



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VINYL INSTITUTE GROUP ON RECYCLING (VIGOR)

MISSION:

To assure commercial recycling of vinyl plastics, as part of the overall plastics industry effort by:

1. Encouraging the collection of vinyl packaging discards in mandated or voluntary collective programs.
2. Sponsoring research/development to develop mechanical separation/sortation technology or vinyl plastics in a mixed plastic stream.
3. Encouraging the reclaiming/clean-up of separated vinyl so that it can be used in second-generation commercially-acceptable products.
4. Evaluating and establishing suitable end-use markets for recovered recycled vinyl materials.
5. Working with other industry trade groups to establish programs for the practical recycling of other vinyl (non-packaging) products such as building materials (siding, pipe, profiles).
6. Establishing a coordinated communications program that will serve to publicize the opportunities for recycling vinyl plastics and to convey the progress being made on such recycling to key audiences including state and local government officials, industry leaders, environmental groups and other interested audiences.

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VINYL INSTITUTE GROUP ON RECYCLING (VIGOR)
VI BOARD - SEPTEMBER 2, 1992

OBJECTIVE/STATUS

COLLECTION

OBJECTIVE: Continue/expand collection of vinyl and contact with waste management companies, recycler, municipal/county/state officials.

STATUS:

- o P3 - Auto Sort Demonstration Grand Opening is now planned for 8/14/92 at North American Plastics Recycling in fort Edward, New York. Governor Cuomo will be a guest speaker with other influential people in attendance. A video tape of the operation has also been made for external use and arrangements for tours at the facility have been made.
- o Florida - Waste Alternatives Inc. in Ocala, Florida was selected as the site for placing a Magnetic Separation Systems (MSS) PVC/PET sorting unit. They have a new site, excellent enthusiastic management and good political connections in Florida. They will pick up some of the costs to keep us within our budget commitments.
- o California - We have met with Envirothene in Chino, CA near Los Angeles to discuss placement of a PVC sorting unit to facilitate collection of PVC on the west coast. A proposal to locate an NRT unit at Envirothene on one year loan similar to Florida will be made to the VI Board.
- o CPSI/SORTCO - A group of companies under the auspices of EPIC (similar to P3) in Canada have put together a coalition to facilitate recycling of plastics packaging in Ontario, and specifically in the Toronto metropolitan area. Plastics are under considerable pressure from the Ministry of the Environment to demonstrate recycling. VIGOR has agreed to represent PVC along with Synergistics, a major bottle compounder, on this coalition to subsidize capital and potential losses thru the purchase of sorted PVC bottles. Proposal will be made to VI board at the September meeting.

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- ACTION:**
- o Monitor P3 and Florida progress. PR as appropriate.
 - o Board approval on NRT unit at Envirothene/
 - o Board approval on SORTCO

SEPARATION/SORTATION

OBJECTIVE: Complete programs at NRT and DevTech to demonstrate sortation. Secure commercial evaluation NRT and next generation sortation technology. Stay abreast of other applicable technology.

STATUS:

- o **NRT "Vinyl Cycle" status - Clearvue** - NRT unit has been re-located to Clearvue in Amsterdam, NY and PVC cleaning line is now up and running to sort, grind, and clean PVC bottles. NRT has been in for startup and to tune the unit for PVC separation. Initial trials show good results on quality and rate. Commercial operation is in progress.

We recently visited NRT to review their status on sortation with current technology and new technology they are developing. They have modified their product line and have now sold 16 machines of various sizes. They have also developed some color sorting capability but are still thinking about the next generation of sorting all bottles.

- o **MSS** was selected for the Florida installation. Their PVC/PET unit has been pulled out of Eaglebrook near Chicago to increase the rates based on their increased volume of PET and should be re-installed in the next few months.
- o **AIC/Chamberlain** - P3 unit for North American Recycling reported above.
- o **DEVTECH** - CarpcO has returned the flake separation technology to Devtech stating they could not commercialize under the current royalty arrangements with Devtech since it will require additional pilot work and equipment cost. We declined to support additional development unless NAPCOR came to the table and they have declined. We plan to keep in touch with Devtech on their next steps.
- o **Froth Flotation** - Hoechst is installing a unit from RPI -Utah to separate PET and PVC in their new plant. We plan to monitor results with no further support.

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- o **New technology** - Henry Frankel - from Plastics Recycling Foundation feels he has some novel technology for a low cost sortation device. Roy Gottesman will evaluate under secrecy agreement and make recommendation to VIGOR.

- ACTION:**
- o Follow Auto Sort progress. PR as appropriate.
 - o Follow up on Frankel device.
 - o Follow work at Clearvue and Waste Alternatives and monitor future developments
 - o No further sortation development is currently planned.

RECLAIM-CLEANUP

OBJECTIVE: Establish separation/cleanup to obtain clean flake economically.

- STATUS:**
- o **Clearvue** - See report above.
 - o **Melt Filtration System** - Commercial trials have been delayed by design modifications.

- ACTION:**
- o Continue cooperative industry efforts on commercial operations.

MARKETS

OBJECTIVE: Sponsor market research and coordinate industry efforts to suitable/realistic markets for recycled vinyl. Develop consensus standards as applicable.

- STATUS:**
- o **Demonstration Projects**
 - Pipe project in cooperation with PW Pipe was aborted after many delays. We are re-initiating via different route.
 - Siding project dropped; no siding producer and other priorities.
 - o **Sears recycle** - Blisterpack - After visit to Sears we decided to initiate discussions with them on recycling blisterpack from their stores. Trial on cleaning is in progress prior to next meeting with Sears. Klockner/Mirrex driving program.
 - o **VI Durables** - We have set up a task group on Durables to determine what efforts should be pursued on recycling to complement P3 activities but specific to PVC. Several potential projects have been identified.

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- o **Standards** - Several ASTM recycle standards are in progress. We are monitoring recycling symbols/identification efforts.

- ACTION:**
- o Complete demonstration projects.
 - o Move ahead on Sears program.
 - o Clarify Durables projects and priorities.

COMMUNICATIONS

OBJECTIVE: Publicize the accomplishments on vinyl recycling. educate our Publics on recyclability of vinyl and stop de-selection of PVC for packaging and other applications.

- STATUS:**
- o See Issues Management/Communications strategy.
 - o Set up and manned VI booth at Recycling Fair in Washington, DC for government agencies. Good response.
 - o Tripartite meeting set up to facilitate discussion and actions in support of PVC on a Global basis.
 - o Greenpeace is becoming much more aggressive on Chlorine and PVC on global basis ie Austria, Germany, Australia. IJC report will accelerate their efforts in US on Chlorine. Discussed proposal with Issues Management and VIGOR to elevate our efforts to address Greenpeace specifically.

- ACTION:**
- o Maintain close coordination with Issues Management.
 - o Follow up Greenpeace thru Tripartite meeting and with Issues Management.

F.E.Krause

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VINYL PACKAGING COUNCIL

The Vinyl Packaging Council has held one meeting since the Institute's Annual Meeting. Following are highlights of current activities:

VINYL IN PACKAGING (VIP) AWARDS

This program, intended to showcase vinyl packaging, is now in its third year. An initial mailing on the 1992 program was distributed in early July to the 2,500 names on the Council's mailing list, with entry forms also distributed in bulk to Council members. A second mailing is scheduled for August. Complementing this distribution, a press release announcing the competition was distributed in late Spring and has been picked up by the trade press.

The judging is scheduled for September 25, with four outside judges. As in last year's competition, special recognition will be given to packages that demonstrate an environmental benefit/advancement/innovation.

The awards will be presented officially November 10 at a breakfast during the week-long PACK EXPO trade show and will be showcased at the Packaging Council's booth at the show.

CUSTOMER BRIEFINGS

The first of three planned briefings for the current fiscal year is scheduled for September 15 in Chicago. The target audience of 50 customers will receive a half-day briefing on vinyl packaging issues. This program was initiated in February 1992 and received high program evaluation marks.

PACK EXPO

The Vinyl Packaging Council will have an exhibit booth at the November 8-12 Pack Expo at McCormack Place in Chicago that will showcase the VIP winners and promote the benefits of vinyl packaging. Those manning the booth at the U.S.' largest packaging show, will also be trained to handle any environmental questions.

BROCHURE

A new vinyl packaging benefits brochure is under development, with the design and contents reviewed at the July 21 meeting. This brochure is designed to supplant the bottle-only brochure developed five years ago and will showcase the full range of vinyl packaging applications.

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RESEARCH

A marketing survey to determine the perceptions of vinyl packaging materials and the impact of environmental and recycling issues on the use of vinyl packaging materials is to be undertaken beginning this quarter. Cambridge Associates, who did the original baseline research for the Council, has developed a proposed questionnaire. The research is to be carried out using telephone interviews (target number is 200) of personnel at packaged-goods manufacturers. We will be able to examine the findings by title (corporate v. line), industry (food v. non-food), and type of packaging (bottles v. film).

LIAISON WITH PACKAGING SCHOOLS

A program has been initiated to identify speaking/lecture opportunities at the major packaging schools. Also to be examined out of these lectures is whether there is a need to develop curriculum materials.

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August 17, 1992

PRO UPDATE

-LAST MEETING HELD DURING VI ANNUAL MEETING IN MAY. SEE ATTACHED MINUTES.

-NEXT MEETING WILL BE HELD SEPTEMBER 22. SEE ATTACHED AGENDA.

SIGNIFICANT ACTIVITIES:

-THE SEPTEMBER MEETING WILL FOCUS ON CAMBRIDGE & ASSOC.'S MARKET RESEARCH DESIGNED TO GAUGE THE IMPACT OF PRO'S MARKETING AND COMMUNICATIONS EFFORTS.

-A SIGNIFICANT PR PIECE WAS PRINTED IN THE AUGUST "PIPELINE AND UTILITIES CONSTRUCTION." SEE ATTACHED.

-THE FIRST ISSUE OF PROFILE, A NEWS LETTER ON PVC PIPE WAS MAILED TO APPROX. 3500 MUNICIPAL WATER OFFICIALS, CONSULTING ENGINEERS AND OTHERS IN JUNE. FUTURE MAILINGS ARE SCHEDULED FOR OCTOBER AND FEBRUARY. PROFILE WAS ALSO DISTRIBUTED DURING JUNE'S AWWA ANNUAL CONVENTION IN VANCOUVER. SEE ATTACHED.

-ORDERS FOR UNIBELL'S HANDBOOK HAVE INCREASED 50-100% SINCE ITS AVAILABILITY HAS BEEN NOTED ON OUR AWWA JOURNAL ADS.

-A SUBCOMMITTEE HAS BEEN ESTABLISHED TO MONITOR POLYETHYLENE PIPE ACTIVITY, ESPECIALLY AS IT RELATES TO PVC PIPE MARKETS.

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SP

Tuesday
September 22, 1992
8:30a.m. - 3:00 p.m.

*The Vinyl Institute, A Division of The Society of the Plastics Industry, Inc.
Wayne Interchange Plaza II, 155 Route 46 West, Wayne, New Jersey 07470, (201) 890-9299*

PIPE RESOURCE ORGANIZATION

Ponte Vedra Inn & Club
200 Ponte Vedra Boulevard
Ponte Vedra Beach, Florida 32082

Thursday
May 28, 1992
8:00 a.m. -- Noon

Attendees:

Mike Barish, Borden Chemicals
Bob Burnett, Vinyl Institute
Roy Gottesman, Vinyl Institute
Frank Conrad, CertainTeed
Sherry Carr, CertainTeed
Peter de la Cruz, Keller & Heckman
Bob Novick, CertainTeed
C.A. Gellner, CertainTeed
Don Pearson, PPG Industries
Sanford Stromberg, Atochem N.A.
Greg Torchiana, Rohm & Haas
E.E. Schroeder, Shintech
Cal Rehfuess, Georgia Gulf
Don Goodman, Occidental Chemical
John Kirkpatrick, Vista Chemical
Fred Sacks, Occidental Chemical
Mary Mahon, Borden Chemicals
George Dillon, Dow Chemical
A.A. Reventas, Shintech
Walt Hermes, Borden Chemicals
Gonzalo Sandino, Petroquimica Colombiana
Dan Stanowick, Edward Howard & Co.
Dave Meeker, Edward Howard & Co.
Bob Walker, Uni-Bell PVC Pipe Assn.

I. SELF INTRODUCTIONS, APPROVAL OF MINUTES, MEETING OBJECTIVES

Chairman Mike Barish opened the meeting at 8:00 a.m. Following self introductions, the minutes of the PRO meeting held on March 17, 1992 were approved as written. Mr. Barish indicated the general objective of the meeting was to review all current and planned projects. To put same into context, he reviewed PRO's original mission statement, a copy of which is attached to these minutes.

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II. BUDGET REVIEW

Bob Burnett reviewed PRO's actual and prorated expenditures for fiscal year 1991-92. He reported a negative budget variance of approximately \$21,000. This was due largely to the success of the group's marketing and communications efforts and greater than anticipated printing and literature fulfillment costs. Mr. Burnett also reported that PRO's approved budget for fiscal year 1992-93 totalled \$147,000.

III. PUBLIC RELATIONS STATUS REPORT

Dan Stanowick gave Edward Howard & Co.'s report of marketing and communications initiatives.

A. Advertising

Mr. Stanowick reported that "Versatility" would be the subject of PRO's next ad in the June issue of AWWA Journal. This would be followed on an every-other-month basis by "Reliability", "Durability", "Economics" and "Water Quality".

Mr. Stanowick reminded the group that although its advertising efforts were not ambitious, they were important in that they countered aggressive efforts by competing pipe interests. On this subject, Roy Gottesman asked Mr. Stanowick to secure and share with PRO examples of same. Bob Walker was asked to secure from the Ductile Iron Pipe Research Association examples of the PVC pipe failures it references in its advertising.

Assignments:

1. Dan Stanowick to secure and share with PRO examples of competing, negative advertising.
2. Bob Walker to secure from the Ductile Iron Pipe Research Association examples of the PVC pipe failures it references in its advertising.

B. Publicity

Mr. Stanowick distributed a copy of a PRO case history article published in a recent issue of Plastics in Building Construction. He reported that an illustrated primer on PVC pipe authored by Bob Walker was scheduled to appear in the July issue of Pipelines and Utilities Construction. He indicated other PRO case history articles were tentatively scheduled to appear soon in Water Engineering & Management, Constructioner and The Florida Specifier.

Mr. Stanowick reported that an illustrated article about PRO's mission and accomplishments was scheduled to appear in the next issue of the Uni-Bell PVC Pipe News, thanks to the interest and efforts of Bob Walker. He reminded the group that National Utility Contractor was still looking for examples of major pipeline rehabilitation projects for its August issue. He reported that Underground Focus is still planning to publish later this year a feature story about reclaimed water systems including examples where PVC pipe was involved. He also reported on a story opportunity with the same magazine examining how excavators can locate buried PVC pipe prior to digging and avoid damaging it.

Assignments:

1. Dan Stanowick to work with Bob Walker to provide Underground Focus with information and examples of how PVC pipe can be protected prior to installation from damage from excavation.

C. Direct Mail

Mr. Stanowick reported that he was proceeding with production of the first issue of PROfile, a periodic newsletter that will be distributed to all those on PRO's inquiry list of municipal water officials, consulting engineers and others. The first issue will be ready for mailing by the middle of June. Copies will also be handed out by Uni-Bell at the AWWA Annual Convention in Vancouver.

Copies of the newsletter will also be sent with a cover letter by Mike Barish to PRO's industry influential list. Additional copies will be sent to all industry trade media with a news release.

For future issues Mr. Stanowick said he would contact PPFA and PPI for news items in addition to his other sources including VI member companies, customer companies, Uni-Bell and industry trade media.

Assignments:

1. Dan Stanowick to draft a cover letter for Mike Barish to accompany a copy of PROfile to be mailed to PRO's industry influential list.
2. Dan Stanowick to draft a news release for a mailing of PROfile to industry trade media.

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D. Market Research

Mr. Stanowick reported that he was working with a subcommittee consisting of Bob Burnett, Roy Gottesman, Mike Barish, Bob Novick and Bob Walker to complete a workplan and draft questionnaire to be used to gauge the impact of PRO's marketing and communications efforts. He reported that the final project would involve telephone surveys of approximately 250 municipal water officials, consulting engineers and other industry opinion leaders.

The subcommittee scheduled a telephone conference call to make final decisions about this project at 10 a.m. EST on Tuesday, June 2. Mike Barish asked if other PRO members would be interested in participating in same. Fred Sacks and Greg Torchiana indicated they wanted to receive copies of the workplan and draft questionnaire.

Assignment:

1. Dan Stanowick to send Fred Sacks and Greg Torchiana copies of the market research workplan and draft questionnaire so that they can decide if they are interested in participating in the telephone conference call referenced above.

IV. STATUS OF CALIFORNIA EIR

Roy Gottesman provided a brief update on the status of the ongoing negotiations with the California Department of Housing and Community Development and SRI International to develop a defensible environmental impact report on plastic pipe. He referenced a pending meeting with all interested parties and promised to issue to PRO a written report about same along with a timeline of all significant project developments.

Assignment:

1. Roy Gottesman to issue a written report of a pending meeting with all interested parties in the California EIR along with a project timeline.

V. SOLVENT CEMENT ISSUE

Don Goodman provided an update on the efforts of the South Coast Air Quality Management District to establish and enforce a limit on VOC emissions from solvent cements used to join small diameter PVC pipe.

According to Mr. Goodman, the bad news is that there is still a deadline of 1/1/93 by which time emissions are to be trimmed to 250 grams/ltr. (Most solvent cements currently emit approximately 650-800 grams/ltr.) Other bad news is that the SCAQMD is both very rigid and unpredictable, compounded by the fact that it is also under new management.

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The good news, according to Mr. Goodman, is that an extension of the 1/1/93 compliance date will almost certainly be mandated, that the SCAQMD may have other priorities under its new management, that an ad hoc group of both PVC pipe and fitting interests is actively monitoring the situation, that new solvent cements are being formulated with lower volatile organic emission levels and that altogether new pipe joining alternatives are being explored.

Mr. Goodman said that he would continue to follow and report on this situation for the VI.

VI. CODE UPDATE

No new code matters were discussed. In the continuing absence of Peter Lloyd due to health, Mike Barish asked Al Reventas to assume responsibility for monitoring and reporting on relevant code matters at future PRO meetings.

Assignment:

1. Al Reventas to monitor and report on relevant code matters at future PRO meetings.

VII. POLYETHYLENE MONITORING

Also in Peter Lloyd's absence, Mike Barish led a discussion about how new standards were opening up opportunities for medium and high density polyethylene (PE) in markets traditionally dominated by PVC.

Bob Walker referenced plans by the Uni-Bell PVC Pipe Association to evaluate the capabilities and limitations of PE pipe materials in sanitary and storm drain piping. He said the purpose was to delineate the salient differences between PVC and PE beyond readily apparent differences in short-term properties.

In a separate but related matter, Mr. Walker also referenced a 1988 proposal to the Vinyl Institute to conduct a study of the compression strength properties of PVC pipe compounds relative to competing materials including PE, the results of which presumably would enable PVC pipe to aggressively pursue the highway culvert and drainage pipe market. Mr. Walker was asked to review the proposal and was encouraged to submit it to the Vinyl Institute for renewed consideration if he deemed appropriate.

Mike Barish asked Bob Novick, Cal Rehfuß and Al Reventas to serve as members of a special PRO subcommittee on the above and all other matters pertaining to PE. He also asked Dan Stanowick to run a Nexis search of recently published information about PE piping standards and/or applications now and in advance of each regularly scheduled PRO meeting.

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Assignments:

1. Bob Walker to evaluate 1988 proposal for a study of PVC pipe's compression strength properties and to submit same to the Vinyl Institute again if he deems appropriate.
2. Bob Novick, Cal Rehfuß and Al Reventas to serve as members of a special PRO subcommittee on all matters relating to PE.
3. Dan Stanowick to run a PE Nexis search now and prior to each PRO meeting.

VIII. UNI-BELL COOPERATIVE PROGRAM

In the interests of time, Bob Walker had submitted a written report of activities and issues of mutual interest between Uni-Bell and the Vinyl Institute prior to PRO's meeting, a copy of which is attached to these minutes.

He indicated that with respect to the AWWA Research Foundation project referenced on Page 3, preliminary results indicate that the problem with PVC pipe most often cited by those interviewed was difficulty in detecting it in the ground. The second most often cited problem was tapping. He observed that although the latter was expected, the former was a surprise. Mr. Walker also indicated that Uni-Bell would continue to carefully monitor and report on this project as it moves forward.

Mr. Walker also reminded the group that Uni-Bell was still anxious to update its brochure entitled, "Vinyl Chloride: The Control of Residual Vinyl Chloride Monomer in PVC Water Pipe", pending updated information from the Vinyl Institute's Health, Safety and Environment Committee. Roy Gottesman indicated he would check on the status of same.

In other business, Mr. Walker indicated he would again be distributing copies of PRO's information kit from Uni-Bell's booth at the AWWA Annual Convention in Vancouver. He also brought to the group's attention a booklet recently published by the U.S. Environmental Protection Agency about the permeation of plastic pipe in severely contaminated soils. He indicated he would soon be meeting with the booklet's author in the U.S. EPA's Region 8 office to share background and supporting science about PVC pipe's permeation properties.

Assignments:

1. Roy Gottesman to check with Meredith Scheck regarding the status of the Health, Safety and Environment Committee's efforts to provide Uni-Bell with updated information for a revision of the brochure entitled, "Vinyl Chloride: The Control of Residual Vinyl Chloride Monomer in PVC Water Pipe".

2. Bob Walker to meet with U.S. EPA relating to PVC pipe permeation properties.

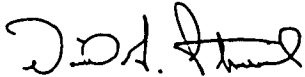
IX. OTHER BUSINESS, REVIEW OF ASSIGNMENTS, NEXT MEETING DATE

There was no other business discussed. Mike Barish then reviewed assignments and the group agreed to hold its next meeting beginning at 8:00 a.m. on Tuesday, September 22, 1992 in the Cleveland offices of Edward Howard & Co. Dan Stanowick offered to distribute hotel information and a map to PRO members prior to the meeting.

X. ADJOURNMENT

There being no further business, the meeting was adjourned at 11:40 a.m.

Respectfully submitted,



Daniel G. Stanowick
Edward Howard & Co.

CTL008345

PIPE RESOURCE ORGANIZATION MISSION STATEMENT

Proactively promote the use of vinyl in PVC pipe applications, focusing on expansion of the pipe market.

- Educate the general public, code bodies, legislators and specifiers on the benefits and misconceptions regarding the use of vinyl in pipe applications.
- Sponsor research and provide a source for information of the safe use, environmental impact and benefits of the use of vinyl in pipe applications.
- Identify opportunities to expand the use of vinyl in pipe applications.
- Develop synergism between the Vinyl Institute and other industry/trade groups in the PVC pipe end use markets.
- Monitor code and competitive product activities identifying required actions.



A Division of The Society of The Plastics Industry, Inc.

Robert H. Burnett
Executive Director

May 19, 1992

TO: Pipe Resource Organization

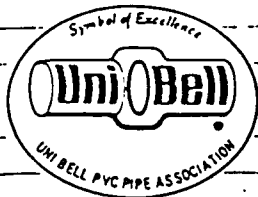
RE: Uni-Bell Activities Report

Attached for your information and comment is Bob Walker's report on activities since our last meeting.

Please review the material and be prepared to discuss the content as necessary at our PRO meeting on May 28th.

RHB/pmb
attachment

CTL008347



UNI-BELL PVC PIPE ASSOCIATION

2655 Villa Creek Drive, Suite 155

Dallas, Texas 75234-7362

Phone (214) 243-3902 Fax (214) 243-3907

May 14, 1992

TO: Bob Burnett

FROM: Bob Walker 

SUBJECT: Uni-Bell Activities Report

Pursuant to conversations we had prior to the last PRO meeting, I have prepared this written report of projects and activities in which Uni-Bell is involved. Distribution of this summary prior to the PRO meeting will conserve meeting time by eliminating my need to verbally report on all these pertinent issues that affect PVC pipe demand.

The PRO meeting will still provide attendees with the opportunity to ask any questions they may have regarding these issues.

Polyethylene Pipe

Uni-Bell Committees and staff have agreed to collect information about PE pipe materials as to their capabilities and limitations for sanitary and storm drain piping. We are seeking to delineate the salient differences between PVC and PE. This investigation will go beyond the readily apparent differences in short-term properties. We will attempt to evaluate the longer term performance potential of various PE compounds.

The motivation to conduct such an investigation is the result of the PE pipe industry's recent attempts to publish an ASTM standard for storm sewers. In addition, we see two divergent opinions with regard to acceptable PE non-pressure pipe compounds emerging from within the PE pipe industry. Chevron and Phillips, with PPI, have challenged the long life integrity of PE materials being used by Advanced Drainage Systems (ADS) and Hancor.

Another, although somewhat lesser, motivating factor was AWWA's approval of a large diameter PE pressure pipe standard.

If our investigations are able to substantiate clear superiority for PVC performance and cost effectiveness, the information can be put to good use to maintain and grow PVC's pipe market share. If all or some PE materials can be used to produce pipes that we find can perform satisfactorily on a long-term basis, and cost less than PVC, we may want to rethink our approach.

The outcome of these investigations will not only have an important effect upon Uni-Bell's stance relative to the pipe marketplace, but could also impact our abilities to work with some PPFA members and Uni-Bell's future scope.

CTL008348

PRO members are invited to contribute information about PE pipe and PE pipe materials/compounds.

Pivotal City Work, Seminars, Presentations

During the past six months, Uni-Bell has been very active in our specification conversion efforts. Uni-Bell staff have participated in fourteen (14) PVC pipe seminar presentations. These presentations were held in California (4), Illinois, Maryland, Ohio (4), Indiana, Kentucky, Utah and Texas. All total, over 1,000 influentials learned about PVC pipe at these PVC pipe presentations.

We have been following-up an earlier presentation held in Lansing, Michigan. Lansing is poised to allow a subdivision with PVC water pipe this Spring. The iron boys are scrambling to avert Lansing's conversion. Halifax County can now be considered an AWWA C900 PVC pipe user. In addition, Portland, Oregon has, for the first time ever, specified a major PVC pressure pipe project involving both C900 and C905.

Through recent seminar contacts we have begun to work with Indianapolis Water Company to obtain PVC water pipe acceptance. Indianapolis Water installations average over 50 miles of pipe annually.

With regard to large diameter highway culverts and drainage pipe specifications, we have conducted two seminars for Caltrans. We authored a technical design submittal for Pennsylvania's Department of Transportation (DOT), as requested in their consideration for PVC approval. We are working with the DOT's in both Illinois and Indiana to obtain proper PVC pipe approvals. Ohio, Michigan and California DOT's already accept PVC pipes for culverts, but are under pressure from the concrete pipe industry to revise their specifications.

Legislative and Regulatory Issues

In reaction to our initial successes with large diameter sewers, storm sewers and highway culverts, the concrete pipe industry has implemented several counter strategies. One of their approaches is to influence State legislation so as to severely limit or preclude plastic pipe usage for highway drainage and/or storm sewers. Specific examples include: Indiana, where a law would have required highway piping to be non-combustible and New York, where a serious challenge of plastic's durability has been put forth. We have just learned that their New York strategy will be pursued in Michigan as well. The Indiana legislation has been thwarted and a rebuttal has been authored that has at least delayed any action in New York.

Even though they did not prevail in these efforts, they did come very close to success. Consequently, we anticipate a continuing pattern of legislative and political maneuvering. We must monitor these events as best we can, be ready to respond, and work with allied groups to prevent specification approval setbacks.

The American Concrete Pipe Association (ACPA) has also contracted with Bill Nesbeitt to help them with their campaign to deal with plastic pipe. We managed to obtain a copy of the 100 page campaign handbook that Bill prepared. Its contents were discussed at the February Uni-Bell committee meetings. Bill has already conducted several seminars for ACPA and the submittal to New York discussed above appears to be Bill's work.

Uni-Bell has also responded to non-concrete inspired legislative issues in Texas and New Hampshire. The Texas legislation would have restricted PVC sewer pipes by requiring more severe deflection limits and compound limitations. The New Hampshire legislation would have curtailed the use of all PVC water mains less than four inches in diameter. Uni-Bell follow-up is required in both States.

EPA did not appeal the U.S. Court decision regarding asbestos cement products. Consequently, the proposed 1997 ban of asbestos cement pipe products will not be enforced. Shortly after the February 27th deadline for appeal passed, the Asbestos Information League did conduct a number of seminars throughout the southwestern U.S., attempting to regain some of their lost market share.

We are continuing to monitor the Southcoast Air Quality Management Board's (SCAQMB) efforts to regulate volatile organic carbons (VOC's) emissions. A report was distributed to The Uni-Bell committees during their February meetings.

AWWARF PVC Project

We succeeded in our efforts to involve Al Moser in this project and also succeeded in establishing ourselves on the project's advisory committee. The other participants on the project advisory committee are: Dewey Dickson of JM Montgomery Engineers; Greg Stabler of Davidson Water Company in North Carolina; Bill Axlund of Indian Health Services in Aberdeen, South Dakota; and Pete Mitchell of East Bay Municipal District in Oakland, California.

Two hundred forty five (245) questionnaire were sent to utilities and one hundred sixty four (164) responded. The results provide an invaluable insight into the PVC pressure pipe market. The information is undeniably useful but is not always complimentary.

Phase two of this \$163,000 project is supposed to focus on and investigate any major problems uncovered in phase one. Tapping is expected to be involved in phase two.

I cannot stress enough the importance of monitoring and proper management of this project.

Consensus Standards Work (AWWA, ASTM, AASHTO, NSF, ASCE, 10 States, etc.)

American Water Works Association (AWWA) - There is a great deal of activity at AWWA that will affect PVC pipe sales. We provide you with this abbreviated summary. AWWA has approved and published a new standard for molded PVC pressure fittings 4 in. through 8 in. (AWWA C907). AWWA has also approved and published a newly revised standard for the thickness design of Ductile Iron pipe (AWWA C150). The revisions allow for pressure class ratings for ductile iron instead of the old thickness class numbers. The pressure classes range from 150 psi to 350 psi. Minimum wall thicknesses for each pipe size have also been reduced.

AWWA has also approved and published a new standard for 4 in. through 63 in., PE pipe and fittings (AWWA C906) after overruling objections submitted by Peter Lloyd of BFG and Dave Crowson.

Work is continuing on a proposed PVC pipe installation standard (AWWA C605) and proposed standard for self-tapping PVC saddles. Work also continues on updating the AWWA PVC Pipe Design and Installation Manual (AWWA M23). AWWA has recently issued a survey ballot regarding the color coding of pipes according to end use. Another ballot has been requested to clarify the procedural requirements in AWWA C900 for the pipe flattening test.

Lastly, AWWA has denied authorization for an oriented PVC pressure pipe standard while granting permission to begin work on a new standard for PVC fabricated fittings.

American Society for Testing and Materials (ASTM) - Uni-Bell will co-sponsor and Dave Eckstein is co-chair for the second ASTM plastic pipe symposium. This symposium is planned for 1994 during the last week in February or first week in March, in New Orleans.

A proposed new standard for profile wall PE storm sewers has been narrowly defeated. Work is underway to write a standard for oriented PVC pressure pipe.

In view of abrasion test results with PVC, we plan to work within ASTM to develop a pipe abrasion wear test method.

American Association of State Highway Transportation Officials (AASHTO) - With approval and publication of the newly revised, profile wall, PVC pipe material standard (AASHTO M304), we have been working to incorporate M304 into AASHTO's design specification (Section 18). These changes will help to open up more markets for profile wall PVC highway culverts and storm sewers.

The concrete pipe industry is continually trying to restrict plastic pipe use. They are lobbying hard to limit plastic pipes to a 48 inch maximum diameter. Such limitation has been tacked on to the ballot to revise Section 18 as mentioned in the previous paragraph.

We have also been active in the authoring of a culvert durability document within AASHTO.

National Sanitation Foundation (NSF) - Standard 61 approvals and certification for the PVC generic formulations looks pretty good. All the resins have been cleared along with all lubricants and waxes. The only problem is with some stabilizers. The metal tin and butyl tin stabilizers are acceptable. Work is continuing with antimony stabilizers. Ester stabilizers will be dropped.

For the most part, our objective of a more level certification playing field is being realized. Many states are beginning to mandate Standard 61 certification. The metal people are continuing to seek ways to circumvent the amount of certification scrutiny they face. I recently voted negative on a proposal that would have provided a blanket approval for metal pipe materials.

The mechanical devices manufacturers (i.e., valves, faucets, etc.) are still searching for a protocol that would enable them to comply with Standard 61. They are trying to get EPA to phase their limits in over a period of years to avoid severe "hardship."

American Society of Civil Engineers (ASCE) - We are working with ASCE to update and rewrite their Pressure Pipe Design Manual. We are also monitoring several other projects that could affect PVC pipes' competitiveness.

Ten States Standards - We can report a partial success with this often referenced guideline. It now recognizes "base" inside diameters and the associated tolerances. Without these tolerances, deflection testing becomes overly restrictive. Our committees were given the pertinent pages from the newly published guidelines at their February meetings.

We have yet to convince the 10 States committee that 7.5 percent deflection is the proper test limit (they still require 5 percent), and that flows in PVC pipe can appropriately be calculated using a Mannings "n" of 0.009 (instead of 0.013).

Canadian Standards Association (CSA) - They have approved a PE standard for storm and sanitary sewers. The PE standard parallels the test requirements for PVC sanitary sewers.

CSA has also authored a very nice letter in response to a municipal inquiry about the fire safety of PVC pipes for storm sewers. We provided you with a copy of that letter at your last PRO meeting.

Uni-Bell Literature Report

Uni-Bell typically distributes 1,000 pieces of literature per month (not including Handbooks and Tapping Videos). Based upon past sales and advertising provided on the Vinyl Institute, AWWA Journal ads, we anticipate retail Handbook sales of 50 or more per month.

Tapping video sales have been sluggish but are expected to increase when we publicize its availability in the *Uni-Bell PVC Pipe News*, scheduled for publication in May. Both Spanish and French versions have also been completed and are available.

We have just completed work on a new issue of *Uni-Bell PVC Pipe News*. Fourteen articles are included.

Additional Report Items

Specification Efforts - Uni-Bell has been granted representation on three important committees of the North Texas Council of Governments (NTCOG). They are the Construction Materials Committee, Construction Methods Committee and General Provisions Committee.

At the request of PW Pipe and JM Manufacturing, we will be inputting to the "Orange Book" specifications, which are used in northern Nevada. Our objective will be to remove restrictions on PVC pipe.

Pipe Research Projects - In addition to the AWWARF project dealing with PVC pipe, Uni-Bell is monitoring and has inputted to several other research projects important to you. Dr. Les Gabriel has authored a report on findings and test results of abrasion resistance of profile wall PVC pipe. The information will be extremely beneficial to all of you. Simply put, profile wall PVC outperformed heavy-wall, steel reinforced, concrete pipe.

Scepter and Canron have been closely following work done by the Ontario Ministry of Transportation (MOT). The MOT has evaluated some larger diameter profile wall PVC sewer pipe under shallow burial depths and high surface loadings, i.e., 250 kN or 56,000 pounds. Their recently released, "Summary of Test Results" looks very good.

Ohio University is conducting a study of virtually all profile wall plastic pipes to evaluate their failure modes. In this study, tremendous loads, i.e., in excess of 300 tons, are being applied to shallow burial pipes. We have witnessed some of this testing and successfully requested several test protocol modifications that will better simulate actual in-service conditions. The OU results should have tremendous impact on your highway and storm sewer markets.

The National Science Foundation (NSF) has contracted with Old Dominion University to conduct studies with both PVC and ductile iron pipes relative to earthquake resistance. They will be looking at 4 in. through 12 in., PVC pipe and PVC pipe joints. We are planning to become involved as an expert advisor for PVC pipes.

Pipe Competition - The Water Environment Federation (WEF), formerly Water Pollution Control Federation (WPCF), has a pipe competition each year that is similar to AWWA's tapping contest. The WEF has decided to abandon the use of clay pipe in their competition and begin using only PVC pipe. After consulting with our Uni-Bell Market Development Committee, we have offered our technical support to this effort. Uni-Bell member companies will supply the PVC pipe and PVC saddles to be used in the competition.

The WEF competition will culminate at their Annual Convention in New Orleans, September, 1992.

Uni-Bell Exhibit - Uni-Bell will be exhibiting in Vancouver at this year's AWWA Convention. Please consider our Uni-Bell booth a welcome location on the exhibit floor for you and your people who attend.

Bob, I look forward to seeing you and all members of PRO at your upcoming meeting. I hope this pre-meeting memo is helpful.

RPW/vmw

cc: Uni-Bell Market Development Committee
Uni-Bell Technical Committee
Uni-Bell Associate Members
Uni-Bell International Affiliates
Art Kahn

CTL008353

PVC Pipe Becomes Utilities Standard

Technology has made PVC pipe a popular choice for utilities industry as a replacement for sewer, water lines

By Robert Walker, P.E.

Throughout much of this century, revolutionary changes in pipeline engineering and material selection have resulted from the introduction of plastic pipes. The revolution was born in polymer science and decades of technological refinement, while being nurtured by actual product performance and an ever-increasing understanding of plastic materials properties by specifying engineers.

The polymer that has achieved front-runner status in this pipe revolution is polyvinyl chloride (PVC). Resistance to chemical attack, long-term strength and high stiffness account for PVC's popularity for both pressure and non-pressure pipe applications. Throughout North America and most of the industrialized world, the use and availability of PVC pipe has grown steadily since the middle of this century. PVC has become the dominant pipe material for such major markets as the gravity flow and pressure sanitary sewer applications and for pressure water distribution. In North America, the total length of PVC water main and sanitary sewer pipe installed each year exceeds that of all alternative pipe materials combined. North American PVC pipe and fittings sales exceed 3.7 billion pounds annually. Such statistics are the result of a successful product history and multiple product attributes.

Water Distribution Usage

PVC water pipes are conservatively estimated to comprise about 70 percent of all the buried water distribution pipes (12 inches or smaller) being installed in North America each year. PVC pipe's majority share in this very large pipe market can be attributed to a variety of performance characteristics. The greatest single PVC water pipe attribute is its invulnerability to corrosion. Hundreds of



An unidentified worker installs a PVC Ultra-Rib sewer pipe with a PVC fitting. This type of PVC pipe complies with ASTM Standard F794.

millions of dollars are spent each year on maintenance, repair and replacement of corrosion-damaged pipelines. Unlike alternative steel and ductile iron pipes which depend upon protective liners, external coatings, encasement bags and/or cathodic protections, PVC is inherently well-suited for direct burial and water conveyance. PVC is immune to both underground external corrosion and internal pipe corrosion. This eliminates the need to specify corrosion protection methods. With PVC pipe, long-term durability is not compromised when encasement bags are punctured or torn, or when thin coatings or liners are damaged. Installation and design are simplified with a single wall, homogenous pipe material.

A recently published international report entitled, "Problems of External Corrosion in Water Distribution Systems," found a dramatic shift towards the use of plastic pipe (primarily PVC) to minimize the high costs associated with corrosion. Specifically, the report found that plastics now account for 69.3 percent of the water pipes laid in recent years, with ductile iron a distant second at 20.5 percent, asbestos cement 5.4 percent, steel 4.5 percent and concrete 0.3 percent.

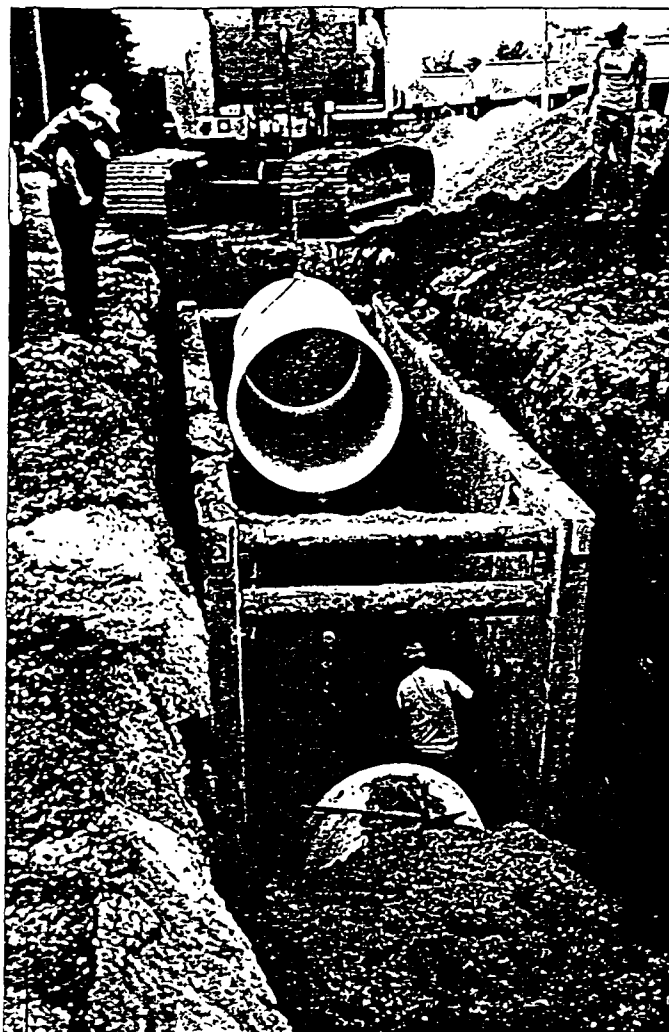
Increasing public attention and awareness regarding water quality and health are also factors favoring PVC use for water distribution. A PVC water pipe delivers water as clean and pure as it receives. PVC imparts no taste or odor to

the water it transports, nor is PVC pipe a source of lead or other chemical contaminants associated with metal pipes. PVC pipe does not react with even the most

150 PVC pipe. This sizable weight differential provides good economy on a per-foot-of-pipe basis and serves to lower shipping costs, facilitate installation and

been a shift toward the use of larger diameter PVC water pipes for both water distribution and transmission. PVC pipe's superior performance and durability are expected to earn them a majority share of that market in the near future.

Workers lower a section of Carlton Vylon PVC sewer pipe into a trench during a recent construction project. PVC pipe was selected to replace the corroded, old pipe.



aggressive drinking waters. PVC pipes have been continuously certified safe against national drinking waters. PVC pipes have been continuously certified safe against national drinking standards since 1965. The absence of internal corrosion with PVC also eliminates tuberculation, i.e. the build-up of corrosion by-products, which cause a loss in hydraulic capacity and higher pumping costs.

Specifically engineered and carefully formulated, PVC pipe compounds are more expensive per pound than ductile iron, steel or concrete. However, PVC's high strength-to-weight ratio requires fewer pounds per foot of pipe. The weight advantage is quite significant, e.g. a 20-foot length of nominal eight-inch Class 52 ductile iron pipe weighs 570 pounds, versus 180 pounds for a Pressure Class

handling, and reduce injuries and accidents for installation crews.

These and other beneficial attributes have combined to give PVC water pipes a favored status among most water pipeline specifiers. PVC water mains earned the highest mean satisfaction level in a 404 utility survey conducted by the University of California. In the same survey, utilities were asked to indicate whether repair rates were "better, same or worse" when compared to other mains. Again, PVC pipe received the highest better:worse ratio, i.e. 8.8:1, as compared to only 4.8:1 for iron and steel pipes, and 1.5:1 for asbestos cement pipes.

With the 1988 approval and publication of American Water Works Association's "Standard for PVC Water Transmission Pipe, Nominal Diameters 14-Inch Through 36-Inch", there has also

Sanitary Sewer Usage

Sanitary sewer applications pose a somewhat different set of pipe performance challenges. Cost efficient operation requires that all cracks and leaks be minimized or eliminated. Every crack or leak represents an opportunity for root intrusion and/or the entrance of surrounding embedment soil. In both cases, the sewer may become blocked or obstructed and require costly maintenance or repair. The loss of embedment soil may further undermine the structural integrity of the sewer and adversely affect nearby structures, particularly paved surfaces.

Concern for the environment has resulted in the construction of complex, multi-state wastewater treatment facilities with significantly increased operating costs. Water leakage into sanitary sewer collection systems can significantly increase the volumes of wastewater that must be treated. The resulting wastewater volume excesses increase treatment costs and reduce the treatment facility's effectiveness.

PVC pipes for sanitary sewers are engineered with deep insertion, gasketed joints that provide superior resistance to costly leakage. PVC sanitary sewers bend or flex when subjected to excessive loads rather than cracking or breaking. These PVC pipe design properties have enabled specifiers to upgrade their sanitary sewer requirements and performance expectations. Annual treatment cost savings alone are estimated to exceed \$20 million, as a direct result of PVC sewer pipe usage.

These measurable performance advantages have brought about an almost total conversion to PVC pipe for sanitary sewers. More than 90 percent of all the sanitary sewers currently being installed throughout North America are made from PVC. With the development of the new profile wall constructions, the PVC industry has been able to properly engineer pipes up to 48 inches in diameter.

In addition to lower leakage rates and the elimination of root penetration, PVC sewers provide exceptional durability.

Continued on page 38

Continued from page 36

PVC pipes are resistant to virtually all of the chemical constituent concentrations found in both domestic and industrial wastewaters. Sulfide corrosion does not occur with PVC pipe. Abrasion wear has been observed as insignificant.

PVC sewer pipes come in longer lengths that reduce the number of joints needed and allow for faster, more efficient installation. PVC also provides a smoother internal wall surface that minimizes fluid friction and flow resistance. This hydraulic smoothness inhibits slime buildup and thereby lowers sewer maintenance costs.

PVC sewer pipe's flexibility is perhaps its greatest asset. Not only does the ability to flex serve to eliminate fracturing

and the leakage associated with cracking, but PVC pipe's flexibility, in combination with the surrounding soil, enables it to sustain loadings that would crush rigid pipes. Typical pipe embedment conditions will permit loadings approaching 12,000 lbs. per square foot, without excessive deformation.

Other Applications

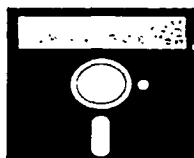
Having proven performance in the demanding circumstances surrounding the broad range of water and wastewater pipe applications, PVC pipe's versatility is being carried over into other buried piping applications.

For storm sewers and highway culverts, PVC products provide a higher quality alternative to traditional materials. Resistance to chemical attack, absence of corrosion, and abrasion resistance make PVC a more durable product. High load bearing capacity, fracture resistance, water-tight joints, smooth inner walls and installation ease make PVC pipe a cost effective choice.

Throughout this decade and into the next century, the pipe materials revolution that began 60 years ago will almost certainly continue. Out of that revolution, PVC piping products have risen to the top and are expected to improve upon their dominant position. PVC pipes and fittings owe much of their success to the inherent properties of PVC combined with an engineering approach intent on solving utility pipeline problems and reducing costs. The result has been an increasing reliance upon PVC pipes and fittings by utilities.

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Published by
the Pipe Resource Organization
of the Vinyl Institute

Welcome to this premier issue of **PROfile**, a periodic newsletter designed to communicate significant and timely information about the use of PVC (polyvinyl chloride) pipe in water distribution, waste water handling and plumbing applications. The newsletter is being developed and distributed by PRO, the Pipe Resource Organization, an operating unit of the Vinyl Institute, the national trade association representing the leading manufacturers of PVC plastics including feedstocks, additives and film and sheet products. PRO serves as a clearinghouse for information about the use of PVC pipe. It works closely with the Uni-Bell PVC Pipe Association, the Plastic Pipe and Fittings Association (PPFA) and the Plastics Pipe Institute (PPI) on projects ranging from technical research, marketing programs, market development work and public information initiatives. In this and future issues, we'll touch on new product developments, code matters, case histories and other related subjects. We welcome any comments, questions or news items you might have.

Hydrogen Sulfide Corrosion Severe in Sewer Pipe, Systems

According to a U.S. EPA Report to Congress, the problem of hydrogen sulfide corrosion in non-plastic sewer pipe and related wastewater collection and treatment systems is severe, not only in this country but in other developed nations as well.

"Corrosion due to the presence of hydrogen sulfide is a well known phenomenon in wastewater systems," the Report states. "Its effects can range from poor reliability and premature replacement of electrical systems to sewer pipe failures and street collapses." Some highlights:

- The geographical distribution of severe corrosion problems is widespread and is not limited to areas having warm climates. Severe corrosion was observed in Wyoming, Idaho, Wisconsin and Washington as well as in California, New Mexico, Louisiana, Texas and Florida.
- Severe hydrogen sulfide corrosion may reduce the 50 to 100 year life expectancy of an infrastructure to less than 10 years.
- Educational programs are necessary to disseminate information on corrosion detection and monitoring to municipalities.
- Hydrogen sulfide corrosion problems in sewers have been reported by at least 20 foreign countries.

Among the techniques to minimize corrosion when sulfide generation is anticipated, the EPA suggests that municipalities "Utilize corrosion resistant pipe materials such as PVC (and) specify corrosion resistant PVC or PE liners for concrete pipe, junction structures, etc."

Uni-Bell Publishes Revised Handbook of PVC Pipe

Now available from the Uni-Bell PVC Pipe Association is a completely updated, third edition "Handbook of PVC Pipe".

The handbook contains over 470 pages with 300 illustrations, tables, equations and photographs covering the engineering, design and installation of under-

ground PVC piping systems. Applications include potable water transmission and distribution, sanitary sewers, storm sewers, sewer force mains and highway culverts.

Chapters are devoted to such subjects as history, raw materials, manufacturing and testing, fittings and hydraulics.

Copies are available for \$40. To order, contact Uni-Bell at 214-243-3902.

Report Updates PVC Pipe Drinking Water Safety

A two-page technical report on PVC pipe and drinking water safety is available from PRO, the Pipe Resource Organization of the Vinyl Institute.

The report features an overview of PVC pipe in water distribution applications and of CPVC (chlorinated polyvinyl chloride) pipe in hot and cold water systems.

Included are findings from four scientific studies confirming PVC's and CPVC's drinking water safety. Other

performance properties of PVC pipe including durability, ease of installation and economics are also discussed.

Copies of the report (PRO1-1) are available by writing the Vinyl Institute at the address indicated in the upper left corner of this newsletter's mailing panel.

Burnett Named Vinyl Institute Executive Director

Robert H. Burnett has been named executive director of the Vinyl Institute, succeeding Roy T. Gottesman, the Institute's executive director since its establishment in 1982.

Burnett had served as the Institute's associate director since May 1991. Previously, he was the recycling program manager for Hoechst Celanese Corporation responsible for the company's resource recovery program.

Gottesman, regarded as one of the vinyl industry's top experts, will remain an active spokesman regarding vinyl and technical issues and has assumed a consulting role for the Institute.

CASE HISTORY

With PVC Pipe, City Finds 'Fountain of Youth'

Nearly 500 years after Ponce de Leon first laid eyes on what is today the state of Florida, people around these parts are still searching for water. The difference is that the water they seek is 400 to 500 feet straight down in the Lower Hawthorne Aquifer, not in the fountain of youth that legend says the Spanish explorer was trying to find.

Without fresh water, Cape Coral and other communities like it throughout Florida would experience limited growth. The city just completed a \$28 million expansion program that nearly doubled the size of its water system. Fully 90 percent of the 300 miles of new pipe on the project was PVC, including all sizes from 2 to 20 inches in diameter.

"I know PVC pipe is being used successfully in even larger diameters in other parts of the country," said William Geertse, city construction manager. "I look forward to the day when local standards will permit us to do the same. Then there would be a good chance that we might use nothing but PVC to take advantage of the weight savings, ease of installation and other factors."

One reason PVC was specified for the Cape Coral job is the extremely corrosive nature of the environment, both in the saltiness of the water coming out of the aquifer and in the corrosive nature of the soil in which the pipe must be laid, Geertse says.

Cape Coral operates the world's largest reverse osmosis system. High-pressure pumps force salty water through permeators. Desalinized (salt-free) water is discharged one way and the salty water is flushed back into salt water areas.

(continued on next side)

The Vinyl Institute
Pipe Resource Organization (PRO)
155 Route 46 West
Wayne Interchange Plaza II
Wayne, NJ 07470

Case History continued

"It's not a desalination plant taking direct sea water and we are able to use about 85 percent of the water we get from our wells," Geertse says. "Because of this and the salt content of the soil, PVC stands up better than cast iron. It is also a lot easier to handle and quicker to install."

Finding enough water has become a management skill as important to cities like Cape Coral as managing the budget or other resources. That's why Cape Coral chose PVC pipe. Although not a fountain of youth, the pipe, through its ability to resist corrosion, will never grow old the way metal pipe does. It offers Cape Coral a viable alternative for years to come.



Trench excavation proceeds just ahead of the installation of 12-inch PVC pipe as part of a \$28 million expansion of Cape Coral, Florida's water system.

PVC Replaces Another "Ancient" Pipe Material

PVC pipe literally helped make history recently in Santa Cruz, California.

As part of an infrastructure renewal project following an earthquake on October 17, 1989, the city unearthed a portion of its original piping system, constructed of hollowed-out redwood logs.

According to published reports, the system, originally installed in 1859, was mostly rotted, but some lengths were still in good condition and probably capable of carrying water today. It was not clear, however, how engineers sealed the logs together at their joints.

The city replaced the redwood pipes in the late 1800s with cast iron, but in keeping with modern times is currently replacing the cast iron with PVC.

Directory of PVC Pipe Technical Information Available

A revised listing of technical information covering everything from specifications for PVC pipe used in highway drainage systems to thawing procedures for water mains is available from PRO, the Pipe Resource Organization of the Vinyl Institute.

The publication, which lists more than 70 research reports and technical papers, contains the titles and numerical designations of a variety of documents available from the American Society for Testing and Materials, the American Water Works Association, the Uni-Bell PVC Pipe Association, the Plastics Pipe Institute (PPI), the Plastic Pipe and Fittings Association (PPFA) and the Vinyl Institute. An earlier version of the listing was published in 1989.

Copies of the directory (PRO1-2) are available by writing the Vinyl Institute at the address indicated in the upper left corner of this newsletter's mailing panel.

Updated Study Confirms Cost Savings of PVC Pipe

Contractors can save up to 40 cents on every dollar by using PVC pipe when they install plumbing systems, a recently completed study by a leading independent research firm shows.

The same study found that PVC used in drain, waste and vent (DWV) applications can result in savings of up to 42 cents per dollar over competitive materials.

The study, based on 1991 material and installation costs and labor rates in estimating the savings advantages of PVC pipe, was conducted by H.T. Technical Services, Berkeley, California.

Updating an earlier cost/benefit report completed several years ago, the study looked at actual building costs in Atlanta, Boston, Cleveland, Houston, San Francisco and Seattle. Plumbing and DWV systems were evaluated for four types of structures: a wood frame townhouse, a strip shopping center, a high-rise residential building and a high-rise office building.

"This study reconfirms that there are significant cost advantages in using PVC pipe," said Robert H. Burnett, executive director of the Vinyl Institute, which funded the H.T. study. "Further, it is significant to note that vinyl's cost advantages endure over time. Our original report, based on data gathered in 1988, showed cost savings which ranged from 23 to 44 percent in plumbing installations and from 16 to 37 percent in DWV installations."

Copies of an executive summary of the study (PRO1-3) are available by writing the Vinyl Institute at the address indicated in the upper left corner of this newsletter's mailing panel.

CTL008358



CTL008359

STATUS REPORT
CALIFORNIA ENVIRONMENTAL IMPACT REPORT (EIR)

On July 2, the oft-postponed meeting between Ralph Heim, SPI's California lobbyist, and Tim Coyle, the Director of the California Department of Housing and Community Development (HCD), was scheduled to be held. At the last minute, Coyle was unable to attend due to an emergency meeting on the California earthquake that had occurred the prior weekend, but Kenneth Kobrin, Chief Counsel and Deputy Director of HCD met with Heim and Marcus Lo Duca, SPI California Counsel on this project.

Kobrin provided the SPI representatives with a letter dated July 2 and addressed to Lew Freeman, Vice President of SPI, which had the following features:

1. HCD formally requested that SPI provide "sufficient additional resources to complete the EIR."
2. If such resources were forthcoming, HCD indicated that it would "continue to cooperate in the production of a certifiable document", although it remained concerned about SPI's capabilities to produce such a document.
3. If SPI was not willing to provide the "necessary additional resources, HCD indicated it would "have no choice but to suspend any further efforts to repair the present document."

A telephone conference including SPI attorneys and representatives of the ABS, PB, PVC/CPVC interests was initiated by Lew Freeman on July 9 but failed to achieve agreement on several options for further action. There was strong opposition to concede to the HCD request for additional funds to complete the project and no consensus on a legal approach. Bob Burnett and I participated in that conference call and indicated that, inasmuch as vinyl producers had already contributed 84% of the \$ 1.3 million for this project, it was now time that ABS and PB producers contribute the monies needed to defend their own products.

In response to Lew Freeman's request for thoughts on a future course of action, on July 16, I telefaxed a suggested approach to him which can be found at the end of this status report.

In a letter to Kenneth Kobrin on July 29, Lew Freeman essentially proposed this suggested approach. SPI accepted HCD's offer to meet "as soon as mutual schedules would permit" in order to move beyond the present impasse. In addition to SPI attorneys, representatives of each affected resin category would be included.

At the time this report is being written, a response is expected momentarily from HCD and it is anticipated that a "face-to face" meeting with HCD, probably in September, will be scheduled.

I will provide any new information, hopefully to include the scheduled meeting date with HCD, at the Executive Board meeting on September 2.

Roy T. Gottesman

August 10, 1992

CTL008360



July 16, 1992

VIA TELEFAX

This FAX consists of two pages.

Mr. Lewis R. Freeman at SPI/Washington

RE: California EIR

Lew:

I called earlier today and asked Melody to have you call me back on this subject. Knowing of your hectic schedule and to avoid the possibility of not giving you my input in a timely fashion, I decided to telefax this to you. Feel free to call me if you wish to discuss this or if you need clarification.

This is in response to your FAX of July 13 reporting on our telephone conference call of July 9. I discussed this suggested approach with Bob Burnett on July 14 and, with his agreement to pursue it, I have now also talked with Debbie Neale about it. Debbie is in agreement with the approach, and believes it would be acceptable to the Goodrich CPVC interests.

It was apparent to me that the July 9 conference call did not resolve anything because of the different interests that the proponents of each plastic have in seeing the EIR process completed. I can also understand the Goodrich position opposing filing a lawsuit against the State of California because of the very high potential for negative PR that such an action would engender in addition to time delays and high legal costs.

It seems to me that in his letter to you and Marcus LoDuca dated July 2, Ken Kobrin has left the door open for further discussion with the following in the last paragraph of his letter: "..... perhaps it would be productive for (use) to have another meeting in person or by conference call to further discuss how best to move beyond our present impasse."

I therefore suggest the following approach:

1. A meeting (desirably face-to-face) be arranged to include HCD, SRI and the following representing the plastics industry:

Lew Freeman

Marcus Lo Duca

Ralph Heim

Christine Gill or Bill Kovacs

Roy Gottesman (representing the Vinyl interests)

and a representative each from the ABS and PB interests.

CTL008361

Lewis R. Freeman
July 16, 1992

Page 2

The ABS and PB interests would be invited to participate in this meeting whose purpose would be to develop a list of tasks to be accomplished, responsibility for accomplishing the task and responsibility for providing the manpower and finances needed to accomplish each task.

If any plastics group elects not to participate in this meeting, they would be dropped from further involvement in the process and only those parties participating in the meeting would have their products considered for inclusion in the final EIR.

2. At the meeting, a list would be developed of all tasks needed to be completed to achieve an EIR document that would be certifiable by HCD. Associated with each task would be an assignment to the party or parties that would have responsibility for completing that task. For tasks that SRI is being asked to carry out, either alone or involving input from other parties, SRI would be asked to provide a fixed cost estimate for each such item. As an example, let's say that one item is to develop the response to the allegations regarding pipe failures resulting from ABS that were made at the public hearings. The assignment would be one to be shared by SRI and the ABS group. Under my suggested scenario, the ABS group would provide the necessary manpower and expertise to counter these allegations and would cooperate with SRI in framing the response. The SRI costs for this specific task would be borne by the ABS group. In a like manner, the resources needed (manpower, funds) on tasks/items that specifically relate to PVC, CPVC or PB would be expected to be provided by the group that is directly affected.

After this meeting, the individual plastic group would still have an opportunity to decide whether it wished to continue to be involved in the process and pick up its "fair share" of the costs. If it decided not to, which it still could do after the meeting, that product would be dropped from inclusion in the final EIR.

By this approach, I feel that those groups which are willing to pay for their "fair share" would be able to move forward without having any other group having little or no interest in seeing the EIR completed impeding the interested party or parties from achieving the goal of having a certifiable EIR completed as expeditiously as possible at the lowest cost.

Roy

cc: By FAX to Bob Burnett, Debbie Neale

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CTL008363

ELECTRICAL MATERIALS COUNCIL

The Electrical Materials Council has held two meetings and one telephone conference call since the last Board meeting.

The key activities of the Council which are either completed or underway are as follows:

- Reprints of the "50th Anniversary" background secured from Journal of Vinyl Technology who has run the article in their most recent publication. ICBO will also publish the article this summer in their Building Standards Magazine.
- Submitted abstracts for presentations in 1992 at:
 - National Electrical Contractors Association Annual Conference and Exhibit
 - National Fire Protection Agency (NFPA) Annual Meeting
- Responded to Electronic Cable Specialists on negative advertising.
- Electrical Materials Advisory Panel Meeting of Industry Experts will be held in Atlanta in late September. Purpose is to define Council Effectiveness and help focus future programs.
- Results of Cambridge Consultant Survey to define Council effectiveness expected in late August.
- Expenses are within budget.

Attached are the minutes of the most recent Council meeting for information.

ELECTRICAL MATERIALS COUNCIL

Ponte Vedra Inn and Club
200 Ponte Vedra Beach
Ponte Vedra Beach, Florida
Tarpon Room

Thursday
May 28, 1992
1:00p-5:00p

Attendees:

Pat Benkner, Vinyl Institute
Walt Hermes, Borden Chemicals and Plastics (in part)
Len Krauskopf, Exxon Chemical
Mary Mahon, Borden Chemicals and Plastics
John Opdycke, Edward Howard and Company
Mike Reynolds, Vista Chemical Company
Rick Smith, Vista Chemical Company
Dan Stanowick, Edward Howard and Company
Bob Strength, Product Safety Management

I. SELF-INTRODUCTIONS

Chairman Rick Smith opened the meeting with a round of self-introductions.

II. APPROVAL OF MINUTES OF MARCH 31, 1992 MEETING

The minutes of the March 31, 1992 meeting of the Electrical Materials Council were approved as received.

III. OPENING REMARKS

A. Purpose and Objectives

Chairman Rick Smith stated that the purpose of this meeting was to specifically discuss the Market Advisory Panel planned for September and review the Market Research Proposal distributed by Dan Stanowick and prepared for the Electrical Materials Council of the Vinyl Institute.

This meeting would also provide for an update of the various agenda items.

CTL008365

B. Review of Action Steps From 3/31/92 Meeting

Pat Benkner reported that she contacted Tellus to get a mailing list of people who would be receiving the report and she informed the group that she was told by Tellus that it was not their policy to give out their mailing lists.

She also informed the group that she contacted Ron McCreedy in order to get a mailing list from the SETAC February meeting (where Tellus presented their report), but it was suggested by Ron McCreedy that by doing anything with this list we may be focusing back onto something that this group has already dismissed.

Chairman Smith asked Dan Stanowick if he had received any items that could be used for Electrical Connections and asked the group once again to keep in mind any items for Dan to use for the next issue of Electrical Connections.

Pat Benkner reported that Meredith Scheck received a copy of Swift's Lead Bill (HR 3554) from SPI and noted two sections, of which were forwarded to Bud Hall for review.

IV. BUDGET REVIEW

A. 1991-1992 Expenditures

Pat Benkner reviewed the expenditures up to the month of April 1992 and with an estimation of May 1992 expenses, the Electrical Materials Council will come in just under the \$85,000 budget for the year 1991-1992.

B. 1992 Budget

Rick Smith noted that the Electrical Materials Council budget of \$77,500 was approved by the Executive Board of the Vinyl Institute for the fiscal year 1992-1993 as follows:

Publicity/Direct Mail	\$17,500
Newsletter (3 issues)	25,000
Research Survey	15,000
Market Advisory Panel	20,000

V. CODE MATTERS

Bob Strength gave an overview of various code matters as follows:

The National Electrical Code for 1993 was approved at the annual meeting of the National Fire Protection Association

(NFPA) on May 21, 1992. The new code will allow "optional" designations on wire and cable to include such things as LS for Limited Smoke and SR for Sunlight Resistant. He stated that it will now be permissible to also use such markings as LC for Limited Corrosivity and NH for Non-Halogen. He noted that with the exception of LS, there are no published standards nor criteria to determine what constitutes LC, NH or other such designations. The NEC for 1996 will be processed starting in January of 1994.

Bob Strength then went on to state that SPI is still seeking seats on various panels of the NEC. He stated that he is on "hold" for membership on Panel 6 which approved the "optional designations" code change and he has also applied for Panel 12 where there is an opening and also for Panel 7 as an alternate to Peter Lloyd of BFGoodrich.

Bob Strength reported that in ASTM, the D9.21 committee is close to adopting the "cone corrosimeter" method for testing the corrosive effects of smoke. The NIBS test apparatus being studied by ASTM E5.2170 is currently in limbo.

Bob then went on to report that the International Electrotechnical Commission (IEC-89) met in Ottawa, Canada in May and several documents on corrosivity, toxicity, and hazard assessment of electrotechnical products are being processed for completion this year (EC '92). He informed the group that there will be several test methods for both corrosivity and toxicity referenced in these documents.

VI. POLYOLEFINS FIRE PERFORMANCE COUNCIL

Bob Strength reported on the tests that are being performed in conjunction with the Polyolefins Fire Performance Council. He stated that the data should be completed shortly (most likely mid-summer) for review by the Vinyl Institute and this data will then be ready for publication some time in October.

Rick Smith posed to the group the question of non-halogen. He asked if anyone thought that the Electrical Materials Council should request to the Executive Board of the Vinyl Institute that we fund a study on non-halogen, specifically related to wire and cable, that is, PVC compounds versus non-halogen compounds and their impact on a long-term basis. Is this something that we should be trying to assess?

Mike Reynolds commented that right now, this is not an issue and that our customers will let us know when it does become an issue. He also indicated to the group that the Market Advisory Panel will come as close to answering this question for us as we could get.

VII. PUBLIC RELATIONS STATUS REPORT

A. Direct Mail Campaign

Dan Stanowick reported that the Electrical Materials Council newsletter was issued in February and that he is looking to have the next issue of Electrical Connections distributed sometime in July. Again, Dan asked for input from the group for newsletter items for future issues.

At this point, Pat Benkner conveyed that it had recently come to her attention that ADH had never sent out the premiere issue of Electrical Connections (Fall 1990) nor did they send out the second issue (Spring 1991). She reported that she had talked to ADH about this and they were going to issue the next two issues of Electrical Connections for free, excluding postage.

The group felt that this was unacceptable and postage should be included, and these two issues should not cost the Electrical Materials Council anything.

Action:

Pat Benkner is to meet with ADH to further discuss and inform them of EMC's consensus on this matter.

B. Video

Dan Stanowick stated that there will be a letter going out to member companies on how to use the Vinyl Institute videos.

Len Krauskopf suggested initiating some kind of feedback on this video as to how it has been used; where was it effective, where was it ineffective?

Mary Mahon mentioned that this video, although it was not supposed to be a "stand-alone" piece, thought that it will very likely be used as a stand-alone.

Mike Reynolds then reviewed how Vista is going to use the four videos.

Action:

After discussion, it was decided that Dan Stanowick, should consult with Nora Jacobs, on the letter she is preparing to send to Vinyl Institute members on using the four videos.

CTL008368

C. 1992 Seminars and Conference

1. National Electrical Contractors Association (NECA)
- October 11-14, 1992 - New York City

Dan Stanowick reported that he is still awaiting a response from NECA and they stated they will be making a decision shortly.

2. National Fire Protection Association (NFPA) -
November 17-19, 1992 - Dallas Texas

Same as above; he is still awaiting a response.

D. Fulfillment Kit

It was noted by Dan Stanowick that the change in the Electrical Materials Council fact kit, a copy of which was sent to all members of the Council, is in the process of being completed and kits will now start going out to inquiries with the new format. This new format included taking out various technical papers and in place, putting a sheet listing all available papers from the Vinyl Institute that can be requested separately.

Dan Stanowick then brought up an item at Bob Burnett's request with regard to Engineering News Record. They will be having a special issue on Plastics in Construction and have asked us to participate. SPI will be participating, Uni-Bell PVC Pipe Association will be placing an ad, and Bob was asking for the Electrical Materials Council's participation.

Rick Smith suggested discussing with the Executive Board that the VI take out a one-page ad listing all of the VI interests.

Action:

Dan Stanowick is to discuss this with Bob Burnett and report back to the group at their next meeting.

E. Electronic Cable Specialist

Dan Stanowick read part of a letter that Keller and Heckman wrote to Mr. Ray Frelk, Director of Marketing for Electronic Cable Specialists and a copy of the letter is included with these minutes under Attachment A.

F. Market Research

Dan Stanowick reported on the work plan from Cambridge Associates, previously sent to the Council outlining the research proposal for the Electrical Materials Council of the Vinyl Institute on the impact EMC is having out in the marketplace.

He gave a brief overview of the proposal which will include telephone interviews to about 250 industry influentials. He noted that this project should take about 6-8 weeks to complete.

Rick Smith asked Dan Stanowick what the feedback has been on this market research proposal by other task forces of the Vinyl Institute.

Dan Stanowick indicated that the Vinyl Packaging Council does not feel the need to do this market research, and that the Pipe Resource Organization will be holding a conference call next week to go over the proposal, but noted that people felt it was "on the mark".

Rick Smith then asked if the cost was dependent upon all three of the research projects being scheduled for completion. Dan Stanowick informed the group that the cost estimate would be for at least 2 proposals being completed, and noted that this would be very likely.

Mike Reynolds asked Dan about the research method. He asked if we were talking about using the Electrical Materials Council target audience list and measuring the effectiveness of the people that we have been talking to or would we be questioning all people in the industry.

Dan Stanowick informed the Council that both groups would be targeted for this research. We want to be able to see where we are with the people on our EMC list, but we also want to measure the overall effectiveness of the pro-active program and reap information that will be helpful to us for future programs.

Mike Reynolds questioned how we were going to be sure we are talking to the right people and asked if there were any qualification questions being asked to be sure that these are the people who we want to talk with and Dan Stanowick confirmed that we would be establishing the credentials of these individuals.

Rick Smith commented that the objectives of this research proposal were appropriate. We need to see if we have moved from "no effect" to "moving the needle" at all or

to what degree it has been moved. This way, we can see if it will be in the best interests of the Vinyl Institute to increase the budget of the Electrical Materials Council in order to continue to move this needle.

Mary Mahon asked if the Market Advisory Panel participants are going to be interviewed for this research. Dan Stanowick noted that we will be talking to them directly during our next focus panel meeting in September to get their input.

Rick Smith informed the group to keep in mind that if we chose to, we could also go back (for a nominal fee) and direct a questionnaire on more specific items or issues if we see the need for it.

Rick Smith proposed broaching the "halogen-free" subject and Dan Stanowick suggested just touching on it (as in question #11 of the Market Research Proposal distributed by Dan).

Dan Stanowick noted that the next step was for him to secure a list of names from ADH and EC&M.

Action:

Dan Stanowick to place a conference call to the Electrical Materials Council when he has a revised market research proposal.

A question was raised over the concern that BFGoodrich was not being represented at the Electrical Materials Council meetings in Peter Lloyd's absence. It was suggested that a letter go out under the VI Executive Director's name requesting more participation and support for the Electrical Materials Council not only from BFGoodrich, but also from other member companies that are not being represented on the Council.

Action:

The Electrical Materials Council is requesting that a letter be written by Robert Burnett, Executive Director of the Vinyl Institute to be sent to BFGoodrich requesting their continued participation in the Council during P. Lloyd's absence.

G. Market Advisory Panel

Dan Stanowick discussed the work plan (previously sent to the Electrical Materials Council) to convene a second Market Advisory Panel as outlined in his letter of May

20th.

The objective the Council will want to reach with this Market Advisory Panel is to enhance and increase our awareness of the issues, to find out who our allies are, and who our opponents are and to be able to better target our efforts and resources in the future.

Dan Stanowick recommended changing this panel session from the first session that was held to be more specific, noting that the first focus panel may have been too broad.

He indicated it would be better to keep a more specific focus and concentrate on a smaller group of industry perspectives.

Dan Stanowick informed the group that he will be preparing people included in this focus panel to actively participate in this panel and have them be prepared to make a presentation to the group and discuss specific issues.

The location of Atlanta for this focus panel was decided and the timing was then discussed. At this point, a question was posed by Rick Smith to the group that would we do a better job at the Market Advisory Panel if we already had the market research in hand?

After much discussion, it was decided that it would be a good idea to have this market research in advance of the Market Advisory Panel, but that this research should be available by the end of August and Dan was instructed to go ahead with the plans to have the Market Advisory Panel in late September. Otherwise, as noted by Mike Reynolds, we may go a whole year without changing our strategy.

The next steps were decided on as follows:

1. Location:
Atlanta

Action:

Dan Stanowick is to secure a location for this Market Advisory Panel.

Dates:

Dinner:	September 23, 1992
Focus Panel:	September 24, 1992
EMC Follow-Up Meeting:	September 25, 1992

2. Panel names listed on Dan's proposal were fine with the exception of Larry Byrnes. Rick Smith will get Dan the contact at Carlon. Dan is to also ask the panel participants if they have any interest in having their customers attend.
3. Confirm meeting participants. Circulate appropriate information to panel participants.
4. Set-up agenda, format, etc.

It was noted that EMC would cover the airline fare and hotel for the focus panel participants.

Action:

The Electrical Materials Council is to get back to Dan Stanowick with their list of names by June 5th for the Market Advisory Panel.

VIII. NEW BUSINESS

It was suggested that we pursue increasing our membership participation through member companies (as stated earlier on page 7) and to also look into possibly having a wire and cable association attend the Electrical Materials Council meetings.

Action:

It was requested by the Electrical Materials Council that Robert Burnett solicit participation by member companies in the Electrical Materials Council through a letter stressing the importance of their involvement in this group.

Action:

Pat Benkner is to check into the by laws of the Vinyl Institute to see if there would be any restrictions in the Electrical Materials Council being able to have outside participation from another trade association on the Council.

Mike Reynolds suggested the possibility of having a replay of "On The Firing Line" focusing on wire and cable (as done by the Vinyl Packaging Council) and invite this industry to a 1/2-day session.

Rick Smith noted that this may be a good idea after we have the Market Advisory Focus Panel and find out the results of same.

Rick Smith requested that a document draft of "Product Stewardship Code of Management Practices" in conjunction with

Responsible Care guidelines be attached (Attachment B) to the minutes of this meeting for the group to review and he posed the question are there items in this document that we as a group should be doing, possibly in line with other groups?

Len Krauskopf requested the Vinyl Institute wallet card information on 8-1/2 x 11 paper.

Action:

Dan Stanowick is to send the information on the Vinyl Institute wallet card on 8-1/2x11 sheet to both Len Krauskopf and Mike Reynolds.

IX. NEXT MEETING DATE/LOCATION

The next meeting of the Electrical Materials Council will be held on August 27th in Cleveland at the new Edward Howard and Company offices from 1:00 p.m. to 5:00 p.m.

There being no further business, the meeting was adjourned at 4:00 p.m.

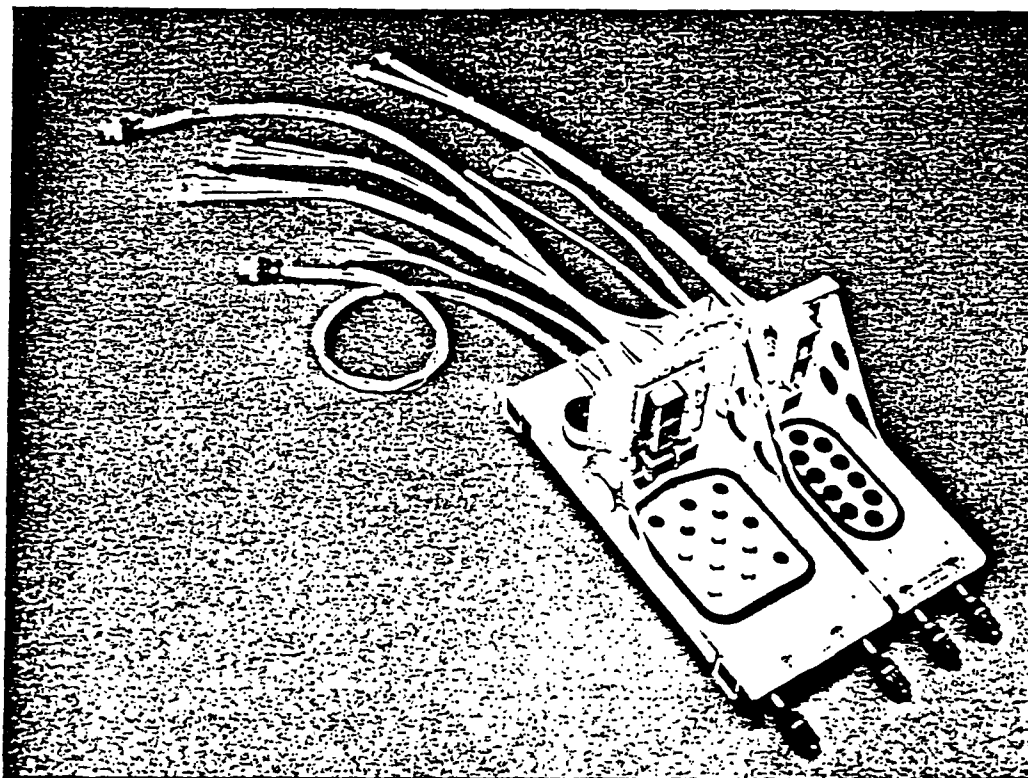
Respectfully submitted,


Pat Benkner



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DAVID S. SARVADI
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KRIS ANNE MONTEITH
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KENNETH A. OLSEN
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JANETTE HOUK, Ph.D.
LESTER BRODINSKY, Ph.D.

TELECOMMUNICATIONS
ENGINEER
CHARLES F. TURNER

*NOT ADMITTED IN D.C.

WRITER'S DIRECT DIAL NUMBER

May 26, 1992

(202) 434-4168

Mr. Ray Frelk
Director of Marketing
Electronic Cable Specialists
Post Office Box 20856
Milwaukee, Wisconsin 53220

Dear Mr. Frelk:

On December 19, 1991 I sent a letter to you on behalf of our client, the Vinyl Institute, indicating serious concern regarding ECS' misleading and damaging advertisement regarding the performance of ECS cables in burn toxicity tests. My letter requested not only immediate cessation of this advertisement in Avionics, but also information as to wherever else this advertisement appeared. I have yet to hear from you.

As I stressed in my initial letter, PVC has a track record of safe use in the many electrical applications for which it is formulated and marketed. Furthermore, it has repeatedly met stringent requirements set by the National Electrical Code, the three model building codes, Underwriters Laboratories, and by other groups for fire, physical and electrical performance. In short, when used as these groups have mandated, it is a very safe and effective product. Nonetheless, ECS disseminated incorrect information designed to mislead cable specifiers into believing otherwise. Such action severely offends the PVC industry and will not be tolerated.

We have noted that ECS has stopped utilizing this particular deceptive advertisement. Since I have not heard from you, I can only assume that ECS acknowledges its misleading nature and has agreed not to reissue the ad. This letter is to inform you that we will be monitoring future ECS advertisements for similar deceptive and misleading practices. Should any arise, we will pursue the appropriate legal action. The Vinyl Institute will not allow the public to be misinformed.

CTL008377

Mr. Ray Frelk
May 26, 1992
Page 2

KELLER AND HECKMAN

If you have any questions, please call me at my direct number listed above.

Sincerely,


S. Craig Tautfest

cc: Bob Burnett

CTL008378

Product Stewardship Code (Draft 3/31/92), Page 1

Product Stewardship Code of Management Practices

PURPOSE AND SCOPE

The purpose of the Product Stewardship Code of Management Practices is to make health, safety and environmental protection an integral part of designing, manufacturing, marketing, distributing, using, recycling and disposing of our products. The code provides guidance as well as a means to measure continuous improvement in the practice of product stewardship.

The scope of the code covers all stages of a product's life. Successful implementation is a shared responsibility. Everyone involved with the product has responsibilities to address society's interest in a healthy environment and in products that can be used safely. All employers are responsible for providing a safe workplace, and all who use and handle products must follow safe and environmentally sound practices.

The code recognizes that each company must exercise independent judgment and discretion to successfully apply the code to its products, customers and business.

RELATIONSHIP TO RESPONSIBLE CARE® AND GUIDING PRINCIPLES

Implementation of the code promotes achievement of several of the Responsible Care® Guiding Principles:

- o to make health, safety and environmental considerations a priority in our planning for all existing and new products and processes;
- o to develop and produce chemicals that can be manufactured, transported, used and disposed of safely;
- o to extend knowledge by conducting or supporting research on the health, safety and environmental effects of our products, processes and waste materials;
- o to counsel customers on the safe use, transportation and disposal of chemical products;
- o to report promptly to officials, employees, customers and the public, information on chemical-related health or environmental hazards and to recommend protective measures;
- o to promote the principles and practices of Responsible Care® by sharing experiences and offering assistance to others who produce, handle, use, transport or dispose of chemicals.

MANAGEMENT PRACTICES

Each company shall have an ongoing product stewardship process that: —

Management Leadership and Commitment

1. LEADERSHIP: Demonstrates senior management leadership through written policy, active participation and communication.
2. ACCOUNTABILITY and PERFORMANCE MEASUREMENT: Establishes goals and responsibilities for implementing product stewardship throughout the organization. Measures performance against these goals.
3. RESOURCES: Commits resources necessary to implement and maintain product stewardship practices.

Information and Characterization

4. HEALTH, SAFETY and ENVIRONMENTAL INFORMATION: Establishes and maintains information on health, safety and environmental hazards and reasonably foreseeable exposures from new and existing products.
5. PRODUCT RISK CHARACTERIZATION: Characterizes new and existing products with respect to their risk using information about health, safety and environmental hazards and reasonably foreseeable exposures. Establishes a system that initiates re-evaluation.

Risk Management

6. RISK-MANAGEMENT SYSTEM: Establishes a system to identify, document and implement health, safety and environmental risk-management actions appropriate to the product risk.
7. PRODUCT and PROCESS DESIGN and IMPROVEMENT: Establishes and maintains a system that makes health, safety and environmental impacts--including the use of energy and natural resources--key considerations in designing, developing and improving products and processes.
8. EMPLOYEE EDUCATION and PRODUCT USE FEEDBACK: Educates and trains employees, based on job function, on the proper handling, recycling, use and disposal of products and known product uses. Implements a system that encourages employees to feed back information on new uses, identified misuses or adverse effects for use in product risk characterization.

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9. **CONTRACT MANUFACTURERS:** Selects contract manufacturers who employ appropriate practices for health, safety and environmental protection for the operations under contract, or works with contract manufacturers to help them implement such practices. Provides information and guidance appropriate to the product and process risk to foster proper handling, use, recycling and disposal. Periodically reviews performance of contract manufacturers.
10. **SUPPLIERS:** Requires suppliers to provide appropriate health, safety and environmental information and guidance on their products. Factors adherence to sound health, safety and environmental principles, such as those contained in Responsible Care®, into procurement decisions.
11. **DISTRIBUTORS:** Provides health, safety and environmental information to distributors. Commensurate with product risk, selects, works with and periodically reviews distributors to foster proper use, handling, recycling, disposal and transmittal of appropriate information to downstream users. When a company identifies improper practices involving a product, it will work with the distributor to improve those practices. If, in the company's independent judgment, improvement is not evident, then the company should take further measures--up to and including termination of the business relationship. This Management Practice should be implemented in conjunction with the Distribution Code of Management Practices.
12. **CUSTOMERS AND OTHER DIRECT PRODUCT RECEIVERS:** Provides health, safety and environmental information to direct product receivers. Commensurate with product risk, works with them to foster proper use, handling, recycling, disposal and transmittal of appropriate information to downstream users. When a company identifies improper practices involving a product, it will work with the product receiver to improve those practices. If, in the company's independent judgment, improvement is not evident, then the company should take further measures--up to and including termination of product sale.

RELATIONSHIP TO OTHER CODES OF MANAGEMENT PRACTICES

This code complements, and should be implemented in conjunction with, current and future Codes of Management Practices.

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BD-4/14/92

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Product Stewardship Question and Answer Document

The following questions and answers are intended to provide brief explanations of the Product Stewardship Code of Management Practices.

- (1) How is product stewardship different from "traditional" health, safety and environmental practices?

Today's concept of Product Stewardship is a natural outgrowth of various programs that have developed in the U.S. chemical industry. These practices and programs go by many different names, including product safety, product integrity and product responsibility.

Many of the more "traditional" health, safety and environmental (H,S&E) programs or practices tended to focus on regulatory compliance issues. Product stewardship strengthens and broadens the focus to include such concepts as customer interaction and dialogue on how to foster proper use, handling, recycling and disposal of products. It is a comprehensive integration of health, safety and environmental considerations into each aspect of a company's operations, from design and initial manufacture to distribution, sale and ultimate disposal. This code will affect nearly every segment of a company's operations.

- (2) How do we know when we've achieved an adequate level of implementation or, in other words, how much improvement is needed?

These issues are similar. Both imply a clearly defined end point in the implementation process...which is not the case.

The Product Stewardship Code, along with the other codes of Responsible Care®, are based on a continuous improvement process. Each company will need to establish a base-line -- where you are today -- and then determine what steps are necessary to move towards "code-in-place." Once you are at "code-in-place," the management practice should be reviewed annually to determine if there are any additional activities that might contribute to continuous improvement.

There will be a number of examples of activities in the Product Stewardship Resource Guide.

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(3) Why are distributors discussed in the Distribution Code and the Product Stewardship Code?

The Distribution Code was developed prior to the Product Stewardship Code and focuses on the "transportation, storage and handling" of products as they move from manufacturer to end user. The Product Stewardship Code goes beyond these activities. It focuses on additional aspects of the distributors' operation, such as transmission of H,S&E information to downstream users, recycling and disposal practices and how distributors interface with customers. Together, the two codes provide a comprehensive structure for the manufacturer and distributor relationship.

(4) Does the Product Stewardship Code apply to international operations? How does it apply to suppliers from other countries?

The CMA Product Stewardship Code "officially" applies only to the member company operations and locations in the United States. Because their materials are used domestically, foreign suppliers should be treated the same as U.S. suppliers.

However, there are two practical factors that should be kept in mind. First, major efforts are underway to implement either the Responsible Care® Initiative or similar programs worldwide. As of January 1992, close to two dozen countries have either adopted, or are proposing to adopt the principles which are the foundation for Responsible Care®. Secondly, many multi-national companies are implementing the Responsible Care® Initiative throughout their worldwide operations on a voluntary basis.

(5) What type of information should be provided to customers, distributors and other third parties? How can this information be provided?

Information that would help protect health, safety, and the environment should be provided. In addition to MSDSs and label information, a company may choose to provide additional information through bulletins, videos, instructional workshops or seminars, training programs or site visits. The appropriate actions and communication media will vary with each company and with the product risk.

(6) How does the Product Stewardship Code relate to the other Responsible Care® codes?

The Product Stewardship Code is the most comprehensive of all the codes. As with the Distribution Code, Product Stewardship addresses third parties. A major portion of the code is focused on a company's interactions with suppliers, distributors, contract manufacturers and customers. Another portion addresses the

gathering and characterization of H,S&E information. These practices overlap with both the Employee Health & Safety and the Distribution Code. Another practice, Contract Manufacturers, overlaps the Pollution Prevention Code.

(7) Will I be required to carry out a customer audit?

Audits of customers are not required. The need for audits or other appropriate risk management actions will be determined by the company.

(8) What is meant by the term "work with?"

Although responsibility for proper manufacture, handling, use, recycling and disposal rests with each party in the chain, the concept of product stewardship includes a willingness to assist where requested or where a need is apparent.

"Working with" may include providing detailed health, safety and environmental product information, or technical assistance on product handling techniques or visiting facilities.

The risk associated with a product will help determine the appropriate response in each individual case. In addition, certain parties may require more assistance than others. The response remains a judgment call in each individual case by the company involved.

(9) What is the appropriate unit of measurement for evaluation (i.e., by business unit, product line, plant site)?

The Product Stewardship Code presents a challenge because the code focuses on activities involving a company's products rather than a company's facilities. The traditional measurement units used by other codes may not apply. In addition, no uniform measurement is recommended for every company in conducting self-evaluations against the management practices. Each company will determine what works best for its particular circumstances. Some companies may choose to evaluate each individual product, while others may choose product lines or business units.

The most important point is that each company must establish some unit of measurement and remain consistent year-to-year. Since the self-evaluation process aims to measure each member company's annual progress against the code practices, and since results are not absolute, the scores are relevant only to the company's progress measured in subsequent years. The focus is on continuous improvement, regardless of the unit of measurement.

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- (10) How far down the chain of commerce does the code apply?
Does it apply through the first point-of-sale or beyond?

The Product Stewardship Code covers all stages of a product's life. It is intended to cover as much of the chain of commerce as necessary to help prevent misuse, mishandling or other activities that might result in harm to people or the environment from our products. The word "help" is key because it acknowledges that to be successful, product stewardship must be a cooperative effort.

The main focus of the management practices is on distributors, customers and other direct product receivers, or those with whom there is a close business relationship. Responsibility lies with the next party in the chain to practice product stewardship and encourage its downstream users to do the same.

CMA
BD-4/14/92

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PRODUCT STEWARDSHIP CODE - OF MANAGEMENT PRACTICES

Management Practice 1

LEADERSHIP: Demonstrates senior management leadership through written policy, active participation and communication.

The objective of this management practice is to set the driving force for the Product Stewardship Code. To this end, senior management must first adopt a policy that reflects the company's vision of product stewardship. This policy should state clearly how senior management expects product stewardship to be managed within the company.

To be effective, the policy should emphasize that product stewardship, like quality and safety, must be woven into the company's culture. It also should be clear that the commitment is an ongoing, long-term part of the company's operations and business.

Finally, if the new policy represents a change in the way of doing business, it should be clear that a change in behavior is expected. In some companies, a separate written product stewardship policy may be effective. In others, a broader health, safety and environmental (H,S&E) policy that incorporates the principles of product stewardship may be more appropriate.

However, a policy alone is not enough. The words of a policy must be reinforced by actions and behaviors that continuously reaffirm the goals senior management has set. Senior management is responsible for conveying throughout the organization its involvement with, and support of, product stewardship--especially to the next level of management and encouraging it to do the same. (Management Practices 2 and 3 focus on some of the visible signals -- for example, goals, performance measurement and resource allocation).

Management Practice 2

ACCOUNTABILITY and PERFORMANCE MEASUREMENT: Establishes goals and responsibilities for implementing product stewardship throughout the organization. Measures performance against these goals.

One of the key ways senior management can convey the importance of product stewardship is by establishing it as a priority in business planning and individual performance planning. The objective is to develop a process that will result in continuous improvement through

goals that are well-defined, achievable and measurable. Similarly, individual responsibilities should be clear and consistent.

Management Practice 3

RESOURCES: Commits resources necessary to implement and maintain product stewardship practices.

The commitment of resources, both human and financial, is a critical signal that management can send to show its commitment to product stewardship practices and is a vital component for some implementation activities. Undoubtedly, resources will vary from company to company. However, in all cases, the commitment of resources should be consistent with product stewardship implementation plans and sufficient to support continuous improvement.

Management Practice 4

HEALTH, SAFETY and ENVIRONMENTAL INFORMATION: Establishes and maintains information on health, safety and environmental hazards and reasonably foreseeable exposures from new and existing products.

Just as Management Practice 1 is the driving force for the Product Stewardship Code, Management Practice 4 is the foundation. The objective of Management Practice 4 is to establish a knowledge base of human and environmental hazards and reasonably foreseeable exposures and, once established, to maintain it. Under this practice, companies gather information to support the system that characterizes a product's risk (Management Practice 5) and, ultimately, the system that develops the methods to manage that risk (Management Practice 6).

Initially, some companies may establish their knowledge base by developing information; others may do so by collecting and compiling available information. However, all companies should have a process to continuously gather relevant product information and to review existing information to determine if it is accurate, current and complete.

Sources of information may include published, unpublished and/or internally generated scientific reports on health, safety and environmental effects and exposures. Generally, the types of information could cover animal or human toxicity, ecotoxicity and chemical and physical properties that affect exposure or the environmental impact. In many cases, exposure information is not directly available but may be estimated with product use information.

Information on a product's handling, use and reasonably foreseeable exposures in research, development, manufacturing, transport, storage, packaging and disposal may be obtained by a number of means. These could include surveys of customers and other product

receivers, technical reviews or visits to customers, and/or observations reported by sales and marketing personnel.

Management Practice 5

PRODUCT RISK CHARACTERIZATION: Characterizes new and existing products with respect to their risk using information about health, safety and environmental hazards and reasonably foreseeable exposures. Establishes a system that initiates re-evaluation.

This practice has two objectives. The first is to use the information gathered in Management Practice 4 to develop a thorough understanding of the product's risk. This characterization may be either quantitative or qualitative. The second objective is to establish a system that triggers re-evaluation, whether upon receipt of new information or upon periodic, scheduled review.

A product may be characterized as a single entity or it may be characterized in a group of products based on similar uses, compositions or physical properties. Product risks may vary with different uses or exposures.

The time frame for re-evaluation may vary from product to product. Triggers for such re-evaluations might include significant new hazard or exposure data, significant new use or misuse information as it becomes known or a substantial increase in sales volume, suggesting new uses or markets.

Management Practice 6

RISK-MANAGEMENT SYSTEM: Establishes a system to identify, document and implement health, safety and environmental risk-management actions appropriate to the product risk.

The objective of Management Practice 6 is to establish a system for identifying and implementing risk-management actions. Risks involved in the production and use of chemicals can be managed and controlled if each company takes the basic information on a product's risk (Management Practice 4), characterizes it (Management Practice 5) and then implements a series of risk management actions (Management Practice 7 through 12). These risk management actions are a result of a conscious weighing of technical, ethical, societal and business issues surrounding a product. Actions taken as a result can range from no action, to providing MSDSs and labels, to product reformulation or repackaging, to removal of the product from a market.

The management practices that follow, Management Practices 7 through 12, are specific areas of company operations that warrant discussion and special emphasis.

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Management Practice 7

PRODUCT and PROCESS DESIGN and IMPROVEMENT: Establishes and maintains a system that makes health, safety and environmental impacts--including the use of energy and natural resources--key considerations in designing, developing and improving products and processes.

Designing products and processes (or redesigning existing products and processes) with a system to identify health, safety and environmental impacts throughout the product lifecycle is one of the most effective ways of managing the product risks identified in Management Practice #5. One objective of this Practice is attainment of the preferred environmental hierarchy: source reduction; reuse; recycling; and disposal. Source reduction includes equipment or technology modifications, process or procedure changes, product reformulation or design, substitution of raw materials, and improvements in housekeeping, maintenance, training or inventory control.

This Practice also addresses the need for proper energy and natural resource utilization--important considerations for reducing potential adverse environmental impacts and achieving sustainable development.

The health, safety and environmental attributes of the product throughout its entire life cycle should be addressed at the beginning, during the concept and design (or redesign) phases. Re-evaluation should occur on a periodic basis or whenever changes to the product or process are contemplated.

Insights and contributions from employees in all functional areas that may affect health, safety and the environment should be incorporated into the review. These functional areas include research and development, manufacturing, distribution, sales and marketing and regulatory personnel.

Management Practice 8

EMPLOYEE EDUCATION and PRODUCT USE FEEDBACK: Educates and trains employees, based on job function, on the proper handling, recycling, use and disposal of products and known product uses. Implements a system that encourages employees to feed back information on new uses, identified misuses or adverse effects for use in product risk characterization.

This practice has two parts. The first is to ensure that all employees who are involved with products have the training and education necessary to understand product (and packaging) hazards, proper use, handling, reuse, recycling and disposal procedures. The

second is to help ensure that any new information that may alter the way risk is being managed is factored into the risk characterization process on a timely basis (Management Practice 5).

The training and education of employees should be tailored to specific job functions. For example, marketing and sales personnel are in a unique position to know how customers are using products and must be aware of product hazards, reasonably foreseeable exposures, appropriate uses and proper handling procedures. They should be able to identify product deviations and to recognize adverse health or environmental effects. These personnel should be alert to the customer's and the public's comments or perceptions.

It is essential that there be timely feedback of this safety, health or environmental information or concerns into the risk characterization process (Management Practices 4 and 5). This feedback may change the risk management actions (Management Practice 6).

Management Practice 9

CONTRACT MANUFACTURERS: Selects contract manufacturers who employ appropriate practices for health, safety and environmental protection for the operations under contract, or works with contract manufacturers to help them implement such practices. Provides information and guidance appropriate to the product and process risk to foster proper handling, use, recycling and disposal. Periodically reviews performance of contract manufacturers.

The objective of this Management Practice is to encourage the use of contract manufacturers who have sound health, safety and environmental practices for the specific operations under contract.

Companies are responsible for assessing the capabilities of each contract manufacturer and for supplementing their expertise with enough guidance to foster proper handling (including storage), use and disposal. If contract manufacturers are unwilling to implement appropriate controls, a company may decide to cease doing business with them. While companies are committed to working with contract manufacturers to help them improve performance, improvement to meet appropriate H,S&E standards should occur within a reasonable time frame.

The level of a company product's involvement and review will vary according to the degree of product risk. "Working with" may include providing detailed H,S and E product information, providing technical assistance on product handling techniques and waste minimization and management, and possibly visiting the contract manufacturer's facilities. These actions will vary according to the individual contract manufacturer and operation. Because of the greater degree of company control, much closer interaction will be appropriate with contract manufacturers than compared to distributors and customers.

All contract manufacturers should be subject to periodic performance reviews.

Along with Management Practices 10 and 11, this management practice constitutes an important outreach component of the product stewardship code. The long-term result of implementing this practice, like the other outreach management practices, should be better health, safety and environmental performance -- not just for CMA companies but for the entire chemical industry.

Management Practice 10

SUPPLIERS: Requires suppliers to provide appropriate health, safety and environmental information and guidance on their products. Factors adherence to sound health, safety and environmental principles, such as those contained in Responsible Care®, into procurement decisions.

The objective of this management practice is to extend product stewardship practices to suppliers. Where appropriate, health, safety and environmental factors should be an integral part of the procurement process, including product exchange. For some companies, this management practice may mean close cooperation within the purchasing, manufacturing, health and loss prevention functions to determine how the supplier can contribute to a safer environment. Other companies may opt to make these health, safety and environmental considerations part of their supplier quality reviews or to factor them into contractual decisions. Suppliers should describe health, safety and environmental programs and goals.

Along with Management Practices 9 and 11, this management practice constitutes an important outreach component of the product stewardship code. The long-term result of implementing this practice, like the other outreach management practices, should be better health, safety and environmental performance -- not just for CMA companies but for the entire chemical industry.

As with customers, reviews of suppliers will be commensurate with product risk. However, it is appropriate to expect companies to make a continuous effort to extend the principles of product stewardship beyond the CMA membership and Responsible Care® partners.

Management Practice 11

DISTRIBUTORS: Provides health, safety and environmental information to distributors. Commensurate with product risk, selects, works with and periodically reviews distributors to foster proper use, handling, recycling, disposal, and transmittal of appropriate information to downstream users. When a company identifies improper practices

Involving a product, it will work with the distributor to improve those practices. If, in the company's independent judgment, improvement is not evident, then the company should take further measures--up to and including termination of the business relationship. This Management Practice should be implemented in conjunction with the Distribution Code of Management Practices.

The objective of this management practice is to encourage distributors to establish and implement proper health, safety and environmental practices involving our products. It should be implemented in conjunction with Management Practice 4.6 of the Distribution Code, which focuses on the inbound/outbound and storage aspects of distributor operations. The emphasis in the Product Stewardship Code is on working with distributors to help them achieve an appropriate level of performance on other aspects of their operations, such as recycling, handling, storage, use, disposal, waste minimization and management and the transmittal of information to downstream users. As with customers and other direct product receivers, a company may decide to terminate the business relationship with those unwilling to implement corrective actions appropriate for limiting risks and otherwise achieving the health, safety and environmental objectives of Product Stewardship.

The level of involvement with a distributor will vary according to the product's risk. That risk should also trigger the frequency of the periodic performance reviews mandated in the Distribution Code. These reviews may be used as a forum to share accumulated knowledge that will elevate health, safety and environmental performance -- and product stewardship practices.

It is recognized that distributors perform a broad range of functions, from repackaging the original product to reformulating it into a new product with new health, safety and environmental characteristics. The "transmittal of appropriate" information acknowledges that while we expect distributors to pass along R,S&E information, product changes made by the distributor may mean that the information originally supplied with the product no longer applies. In these cases, the distributor needs to issue information that reflects the current R,S&E information.

As with customers and suppliers, reviews of distributors will be commensurate with product risk. It is appropriate to expect companies to make a continuous effort to extend the principles of product stewardship beyond the CMA membership and Responsible Care® partners.

Management Practice 12

CUSTOMERS AND OTHER DIRECT PRODUCT RECEIVERS: Provides health, safety and environmental information to direct product

receivers. Commensurate with product risk, works with them to foster proper use, handling, recycling, disposal, and transmittal of appropriate information to downstream users. When a company identifies improper practices involving a product, it will work with the product receiver to improve those practices. If, in the company's independent judgment, improvement is not evident, then the company should take further measures--up to and including termination of product sale.

The objective of this management practice is to encourage customers to establish proper health, safety and environmental practices involving our products. While the emphasis is on providing information to customers, other assistance may be appropriate where the product risk requires it. This management practice recognizes that if those efforts are unsuccessful, a company has a range of actions that it can take. Possible actions include, in the exercise of the company's independent judgement, not selling a given product to the customer.

The level of involvement will vary according to the product's risk. Activities could include reinforcement of previously provided health, safety and environmental information, additional training, etc. At a minimum, both parties should share any accumulated knowledge that would enhance health, safety and environmental protection.

The "transmittal of appropriate information" acknowledges that while we want customers to pass along H,S&E information, product changes made by the customer may mean that the information originally supplied with the product no longer applies. In these cases, the customer needs to issue information that reflects the current H,S&E information.

Along with Management Practices 9, 10 and 11, this management practice constitutes an important outreach component of the Product Stewardship Code. The long-term result of implementing this practice, like the other outreach management practices, should result in improved health, safety and environmental performance -- not just for CMA member companies but the entire chemical industry.

As with distributors and suppliers, reviews of customers will be commensurate with product risk. However, it is appropriate to expect companies to extend the principles of product stewardship beyond the CMA membership and Responsible Care® partners.

CMA
BD-4/14/92

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THE VINYL INSTITUTE TECHNICAL COMMITTEE
AUGUST 1992 STATUS REPORT

MISSION STATEMENT

To provide technical support to the proactive VI Task Forces and to VI activities which address regulatory, health, environmental, and other marketplace issues which impact on the existing and future uses of vinyl products. Fulfillment of this mission encompasses five general categories:

1. Development and documentation of scientifically sound information regarding performance of vinyl products and execution of research projects which fill important technology gaps pertinent to the use of vinyl products.
2. Technical support to the VI Proactive Task Forces (Electrical Materials, PRO, and Packaging Council).
3. Participation in the presentation and promotion of scientific facts about vinyl products to audiences such as government, industry organizations, and environmental organizations.
4. A proactive "early alert" function which recognizes coming issues, recommends action, and takes appropriate action.
5. Liaison with other trade associations and consensus standards organizations (e.g. ASTM) to further the interests of the vinyl industry.

1992 - 1993 COMMITTEE STATUS

BUDGET

1992-93 Fiscal Year: \$ 135,000

Billed through 6/92: \$ 2,500

KEY PROGRAMS

- Solvent Cement
- VCM Unit Risk Factor Assessment
- Partnership for Plastic Progress
- Solid Waste Management - Incineration
- Fire Sciences - Corrosion
- Fire Sciences - Combustion and Toxicology
- Medical & Health Effects

SOLVENT CEMENT ISSUE

1992-93 BUDGET: \$ 25,000

GOAL:

To support the efforts of the Solvent Cement Industry Ad Hoc Task Group that was established in 1991 to respond and comply with new South Coast Air Quality Management District (SCAQMD) regulations on the volatile organic content in solvent cements.

PRIMARY CONTACT(S):

Don Goodman.

STATUS:

Currently, Susan Sakai (Attorney for the Solvent Industry Ad Hoc Task Group) believes that the SCAQMD will introduce an amendment to the rule that will most likely provide:

- 1) a two year extension from the existing 1/1/93 enactment date.
- 2) raise the target VOC control levels (close to existing levels).

VCM UNIT RISK FACTOR ASSESSMENT

1992-93 BUDGET: \$ 10,000

GOAL:

To conduct a new quantitative cancer risk assessment for VCM that will address the significant differences in the unit risk factor for VCM when various databases and risk modeling tools are utilized. The results of this study can be used to update existing unit risk factor used by regulators to reflect the reduced VCM cancer risk that is determined when modern statistical modeling techniques are used.

PRIMARY CONTACT(S):

Ron McCreedy

STATUS:

In December 1991, Mel Andersen (CIIT), Trevor Green (ICI) and Dick Reitz (Dow Chemical) began a project to develop alternative methodologies for unit risk factor determination.

Although Mel Andersen left CIIT (and this project team) in 2nd Q, 1992, the team has completed the following:

- 1) compiled the available human and animal tox data for VCM.
- 2) On June 15, 1992 Trevor and Dick met in England and developed a PbPk model from this database.

In addition, a draft report with the statistical modeling is due during 3rd Q, 1992 for review by the VI task group representing both the Technical and Health, Safety and Environment Committees.

PARTNERSHIP FOR PLASTICS PROGRESS

1992-93 BUDGET: \$ 0

(Member company sponsorship and consultant services (Roy Gottesman)).

GOAL:

To understand and support the efforts of the Partnership for Plastics Progress (3P) and provide technical support (as needed, thru member companies) on PVC issues including recycling, incineration and product benefits (life cycle).

PRIMARY CONTACT(S):

Don Goodman (Tertiary Recycle and Energy), Roy Gottesman (Product Benefits).

STATUS:

- 1) Development work continues on a spreadsheet model of the waste-to-energy process using PVC in municipal solid waste. Models for plastics will be developed using the PVC spreadsheet as a template.
- 2) At this time, it is anticipated that pilot incineration burns will be needed to fill in the information gaps in the PVC spreadsheet model. They could include synthetic MSW feed that contain "no plastics", "virgin plastic" and "recycled plastic."

CTL008397

SOLID WASTE MANAGEMENT - INCINERATION

1992-93 BUDGET: \$ 45,000

GOAL:

To support incineration programs and research that demonstrate the conditions required to safely incinerate PVC in the municipal solid waste stream.

PRIMARY CONTACT(S):

Dr. Magee, Roy Gottesman

STATUS:

- 1) Through our consultant, Dr. Richard Magee of the New Jersey Institute of Technology, VI continues to be involved in the European (Umea and SI/Norwegian) studies on incineration. The technical Committee has agreed to continue to support the research for the 1992-93 fiscal year. Our funding, however, will be used solely in support of the Umea project as Dr. Magee reports that cost overruns and project delays continue to plague the SI/Norwegian study.
- 2) The first draft of a request for proposal (RFP) for a HCl recovery study in incinerators has been written by Dick Magee and Roy Gottesman. Member companies are also being asked for "in-house" expertise on scrubbing and recovery technology prior to releasing an RFP.

FIRE SCIENCES - CORROSION

1992-93 BUDGET: \$ 0

GOAL:

To support and conduct research that addresses allegations of the corrosivity of the combustion products of vinyl relative to other materials.

PRIMARY CONTACT(S):

Bud Hall, Bob Strength, Lou Maresca

STATUS:

- 1) Bud Hall and Bob Strength continue to monitor the polyolefins corrosivity test program at UL that include advanced performance PVC materials from Vista and BFGoodrich.
- 2) Lou Maresca will head a subcommittee to study the need for a testing program for PVC-based durable applications (computer housings, etc) and report back to the Technical committee.

FIRE SCIENCES - COMBUSTION AND TOXICITY

1992-93 BUDGET: \$ 0

GOAL:

To maintain a presence in the area of combustion toxicity test methodology and hazard analysis to ensure that such methods are based on good science and accurately reflect the fire safety of vinyl polymers.

PRIMARY CONTACT(S):

Bud Hall, Bob Strength

STATUS:

- 1) Bud Hall and Bob Strength continue to monitor and report on the activities of the New York City Toxicity Advisory Committee for the Technical Committee.

Ronald L. McCreedy
Dow Chemical USA

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CTL008400

HEALTH, SAFETY AND ENVIRONMENT COMMITTEE

The committee has not met since the meeting held in conjunction with the Annual Meeting. The next regularly scheduled meeting is to be held on September 30th in conjunction with the Annual Meeting of the Vinyl Chloride Safety Association. The following summarizes activity of interest:

Ozone Depleting Chemical Regulations

On May 19, the EPA issued a Notice of Proposed Rulemaking that expands the requirements for labels on containers or products containing of manufactured with Class I or Class II substances. And, the final rule implementing new ozone protection regulations which incorporates new reporting requirements was published on July 28. The committee members are currently reviewing these EPA actions to determine their impact on the vinyl industry and assess the need for a special task force to further discuss the implications of these notices.

Comments Submitted to Cal EPA

Comments were submitted to the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment regarding the establishment of "no significant risk levels" (NSRLs) for chemicals regulated as carcinogens under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Prop 65). Comments expressed concern that NSRL for vinyl chloride (intended by the state agency to be 3 micrograms per day) is far below the appropriate exposure limit needed to assure that exposed individuals will face no more than the lifetime cancer risk allowed by the law. Comments also expressed concern that the risk assessment procedure to be used by the State does not afford a complete/adequate scientific review. (Comments submitted July 16 on proposed rulemaking published in the May 29, 1992 California Register.

Initiator Container Use and Disposal

As follow-up to earlier discussion involving members of the committee and affiliate members of the Institute, the SPI's Organic Peroxide Division has formed a Safety Division. This new division is scheduled to hold its initial meeting in August. Among the issue to be discussed is the safe use and disposal of initiator containers. A representation of the SPI OPP Safety Division will be at the September 30 committee meeting to update our members on those discussions.

CTL008401

Awards Program - SARA

The committee discussed the possibility of adding a VI awards program based on emissions data generated for and reported under SARA. Such a program would be in addition to those existing VI awards programs in Environmental Achievement and Safety Performance. Committee members will be providing data necessary to further discuss this proposal. Should such a program be designed, a formal presentation would be made at the December VI Executive Board meeting for review/approval.

FACTS About Working with PVC

Final input was received by August 1 for the production of a revised version of FACTS About Working with PVC, a brochure first developed six years ago. Revised copy incorporating all suggestions is now being prepared for final sign-off.

Roundtable Discussion: Sharing of Company Practices

During the course of the last year, roundtable discussions have been held during which committee members share information on company activity/practices on topics of interest. At the May meeting, these discussions focused on practices regarding the provision of and use of non-flammable clothing as well as practices regarding working in confined spaces. At the September meeting, items currently agreed to be discussed include car pool requirements for severe non-attainment areas and multi media audits.

Frank Borrelli
August 11, 1992

CTL008402



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CTL008414

LEGISLATIVE UPDATE

Federal: RCRA Reauthorization

A letter was submitted on June 24 by SPI (on behalf of the VI) to members of the House Energy and Commerce Committee expressing the opposition to amendments to the RCRA reauthorization bill that would negatively impact the vinyl industry. These amendments, previously introduced as HR 2880 (Sikorski) and HR 4949 (Richardson) would have jeopardized or eliminated uses of many chlor-alkali chemicals and derivatives. A similar letter was distributed by the Chlorine Institute.

Wisconsin: Burnett to Meet with Governor's Council

On September 9, Bob Burnett is among those who will meet with representatives of the Governor's Council on Recycling to discuss a proposal from one of the Council's subcommittees to ban PVC containers. The ban was proposed because it was alleged that PVC is an impediment to the recycling of containers made by polyethylene terephthalate (PET). P3 is coordinating action against this proposal.

Massachusetts: November Ballot Initiative

Following the July 6 ruling by the Supreme Judicial Court of Massachusetts dismissing the suit of the "Responsible Waste Management and Jobs Committee", the packaging initiative petition proposed by the Massachusetts Public Interest Research Group (MASSPIRG) has qualified for the November ballot. The RWMJC is leading the multi-million dollar campaign against the ballot initiative. P3 is an active supporter of this industry political committee.

The initiative, which was introduced also in the legislature and the subject of April hearings, calls for all packaging after July 1, 1996 to comply with one of the following standards or be banned:

- be reduced in size by at least 25% every 5 years.
- be reusable 5 times, with at least 50% of such packaging actually being reused.
- be made of 25% recycled material (35% by July 1, 1999 and 50% by July 1, 2002).
- a particular or product-associated packaging be recycled at a 50% rate annually.
- be made of materials recycled at a 25% rate (35% in 1999 and 50% in 2002).

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New York: Packaging Legislation Dies

On July 3, the New York legislature adjourned without adopting any of the restrictive packaging legislative proposals on the docket. Although the legislature reconvened to adopt budget related bills and can technically adopt any other legislation during any time that it is in session before December 31, 1992, during special legislative session there must be joint agreement between the legislature and the Governor that action on an issue is necessary. It seems highly unlikely that there will be further action on the restrictive packaging proposals this year, although they likely will be reintroduced next year.

Assemblyman Hinchey's bill, which was introduced in January, was passed by the Assembly Environmental Conservation Committee. It stalled in the Rules Committee and was not considered on the Assembly floor. This proposal was heavily influenced by the PIRG-style legislation (Public Interest Research Group) introduced in other states, i.e., basically, a rates and dates bill. As introduced, the bill established criteria for "environmentally sound" packaging mandating that to be sold, packaging would have to be reusable (designed to be reused or refilled a minimum of 5 times, recycled (meet recycled content requirements that would reach 50% within 5 years, or recyclable (made of a material for which either 75% of the population has access to a municipal recovery program or a 50% statewide recycling rate for the material has been achieved).

Governor Cuomo's proposal, which was based on a model bill developed by the Coalition of Northeast Governors (CONEG), was introduced in May, but died without having been considered. This version would have required product manufacturers to reduce their packaging waste by 15% as of January 1, 1996 and 35% by January 1, 2000. These reduction rates could be met in two ways:

- a company-wide approach in which companies could use any combination of methods, including source reduction, reuse, recyclability or recycled content, on any combination of the company's packages.
- a specific package approach in which companies would have to certify that each package was either source-reduced 10%, was reusable at least 5 times, contains at least 25% recycled content, or be made of a material that is at a 25% percent recycling rate.

P3 retained an economic consulting firm, Clayton Environmental Consultants, to undertake an economic impact analysis. The June 1992 report estimated that the proposal's provisions would affect roughly \$115 billion worth of packaged materials and product sold throughout the state. The coalition joined to oppose these bills included a wide range of federal and state organizations led by the New York State Business Council, the New York Food Merchants Association and the New York Soft Drink Association.

Ohio: California-Style "Prop 65" Ballot Initiative

SPI is actively participating in the effort to defeat a ballot initiative (the necessary signatures are to be certified this month) that would create a "right-to-know" law that would require public warning about exposure to toxic chemicals similar to but more stringent than the controversial California "Prop 65" requirements.

SPI held an outreach meeting on June 18 and widely circulated its Issue Backgrounder. This backgrounder, which is enclosed, summarizes the requirements of this proposal and its impact on the plastics industry.

The coalition leading the effort to defeat the initiative, Ohioans for Responsible Health Information, is a broad-based coalition of organizations that have often differed in the past. These organizations include the 800,000 members of the ALF-CIO, the 31,000 members of the National Federation of Independent Business/Ohio, as well as the retail merchants' and grocers' associations. A copy of their more recent newsletter is enclosed.

CTL008417



Issue *Background*

THE OHIO TOXIC LABELING INITIATIVE

June, 1992

The Ohio Supreme Court has cleared the way for a state ballot initiative to create a "right-to-know law" that would require public warnings about exposure to toxic chemicals similar to, but more stringent than, California's controversial Proposition 65 (Prop. 65). On May 13, the court rejected a suit filed by an industry and labor coalition that attempted to disqualify the initiative from the November election ballot. Ohio Citizen Action (OCA)—a Ralph Nader affiliate organization sponsoring the initiative—is in the process of collecting the additional petition signatures necessary to put their proposal on the ballot. Based on prior efforts, OCA should get more than enough signatures.

Background

In 1986, California voters approved Prop. 65 to establish a program to warn the public about exposure to toxic chemicals. Prop. 65 required the state to develop a list of chemicals known to cause cancer or reproductive toxicity. Businesses are prohibited from discharging any of the listed chemicals into drinking water and must provide "clear and reasonable warning" (i.e. posting placards, mailing notices, labeling products) to workers, the community and consumers about exposure to these chemicals.

The Ohio initiative was based on Prop. 65, but is far **more stringent**. The initiative would:

- Require businesses that use one or more of hundreds of chemicals designated as carcinogens or reproductive toxicants under Prop. 65 to **label their products and mail notices** to the public warning about exposure to these chemicals. The warnings must identify every toxic chemical in a product or emitted in the area of the facility. The total list of chemicals requiring warnings could include as many as **800 substances**. The list could be this extensive because of a provision that would require the Ohio Environmental Protection Agency (OEPA) to add to the current list of chemicals adopted from Prop. 65 those substances identified as carcinogens or reproductive toxicants by several specific federal agencies and research entities (e.g., the U.S. EPA and the International Agency for Research on Cancer).
- Require businesses, upon request by area residents or workers, to conduct a **risk assessment** to determine if its chemical emissions present a significant local health threat. There is **no trade secret protection** for proprietary information provided as part of the assessment. Companies with significant toxic emissions must **mail or deliver exposure warnings semi-annually** to individuals within the affected area.
- Impose an annual 1-cent per pound **fee on generators of toxic waste** to raise \$3 million a year for implementation and enforcement of the law. The money also would be used for technical assistance grants of up to \$50,000 to local citizens groups, such as OCA, to evaluate chemical risk assessments.

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Continued . . .

- Impose substantial fines and penalties for violations.

IMPACT ON THE PLASTICS INDUSTRY

If enacted, the Ohio toxic labeling initiative could have a **serious and far-reaching impact** on plastics companies and subsidiaries in Ohio, including **plastics processors**.

For example, an individual who lives within two miles of a facility that uses chemicals designated as a carcinogen or reproductive toxicant under the Ohio initiative could complain to the OEPA that the facility is violating the environmental warning requirements of the law. The OEPA could require the facility to submit a comprehensive assessment of the health risks of the chemicals. These **assessments could be extremely costly**. Estimates are \$5,000 for a small plastics processing facility.

Other Factors To Consider

Because the initiative provides no trade secret protection for proprietary information submitted to OEPA as part of a risk assessment, **plastics companies in Ohio** would be at a **distinct economic disadvantage** due to the competitive nature of the industry.

Moreover, companies that emit a significant amount of designated carcinogens or reproductive toxicants could face **extremely high costs when they are required to send semi-annual notifications** to individuals who live or work near their facility. Estimates are \$5,000 per site for address lists and \$2.29 per person for the mailings.

In addition, the initiative would impose **civil penalties of \$2,500 a day** for each violation and **criminal penalties of \$10,000 to \$25,000 and/or 2 to 4 years imprisonment** for reckless violation of the law.

SPI'S POSITION/ACTIVITIES

SPI opposes the Ohio toxic labeling initiative because the measure would impose severe cost and labor burdens on plastics companies, while not providing comparable benefits to the environment. Effective federal and state laws already exist for controlling toxic emissions.

SPI will continue to work with the industry and labor coalition, the Ohioans for Responsible Health Information (ORHI), to defeat the toxic labeling initiative. SPI also is developing materials to assist our members in their grassroots efforts for ORHI. We still need your help and support in this important campaign.

*For more information and a detailed analysis, contact:
Shari Jackson, Manager, State Legislative Issues
202/371-5283 or 202/371-5333*

CTL008419

UPDATE '92: KEEP OHIO WORKING

OHIOANS FOR RESPONSIBLE HEALTH INFORMATION



OHIO CITIZEN ACTION CLAIMS ENOUGH SIGNATURES FOR BALLOT:

Total Cost of Soliciting Sought

Ohio Citizen Action (CA), the activist group promoting the so-called toxic disclosure and labeling proposal, claims it has collected enough signatures to place the issue on Ohio's ballot in November 1992. Spokespersons for the group, formerly known as the Ohio Public Interest Campaign (OPIC), said July 6 it had collected the needed 104,000 extra signatures required to qualify the proposal for the ballot.

Securing the additional signatures is necessary because the Ohio General Assembly did not act upon the original CA initiative proposal submitted with the filing of earlier petitions last spring.

Records of the Ohio Secretary of State's Office show that CA paid solicitors over \$700,000 to obtain the original petition signatures. Future filings may document whether CA subsequent expenditures reached the million dollar mark to collect the second set of signatures.

Provisions of this proposal create a new tax on Ohio businesses. The funds raised by this new tax can be used, in part, to provide grants to groups such as CA.

CAMPAIGN TEAM ORGANIZED

Leaders of Ohioans For Responsible Health Information (ORHI) have retained a team of top campaign professionals to help educate Ohio voters about the CA ballot proposal. They share successful experience with past ballot issue campaigns in Ohio and other states.

Campaign management is being undertaken by Kent McGough and Associates. Paul Werth Associates will conduct public relations components for the effort, while Hameroff/Milenthal/Spence, Inc. will develop and place advertising. Charleton Research is conducting polls and related opinion research. Goettler Associates is assisting with fund-raising, while Pete O'Grady and Associates is developing grass-roots phases of the campaign.

"We are indeed fortunate to have such highly successful professionals on board to conduct our campaign," commented John C. Hodges, co-chair of ORHI, and President of the Ohio AFL-CIO.

ORHI COALITION UNIQUELY DIVERSE

Supporters of Ohioans For Responsible Health Information represent one of the most uniquely diverse coalitions in Ohio political history. Many in the coalition have differed with one another in the past over various policy issues, but are now united in their opposition to the CA proposal.

The coalition includes, for example, the 800,000 members of Ohio AFL-CIO, the 1.1 million farmers of the state, the 31,000 members of the National Federation of Independent Business/Ohio, the thousands of Ohio retail merchants, grocers, Ohio manufacturing concerns and many more.

"We continue to welcome more and more supporters to the coalition from all areas. This is truly a diverse group," said I. John Reimers, president of the Ohio Chamber of Commerce and ORHI Co-chair.

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EMPLOYEE AND SHAREHOLDER EDUCATION VITAL

One of the key resources for the ORHI educational campaign involves our own employees, suppliers and other related colleagues. "It is crucial for our supporters to begin information programs for such groups immediately," according to Kent McGough, ORHI campaign manager.

Resources are available to facilitate that effort, including speeches, issue summaries, slide presentations and a video now in production. Please contact Paul Werth Associates at 614/224-8114 now if you would like to utilize such communication tools.

THE ISSUE IN BRIEF

Though most of the political news so far this year has concentrated on candidates running for office, your November ballot also will contain one of the gravest threats to our businesses in many decades. This ballot issue, termed the Toxic Disclosure and Labeling Initiative, originated with Ohio Citizen Action, a Nader-affiliated group. The CA proposal this year is a cut-and-paste version of several California laws and initiatives.

Its ballot issue imposes extreme and wholly unnecessary labeling and notification requirements for almost all businesses. It sets forth a list of 458 chemicals, and specifies that any product containing these substances be labeled as a cause of cancer or birth defects. Shelf and premises signs are also called for in the measure. In addition, any business which used or stored any of these chemicals will be required to mail warnings to everyone within a two-mile range of their stores twice each year.

The proposal will cover hundreds of products, from aspirin, soap, paints, glue, cosmetics, cleaning fluids and solvents, car and truck exhaust, plywood, suntan lotion, bleach and even peanut butter!

Moreover, this proposal truly "sets up" Ohio businesses. Anyone who lives or works within the two-mile radius of your business can accuse you of failing to adequately warn them. That allegation sets off a legal process in which you are assumed guilty until you prove yourself innocent. And the activists bring us another present in this proposal: a new tax which would set up a fund for enforcing the new regulations and for reimbursing activist and other groups for their studies and legal actions.

In addition to all the negative consequences of this proposal, including likely higher prices for consumers, the issue would actually hamper the Ohio EPA and other regulatory bodies from pursuing real environmental goals. The proposal also ignores the extensive regulation now in place, including right-to-know laws currently on the books in Ohio. It also ignores all the progress this state has made in reducing pollution and safeguarding our food supplies. Indeed, under current law, food that is not healthy does not even make it to the shelves in Ohio.

Opposing the CA proposal is a growing coalition of allies—ORHI. What is especially interesting is that many groups whose opinions usually differ over environmental and other policies are united in seeking defeat of this one. That includes labor, agriculture, manufacturers, small business, health groups as well as the retailers.

But we need your help. First, you can educate your employees, vendors and community leaders about this proposal. Second, you can make certain your daily and weekly newspaper editors know of your opposition. Third, you can contribute to helping us defeat this potential disaster for Ohio. Contact McGough and Associates at 614/221-5771 for coalition membership information.

Please help.

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