

Vinyl Institute Manufacturing Practices Committee

The Hilton Inn Florida Center
7400 International Drive
Orlando, Florida

Thursday, December 19, 1985
Friday, December 20, 1985

Attendees

J. Barr, Air Products & Chemicals
W.C. Holbrook, BFGoodrich, Chairman
N. Blackman, Borden Chemical
W.B. Barton, Borden Chemical
A. Gellner, CertainTeed
J. Ledvina, Vista Chemicals
R. Oubre, Dow Chemical USA
J. King, Occidental Chemical
J. Kachtick, Tenneco Polymers
F.E. Borrelli, Georgia Gulf
R. Romano, Chemical Manufacturers Association
M.N. Scheck, Vinyl Institute
P. de la Cruz, Keller and Heckman

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1. Self Introductions

Committee Chairman Holbrook asked for self introductions and noted the presence of R. Romano of the Chemical Manufacturers Association. Holbrook asked the Committee members if there were additional items to be added to the Agenda for the meeting.

2. Effluent Guideline Limitations

Barr noted that the VI submitted comments December 16, 1985 to the USEPA on their effluent limitations guidelines rulemaking for the organic chemicals, plastics and synthetic fibers point source category. Barr indicated that the EPA's Regulatory Agenda indicates that the agency expects the rulemaking to be released late in 1986. The committee had a lengthy discussion of the need to gather more data that could be used when promulgation of the regulation takes place. It was decided that each company would assemble data on a reasonable estimate of the cost of meeting the guidelines. To the extent possible, such estimates should be for total dollars and for dollars per pound for the entire facility.

3. Vinyl Chloride Storage Paper

Barr reviewed the background of the position paper on vinyl chloride storage as originally discussed at the Committee's September 11 meeting at Innisbrook, Florida. Since that time, Barr has received comments from two individuals. It was agreed that the project should be pursued. Barr stated that if there are any additional comments he would like to receive them by the end of January so that he can begin preparing a draft for committee review.

4. Methodology for Ranking the Degree of Hazard Associated with Exposure to Carcinogens and Other Toxic Substances

For the Committee's information, Barr noted a Spring 1985 CERCLA Report on the potency of carcinogens and noted that the reportable quantity of

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vinyl chloride is 100 pounds based on chronic toxicity. Barr noted that he would send Scheck the citation for the report:

E. Anderson, et. al.
EPA/600/D-85/040
PB 85-167906, February 1985
"Methodology for Ranking the Degree of Hazard
Associated with Exposure to Carcinogens and other Toxic
Substances"

5. PVC Latex

Barr noted that the November 5, 1985 National Toxicology Annual Plan includes "PVC latex" on its priority chemicals for listing. Romano noted that this listing usually starts a long testing program even if nothing is found early in the testing program. It was suggested that the VI Medical Subcommittee follow up on this item.

6. NESHAPS General Amendments

Barton reviewed in detail the November 7, 1985 Amendments to 40 CFR Part 61. Copies of his report were distributed to the Committee by Scheck December 23.

7. Review and Update: Formosa Plastics Corporation, Delaware City

Borrelli reviewed the background of the Formosa violations over the last two and a half years and briefed the committee on activities in Delaware since the time the original Consent Order was signed. Borrelli noted his meeting with the Governor and conversations with the Mayor of Delaware City, as well as activities of the Chemical Industry Council, and the open house held at the Delaware City industrial complex in conjunction with CAER. Borrelli noted that he had offered the Governor's staff the resources of the VI.

In conjunction with the Executive Board's December 4 discussion regarding the appropriate activity of the VI in conjunction with events at Formosa Plastics, the Committee reviewed in detail the contents of the Court of Chancery decision, the March 13, 1985 Consent Order and the Supplemental Consent Order. Counsel distributed the draft of a letter to Delaware Governor Castle.

The Committee decided that a meeting of a special task force would take place on January 8 at 8:30 am at the Offices of Keller and Heckman for the purpose of finalizing a letter to the State of Delaware. Such letter would refer to Castle's speech on good industrial neighbors, discuss in detail the problems with the Consent Order, and offer an industry task force to review the submissions made by Formosa in accordance with the provisions of the Supplemental Consent Order. The Committee discussed a proposal to "give" Formosa industry technology. The task force established for the meeting on the 8th is to include: Holbrook, Ledvina, Borrelli, Gottesman/Scheck, and de la Cruz.

8. CMA Liaison: EDC Panel

Bob Romano of CMA (Associate Director of Biomedical and Environmental Special Programs) reviewed for the Committee CMA's work on EDC. Romano noted that with the "Intent to List" notice, the CMA EDC Panel had been revitalized. Romano reviewed a December 11, 1985 meeting with EPA and 3 CMA panels (Ethylene oxide, butadiene, and EDC). EPA noted at this meeting their intent to focus on short term releases (referred to by the EPA contractor as "killer" releases -- contractor for EDC is Midwest Research Institute, Marjorie Putnam). Romano noted that the Radian questionnaire originally developed for butadiene will go out generally.

Romano further noted that EPA intends to send "114" letters to 12 companies (16 sites) in the January 5-10 timeframe, with a 6-week response time. According to Romano, companies to receive the letters include: Arco, BFGoodrich, Diamond Shamrock, Dow, Vista, Ethyl, Formosa, Georgia Gulf, Olin, PPG, Shell, and Vulcan.

Romano noted that CMA believes that EPA legally needs to get OMB clearance on these letters, because they are going out to more than 10 companies, but EPA claims that the letters constitute follow up on earlier work.

Holbrook noted that since it appears as though it is the intention of EPA to regulate, that the Committee should get together after receiving the questionnaire, to assure consistency in interpretation of definition. A late January 1986 date is most likely, at the call of the Chairman.

For purposes of further coordination with CMA, it was suggested that the VI take the lead in the air area, while CMA continue its activities in the area of health and risk assessment as it relates to EDC.

9. Annual VI Safety Award

Scheck noted the responses received to date from the VI member companies on votes for the Annual VI Safety Award. As not all companies had voted on the nominees, it was decided that Scheck should redistribute the ballot and supporting documents to companies that were non-responders.

The Committee voted to institute a yearly award based on best performance (calculated on OSHA recordables) during a calendar year). It was further decided that competition would be on a plant by plant basis, rather than on a company basis. It was agreed that member companies would provide their information to John Barr by the end of February and he would summarize the results for the Committee. Appropriate awards (plaques) would be distributed in conjunction with the Annual Meeting, with press reports for the local press of the recipient companies.

10. Update on Vinyl Chloride Standard

It was noted that the proposed revision to the standard has been distributed at the Assistant Administrator level. It was reported that EPA hopes to finalize the proposal in September/October 1986.

11. Review of EPA's Survey of Ethylene Dichloride Emission Sources

Holbrook reviewed his concerns relative to the above named report and stated his belief that the VI should carefully review the document and provide comments to the Agency on those portions dealing with EDC manufacture. The Committee reviewed the document thoroughly; counsel to develop draft comments based on discussion.

Relative to the discussion appearing on page 1-3, it was noted that none of the VI members discharge from EDC facilities to POTWs, and that the notation in the report that compliance with the effluent limitations guidelines will reduce the amount of EDC in the wastewater streams discharged to POTWs is incorrect. The Committee further noted that tables 2-4 need to be revised to reflect the use of 99.99 percent efficiency for process vents, not the 98 percent figure reflected on pages 2-7. Table 2-5 is for VOCs and not EDC emission factors.

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12. Jacobs Engineering Report

Bob Oubre reviewed the report he received from Jacobs Engineering. Oubre noted the glaring deficiencies in the report, noting that the baseline data is all pre-NESHAPS. Oubre noted that Jacobs is interested in having input directly, but that their timeframe is extremely short. It was agreed that Dow would recontact Jacobs and give them information as to whom to contact, stressing that the report needs a total rewrite before it goes to Congress.

13. Review of EPA's Survey of Carbon Tetrachloride Emission Sources (EPA-450/3-85-018)

The Committee reviewed in detail Chapter 5 of the Report, "Ethylene Dichloride Production." As a base for the discussion, the Committee members agreed that the Agency should not assume carbon tetrachloride emissions for all of the industry based on limited input from three companies and further that equipment counts do not equate to leaks. de la Cruz to develop draft comments based on Committee's discussion of the information as developed by EPA's contractor, MRI.

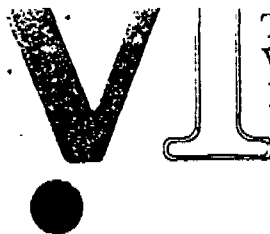
14. There being no further business at this time, the Committee adjourned at noon, December 20. It was noted that the task force on the Formosa letter is to meet January 8, 1986 and a meeting of interested committee members will be scheduled following the receipt of the letters mentioned in #8 above.

Respectfully submitted,

Meredith N. Scheck

Meredith N. Scheck

R&S 029429



The
Vinyl
Institute

Roy T. Gottesman
Executive Director

Pomfrowski 10:10
Creber OC
Note Governor Castle's comments
on VCM.
If you have reports to suggest
let me know
November 27, 1985
before Jan 31
T. B. Brown
1/6/86

To: Vinyl Institute Executive Board
Vinyl Institute Committee Chairmen

Subject: Development of VI Response Document
Community Health and Safety Impacts of VCM Emissions

We have recently sent you a number of newspaper clippings related to the Formosa Plastics Delaware City operation and its numerous VCM releases that led to revocation of the plant's environmental permits by Delaware authorities. While this was an enforcement action involving one company and is not representative of normal industry operation, there have been certain recent developments resulting from it that I feel can impact on the entire vinyl industry.

On October 22, Governor Michael N. Castle of Delaware spoke to the State Affairs Committee of CMA. I enclose, for your information, pages 6 through 8 of his prepared remarks and can make his entire presentation available to those of you who may wish to see it. Just reading these three pages, you will be able to see the direct "hit" which the VCM/PVC industry took.

I also enclose a copy of an article from the Wilmington News-Journal, November 20, received through the courtesy of Frank Borelli, the plant manager of Georgia Gulf's Delaware City operation, entitled "Pollution monitor unveiled." Note that the Delaware Department of Natural Resources and Environmental Control is developing "guidelines to determine the seriousness of contamination" and "procedures for alerting the public" should the monitoring devices trigger an alarm showing that 50 ppb VCM has been reached.

Finally, not directly related to the Formosa situation but part of the overall concern with air toxics, EPA on November 18 held a nation-wide teleconference and announced its "Chemical Emergency Preparedness Program". While the final list of 403 toxic substances is not expected to be upblished until late December, I think it's a fairly safe bet that VCM will be on that list.

In view of all of this, it is my plan to present to you at the December 4 Executive Board Meeting my thoughts on the rapid development of a suitable response document for use by Vinyl Institute member companies. The aim would be to put all information available on community health and safety impacts of VCM releases into one document, in an easily understandable form, so that the issue is put into proper perspective. I will appreciate suggestions on knowledgeable people in your individual companies who can participate in helping develop such a response document.

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Let me give you an example.

In Delaware, we have a problem with vinyl chloride gas. As far as I can ascertain, the vinyl chloride monomer is dangerous. But no one can tell me at what point it becomes dangerous to the surrounding community, or how much of a threat it really poses.

On the one hand, citizen activists with excellent credentials tell us it is deadly, and that the amounts that have been allowed to leak into the air will harm many people. But all we have to go on is an OSHA standard for the workplace; the Environmental Protection Agency has not yet issued ambient air standards.

A day or so before Hurricane Gloria hit, a woman who lives in one of our beach communities asked me what she should do about the hurricane. I told her she should board up her house and, if the hurricane got any closer, go to an evacuation center inland. That made a great deal of sense to her.

But what if that same woman had asked me what to do about the vinyl chloride problem in Delaware City? Or, more to the point, what I was going to do about the problem.

I suppose I could tell her I wasn't sure what she should do. I could tell her that until the experts told me how serious the problem is and exactly when it became a problem, there isn't much I can do.

And she would say, "Governor, that stuff is killing me and my family. It's going to give us cancer, and I want you to do something about it."

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That woman, and the rest of the citizens of my state, expect me to respond to threats posed by hazardous materials exactly as I did when Hurricane Gloria neared Delaware.

That is, to tell them what they must do to avoid harm, and to do everything in my power to protect them from harm.

The chemical industry might say that, in this highly complex world, we can't enjoy that kind of certainty, that absolute protection from harm is impossible. You might say that we're all in this together, and if the consumer wants modern materials, then the consumer must accept some of the associated risks.

- But I'll tell you, and I'm sure the legislators on this panel today will tell you, that our constituents indeed want -that certainty.

And I would argue that the vast majority of the citizens in my state are unwilling to accept those risks for incremental improvements in consumer products.

That is the reality from this governor's perspective. That is reality for the average state legislator. Our constituents want to know what is threatening them, they want to know where the threat is coming from, and they want it removed.

What you must understand is that state government is in the business of producing results. What's more, we have the ability to act with what seem like alarming speed when measured against the deliberate pace of events here in Washington.

And if push comes to shove, if we must make a choice between the interests of industry and the well-being of our constituents, invariably we will act in the interest of the public.

Let me give you an example.

In Delaware, the Attorney General will decide in the next day or so whether to bring criminal charges against executives at a polyvinyl chloride plant because of a recent spill, and their failure to report it.

This operation has a record of consistently poor safety practices, a record that has outraged and frightened the people who live nearby, and one that we will not tolerate. We thought we had solved most of the problems when the company signed a consent order earlier this year and agreed to pay a substantial fine.

Apparently not.

But they must understand that we will not -- and you, the members of the chemical industry, should not -- tolerate failure to comply with the law and meet reasonable safety standards.

There is no one in Delaware more committed to economic development and to working with our business community than I am, but economic development must be for the benefit of Delawareans, not at their expense.

R&S 029433

Pollution monitor unveiled

By NANCY KESLER

Dover Bureau reporter

The state's newly installed monitoring equipment to detect and record vinyl chloride levels in the air around Delaware City was displayed at a press conference Tuesday.

The \$15,500, 24-hour gas chromatograph is mounted in the second floor of the Delaware City Fire Hall. It has a device that will automatically call the Delaware Division of Emergency Planning and Operations if the amount of vinyl chloride, a carcinogenic gas, reaches more than 60 parts per billion. Emergency officials would then consult with state health and environmental authorities to decide what action to take.

Potential actions include alerting community residents over the Emergency Broadcast System, according to John E. Wilson III, secretary of the Department of Natural Resources and Environmental Control.

Plans to monitor toxins have moved forward especially because of state and community concern in the Delaware City area about repeated emissions of the carcinogen vinyl chloride from the Formosa Plastic Corp. polyvinyl chloride plant, in the industrial complex west of the city. The plant's environmental permits have been revoked by the state until it improves its environmental controls.

Wilson said the department is still working with emergency planners to develop guidelines for determining the seriousness of the contamination when the monitor sounds a warning and to develop procedures for alerting the public.

"Fifty ppb (parts per billion) would take a little head-scratching" about whether to notify the public,

Monitor

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Wilson said. "500 ppb is easy."

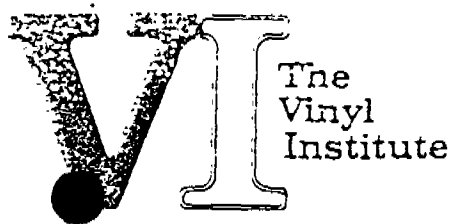
The Emergency Broadcast System is already capable of interrupting radio programming to make announcements about a variety of potential emergencies, such as radiation leaks from the nuclear plants across the Delaware River in nearby New Jersey or the threat of a military attack. Special tone radios, which were circulated previously to about 2,000 households within 10 miles of the Salem Nuclear Power Station, could also receive the emergency signal.

The Delaware City monitor is the first of several monitors to be installed throughout Delaware. The stationary monitors and a mobile monitor will be part of a \$500,000 program to determine what toxic chemicals may be in the air. Although the Delaware City monitor has been set to detect only vinyl chloride, Gov. Castle said he hopes the equipment will eventually be used to monitor a number of other toxics.

Joseph Kliment, chief of the department's Wilmington laboratory, said Delaware is one of the first places to get the monitor with the automatic dialer, which has just gone into production.

Measured air samples are con-

R&S 029434



Roy T. Gottesman
Executive Director

December 27, 1985

To: Copy Listing *

Subject: VI Response Document on Community Health and Safety
Impacts of VCM Emissions

At the December 4th meeting of the Executive Board of the Vinyl Institute, the Board gave its approval to my recommendation that a document be prepared for use by Vinyl Institute member companies providing information on Community Health and Safety Impacts of VCM Emissions (see my letter of November 27 to the Executive Board, copy enclosed).

At the December 19-20th meeting of the Manufacturing Practices Committee, this subject was discussed and based on advice from Frank Borelli, Georgia Gulf's Plant Manager at their Delaware City operation, who is intimately familiar with the entire Formosa/Delaware situation, it was agreed that such a document is not needed at urgent priority but that it should be a thorough and carefully prepared one.

I would see that, at a minimum, such a document would contain the following elements:

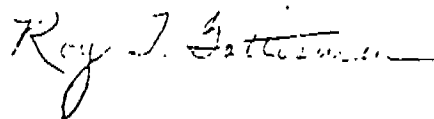
1. Historical background information including what is known generally about health effects of both VCM and PVC.
2. A review of governmental regulations that industry must comply with including the OSHA and EPA regulations and the expenditure made since the enactment of these standards in order to comply.
3. Literature reports on community health and safety effect along with an evaluation of these and any risk assessment information.
4. Summary and conclusions.

Any other thoughts that any of you have concerning the content of such a document will be appreciated.

It is my plan to convene a meeting of all persons receiving this memo in the near future. In advance of that meeting, and no later than January 31, I would appreciate receiving from you copies of any reports, literature or other non-proprietary information that you have and which you feel will be useful in preparing such a response document.

Thanks in advance for your assistance and cooperation.

RTG:g



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Copy Listing

Dr. Robert Hinderer - BFGoodrich Co.
Dr. Ted Torkelson - Dow Chemical, U.S.A.
Dr. Michael M. O'Mara - BFGoodrich Co.
Mr. John T. Barr - Air Products & Chemicals
Mr. W. C. Holbrook - BFGoodrich Co.
Robert D. Luss, Esq. - Occidental Chemical Co.
Peter L. de la Cruz, Esq. - Keller & Heckman
Mr. George R. Snider, Jr. - BFGoodrich Co.

R&S 029436

ADDITIONAL NOTES ON FPC

Review of Formosa Plastics (Delaware) - Frank Borrelli, who operates the Georgia Gulf PVC plant in Delaware gave a report on the FPC problems. EPA sued FPC because of some 43 relief valve discharges plus other emissions over a 3 1/2 year period. During the course of events leading up to the suit and beyond, there emerged evidence of a general lack of training, maintenance, testing, and proper attitude on the part of FPC. It led to a loss of credibility in FPC.

It began when the Delaware Citizens for Clean Air, basically one individual who comments on air regulations as a hobby came out with a press release indicating that all the VCM being released at FPC could cause a city health hazard. The City Council approached the Department of Natural Resources and got no support which upset the Council. Other things going on at the same time were refinery emissions and a leak from a land fill which contaminated some ground water. A group of citizens, calling themselves CHOKE (forgot meaning), organized to determine whether FPC was complying with its Consent Order from court. A number of violations were uncovered and FPC was again brought to court.

Based on conversations of the Governor with Hercules, DuPont and other local industry, it was decided by the Governor that they should be shut down by revoking their permits.

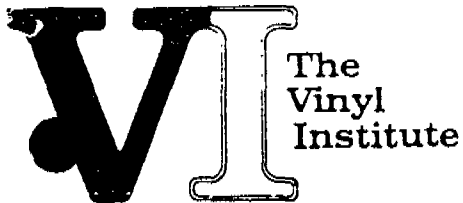
The plant was down for about 3-4 weeks and started up again in mid-December. The Plant Manager was replaced by the Plant Superintendent from Point Comfort. He has had various sessions with the government, local industry and the Governor to patch up ill relations and gain credibility. There is a government hired consultant in the plant observing operations.

There seems to be a feeling according to Borrelli, that FPC's attitude and operating/maintenance performance have changed significantly and they will become a good corporate citizen.

One interesting note - FPC has agreed to define a reportable leak as one which measures 50 ppm or more measured with a hand held monitor 10 feet downwind of source. This is part of their consent decree.

Bob Oubre
1/17/86

R&S 029437



January 8, 1986

The Honorable Michael N. Castle
Governor's Office
Legislative Hall
Dover, Delaware 19901

Re: Regulation of Vinyl Chloride Monomer

Dear Governor Castle:

On October 22, 1985, you addressed the State Affairs Committee of the Chemical Manufacturers Association (CMA). During this presentation, you referred to Delaware's problem with vinyl chloride gas, your uncertainty concerning the health effects on the general population of releases of vinyl chloride into the air, and the "consistently poor safety practices" of a polyvinyl chloride (PVC) plant owned by Formosa Plastics Corporation. Most members of the vinyl chloride monomer (VCM) and PVC industries have successfully minimized emissions by thorough compliance with applicable federal and state regulations. But, as you so aptly noted, "The best safety record in the world doesn't amount to a hill of beans if your neighbor or competitor is constantly on the front page for safety violations. You are all tarred with the same brush."

The Vinyl Institute (VI), a division of the Society of the Plastics Industry, Inc. (SPI), represents most of the major domestic producers of VCM and PVC and enjoys an excellent reputation in all the communities in which we operate. We do not wish to be tarred with the same brush and must point out that Formosa is not and has never been a member of the Vinyl Institute or SPI.*

*/ SPI, the major national trade association of the plastics industry, is a Corporation organized under the Not-for-Profit Corporation Law of the State of New York. Its 1,700 member companies and individuals and 49 operating units include those who supply raw materials; process or manufacture plastics or plastics products; and engineer or construct molds or similar accessory equipment for the plastics industry. The majority of SPI members are the processors and converters of plastic resins into end products which represent 75% of the dollar volume sale of plastics in this country. (footnote continued)

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The Honorable Michael N. Castle
January 8, 1986
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Our primary purpose in contacting you is to indicate our desire and availability to assist your office, the Department of Natural Resources and Environmental Control (DNREC) and the public by providing scientific and technical information on the emission control and health effects of VCM and PVC. Members of the Vinyl Institute have dramatically reduced emissions of VCM in their facilities as confirmed by U.S. Environmental Protection Agency (EPA) reports. As responsible members of the industrial community, we are concerned that Formosa takes the necessary steps to create a safe and sound facility in light of obvious past deficiencies. Despite the fact that Formosa was not a VI member, we extended offers of technical assistance to Formosa in a June 1985 meeting. We also extended this offer to DNREC in a September 1985 letter. We take this opportunity to reiterate again our willingness to assist Delaware authorities and Formosa.

During your CMA presentation referred to at the beginning of this letter, you commented on the absence of information on which to base a response to citizen inquiries on the community health and safety impacts of VCM emissions. The Vinyl Institute is preparing a document addressing this topic and will forward it when completed.

The EPA rulemaking leading to the 1976 vinyl chloride standard was based on the adverse health effects for workers exposed to high levels of vinyl chloride monomer in plants (not communities). There was and is an absence of any sound

[Footnote continued]

Members of the Vinyl Institute include Air Products & Chemicals, Inc., The BFGoodrich Company, Borden, Inc., Certain-Teed Corporation, The Dow Chemical Company, Georgia Gulf Corporation, Occidental Chemical Corp., PPG, Inc., Shell Chemical Co., Tenneco, Inc., and VISTA Chemical Company. Members of the Vinyl Institute account for approximately 72% of the domestic production of vinyl chloride and 76% of the domestic production of polyvinyl chloride. The Vinyl Council of Canada is a Special Member of the Institute. ICI Europe Ltd. Petrochemicals and Plastics Division is an Associate Member.

R&S 029439

The Honorable Michael N. Castle
January 8, 1986
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scientific information that vinyl chloride monomer is harmful at community ambient levels. Moreover, EPA's projections of expected community cancer cases from VCM exposure both before and after industry compliance with the 1976 standard fortunately have not materialized.

We are particularly interested in the application of remedial solutions with proven success to the Formosa facility. The use of unreliable or unproven control technologies provides no additional protection to the public and could very well distract both the State and Formosa from implementation of a real solution. Well-intentioned but misguided corrective efforts here may lead to unnecessary expenditures and regulations elsewhere.

We have reviewed the consent decrees and strongly believe the proposed remedial solutions alone are inadequate and are only a partial solution of the problem. We are convinced that all PVC plants of this nature must be equipped with a properly designed chemical addition system (short-stop) to prevent over-pressure. The so-called "containment system" referred to in the consent decree is not a substitute for such a short-stop system. We note that a short-stop system was included in Formosa's recent consent order with the state of Texas. Texas v. Formosa Plastics Corp., District Court No. 85-10-11452 (Calhoun County, Texas) (August 1985) (copy enclosed). We also feel that the training and maintenance measures should be strengthened, particularly relating to instrument calibration, rupture discs and emergency power.

Strong enforcement benefits the public as well as those industries that comply with the standard. We urge DNREC to be vigilant and maintain an aggressive enforcement posture by continued, frequent scrutiny of Formosa's compliance with the provisions of the consent decree.

Under the supplemental consent order, Formosa was required to submit several schedules and programs by January 3, 1986. We offer our services in assisting the State in review of these programs and other remedial plans. To this end, we

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The Honorable Michael N. Castle
January 8, 1986
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request an opportunity to meet with you and your staff to see how we may be of further assistance to the State.

Sincerely,

Roy T. Gottesman

Roy T. Gottesman

Enclosure

cc: John E. Wilson, Secretary DNREC
Thomas P. Eichler, EPA Region III
Robert Chow, Formosa
Larry Peyton, Formosa

Effective January 20, the Vinyl Institute offices will be relocated to 150 Route 46 West, Wayne, NJ 07470 and our new telephone number will be (201) 890-9299. After that date, please contact us at this new address.



Roy T. Gottesman
Executive Director

January 6, 1986

R&S 029442

To: Vinyl Institute Executive Board
Vinyl Institute Manufacturing Practices Committee

Subject: Formosa Plastics -- Delaware City Operation

I believe you will be interested in the attached editorial from the Wilmington, DE News Journal of Jan. 1, received courtesy of Frank Borelli, Georgia Gulf's Delaware City Plant Manager.

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Enc.

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Wilmington
journal

JAN 1 1966

Formosa got 'the message from state

THERE IS no better time for a New Year resolution. Here's one for just about everyone: Formosa Plastics Corp. can watch its new act; the state can watch Formosa watching it; the people can watch the state watching Formosa.

From all accounts by the state's Department of Natural Resources and Environmental Control, the new management at Formosa's Delaware City plant is behaving in exemplary fashion.

On Nov. 1, the state took away Formosa's permits to operate after repeated emissions of vinyl chloride, a presumed carcinogen. It was Delaware's first such action against a major plant.

Formosa, the department says, got the message.

Monitored by consultants retained by the department, Formosa installed new management and began from the ground up to improve its plant, install new equipment and instill in its maintenance and operating personnel a new respect for safety considerations.

The consultants report that they oversaw every aspect from the tank cars in the field, to the piping and the formerly defective devices which permitted the emissions.

The program so far, one consultant estimates, has cost the company upwards of \$1 million. The improvement work went forward on a seven-day week, 12-hour day basis.

The result, he reports, is that the plant's operators now can kill a "charge" from the chemical reactors used in the production of polyvinyl chloride without even relying on the relief valves which permitted the emissions.

The department and outside experts say the plant is in better condition overall than it was when Formosa first acquired it. Attitudes of shift personnel toward safety have been stiffened and supervisors brought in from Formosa's Texas operations are vastly experienced in safety. There has been no evidence of a leak in more than a month.

Following all this frenzied activity, the department gave Formosa permission last Friday to resume full operation.

The company's new attitude was described by Robert J. Touhey. "They're not kidding" now, said Mr. Touhey, director of the Division of Environmental Control.

Well, if they are not kidding, it is largely because they have realized the state was not kidding in its concern for the environment. And if the state was not kidding, it was largely because the plant's neighbors in the Delaware City area made it plain that they were not kidding in their concerns.

The lesson is plain for any firm that wants to operate around here: Jobs are at stake (180 at Formosa) and are important. The economy is important, too. Safety is first.

The state's logging will continue, we are assured, and data from this case will be useful in similar situations.

The consultants report that their instructions were to help the management as much as possible but without compromising safety in any way.

It all sounds very upbeat.

It all also sounds like a call for continued vigilance.

"Next time," says Mr. Touhey, "it will be easier to take that permit away and harder to give it back."

R&S 029443