

TO: Environmental Coordinators

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XF: none

FROM: T. G. Grumbles
DATE: February 8, 1989

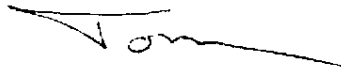
Interoffice
Communication

SUBJ: PROPOSED CMA RELEASE REDUCTION POLICY AND PROGRAM

VISTA

Attached is material regarding a release reduction policy being proposed, or formulated, by CMA. A briefing meeting is being held March 1 in Washington to present the attached and begin receiving member company comments.

Please review the attached and let me know if you have comments on the attached drafts and/or would like to attend the meeting. I plan to attend the meeting. Please give me any comments by February 24.



T. G. Grumbles

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Attachment

cc: Plant Managers - R. W. Seymour-ABER, L. R. Bauer-BALT, G. D. Williams-BLANE, J. B. Maher-HMD, J. Friend-LCCP, J. W. Ware-LCLAB, R. A. Conrad-LCVCM, H. D. Garrison-OKC, P. L. Foote-PREM

J. A. DeBernardi, T. H. Huffman, R. D. Gamblin

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Route: 1.) TGG
2.) WMcC

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CHEMICAL MANUFACTURERS ASSOCIATION

cc KCF
RDG ^{OK} 2/3/89

January 30, 1989

TO EXECUTIVE CONTACTS OF CMA MEMBER COMPANIES

Dear Executive Contact:

Subject: Member Company Comments on Proposed CMA Chemical
Release Reduction Policy and Program -- March 1, 1989 Briefing

The purpose of this letter is to urge the attendance of your senior environmental, health, safety and legal managers at a March 1, 1989, briefing on a proposed major new CMA program concerning Title III, Section 313 releases. The proposed program encourages CMA member companies to increase their efforts to reduce releases to the environment and to increase the understanding of health effects from these releases. Public policy debates on Section 313 release inventories are anticipated to gain momentum when EPA releases its computerized inventory later this year. This new program will position the industry in a positive light for any follow up debates.

The proposal is the product of an intensive six month process involving health, safety, environmental, government relations, legal, and communications experts from the member companies, with careful oversight by the Executive Committee and Board of Directors. The proposed voluntary policy and programs, built upon CMA's existing air quality policy and waste minimization program, are crafted to respond to immediate public concerns focused on the Section 313 release reports and to demonstrate industry leadership. To assist you in preparing for the briefing, I am attaching a copy of the proposal. Please treat these materials as confidential.

CMA's Environmental Management Committee will evaluate comments and make revisions over the next two months and make a final presentation to the Board of Directors in April. The March 1 briefing is designed for senior environmental, health and safety, and legal managers, to review the proposed policy and program, discuss the relationship to other CMA initiatives, its implementation, communication strategy, impact on local operations, and to provide opportunities for attendees to ask questions. A tentative agenda is enclosed. The briefing will be held at the Ramada Renaissance Hotel, 1143 New Hampshire Avenue, N.W., Washington, D.C. (202) 887-0800 beginning at 9:00 a.m. A block of rooms has been reserved for those who will arrive the night before. (When making reservations refer to RR #392. The cut off date is February 15, 1989.)

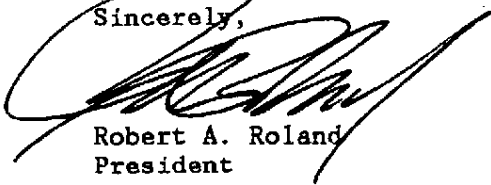
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Executive Contacts
January 30, 1989
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To assure that all member companies will be accommodated at the special briefing, I am requesting that you designate no more than two representatives to attend. I would appreciate your contacting David W. Carroll's office (202/887-1185, Ms. Stephanie Henry) to advise who your representative(s) will be for the March 1, 1989, meeting. We ask that each attendee bring a check made out to CMA in the amount of \$30.00 to defray the costs for continental breakfast, coffee break, and the meeting room.

If you have any questions on this matter, please contact David W. Carroll, Director, Environmental Programs, (202) 887-1164 or Ann M. Mason, Associate Director, Environmental Division (Air Programs), (202) 887-1180.

Sincerely,



Robert A. Roland
President

Attachments

cc: Environmental Management Contacts
Health and Safety Contacts
Responsible Care Coordinators
Title III Contacts
CAER Coordinators
Legal Contacts
Washington Offices
State Contacts

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TENTATIVE AGENDA
PROPOSED CHEMICAL RELEASE REDUCTION POLICY AND PROGRAM
BRIEFING

MARCH 1, 1989

7:30 - 9:00 a.m. Registration and Continental Breakfast

9:00 Introductory Remarks - R. A. Roland, President, CMA

9:15 Section 313 Impact and CMA's Responsible Care Program -
J. Holtzman, Vice President-Communications, CMA

9:35 Draft CMA Chemical Release Reduction Policy - C. T.
Seay, Chairman, Environmental Management Committee

9:50 Questions and Answers

10:15 Break

10:30 Programmatic Support Proposals

- Regional Monitoring and Modeling - R. Bradford,
 Leader, ad hoc Chemical Release Reduction Group
- Health Effects Evaluation Program - R. Van Mynen,
 Vice Chairman, H&SC
- Smaller Company Assistance - R. Bradford
- Communications Program - J. Holtzman

11:15 Questions and Answers

11:40 Concluding Remarks -- C. T. Seay

11:45 noon Adjournment

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CHEMICAL RELEASE REDUCTION POLICY

CMA will promote, among its member companies, practices that protect the safety and health of employees and residents of communities in which they operate. Our industry's goal is to assure that employees and communities are not adversely affected by our operations and to encourage others, including our suppliers and customers, to achieve the same goal.

CMA understands the public concern regarding health effects from releases into the environment. CMA also believes better information on the effect of these releases is needed to assure fully informed action by government, industry and the public. CMA member companies will increase their efforts to reduce releases to the environment and to increase the understanding of health effects from these releases. Existing industry activities will be consolidated to bring focus to this effort so that the industry's performance will be improved and the industry's margin-of-safety will be increased.

This CMA policy, recommended for implementation by each member company at each of its operations, includes the following elements:

- 1) Using SARA Section 313 reports as a base, inventory existing releases to all media. Chemicals other than those covered by Section 313 will be included as appropriate.
- 2) Establish priorities for the inventoried releases based on factors including their potential impact and the level of community concern.
- 3) Formulate a release reduction plan, based on this ranking, to increase the current margin-of-safety, increase operation efficiency, and address areas of public concern. In the plan, transferring releases from one media to another should be used only if the overall volume, toxicity, and environmental impact is reduced. Reductions may be achieved by any of the following methods, but it is recognized that such reduction efforts are listed in declining order of desirability and member companies will direct their efforts accordingly:
 - i) Source reduction.
 - ii) Recycle/Reuse.
 - iii) Treatment to reduce volume and/or toxicity before release or disposal.
- 4) Initiate a system to report release reduction progress.
- 5) Communicate overall plans and progress to employees and the public.

In addition, to increase understanding of the efforts of chemical releases, CMA will work to better determine the concentrations of chemicals in the environment and the health effects of such chemicals. Finally, in implementing all of the above, CMA will foster assistance to smaller plants and companies.

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REGIONAL MONITORING AND MODELLING PROJECT

PROJECT BACKGROUND

The public perceives that no measurement data exists on Section 313 chemicals released to the air, surface water, or groundwater. Therefore, they believe "toxics" are a health threat. Limited monitoring data indicate that there are very small concentrations of chemicals in communities. EPA and others have indicated that the general air quality is improving. The objective of this project is to proactively obtain more data to confirm that Section 313 chemicals generally do not pose a risk to communities. In addition, it designed to achieve a secondary benefit of getting ambient data systems in place to monitor progress. The project proposal focuses on air issues as the initial priority with possible subsequent phase in of surface and groundwater programs to assure a multi-media perspective.

The project will provide for data collection using regional air dispersion modelling to predict hotspots and optimize the location of a minimum of five to ten monitors per sampling location. Five to ten target regions are recommended as the minimum level of effort.

OPTIONS CONSIDERED

Three programmatic levels of activity were considered. The first alternative is a base case that supports Options 2 & 3. Option 2 places the local CIC's in the leadership position but the bulk of the total cost still must be assumed by the local industry. Considering CMA's budgetary constraints, this is the recommended option. Option 3 creates a new area of activity for CMA, and carries a high pricetag, although it delivers the maximum leverage, visibility, and credibility.

1. Base Case

Gather available data into a central reference system (e.g., Houston Regional Monitoring Network data, Bay Area Air Toxics Study, EPA indoor air study, and volunteer data acquisition by member companies). This central reference system on monitored data can be supplemented with a CMA regional dispersion model and a CMA regional sampling protocol. Development of the modeling/monitoring protocols will cost about \$50,000. Protocols can be developed by contractors by June 1989. The data gathering effort will cost approximately \$50,000.

2. Proactive CIC Activity

Replicate the Houston Regional Monitoring project, or modified approaches, in priority areas through CMA leadership. Local programs will be conducted by consultants with local industry financial support and technical direction. This option places the entire financial and manpower burden on local industry and is probably limited to those

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areas with existing, active CIC's. Data gathered in this way may have less credibility because the public perceives that it is "industry" generated rather than a cooperative effort lead by community leaders.

The total costs from local industry for significant modelling/monitoring programs typically will be in the range of \$500,000 to \$1 million per region per year. Top down management support from CMA member companies will be necessary to establish regional monitoring programs under this option.

3. Proactive CMA Activity with Economic and Manpower Leverage

Using the Houston Regional Monitoring Network as a working model, CMA can offer matching grants and technical assistance to state and local agencies, CIC's, or foundations and commissions to establish and carry out regional air monitoring programs keyed around significant 313 releases. Funding will be leveraged and industry will be visibly involved in assuring valid data collection for programs proposed by the local communities. Under this option, CMA will cover at least a third and possibly more of the total cost for at least the initial year. CMA's direct cost will be approximately \$1 to \$3 million dollars for the initial year.

MULTIMEDIA TOTAL PROGRAMS

Groundwater and Surface Water programs can be introduced on a delayed time line.

1. Groundwater

Support state wellhead protection programs through partnerships with local government. Local industry might provide data and technical expertise, i.e., temporary locals of hydrogeologists, for example, as well as grant money for groundwater monitoring within the wellhead protection program. This program is not currently funded at the Federal level, yet the States are anxious to protect their public water supply as suggested in the 1986 Safe Drinking Water Act Amendments.

2. Surface Water

Provide grants to organizations, such as, the Chesapeake Bay Foundation, The Mississippi River Coalition. Surface water quality could be monitored in the immediate area of member-company facilities to supplement State monitoring efforts.

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SUPPORT INFORMATION FOR REGIONAL MONITORING MODELLING

1. Target Areas for Regional Modelling/Monitoring

Houston, TX
Baton Rouge, LA
Greater New York/New Jersey
Philadelphia, PA
Buffalo/Niagara Falls, NY
Bay Area District, CA
South Coast (Los Angeles) District, CA
Chicago, IL
Kanawha Valley, WV
Washington, DC (control)

2. Houston Regional Monitoring Experience

The Houston Regional Monitoring Corporation (HRM) was formed in 1979 by local area businesses to obtain ambient air monitoring data for the criteria air pollutants. Eleven (11) monitoring stations were established. The primary purpose of HRM was to enable companies to satisfy Prevention of Significant Deterioration (PSD) permit application requirements.

Since its inception, the focus of data collection and analysis has shifted to meet changing needs. Collected ozone data, in particular, has been very useful to industry and the State in evaluating air quality, the effects of various emission sources and controls, and the significance of monitor placement.

In 1987, the HRM's focus was expanded to include collecting ambient air concentration data for about 170 specific chemicals, including many SARA Section 313 chemicals of concern. Samples are obtained for a 24-hour period every sixth day at six existing monitoring stations covering about 900 square miles. This monitoring is intended to assess long-term community exposure to these substances in outdoor air.

During each sampling period, a 15-liter canister is filled at a rate of 6 cc/min, and then the canister is transferred to the Radian Corporation for analysis. Extensive QA/QC procedures are employed. Meteorological conditions are recorded for each site to support assessments of the data. The cost of this targeted monitoring is approximately \$80,000-100,000/station/year.

The monitoring stations are operated by Radian Corporation, and the entire HRM effort is supported by member-company contributions of about \$50-\$60 per manufacturing employee.

3. Baton Rouge Area Ambient Air Monitoring

In early 1988, several companies in the Baton Rouge, LA, area initiated an effort to better understand the ambient air quality in the Baton

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Rouge area and the effect of emissions on air quality. The effort included short-term ambient air sampling and analysis by Radian Corporation and modeling by Trinity Consultants. The total cost is expected to be approximately \$130,000.

Monitoring consisted of the collection of 24-hour composite samples at four (4) locations for three (3) consecutive days at each site and included significant QA/QC procedures. Total cost for the 12 samples, analyses, and QA/QC, including setup of the temporary monitoring station, was \$65,000. The sampling and analytical procedures were the same as for the ongoing HRM project.

Modeling consisted of dispersion calculations for the emissions of 17 substances from 13 area facilities. In addition, the GEMS model was used to estimate exposure and risk in the area for two of the substances. Total cost of the modelling effort is about \$65,000.

On-site personnel involved in the interpretation and use of the monitoring and modeling data with interested public consider the monitoring data to be most believable and, therefore, the most useful.

4. Petrochemical Complex Monitoring (Tubes)

In early 1988, enhanced Industry Hygiene (IH) collection tube monitoring techniques were used to obtain ambient air quality data for eight VOCs in the vicinity of a major petrochemical complex. The enhanced techniques were capable of quantifying low ppb concentrations of the substances.

Sampling was conducted at eight locations with seven 48-hour composite samples obtained at each location over a three-week period. Total cost for sampling, analysis, and QA/QC was \$50,000.

Based on the success of this effort, the same technique has been employed at other locations.

Dispersion modelling is now being initiated in the area to estimate the ambient contribution at 400 receptor locations of ten chemicals. From 200 emissions sources at five facilities, the modeling cost is estimated at \$25,000.

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OPTIONS FOR COMMUNITY
HEALTH EFFECTS EVALUATION PROGRAM

BACKGROUND

The Ad Hoc Chemical Release Reduction Work Group, and the Health and Safety Committee have developed eight options for responding to the public's concern about exposure to chemical releases. These options are presented to help identify the most beneficial course of action for implementing this program element.

Evaluating the effect of chemical exposure on community health is central to addressing the public's concern about chemical releases. Clear and widely accepted methods to identify acceptable levels of exposure are essential to explain the meaning of Title III, release reduction, and waste minimization data.

After a discussion of all options, the consensus of the Ad Hoc Work Group, and the Health and Safety Committee focuses increasingly on CMA sponsoring the development of consensus methodology(s) at an organization such as CIIT. (See Options 5 and 6 below.) The cost of pursuing this option is approximately \$250,000. The longer term application of the consensus method(s) by other groups to a wide variety of substances entails additional costs.

PROGRAM DESCRIPTION:

The Community Health Effects Evaluation program seeks to identify methods to characterize exposures of the general public to chemicals. The effort will work to identify existing methods to determine safety, and to improve the existing state of science in determining safety. Moreover, the program will work to improve the public acceptability of the measures used to judge safety.

PROGRAM OPTIONS:

Options considered for the program are listed in their order of resources required:

Option 1: Encourage Government Action.

Safety is a matter of public perception and acceptability. Industry's activities will always be suspect and CMA should encourage government regulatory agencies to set safety standards. Until standards are set, industry will use existing measures to judge safety and explain these to the public.

Option 2: Encourage Research.

Industry could encourage research by government agencies and universities to improve methods by which to judge safety.

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Such encouragement will only be suggestions that this is a serious issue that needs attention.

Option 3: Fund Research.

Industry could fund research by universities, national laboratories or consultants to improve methods by which to judge safety.

Option 4: Build on CMA's Information Exchange for Community Exposure Values.

CMA could examine the community exposure values obtained through its information exchange program. Consensus areas could be identified, and a needs assessment and feasibility study could be done for future work in developing exposure values.

Option 5: Develop Consensus on Methodology(s).

Industry could further develop consensus on method(s) by which to establish community exposure values. The method(s) will not be applied to specific chemicals, but published in the scientific literature for use by individual companies or government agencies. The application of any method to specific chemicals will often require the development of additional data on that substance to form a scientific decision.

Option 6: Fund an Independent Organization.

The chemical industry could fund an outside organization, such as CIIT, to develop and apply a method for setting community exposure values.

Option 7: Industry Could Develop and Apply a Methodology for Setting Community Exposure Values.

An industry group could develop a method for setting community exposure values. This method and data on specific chemicals could then be turned over to a standard setting organization such as AIHA, ACGIH, ASTM, or EPA.

Option 8: Fund an Independent Expert Scientific Panel to Develop and Apply a Methodology for Setting Community Exposure Values.

The chemical industry could fund an independent expert scientific panel, through a university research center or national laboratory, to develop and apply a consensus method for setting community exposure values. The method and values will then be made available to standard setting organizations.

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RESOURCE REQUIREMENTS

Costs: Costs will vary depending on the options selected. Costs range from nothing for option 1, to \$30,000 - \$50,000 for option 4, \$250,000 for options 5, 6 and 7, and \$600,000 for option 8.

Time: Depending on the options selected, implementation could take two to five years. The time required depends greatly on the resources devoted to the project. Option 8, for instance, will require 2 years while option 1 will depend on the speed with which regulatory agencies act. Options 5, 6, and 7 will require one year to develop consensus method(s) with additional time required for application to specific substances.

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ASSISTANCE TO SMALLER COMPANIES

PROJECT BACKGROUND

The member companies of CMA are committed to the successful implementation of both the letter and the spirit of Title III. However, many smaller companies are having a difficult time implementing key components (emergency planning, accident prevention, emission reporting, etc.) of the law. Poor performance by any company, small or large, may affect the many positive proactive measures made by CMA member companies. CMA member companies should provide technical assistance to their customers and smaller companies to enhance overall environmental, health and safety programs.

OPTIONS CONSIDERED AND RECOMMENDATIONS

The following options were considered to assist smaller companies with their environmental, health and safety programs. The sentiment of the work group is that an implementation strategy that combines several of these options will be the most effective.

1. Member companies will communicate to and provide direct assistance to smaller companies through existing product stewardship programs.

- Mail information packets
- Invite customers in for training
- Send technical service representatives out to customers

CMA will work with the Council of Chemical Association Executives, U.S. Chamber of Commerce, State Chemical Councils and other national organizations to develop communication pieces on technical assistance available to smaller companies and how to access the process. Approximate cost for CMA to implement the activity is \$10,000. Communications regarding technical assistance to smaller companies will begin in early May.

2. Member companies and CMA, possibly using contractors, will conduct on-site training for companies in the following areas:

- Waste minimization/release reduction principles and methodologies
- Process safety
- Emergency planning and preparedness
- Communicating with employees and the community VVV 000006781
- Public health issues.

As an alternative, CMA and member companies will develop seminars/workshops on a regional/local basis to provide information on the key issues highlighted above. They will be highly participatory and hands-on. They will use case studies presented by experienced plant personnel. The seminars will partially pay for themselves,

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although funds will be needed to develop guidance materials in some of the areas mentioned (approximately \$75,000). The workshops could be scheduled for late summer or early fall.

The seminar/workshops will be developed and co-sponsored by:

- Individual member companies
 - State chemical organizations
 - CMA/other trade associations
 - Council of Chemical Association Executives.
3. Member companies could mobilize their retirees to provide many of the services listed above. There are many unknowns including personnel availability and interest, cost, and timing. Nevertheless, this option is worthy of further consideration.
 4. CMA could establish a technical assistance hotline for smaller companies to call and request help. We recognize that each company requesting assistance will have different needs, pressures, and time constraints. The hotline could cost approximately \$170,000 per year (including staff) unless it can be consolidated into an existing CMA service. The hotline will begin operation in July 1989.
 5. Establish assistance programs with key universities whereby undergraduate and graduate engineering students assist smaller companies in their waste minimization and release reduction programs. A team (3-4 students) could have a project (defined by the company) to work on for the semester. The final report will include ways to minimize waste/releases and operational costs, and maximize effectiveness of implementation plans. This process could be initiated through state chemical organizations. Projected costs are not clearly defined at this time.

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