CHEMSTAR

CHEMICAL SELF-FUNDED TECHNICAL ADVOCACY AND RESEARCH

A REPORT ON THE YEAR 1988-1989

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PRESIDENT'S OVERVIEW

Chemical Self-funded Technical Advocacy and Research (CHEMSTAR) -- the new name for our specific chemical activities -- reflects a concerted effort to enhance understanding of the Chemical Manufacturers Association's individual chemical panels and their accomplishments. The Board of Directors recently approved a broad plan aimed at raising the visibility of the panels and thereby increasing their effectiveness in serving the industry.

The name change, however, is only the most visible part of the plan. The Board also asked each CMA member company to appoint a senior corporate contact who can serve as liaison for specific chemical issues and maintain awareness of pertinent panel activities. We hope that the contacts will become advocates within their companies for assignment of the full complement of personnel and financial resources to panel participation.

To amplify its action, the Board encouraged conscious attempts to broadcast panel achievements and chemical-specific advocacy opportunities widely to the industry. Already the CMA publications, CMA News and Chemecology, have responded with feature articles on CHEMSTAR Panels. A long-term effort is underway to encourage more panel-sponsored workshops and seminars and to ensure frequent presentations of panel outcomes and opportunities at CMA forums.

Successes at All Levels

The Board's actions are, after all, based on the many significant successes of the panels in an ever-expanding regulatory environment over the years. The year 1988-89 was no exception in providing complex regulatory and research challenges. The panels nonetheless achieved major gains while addressing the multiple state, federal and international statutes affecting individual chemicals.

To illustrate: At the state level, the Biocides Panel saved industry nearly $3 million dollars in testing costs by negotiating an exemption from California Senate Bill 950 data call-in requirements for selected biocides. The exemption also resulted in better coordination of data requirements between the California Department of Food and Agriculture and EPA. At the federal level, the Methylenedianiline Panel saved individual companies thousands of dollars in compliance costs, and avoided unnecessary workplace restrictions and medical surveillance provisions by negotiating a workplace standard on MDA with labor unions and OSHA. The negotiation process eliminated the need for costly comment filing and testimony. At the international level, the Lubricant Additives Panel saved companies thousands of dollars in costs of compliance with International Maritime Organization marine transport regulations by completing a testing program on several classes of additives. The data were used by IMO for assignment of pollution categories to the chemicals, which in turn dictate transport and bulk cargo handling procedures.

Robert A. Roland
President
Chemical Manufacturers Association

Because Cooperation Works . . .

the key to panel effectiveness is cooperation -- among companies and with other associations, interest groups and government agencies. Each of the successes above, and the other achievements highlighted in this report, have this essential characteristic.

Product stewardship, long a chemical industry emphasis, also is receiving a large boost from cooperative arrangements among companies. Increasingly, existing panels are adding regular sessions for sharing of safe handling and transportation information to their schedules. The Phosgene and Titanium Dioxide Panels are prime examples. New panels, most recently Hydrogen Fluoride and Phenol, have formed for the express purpose of providing a forum for sharing safety information. The panels hold sessions aimed at bringing the latest experiences and safety techniques to the attention of key company personnel responsible for product handling.

Even in Litigation . . .

by selective participation in legal challenges, CHEMSTAR panels have helped shape, correct and clarify a variety of regulations. Intervening in legal actions as a means of cooperation with other industries or government agencies has improved the regulatory environment. The Dibenzofurans/Dibenzodioxins Panel's intervention in a lawsuit on behalf of EPA against two environmental groups was rewarded with a favorable ruling by the Federal Court. EPA's right to set its own priorities in the face of citizen petitions under TSCA was affirmed, and the Agency and industry are less subject to impromptu, unmandated regulatory influences.

Even outcomes of law suits initiated by individual panels have had cooperative effects. For example, the favorable judgment in the Phthalate Esters Panel's litigation regarding inappropriate inclusion of three phthalates on the SARA Section 302 hazardous chemicals list saved panel companies from extensive reporting and labelling requirements. As a further cooperative benefit of the ruling, 37 other chemicals were removed from the list in addition to the phthalates in question.

And Internationally . . .

cooperation in sponsoring atmospheric research among companies of different countries has long been the principal purpose of the Fluorocarbon Panel. By cofunding projects with NASA and other U.S. and foreign government agencies, such as the Arctic Stratospheric Airborne Expedition conducted in January, the Panel contributes to the world-wide stratospheric research effort. As a result, Panel companies continue to hold respected positions in the international dialogue on regulation of chlorofluorocarbons.

In product health effects testing, the Chlorobenzenes and Fluoroalkenes Panels this year entered cofunding arrangements with Japanese and Belgian companies, respectively. At year's end, the U.S. manufacturers of dinitrotoluenes requested a panel to cosponsor testing with the German manufacturer, Bayer AG. In all these joint testing arrangements, the financial and personnel economies of cooperation are major benefits to the participating companies.

With People as Key

Panels are the people who run them -- making the decisions, contributing their skills and planning for the future. The achievements of the panels then, are based in yet another cooperation: between individuals who represent the member companies. In 1988-89 over 300 people participated in panel activities. The representatives established and sustained the professional relationships that led to panel successes.

The future promises more . . . more regulations at all government levels, more panels to address the regulations and more company representatives to participate in the panels. At the state level, the need to address Proposition 65 remains, along with a variety of other regulations in California and other states. At the federal level, EPA has announced plans for increased testing requirements under TSCA. In addition, FIFRA, SARA and Clean Air Act regulations will impact a greater number of chemicals than ever before. And at the international level, plans for intergovernment cooperation through the Organization for Economic Community Development are leading toward extensive testing of chemicals by companies worldwide.

To meet these challenges existing panels will need to expand their focuses and some new panels will have to be formed. A larger group of company experts will be required to address the complicated tasks ahead. With the experience already on hand to serve as a guide, we look forward to a successful coming year.

June 1989

NEW AND COMPLETED PANELS

During 1988-89, companies requested and received CMA approval for six new CHEMSTAR Panels. Reasons for forming the panels varied from proposed or actual testing regulations to voluntary company decisions to share information on enhancing safety in manufacturing, transportation, and use of chemicals. All six panels are now fully organized and proceeding toward their initial objectives.

Three panels completed their efforts. Two of these panels made provisions for transferring future issues to other groups with related concerns.

Organizational Meeting: Crystalline Silica Panel Diisocyantes Panel

Crystalline Silica

DATE CHARTERED
1989

CURRENT TASK GROUPS
Administrative
Analytical Methods
Science Review
Regulatory and Legal

CHAIRMAN
Joseph Shapiro
Unimin Corporation

PANEL MANAGER
Elizabeth Gormley

The Panel formed to address the classification of crystalline silica as a probable human carcinogen by the International Agency for Research on Cancer. This classification makes crystalline silica users subject to the OSHA Hazard Communication Standard. In addition, the National Toxicology Program recently proposed listing the chemical on its Sixth Annual Report on Carcinogens. The Panel filed for an extension of the comment period to await information from two literature critiques that Panel companies approved for funding.

The Panel's first priority is to determine the adequacy of scientific research on the health effects of crystalline silica. Panel members plan to monitor and respond to technical, regulatory, and legal issues as they appear.

Diisocyanates

DATE CHARTERED
1988

CURRENT TASK GROUPS
Industrial Hygiene
Health Effects

PANEL MANAGER
Robert Romano

CHAIRMAN
James Chapman
Mobay Corporation

The Panel formed in response to an EPA proposal to regulate the isocyanate process as a hazardous air pollutant under the Clean Air Act Section 112. In addition, the Agency announced preparation of Health Assessment Documents on toluene diisocyanate and methyl isocyanate. The State of California also announced its review of toluene diisocyanate with intent to list as a carcinogen under Proposition 65.

The overall goal of the Panel is to develop and disseminate information on the safe handling of diisocyanates, including: toluene diisocyanate; methylenebisdiphenyl diisocyanate; hexamethylene diisocyanate; and, methylenebisdicyclohexyl diisocyanate. The Panel also will monitor impending regulations affecting the production or use of diisocyanates and develop necessary responses.

The Panel is working with EPA to ensure that the Agency has all data necessary to make informed decisions during consideration of Clean Air Act regulations.

Dinitrotoluenes

DATE CHARTERED
1989

CURRENT TASK GROUP
Toxicology

PANEL MANAGER
Barbara Francis

CHAIRMAN
Thomas Marriott
Air Products and Chemicals, Inc.

The Panel formed to work with Bayer AG on a voluntary testing program. Representatives of the U.S. EPA and F.R.G. government agencies identified DNT as a possible subject for cooperative testing between companies in the two countries. The agencies' stated objectives were to promote sharing of the cost of research and to ensure the availability of adequate hazard data in both the U.S. and the F.R.G. The Panel and Bayer agreed to undertake a pilot pharmacokinetics project in response to the agencies' request.

The pharmacokinetics study will begin in late 1989. Final reports will be submitted to agencies in both countries. The Panel intends to continue interacting with the agencies in an effort to assess the need for additional testing.

Hexamethylene Diisocyanate

DATE CHARTERED
1988

CURRENT TASK GROUP
Toxicology

PANEL MANAGER
Carol Stack

CHAIRMAN
Donald Lamb
Mobay Corporation

The Panel formed to address the inclusion of HDI in the Interagency Testing Committee's priority list of chemicals for testing under TSCA Section 4. ITC designated the chemical for response by EPA within 12 months. EPA's proposed test rule for HDI requires oncogenicity, mutagenicity, reproductive toxicity, developmental toxicity, and neurotoxicity studies. In addition, the proposal includes comparative pharmacokinetics and hydrolysis testing.

The Panel provided information to the Agency following a public focus meeting in June. Afterward, the Panel submitted comments in response to the proposed test rule.

Hydrogen Fluoride

DATE CHARTERED
1988

CURRENT TASK GROUPS
Storage and Systems
Personal Protective Equipment
Medical Treatment
Responsible Care-Risk Communications
Materials of Construction
Mutual Aid-Emergency Response
Transportation

CHAIRMAN
S C Watkins
Allied-Signal Inc

PANEL MANAGER
Elizabeth Gormley

The Panel formed to provide a forum for U.S. and Mexican producers and shippers to share information on safety in the manufacture and transportation of, and emergency response procedures for, hydrogen fluoride. The Panel will monitor regulatory activities by government agencies and respond when necessary.

In September, the Panel sponsored a Safety Seminar to alert company personnel to new safety technology and techniques. The Seminar will be an annual event. The Panel also has established liaison with the Comite Technique Europeen du Fluor of the Conseil Europeen des Federations de l'Industrie Chimique in order to share safety information with European manufacturers.

Phenol

DATE CHARTERED
1988

CURRENT TASK GROUP
Regulatory

PANEL MANAGER
Susan Howe

CHAIRMAN
Edwin Frami
Dow Chemical USA

The Panel formed to promote greater safety in the production, transportation and use of phenol. Member companies exchange non-proprietary safety information on topics such as transportation training, tank car handling, exposure treatment, sampling systems, emergency response procedures, and waste disposal. Health and environmental concerns about phenol are addressed by the Regulatory Task Group.

The Panel plans to sponsor research programs, symposia, and workshops on safe handling. In the near future, the Panel also will develop criteria and present awards recognizing worker safety excellence at phenol-producing plants.

Arsenic
(Completed Panel)

DATE CHARTERED
1981

CURRENT TASK GROUPS
None

PANEL MANAGER
Has Shah

CHAIRMAN
Donald McGraw
Koppers Company

The Panel received a draft final report from Consultants in Epidemiology and Occupational Health on the analysis of epidemiologic data on Anaconda smelter workers. The purpose of this Panel-sponsored analysis was to assess whether the risk of respiratory cancer death was dependent upon a worker's highest arsenic exposure assignment category. The analysis of the data, while raising questions about the original study, appears to support a threshold model for carcinogenicity. After review, the Panel accepted the draft report.

The Panel formed to address the impact of OSHA and EPA regulations on manufacturers and users of arsenic, and to sponsor appropriate research. The Panel completed its advocacy and research goals and decided to sunset in May.

Epoxy Resins
(Completed Panel)

DATE CHARTERED
1981

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Has Shah

CHAIRMAN
Harold Flegenheimer
Interchem. Inc

No new activities were undertaken by the Panel this year. Previous Panel activities included the collection and evaluation of production, use, exposure, environmental release, and health effects information on epoxy diluents represented in the category, "glycidol and its derivatives." In 1984, the Panel submitted this information to EPA in response to the Agency's Advance Notice of Proposed Rulemaking seeking guidance on the selection of representative chemicals for testing of this chemical category.

In 1978, the Interagency Testing Committee designated the category for priority consideration by the Agency under TSCA Section 4. The ITC recommended testing for carcinogenicity, mutagenicity, teratogenicity, other toxic effects, and epidemiology.

The Panel decided to disband in March and merged its activities with the Epoxy Resins System Task Force of the Society of Plastics Industry.

Octylphenol
(Completed Panel)

DATE CHARTERED
1983

CURRENT TASK GROUPS
None

PANEL MANAGER
Henry Sauer

CHAIRMAN
Ronald Keener
Rohm and Haas Company

The Panel decided to terminate following EPA's acceptance of a series of aquatic studies sponsored by the Panel under a voluntary negotiated agreement with the Agency.

The Panel formed in 1983 in response to EPA's request for testing under TSCA Section 4. In 1982, the Interagency Testing Committee designated octylphenol for priority testing under TSCA Section 4 and recommended studies on health and environmental effects and chemical fate.

Further interests of octylphenol producers will be pursued by the Alkylphenols and Ethoxylates Panel, which formed recently to respond to EPA concerns under TSCA about nonylphenol and related chemicals. In addition, the EPA Office of Water Regulations and Standards expressed interest in regulating alkylphenols, including octylphenol. Panel companies joined producers of nonylphenol and alkylphenol ethoxylates in the new panel in order to provide a coordinated industry response to this Agency effort.

Forty-seven CHEMSTAR Panels are now officially approved by CMA. Each sanctioned panel operates under a charter which defines its scope within the framework of the Association's generic interests. Panel membership rosters during 1988-89 included 223 companies and 13 associations. Among the company members, 104 were members of CMA and 19 were non-U.S. and non-Canadian. Participating companies and associations were represented on panels and task groups by approximately 340 persons with professional skills ranging from physical and biological sciences, through engineering and industrial hygiene, to legal and business areas. Besides the association members, the panels maintained liaison with a total of 45 other associations.

Alkanolamines

DATE CHARTERED
1982

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Henry Sauer

CHAIRMAN
Edward Bentley
Texaco Chemical Company

No new activities were undertaken by the Panel this year. EPA, under TSCA Section 8(d), required manufacturers and importers of triethanolamine and diethanolamine to provide information on production, use, and exposure and to submit lists and copies of unpublished health and safety studies. Also, the National Toxicology Program initiated two-year chronic studies of triethanolamine using skin painting with rats and male mice.

The Panel formed to determine the toxicological properties and environmental effects of alkanolamines in response to concern raised by a Japanese study implicating triethanolamine as a possible carcinogen. The Panel sponsored toxicology studies on the chemical and tentatively planned research on other alkanolamines. The Panel will monitor the NTP research programs as guidance for its own future testing.

Alkylphenols and Ethoxylates

DATE CHARTERED
1987

CURRENT TASK GROUPS
Environmental Survey
Modeling Study
Toxicology

PANEL MANAGER
Henry Sauer

CHAIRMAN
Jay Ansell
GAF Corporation

The Panel provided EPA with the results of two voluntary studies on environmental monitoring and modeling. The studies were sponsored to investigate the presence of nonylphenol ethoxylate species in the discharge of municipal sewage treatment plants, receiving waters, and sediments at two selected river sites. The Exposure Analyses Modeling System was applied to these data to investigate differing environmental conditions and waste treatment plant types. In cooperation with EPA, the Panel also developed a protocol for a national environmental monitoring survey. The Panel then initiated the survey, and notified the Agency of its intentions to negotiate a consent order under TSCA Section 4 for testing nonylphenol.

The Panel formed to determine the health and environmental effects of alkylphenols and ethoxylates in manufacture and use. Initial efforts focused on responding to EPA concerns regarding the chemical fate and environmental effects of nonylphenol. The Panel maintains liaison with the Soap and Detergent Association on scientific and regulatory issues. Membership is open to manufacturers, users, and formulators.

Results from the voluntary national environmental monitoring program will be available in early 1990. The Panel also plans to execute a consent order and complete chemical fate and environmental effects testing with nonylphenol by early 1990.

Aromatic Diamines

DATE CHARTERED
1987

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Carol Stack

CHAIRMAN
Robert Smith
Ethyl Corporation

The Panel investigated potential areas of research to clarify differences in the biological activity of substituted aromatic diamines. Panel toxicologists and CIIT scientists conferred on the development of a testing program.

The Panel formed to develop a strategy acceptable to EPA for achieving PMN approvals without a long-term bioassay on each new product. Currently, very limited structure-activity data exist to refute the Agency's assumption that all substituted aromatic diamines are potentially carcinogenic. The Panel is planning research to explore how substitution on the aromatic diamine ring affects carcinogenic potential.

Benzene

DATE CHARTERED
1976

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Carol Stack

CHAIRMAN
Roger Daniel
Dow Chemical USA

Panel member companies worked closely with the CMA Hazardous Air Pollutants Work Group in developing comments on an EPA proposal for limiting benzene emissions from four stationary source categories. These categories include: ethylbenzene/styrene plants; storage vessels; coke oven by-product facilities; and fugitive emissions. The proposals reflect the Agency's new approach to standard-setting under the Clean Air Act. EPA described four alternative approaches to determining a safe and acceptable level of risk in the proposal. The chosen approach may have a large impact on future standard-setting. Final rules are expected to be published by fall 1989.

The Panel also submitted benzene emissions data to EPA for use in redefining model plant emissions estimates and evaluating the present level of risk. The Agency requested information on process and storage tank emissions, controls, and fugitive emissions. Subsequently, the Panel responded to an Agency request for information on additional benzene source categories to assist the determination of whether Clean Air Act Section 112 regulation is necessary. The Agency is under a court order to make a decision in August 1989.

Since its formation, the Panel has pursued an active research and advocacy program. Responding to a NIOSH occupational study linking benzene exposure to leukemia, the Panel sponsored an industry epidemiology study in 1983. Also, in cooperation with the American Petroleum Institute, the Panel established a research program examining sub-chronic toxicity, metabolism and reproductive effects. Although Panel attention will remain focused on Clean Air Act regulations, further mechanistic research on benzene-induced leukemogenesis is contemplated in conjunction with API.

Biocides

DATE CHARTERED
1986

CURRENT TASK GROUPS
Legislative
Scientific
Assessment
Regulatory
Exposure
Specific Chemicals

PANEL MANAGER
Has Shah

CHAIRMAN
Jane Yuster
Troy Chemical
Corporation

In the fall, the Panel identified concerns with the proposed FIFRA Amendments being considered by Congress. The Panel worked with the CMA Government Relations Committee in supporting industry-accepted proposals for modifying the reauthorization Amendments. When Congress passed the legislation, these modifications were incorporated.

EPA solicited Panel comments on its draft Instruction Booklet, containing general information on applying for registration of pesticides in the U.S. The Panel reviewed the draft and submitted comments to the Agency on the Booklet's guidance to those seeking pesticide registrations, experimental use permits, and tolerances. EPA has promised to incorporate these comments.

The Panel filed comments with the Office of Management and Budget on the EPA requests for approval of the draft Reregistration Phase 2 Guidance document. In its comments, the Panel asked OMB to disapprove the Agency's request. The Panel felt that the Agency dramatically underestimated the economic impact of the reregistration requirements, and was attempting to revise substantive regulations without following appropriate notice and comment procedures. OMB agreed with the Panel's view and asked the Agency to revise the Document. The revised Document eliminated most industry concerns.

The Exposure Assessment Task Force began developing antimicrobial exposure data for various end-use patterns as required by a FIFRA antimicrobial data call-in issued by EPA. The study is expected to be completed in the fall. The Task Force also obtained an interim waiver from the Agency in conducting post-application exposure assessments for metal working fluids, based on technical difficulties in conducting the assessments.

The Panel filed comments with OSHA on the Hazard Communication Standard for Formaldehyde, supporting

a proposed administrative stay of the provisions. The Agency granted a nine-month stay of the standard based on all comments received. During this period, OSHA will propose to revoke certain paragraphs of the standard and invite comments on a proposal to apply the general Hazard Communication Standard to formaldehyde.

The Arsenic Acid Task Force completed glove and protective clothing permeability studies on arsenic acid and inorganic arsenical wood preservatives. The results showed no measurable permeation of arsenic or chromium through the tested materials. In August, EPA issued Guidance for the Reregistration of Wood Preservative Products Containing Arsenic, Chromium, and Chromated Arsenical Compounds as the Active Ingredients. The Task Force responded by identifying serious concerns, including overlapping data call-ins, inappropriate test material designations, and unsuitable labeling requirements. The Agency has not yet responded to the Task Force's requests for modification of the standard.

The Panel formed in 1986 in response to the California Department of Food and Agriculture Data Call-In Notices on biocidal chemicals registered in the state. The DCI required that registrants submit data on chronic toxicity, oncogenicity, reproductive effects, teratogenicity, mutagenicity, and neurotoxicity. The Panel's goal is to address issues associated with this regulation and any other regulatory actions affecting biocides.

The Panel will continue monitoring FIFRA legislative activities, and will work with the California DFA to clarify data call-ins issued under the Birth Defect Prevention Act, and monitor California Proposition 65 activities. Panel task forces will monitor federal and state activities that may specifically impact their focuses.

Butadiene

DATE CHARTERED
1984

CURRENT TASK GROUPS
Toxicology Research
Industrial Hygiene
Environmental

PANEL MANAGERS
Robert Toro and
Robert Romano

CHAIRMAN
James Bonin
Shell Chemical Company

The Panel sponsored a fugitive emissions study in response to the EPA announcement of an intent to list 1,3-butadiene as a hazardous air pollutant under the Clean Air Act. The objective of the study was to measure and quantify emissions for SARA Section 313 reporting and risk assessment. The study has become a model in the field of quantifying fugitive emissions. Results showed that actual emissions are at least 80% less than earlier Agency estimates. The Panel also maintained liaison with OSHA on the butadiene workplace standard under review. In a subsidiary activity, the Panel submitted petitions for delisting ethylene and propylene under SARA Section 313.

The Panel formed in the aftermath of an EPA consideration of butadiene under TSCA Section 4(f). The Panel aimed to collect and evaluate information needed to assess safety, environmental, and health issues arising from production, storage, transportation, use, and disposal of butadiene. The Panel provided comments to the Agency on two risk assessments and worked with the Agency in assessing "short-term" releases of butadiene. EPA then referred butadiene to OSHA under TSCA Section 9(a).

The Panel will present the final results of the fugitive emissions report to EPA and will follow the development of the OSHA workplace standard. In addition, the Panel plans to develop research strategies and monitor ongoing research pertaining to butadiene, including both animal and epidemiology studies.

Butylated Hydroxytoluene

DATE CHARTERED
1977

CURRENT TASK GROUPS
None

PANEL MANAGER
Susan Howe

CHAIRMAN
John Zora
Neville-Synthese Organics

The Panel followed up on its Citizen Petition filed in 1986 which requested that the FDA issue a regulation recognizing a prior sanction for use of butylated hydroxytoluene. To supplement the Petition, the Panel provided information to FDA on a comprehensive research program undertaken by the European BHT Manufacturers Association. The data from this research program will aid in evaluating the potential for human carcinogenicity. The FDA has not yet announced a date for its decision on the Petition

The Panel organized to conduct research and advocacy necessary to support the continued use of BHT in food additive applications. In 1978, the Panel filed comments in response to an FDA proposal for interim regulations requiring testing to resolve safety questions. To date, FDA has not issued an interim regulation.

The Panel will cooperate with the FDA in its current evaluation of BHT and may develop additional scientific information, if appropriate. The Panel also will continue its advocacy on BHT through its liaisons with the European BHT Manufacturers Association and the U.S. FDA.

Chlorine Dioxide

DATE CHARTER
1988

CURRENT TASK GROUPS
Communication
Technical
Regulatory
Toxicology

PANEL MANAGER
Robert Romano

CHAIRMAN
William Scott
Albright & Wilson Americas

The Panel completed a literature survey on the toxicological effects of chlorine dioxide and sodium chlorite. To comply with a 1988 FIFRA data call-in on chlorine dioxide and sodium chlorite, the Panel sponsored full, raw data reviews on an 85-week bioassay in mice conducted in Japan, and on a rat teratology study conducted at Ohio State University.

The Panel formed in anticipation of an EPA proposal to regulate chlorine dioxide under the Safe Drinking Water Act by 1991. In addition, the State of California contracted for a risk assessment on chlorine dioxide and sodium chlorite. The Panel aims to gather, review, generate, and disseminate information on chlorine dioxide and its precursors, sodium chlorite and sodium chlorate. The Panel monitors and interacts with regulatory agencies and fosters scientific communications. Primary focuses of the Panel are generation, applications, health effects, safety, and test methods.

Future Panel activities include sponsoring a teratology study in rabbits for submission to EPA. Panel representatives will continue to interact with FIFRA and Office of Drinking Water staff on research issues. The Panel will cosponsor with EPA an international symposium on chlorine dioxide in Denver, Colorado in November 1989.

Chlorobenzenes

DATE CHARTERED
1974

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Carol Stack

CHAIRMAN
James Bryant
Standard Chlorine Chemical Co., Inc.

The Panel sponsored research to meet testing requirements under TSCA Section 4 and a FIFRA Data Call-In. The Panel completed the following studies: reproduction and fertility studies on 1,2- and 1,4-dichlorobenzene and 1,2,4,5-tetrachlorobenzene; 90-day subchronic feeding studies on 1,2,4-trichlorobenzene in rats and mice; acute toxicity studies on 1,2,3- and 1,2,4-trichlorobenzene in marine and freshwater organisms; and, hydrolysis studies on 1,2-dichlorobenzene and 1,2,4,5-tetrachlorobenzene. The Panel submitted the final reports to EPA.

In 1987, the EPA Office of Pesticides Programs issued a data call-in on 1,4-dichlorobenzene. Some required studies are in progress and others are in the planning stage. Studies in progress include: acute toxicity to a freshwater invertebrate and fowl; a 21-day dermal study in rats; and, a comparative pharmacokinetics study.

The Panel formed to sponsor voluntary research on chlorobenzenes. The focus on research remains, but now the emphasis is on completing mandated research on health and environmental effects. The Panel continues to provide technical support for the advocacy activities of the Chlorobenzenes Producers Association, an affiliate of the Synthetic Organic Chemical Manufacturers Association.

The Panel's TSCA testing program will continue with the chronic studies of 1,2,4-trichlorobenzene. The other primary activity will be the studies of 1,4-dichlorobenzene required under FIFRA. The Panel will consider conducting an epidemiology study of workers exposed to this chemical.

Cresols

DATE CHARTERED
1984

CURRENT TASK GROUP
Toxicology
Research

PANEL MANAGER
Barbara Francis

CHAIRMAN
Johnny Walbrick
Merichem Company

The Panel has nearly completed testing of three cresol isomers in compliance with a TSCA Section 4 test rule. Draft reports on mutagenicity testing and reproductive effects are currently being reviewed for submission to EPA later this year.

Since its formation, the Panel has worked with the Agency's Test Rules Development Branch, Office of Solid Waste, and the National Toxicology Program to ensure that logical and scientifically sound testing programs are conducted on cresols.

After submission of all reports required under the test rule, the Panel will maintain liaison with EPA to track and assist analyses of the data by Agency scientists.

Cumene

DATE CHARTERED
1985

CURRENT TASK GROUPS
Toxicology Research
Mutagenicity

PANEL MANAGER
Barbara Francis

CHAIRMAN
Gene Hamilton
Georgia Gulf Corporation

In compliance with a TSCA Section 4 Test Rule issued in July 1988, the Panel initiated testing of health effects, environmental effects, and chemical fate. Because Tier I mutagenicity tests voluntarily submitted to EPA by the Panel were negative, no higher-tier mutagenicity or oncogenicity testing is required under the Rule. The Panel expects most of the required testing to be completed in 1990.

Through a judicial challenge, the Panel is seeking definition of "substantial" exposure limits by which the Agency can require testing under TSCA Section 4(a)(1)(B). The case was argued in the New Orleans, Louisiana Court of Appeals in June 1989, and a decision is expected in the near future. The issue

presented has possible ramifications for all chemicals in which testing might be required solely on the basis of "substantial human or environmental exposure."

The Panel formed as a result of the Interagency Testing Committee's designation of cumene for priority testing. The Panel's objective is to collect information that will allow for the assessment of health and environmental effects arising out of the production, storage, use, and disposal of cumene

The Panel will continue to sponsor testing and interact with EPA scientists in the assessment of possible further testing needs.

Cyclohexane

DATE CHARTERED
1985

CURRENT TASK GROUPS
Toxicology Research
User Exposure Survey

PANEL MANAGER
Henry Sauer

CHAIRMAN
Russell Cook
Phillips Chemical Company

EPA denied the Panel's petition to delist cyclohexane from toxic chemical release reporting under SARA Section 313. The Agency denied the petition due to the contribution of cyclohexane releases to total industrial air emissions from volatile organic compounds. The Panel also obtained proposals from qualified laboratories to conduct health effects testing.

Manufacturers formed the Panel to address the Interagency Testing Committee's intent to designate cyclohexane for priority testing under TSCA Section 4. EPA formally designated the chemical for health effects testing in 1986.

The Panel will work with the Butadiene Panel to develop specific language for recommended legislative action on SARA Section 313. The language will aid in clarifying the VOC issue and will eliminate the need for unnecessary reporting. The Panel also is preparing for the TSCA Section 4 test rule expected from EPA in December.

Dibenzofurans/ Dibenzodioxins

DATE CHARTERED
1984

CURRENT TASK GROUPS
None

PANEL MANAGER
Elizabeth Gormley

CHAIRMAN
Kenneth Burgess
The Dow Chemical Company

The Environmental Defense Fund and the National Wildlife Federation appealed the 1988 summary judgement of their lawsuit against EPA. In the suit, EDF and NWF had sought to force the Agency to initiate a TSCA Section 6 rulemaking on dioxins. The Federal Court ruled in favor of the Agency's right to "set its own priorities" in the face of citizens' petitions. The Panel is monitoring the appeal because it intervened in support of the Agency in the lawsuit.

The Panel formed when EDF and NWF filed the TSCA Section 21 Petition. In addressing the EPA response, the Panel commented to the Agency on proposed rules under TSCA Sections 4 and 8. Final rulemakings on the two sections require analyses of chemicals for the presence of dibenzofurans and dibenzodioxins as impurities and reporting of production, processing, use, exposure, and disposal data.

Future activities for the Panel include monitoring the recommendations of the EPA Science Advisory Board on the Agency's risk specific dose document. The Panel also will continue monitoring the Court of Appeals challenge in the EDF/NWF v EPA suit. Future activities are dependent upon the Court's decision.

Ethylene Dibromide

DATE CHARTERED
1982

CURRENT TASK GROUPS
None

PANEL MANAGER
Robert Romano

CHAIRMAN
Vernon White
Great Lakes Chemical Corporation

OSHA has not yet issued a final rule revising the Federal Occupational Standard for ethylene dibromide. The Panel therefore had no need to meet this year.

The Panel formed to address the OSHA Standard with the goal of ensuring that reasonable regulations are adopted. Once the rule is issued, the Panel will review the requirements and evaluate the effects on industry.

Ethylene Dichloride

DATE CHARTERED
1974

CURRENT TASK GROUPS
None

PANEL MANAGER
Henry Sauer

CHAIRMAN
Susan Hearn
Dow Chemical Company

The Panel continued monitoring the EPA review of ethylene dichloride under the Clean Air Act "intent-to-list" category as a hazardous air pollutant. The Panel also submitted recommendations to ATSDR for improving the draft Toxicological Profile for the chemical under SARA Section 110. In addition, the Panel submitted recommendations to OSHA on the final standard for permissible exposure limits for workplace exposure.

The Panel formed to address Federal and State agencies in all safety and health issues arising out of the production, distribution, and use of EDC. Initially, the Panel focused on evaluating scientific literature, identifying data gaps, and undertaking additional toxicological studies to improve the research data base. The Panel voluntarily sponsored studies of chronic inhalation, metabolism, and teratogenicity.

EPA's "intent to list" decision is due shortly. The Panel will review the proposal and provide comments. The Panel will continue to work with the EPA Office of Air Quality Planning and Standards to ensure that the proposal to regulate EDC emissions under the CAA is based on sound scientific data. The Panel also will track Safe Drinking Water Act regulations and the SARA Toxicological Profile in the coming year.

Ethylene Glycol

DATE CHARTERED
1986

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Carol Stack

CHAIRMAN
Dennis Macaulev
Union Carbide Corporation

As part of the third year of a voluntary research program, the Panel completed an oral (gavage) developmental toxicity study in mice and established a no-observed-effect level in this species . The Panel also completed a material balance and pharmacokinetics study in rats following single intravenous, peroral or percutaneous administration of ethylene glycol.

In addition, the Panel conducted a systematic review of the health effects data base on diethylene glycol, which summarized findings from acute, mutagenicity, reproduction, developmental toxicity, subchronic, and chronic studies. The Panel provided these findings to the NTP Division of Toxicology Research and Testing, for consideration in assessing research needs. NTP and the Panel independently decided not to pursue a testing program on the chemical at this time.

The Panel formed to augment the toxicological data base on ethylene glycol. In particular, the Panel focused on investigating the potential for developmental toxicity and pharmacokinetics research in mice and rats.

Research in these two areas will continue. A pharmacokinetics study in female mice is underway and an oral (gavage) developmental toxicity study in rats is scheduled to begin in July.

Ethylene Oxide

DATE CHARTERED
1981

CURRENT TASK GROUPS
Scientific
Industrial Hygiene
Environmental
Toxicology
Economic
Risk Assessment

PANEL MANAGER
Robert Romano

CHAIRMAN
Ronald Van Mynen
Union Carbide Corporation

The Ethylene Oxide Industry Council completed a fugitive emissions study with EPA. The study has become a model in the field of quantifying fugitive emissions. The objective of the study was to measure and quantify fugitive emissions at production facilities for use in SARA Section 313 reporting and risk assessments. Results show that actual emissions are at least 90% less than the Agency's previous estimates. Several scientific papers on the results of this study were presented at international conferences. The results also were shared with interested CMA Environmental Management Committee task groups for use in developing industry-wide policies on emissions.

The Panel formed to evaluate the results of an animal study that may affect OSHA and EPA regulatory proceedings. The EOIC addresses many regulatory and scientific activities in an effort to provide both agencies with enough information to make reasonable and scientifically sound decisions on regulatory controls.

The Panel is evaluating the feasibility of conducting a pharmacokinetics physiological modeling study. This summer, the Toxicology Task Group will attempt to identify laboratories that can perform the study.

A decision by EPA on a Clean Air Act Section 112 hazardous air pollutant listing is expected in December 1989. The EOIC will review and comment on the outcome. In addition, because ethylene oxide is included in the priority list of chemicals to be regulated, EOIC will track closely and comment on the implementation of California Proposition 65.

2-Ethylhexanoic Acid

DATE CHARTERED
1984

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Henry Sauer

CHAIRMAN
Roderick Gerwe
Tennessee Eastman Company

The Panel obtained a judicial review of the final test rule for 2-ethylhexanoic acid under TSCA Section 4. Although the Court upheld EPA's position, the review clarified the Agency's broad discretion to require testing on the basis of little information on either health effects or significant human exposure. The testing program required under TSCA Section 4 was completed by the Panel.

The Panel formed following the Interagency Testing Committee's designation of 2-ethylhexanoic acid for priority testing under TSCA Section 4. The Panel submitted data to the Agency documenting the uses and manufacturing processes associated with the chemical. Since EHA is used solely as a chemical intermediate and is manufactured and processed in a closed system, the Panel has focused on demonstrating that there is no significant human exposure.

The Panel will contribute to the Agency's review of health assessment guidelines for suspect developmental toxicants. The Panel also is planning a risk assessment.

2-Ethylhexanol

DATE CHARTERED
1986

CURRENT TASK GROUPS
Toxicology Research
Butyraldehyde

PANEL MANAGER
Has Shah

CHAIRMAN
Richard Wise
Union Carbide Corporation

The Panel initiated a two-year oncogenicity study in mice and rats required under a TSCA Section 4 test rule. On a voluntary basis, the Panel also completed a developmental toxicity evaluation of 2-EH in rats. There was no evidence of developmental toxicity at any dose level tested. In addition, the Panel voluntarily initiated

a pharmacokinetics study on 2-EH, but terminated it due to problems encountered in determining the purity of radio-labelled 2-EH.

In order to assist EPA in assessing exposure to butyraldehyde, the Panel formed a Butyraldehyde Task Force. The Interagency Testing Committee recommended health and ecological effects testing on butyraldehyde if there is significant worker and general population exposure to the chemical.

The Panel formed to address a TSCA Section 4 test rule issued by EPA at the request of the National Toxicology Program. NTP requested this testing when budget cuts forced the cancellation of its two-year rat and mouse bioassay on 2-EH. The final rule was published in August.

The Panel will continue to monitor the progress of the oncogenicity study and will decide if a pharmacokinetics study should be repeated.

Fluoroalkenes

DATE CHARTER
1987

CURRENT TASK GROUPS
Specific Chemicals Producers
Specific Chemicals Toxicology

PANEL MANAGER
Barbara Francis

CHAIRMAN
Roland Stahl
E I du Pont de Nemours & Co.

The Panel is conducting tests required under TSCA Section 4. EPA required testing of four fluoroalkene monomers in the areas of mutagenicity, subchronic toxicity, and oncogenicity. The monomers are vinyl fluoride, vinylidene fluoride, hexafluoropropene, and tetrafluoroethene. The Panel submitted final reports for all completed studies to EPA for review. Oncogenicity testing of vinylidene fluoride and vinyl fluoride is underway.

In July, the Panel presented comments at a Fluoroalkenes Public Program review concerning triggered mutagenicity and oncogenicity testing under the final test rule. The Panel is awaiting the Agency's decision on whether an oncogenicity study will be required for HFP, and mouse-specific locus assay for vinyl fluoride.

The manufacturers originally formed a coalition to address the ITC's 1980 designation of fluoroalkenes for priority testing consideration under TSCA Section 4. The coalition reorganized as a panel under the auspices of CMA after the test rule was final.

The Panel will continue to sponsor required tests and will interact with EPA in the evaluation of testing requirements.

Fluorocarbons

DATE CHARTERED
1972

CURRENT TASK GROUPS
Atmospheric Sciences
External Affairs
Effects

PANEL MANAGER
Elizabeth Gormley

CHAIRMAN
S Robert Orfeo
Allied-Signal Corporation

The Panel completed a written review of the science of chlorofluorocarbons in the atmosphere, which included the results of the Arctic and Antarctic missions and the Ozone Trends Panel report. Based on current scientific information, the Panel concluded that a complete phase-out of chlorofluorocarbons is warranted. However, the extent of CFC reduction and broad global participation in the phase-out are more important than timing.

The Panel funded the preparation of a monograph on biological health effects, which was submitted to UNEP, and co-funded the Airborne Arctic Stratospheric Experiment. The Panel has been focusing attention on how to improve the current network measuring UVB radiation reaching the earth's surface. Other Panel activities included hosting a workshop and funding research on the factors which control UVB penetration to ground level, including the role of cloud cover and the design of new instrumentation.

The Panel formed to fund research to determine the environmental fate of CFCs. To date, the Panel has supported more than $24 million of research. Sponsored studies have addressed atmospheric chemistry, atmospheric measurements, modelling, and trend analysis. The Panel's focus has broadened in recent years to include monitoring developments of research in the climate/greenhouse and biological effects areas. The Panel also has played an important role in funding the development of more sophisticated equipment, such as the microwave instrument used to detect chlorine monoxide.

In the coming year the Panel will focus its efforts on completing its work in progress as industry turns its attention to developing alternatives to CFCs.

Glycol Ethers

DATE CHARTERED
1980

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGERS
Carol Stack and Robert Toro

CHAIRMAN
Richard Wise
Union Carbide Corporation

The ethylene glycol ethers that continued to dominate the Panel's research activities were ethylene glycol monobutyl ether, diethylene glycol butyl ether and its acetate, and triethylene glycol monomethyl ether. Studies to investigate the hemolytic mechanism(s) of EGBE in rats are in progress, and similar in vitro studies are planned to evaluate human effects. The Panel also contracted with a public relations firm to produce a brochure on EGBE which dispels some of the misunderstandings concerning the chemical and human health.

In response to a TSCA Section 4 test rule on DGBE/DGBA, the Panel initiated a 90-day subchronic and fertility study on DGBE, a neurotoxicity study on DGBE, and dermal pharmacokinetics studies on DGBE and DGBA. The subchronic and neurotoxicity studies have been completed. Technical problems forced delays with the pharmacokinetics studies; however, the studies will be underway again shortly.

The Panel negotiated a consent order in lieu of a TSCA Section 4 test rule to perform health effects testing on triethylene glycol monoethyl ether. The purpose of this three-year testing program is to characterize the genotoxicity, developmental toxicity, subchronic toxicity, and subchronic neurotoxicity of the chemical. In another TSCA Section 4 activity, EPA issued a final test rule requiring developmental neurotoxicity testing on TGME. The Panel will initiate the test after EPA publishes its receipt of TGME developmental toxicity data.

The Panel's regulatory activities include tracking an OSHA rulemaking on 2-methoxyethanol, 2-ethoxyethanol and their acetates. An OSHA Notice of Proposed Rulemaking is anticipated. The Panel also commented on the listing of these glycol ethers as reproductive toxicants under California Proposition 65 regulations.

The Panel formed to develop an adequate toxicity data base, provide information to users and government

agencies on the safety of the chemicals, and promote scientifically sound regulatory action. The Panel addresses these issues and continues to build on its accomplishments.

The Panel will continue responding to EPA-mandated test rules under TSCA Section 4 and is supporting testing required under the TGME consent order. Producers of the glycol ethers of concern to OSHA will respond to the NPR when it issues. The Panel also will continue monitoring air and water regulations in California.

Hydroquinone

DATE CHARTERED
1984

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Henry Sauer

CHAIRMAN
Robert Brothers
Eastman Kodak Company

The Panel completed pharmacokinetics, neurotoxicity and developmental toxicity studies as part of requirements under a TSCA Section 4 test rule. The Panel also participated in peer review of the National Toxicology Program carcinogenesis studies with rats and mice.

The Panel formed in response to a proposed TSCA Section 4 test rule published by EPA in 1984. Subsequently, the Panel submitted extensive comments to the Agency and presented data at the rulemaking hearing. In addition, the Panel voluntarily sponsored a study to assess the potential developmental effects from exposure to hydroquinone.

Two-generation reproductive effects testing with rats will be completed and the results submitted to EPA before January 1990.

Isopropanol

DATE CHARTERED
1987

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Robert Toro

CHAIRMAN
James Quance
Exxon Chemical Americas

The Panel developed a research plan for the determination of isopropanol pharmacokinetics in rats and mice, in anticipation of a test rule under TSCA Section 4. Pharmacokinetics studies will be conducted with the rat under the proposed test rule and the Panel will voluntarily conduct a second study with the mouse. Data obtained in these studies should be useful in extrapolating toxicity data relating isopropanol to specific toxicity endpoints.

The Panel formed to address concerns regarding isopropanol raised by the ITC in its 19th Report to the EPA Administrator. The ITC formally designated the chemical for testing under TSCA Section 4 in 1987.

The Panel will continue interacting with EPA to resolve any technical problems related to the test rule. The rule is expected in late 1989.

Ketones

DATE CHARTERED
1980

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Robert Toro

CHAIRMAN
James Quance
Exxon Chemical Americas

The Panel presented oral and written comments addressing health effects and feasibility issues raised in the OSHA proposed rule to amend existing air contaminant standards for acetone. The Panel also submitted petitions to delist methyl ethyl ketone and methyl isobutyl ketone under SARA Section 313. In anticipation of a mesityl oxide rulemaking under TSCA Section 4, the Panel reevaluated exposure to MO as a site-limited intermediate in production facilities. The Panel will submit exposure data to EPA from companies producing MO as a by-product.

The Panel formed to address EPA activities on MIBK, MEK, isophorone, and MO under TSCA Section 4. The Panel negotiated testing programs with the Agency to augment the data base on those chemicals. In addition, the Panel was actively involved in discussions with the Agency on testing needs for MO and filed a petition for review of the final test rule.

The Panel will respond to the reopening of the MO rulemaking. The Panel also is conducting a review of the EPA IRIS database on ketones and will work with the Agency to update it.

Lubricant Additives

DATE CHARTERED
1980

CURRENT TASK GROUP
Environmental Research

PANEL MANAGER
Carol Stack

CHAIRMAN
Charles Keller
Exxon Chemical Company

The Panel completed an aquatic toxicity testing program and submitted the results to the Group of Experts on the Scientific Aspects of Marine Pollution for evaluation. The purpose of the program was to provide GESAMP with adequate data on several classes of lubricant additives for use in assessing potential hazards caused by the chemicals in a marine environment.

GESAMP used the results of the testing program to develop appropriate hazard ratings. The IMO Bulk Chemical Handling Committee used the ratings to assign the additives to pollution categories. The Panel also partially completed an investigation of the efficient stripping of additives from cargo tanks. Technical difficulties and practical considerations forced closure of this part of the program.

The Panel organized to address anticipated international marine pollution control regulations. An immediate concern was the need to generate marine aquatic toxicity data to support proper pollution categories for bulk shipments and to investigate the efficient stripping of unloaded tankers.

The Panel reached its initial goals and now is investigating other regulatory arenas where joint company involvement may be beneficial.

Metal Catalysts

DATE CHARTERED
1984

CURRENT TASK GROUPS
Toxicology Research
Industrial Hygiene
RCRA

PANEL MANAGER
Susan Howe

CHAIRMAN
William Deering
Gulf Chemical and Metallurgical

The Panel completed a research program for testing nickel catalysts in two-cell transformation systems. The results indicated that nickel catalysts do not induce cell transformation in these test systems.

The Panel formed to collect and evaluate information necessary to assess safety, environmental, and health issues arising from the production, storage, transportation, use, and disposal of metal-containing catalysts used as heterogeneous catalysts in industrial processes. The Panel has focused on a research program to characterize the toxicity profiles of metal catalysts.

Long-range testing plans will be developed after the Panel receives final reports from studies being conducted by EPA and the National Toxicology Program. EPA is conducting a re-analysis of exposure data from previous epidemiology studies and the NTP is conducting long-term inhalation studies on nickel compounds. These reports are anticipated in the fall of 1989 and in 1991, respectively. The Panel will continue its liaison with the Nickel Producers Environmental Research Association and European Catalysts Manufacturers Association.

Methylenedianiline

DATE CHARTERED
1982

CURRENT TASK GROUPS
Risk Assessment
Analytical and Industrial Hygiene
Medical and Toxicology

PANEL MANAGER
Elizabeth Moran

CHAIRMAN
Roger Daniel
Dow Chemical USA

The Panel participated in the negotiation of a workplace standard for MDA under the Occupational Safety and Health Act. The negotiations were the first of their kind and involved a 15-person Mediated Rulemaking Committee comprised of three industry representatives, three union representatives, two government laboratory representatives, and seven government agency representatives. The Panel Chairman, Roger Daniel, and two other Panel members represented the industry. The Panel developed data on economic impact and submitted comments on toxicology and risk assessment. A proposed OSHA workplace standard based upon the negotiated agreement was published in May. Although some disagreement remains, the proposed standard meets the needs of OSHA, industry, and labor unions.

The Panel formed in response to the Interagency Testing Committee recommendation that 4,4'-methylenedianiline be considered for priority testing under TSCA Section 4. In 1983, EPA decided that no additional testing was necessary, but designated MDA as the first "significant risk" chemical under TSCA Section 4(f). Ultimately, in 1985, the Agency referred the chemical to OSHA under the authority of TSCA Section 9.

The Panel filed comments following publication of the proposed workplace standard addressing two major issues which did not reflect the mediated standard. One issue was the lack of a de minimus level for MDA in mixtures which would not be subject to the standard. The second issue involved medical surveillance provisions and pay protection for workers removed for medical reasons. The final rule should be published in late 1989, barring any objections to the proposal.

Naphthenates

DATE CHARTERED
1983

CURRENT TASK GROUPS
None

PANEL MANAGER
Has Shah

CHAIRMAN
Michael Scott
Moonev Chemicals, Inc

No new activities were undertaken by the Panel this year.

The Panel formed as a result of a recommendation that calcium, cobalt, and lead naphthenates be considered for priority testing under TSCA Section 4. The Panel has expanded its scope of activities to address EPA concerns in the pesticides area.

The Panel will decide on a course of action when it receives the EPA evaluation of a dermal absorption study. The study was part of a voluntary testing program developed by the Panel and the Agency.

Oleylamine

DATE CHARTERED
1984

CURRENT TASK GROUPS
None

PANEL MANAGER
Susan Howe

CHAIRMAN
Lincoln Metcalfe
Akzo Chemie America

After EPA issued final test standards for the TSCA Section 4 test rule in December, the Panel submitted study plans to the Agency and contracted with laboratories to conduct testing. Testing requirements issued under the final rule include: in vivo mammalian bone marrow cytogenetics; detection of gene mutations in somatic cells in culture; and, developmental toxicity studies in rabbits and rats. Due to Panel presentations of data and comments to EPA, the final rule requires substantially less testing than the proposed rule.

The Panel formed in response to the TSCA Section 4 proposed rule requiring pharmacokinetics, genetic effects, subchronic toxicity (including neurotoxicity and reproductive tract effects), and teratogenicity data.

The Panel will monitor mutagenicity and developmental effects studies.

The Panel also will work with EPA to determine if additional studies are necessary to characterize the toxicity potential of oleylamine.

Phosgene

DATE CHARTERED
1972

CURRENT TASK GROUPS
Engineering and Safety Practices
Regulatory
Industrial Hygiene
Medical and Toxicology

CHAIRMAN
W. E. Irby
Bayer USA, Inc

PANEL MANAGER
Robert Romano

In May, the Panel and EPA entered into a cooperative study of fugitive emissions at production facilities. Results of the study show that actual emissions are at least 99.9% less than the Agency's previous estimates. The study results are extremely important and will benefit the industry at large by serving as models for determining or estimating emissions at various types of facilities. Task groups of the CMA Environmental Management Committee plan to use the study in developing broad industry policies on fugitive emissions.

The Panel also initiated a research project at the New York Medical College on treatment methods for accidental exposures to phosgene. The research already has several promising results.

The proceedings of the Panel-sponsored international symposium, "Remote Monitoring: Current Technology and Future Developments Applicable to Air Toxics, Including Phosgene," will be published this fall. The Panel continued exploring means to evaluate methods of controlling phosgene releases. A literature search and a preliminary dispersion model were used to advance this effort. The Panel's ultimate goal is to conduct a field evaluation of the model.

The Panel formed to improve industry's ability to safely manufacture, handle, and use phosgene. Predicting and controlling ambient concentrations of phosgene from accidental releases has become an important Panel objective.

The Panel will continue information exchange and cooperation with EPA, and will monitor other areas of increasing regulatory interest in phosgene. The Panel also plans to develop a phosgene mitigation data base and a field testing program to assess mitigation devices.

Phthalate Esters

DATE CHARTERED
1973

CURRENT TASK GROUPS
Toxicology Research
Food and Drug Applications
Phthalic Anhydride
Environmental Research
FDA Toxicology Research
California
Phthalic Anhydride
Toxicology Research

CHAIRMAN
James Santory
Aristech Chemical Corporation

PANEL MANAGERS
Elizabeth Moran and Robert Toro

The Panel was successful in obtaining two favorable decisions from EPA which greatly reduced reporting requirements under SARA Section 313. First was recognition by the Agency that DEHA-containing plastic wrap meets the definition of an article, which makes the wrap exempt from the reporting requirement. Second, EPA confirmed that solutions containing less than 1.0% DEHA are exempt from reporting. The Agency had published incorrectly a 0.1% cutoff level for the chemical.

The Panel's new Phthalic Anhydride Task Group convinced EPA to remove PA from the TSCA Section 4 test rule requested by the Office of Solid Waste. The Panel demonstrated to the Agency the technical infeasibility of the required test. The PATG also filed a petition to remove PA from the SARA Section 313 list.

The California Task Group developed an exposure guideline, which will allow users of DEHP to determine dermal and inhalation exposures from consumer products containing this plasticizer. Results of exposure determinations provide guidance to California manufacturers and retailers on whether warnings will be required on their consumer products under the state's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).

The Panel formed in 1972 to address environmental issues. In 1976, the Interagency Testing Committee listed the alkyl phthalate category for test rule development under TSCA Section 4. The ITC also included health effects testing in its concerns following the release by NTP of bioassay results on DEHP and di-2-ethylhexyl adipate. In 1980-81, the Panel worked with EPA to develop the first Negotiated Testing Agreement in lieu of a TSCA Section 4 test rule. The testing was completed in 1984 and the results were submitted to the Agency along with a proposal for further environmental testing. In 1988, the Panel and EPA agreed on an environmental testing program, which is being conducted under a consent order.

In light of the NTP data, in 1981 the FDA became interested in the indirect food additive uses of DEHA and DEHP and in 1985, expressed concern about the levels of DEHP reported in some foods. In response to these concerns, the Panel conducted a market survey in which milk, meat, and cheese samples from different regions of the country were analyzed for DEHP content. The level of DEHP in all test foods was within the range of laboratory control samples.

The Panel also conducted studies on the pharmacokinetics and liver effects of di-2-ethylhexyl adipate. This program arose from FDA questions on a DEHA bioassay. DEHA remains as an indirect food additive while the Panel conducts research.

The Consumer Product Safety Commission investigated exposure to DEHP from a large variety of consumer products in 1982. The Panel provided extensive comments to the Commission in order to narrow the scope of activities to children's products that are to be chewed or sucked. Users of the plasticizer then were able to negotiate a voluntary standard to limit the amount of DEHP in their products.

The Panel plans to sponsor research on the environmental effects of phthalate esters. In addition, the Panel will initiate a state advocacy program. The first phase of the program is to identify in three key states any upcoming regulations and legislation that might involve phthalate esters. The Panel will then develop advocacy activities that will address the issues. If successful, the pilot program will be extended to additional states. The Panel's Proposition 65 advocacy activities focusing on discharge prohibitions also will continue.

The Panel will explore alternative cancer risk assessment methods for DEHP. Toxicological Profiles will be available on DEHP (final) and DBP (draft) this year under SARA Title I. The Panel will interact with EPA and ATSDR on identification of research needs. Panel advocacy activities also will continue with FDA, and with EPA on pesticide inert ingredient regulations and safe drinking water standards.

In the international arena, the Panel and the CEFIC Plasticizers

Technical Committee will jointly sponsor a workshop on phthalate esters, and will cooperate in addressing new regulations. The Panel also plans to conduct advocacy under the new Canadian Environmental Protection Act. The first focus will be on water quality guidelines.

Congressional efforts to move PCB regulations from TSCA to RCRA authority have subsided in recent months, but remain a possibility in the 101st Congress. The Panel will continue to monitor this issue carefully.

Polychlorinated Biphenyls

DATE CHARTERED
1981

CURRENT TASK GROUPS
None

PANEL MANAGER
Elizabeth Gormley

CHAIRMAN
John Craddock
Monsanto Company

The Panel continues to address PCB issues as part of a consensus group which includes the Edison Electric Institute Utility Solid Waste Activities Group, the National Electrical Manufacturers Association, the American Public Power Association, the Association of American Railroads, the Environmental Defense Fund, and the Natural Resources Defense Council. In cooperation with industry, the Panel: encouraged Congress to allow EPA time to complete work on a notification and manifesting rule; provided testimony and data to California's Science Advisory Panel on reproductive toxicity and carcinogenicity; and, provided follow up to New Jersey regulators on spill cleanup issues. The services of toxicological consultants were employed in many of these efforts.

The Panel formed to represent the interests of the industry during implementation of the TSCA Section 6 regulations for the control of PCBs. To date, the Panel has addressed inadvertent generation of PCBs, mitigation of transformer fires, and retention of electrical equipment containing PCBs. In addition, the Panel has focused on disposal and storage requirements, and the cleanup of accidental spills.

The Panel continues to monitor SARA activities and is awaiting the release by ATSDR of the revised Toxicological Profile. EPA actions on the storage/disposal proposed rule and drinking water criteria issues also are being monitored. Panel actions to address individual state activities are expected to increase in the coming year.

Rubber Additives

DATE CHARTERED
1979

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Henry Sauer

CHAIRMAN
Bernard Hill
Monsanto Company

The Panel initiated testing of 2-mercaptobenzothiazole under TSCA Section 4. Joint test sponsors included the Motor Vehicle Manufacturers Association and more than fifty other importers of rubber articles containing MBT. EPA audited and accepted the Panel's voluntary pharmacokinetics studies.

The Panel formed to support research that would expand the rubber additives safety and health issues data base. To date, the Panel has collected information on approximately 65 chemicals classified as rubber additives, and has sponsored more than $800,000 in research.

The Panel will continue to collaborate with the German consortium, WTR, in efforts to monitor, review, and sponsor health and safety studies on rubber additives. The two groups will co-sponsor health studies in the coming year. Most of the Panel's MBT studies under TSCA Section 4 will be completed by October 1989. Reproductive effects studies will be completed by March 1991.

Specialty Acrylates/ Methacrylates

DATE CHARTERED
1987

CURRENT TASK GROUPS
Scientific Issues
Membership
Regulatory Issues

PANEL MANAGERS
Elizabeth Moran and Robert Toro

CHAIRMAN
Georjean Adams
Minnesota Mining and
Manufacturing Company

The Panel reached agreement with EPA on a comprehensive research program covering all acrylates and methacrylates on the TSCA inventory. The agreement contains a three-stage program in which the Panel will conduct specific testing at each stage. In return, the Agency agreed to revisions in some of the more restrictive provisions of the TSCA Section 5 consent orders for the new chemicals. Prior to the agreement, manufacturers were required to label all new acrylates and methacrylates as potential carcinogens based upon structure-activity relationships to existing chemicals. This and other provisions of the orders restricted distribution and impeded successful marketing. In addition, EPA had considered issuing a comprehensive test rule under TSCA Section 4 which could have required extensive toxicology testing on the existing chemicals in the category.

The Panel formed to address EPA concerns about new and existing specialty acrylates and methacrylates. The Panel's major emphasis is on working with the Agency to remove restrictions on the development and marketing of new products. Current Panel membership consists of producers, importers, formulators, and users of these chemicals.

The Panel now will begin to conduct the first tier of toxicological tests. The Panel also will initiate discussions with EPA on the development of a generic acrylates Significant New Use Rule, which will eliminate the need for TSCA Section 5(e) orders.

Titanium Dioxide

DATE CHARTERED
1977

CURRENT TASK GROUPS
None

PANEL MANAGER
Susan Howe

CHAIRMAN
Jerry Blacker
SCM Corporation

In January, EPA published a Notice of Proposed Rulemaking requesting comments on its proposed designation of 232 chemicals as extremely hazardous substances under CERCLA. Titanium tetrachloride is among the substances designated by the Agency. The Panel submitted comments on the Agency's proposed regulation, which would affect the reportable quantity for this chemical. The Panel specifically requested that EPA establish an RQ of 1000 pounds in its final rule designating $TiCl_4$ as a CERCLA hazardous substance. As an alternative, the Panel asked that the one pound statutory RQ be waived until such time as the Agency adjusts the RQ on a scientific basis. The Panel awaits a response from EPA.

The Panel continued its information-sharing sessions in which member company representatives discuss case histories involving accidental releases and safety problems encountered with $TiCl_4$. The companies hope to enhance worker and community safety by sharing key experiences and improvements made to control releases.

The Panel formed to address concerns about the potential hazards confronting workers in the complex atmosphere created during formulation operations with titanium dioxide.

The Panel will continue to work with the National Cancer Institute on its proposal for an epidemiologic study on $TiCl_4$ workers. Panel members requested that NCI await the results of DuPont's ongoing efforts to collect additional smoking information on its worker cohort before determining whether an additional epidemiology study is necessary.

Member companies plan to monitor the EPA proposal to regulate mining wastes and assess its impacts on the titanium dioxide industry. The Panel also will track regulations in states that have added, or plan to add, titanium dioxide to their hazardous substances lists and will petition for delisting where necessary.

Trimellitate Esters

DATE CHARTERED
1983

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Elizabeth Moran

CHAIRMAN
Dean Finney
Eastman Chemical Company

The Panel completed a battery of environmental and health affects tests on tri-2-ethylhexyl trimellitate as part of a Negotiated Testing Agreement under TSCA Section 4. The Panel submitted results to EPA in 1986 and has been awaiting a response from the Agency.

The ITC designated the trimellitate for priority testing under TSCA Section 4 in 1982. The recommended testing included metabolism, subchronic, mutagenicity, and environmental effects testing. The producers immediately formed a special task group under the Phthalate Esters Panel and subsequently formed the Panel to pursue a negotiated testing agreement. The Panel reached an agreement with EPA in 1984.

When EPA completes its review, the Panel will work with Agency scientists in interpreting the test data and determining the need for additional testing.

Vinyl Chloride

DATE CHARTERED
1973

CURRENT TASK GROUP
Research Coordinator

PANEL MANAGER
Susan Howe

CHAIRMAN
William Gaffey
Monsanto Company

The Panel asked an independent expert to clarify the results of a Panel-sponsored epidemiologic study on vinyl chloride workers. The study showed excess mortality from tumors not previously associated with vinyl chloride -- non-angiosarcomas -- and biliary tract tumors. Panel scientists suspect that these tumors may actually be misdiagnosed angiosarcomas. The expert encountered difficulties in gathering histopathologic specimens for re-examining the cause of death associated with vinyl chloride. The Panel now is pursuing different means of gathering these specimens.

The Panel formed to accumulate and assess health and safety data on vinyl chloride monomer. After funding several animal studies, emphasis on research shifted from toxicological investigations to early diagnosis and clinical management of injuries. Subsequently, the Panel has focused on epidemiologic studies of workers.

Vinylidene Chloride

DATE CHARTERED
1974

CURRENT TASK GROUP
Toxicology Research

PANEL MANAGER
Barbara Francis

CHAIRMAN
Zeb Bell
PPG Industries, Inc.

The Panel continued its efforts to have EPA withdraw the proposed TSCA Section 4 test rule. The Office of Air Quality Planning and Standards has stated that further testing of VDC is unnecessary. Nonetheless, the EPA Test Rules Development Branch will not withdraw the rule until after ATSDR has evaluated and published the final Toxicological Profile on VDC under SARA Section 110. The Panel submitted comments to ATSDR in May as part of its continuing effort to assist the Agency in evaluating the chemical.

The Panel formed to sponsor research on the potential toxicologic effects and pharmacokinetics of VDC. The objective was to develop data for ensuring the safety of workers involved in manufacture, handling and use, as well as the safety of communities surrounding production facilities.

The Panel will continue to work with ATSDR and EPA to achieve reasonable regulations based on sound scientific information.

Water Additives

DATE CHARTERED
1985

CURRENT TASK GROUPS
Specific Chemicals

PANEL MANAGER
Robert Romano

CHAIRMAN
Paul Carlson
Calgon Corporation

The consensus Water Additives Standards are complete. By law, certifications of all additives must occur by mid-1990. Because certifying organizations and procedures are not confirmed, the Panel continues to work with various organizations seeking to develop an acceptable certification program. The Panel also encouraged EPA to be an active party in developing the certification process. In addition, the Panel is working with the American Water Works Association which, in the last phase of the process, will compile a list of all chemicals that are certified against the standards.

The Panel formed a task group for each of the following chemicals: polydiallyldimethylammonium chloride (PDADMAC); copolymers of epichlorohydrin and dimethylamine (EPI/DMA); and, polyacrylamide (PAM). Each task group will perform an exposure assessment and fill appropriate toxicology gaps.

The Panel formed to address regulations of direct and indirect potable water additives. The objectives are to monitor regulatory policies, improve communication, review toxicology data, develop advocacy positions, ensure that any water additive program is designed and administered in a cost-effective manner, and ensure that water additives are used in a manner that does not compromise public health, safety, or the environment.

The Panel will continue to work with all organizations that are developing water additive certification programs. The Panel also will participate in American Water Works Association activities where the programs are further discussed and defined.

Table I

CHEMSTAR PANELS FINANCIAL STATUS

For the Twelve Months Ended May 31, 1989

Panels	Balance 6/1/88	Contribution Receipts	Interest Revenue	Expenditures	Balance 5/31/89
Acrylates/Methacrylates	$ 51,600	$ 353,800	$ 16,400	$ 136,900	$ 284,900
Alkanolamines	72,100	-0-	4,600	37,600	39,100
Alkylphenols and Ethoxylates	162,300	269,300	22,600	81,700	372,500
Aromatic Diamines	1,000	-0-	100	-0-	1,100
Arsenic	20,700	-0-	600	18,000	3,300
Benzene	562,300	-0-	36,700	151,700	447,300
Biocides	313,800	1,036,800	50,400	619,200	781,800
Butadiene	164,700	136,400	7,800	194,000	114,900
Butylated Hydroxytoluene	22,600	40,000	1,200	27,100	36,700
Chlorine Dioxide	29,700	38,000	1,700	82,500	(13,100)
Chlorobenzenes	421,000	673,400	41,000	669,200	466,200
Cresols	311,600	287,400	24,600	293,000	330,600
Crystalline Silica	-0-	36,000	200	16,400	19,800
Cumene	49,900	890,800	25,700	532,400	434,000
Cyclohexane	(3,200)	64,800	1,100	58,600	4,100
Dibenzofurans/Dibenzodioxins	35,400	60,000	1,600	83,300	13,700
Diisocyanates	-0-	150,000	4,500	65,900	88,600
Epoxy Resins	2,200	-0-	100	1,900	400
Ethylene Dibromide	-0-	-0-	-0-	-0-	-0-
Ethylene Dichloride	6,200	1,200	-0-	11,200	(3,800)
Ethylene Glycol	199,000	152,100	15,600	162,800	203,900
Ethylene Oxide	285,700	141,300	25,700	217,600	235,100
Ethylhexanol	125,900	1,104,400	50,600	718,400	562,500
Ethylhexanoic Acid	43,700	163,500	900	169,200	38,900
Fluoroalkenes	506,600	702,900	42,800	829,800	422,500
Fluorocarbons	2,623,600	1,343,700	182,800	1,791,700	2,358,400
Glycol Ethers	486,300	731,900	52,200	541,700	728,700
Hexamethylene Diisocyanate	-0-	15,000	600	3,800	11,800
Hydrogen Fluoride	-0-	17,500	600	10,900	7,200
Hydroquinone/Quinone	75,300	154,600	9,800	153,100	86,600
Isopropanol	(4,900)	322,200	(600)	105,300	221,400
Ketones	36,200	180,000	900	271,900	(54,800)
Lubricant Additives	86,000	-0-	4,900	53,800	37,100
Metal Catalysts	107,100	38,000	6,200	85,100	66,200
Methylenedianiline	50,400	-0-	4,000	3,800	50,600
Naphthenates	900	-0-	-0-	800	100
Oleylamine	85,700	77,800	9,400	72,900	100,000
Phenol	-0-	35,000	500	5,500	30,000
Phosgene	150,500	208,200	14,400	152,000	221,100
Phthalate Esters	745,200	860,900	60,600	807,600	859,100
Polychlorinated Biphenyls	27,300	145,200	3,200	66,000	109,700
Rubber Additives	16,400	416,100	9,600	330,700	111,400
Titanium Dioxide	27,100	30,000	2,400	35,200	24,300
Trimellitate Esters	18,700	-0-	1,500	1,400	18,800
Vinyl Chloride	39,500	-0-	2,800	11,200	31,100
Vinylidene Chloride	(8,700)	15,000	(1,700)	26,500	(21,900)
Water Additives	11,700	16,000	600	21,700	6,600
TOTAL	$ 7,959,100	$ 10,919,200	$ 741,200	$ 9,731,000	$ 9,888,500

FINANCIAL RESOURCES

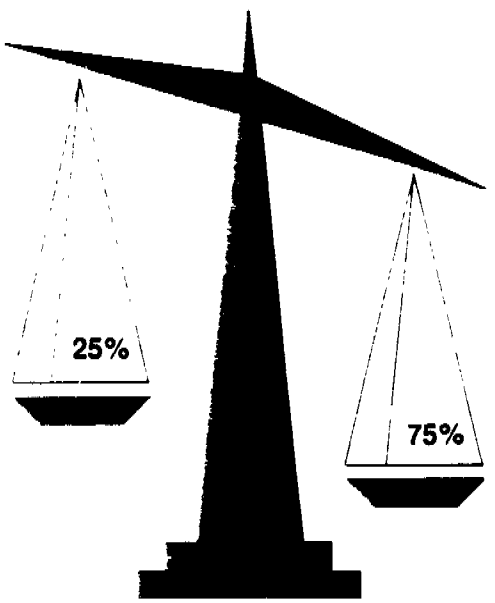
Each panel is required to maintain a CASH COMPENSATING BALANCE which recognizes that CMA signs all contracts on behalf of the panels and assumes the financial liability for panels meeting their contractual commitments. The balance permits timely honoring of financial commitments. The combined compensating balance for all CHEMSTAR Panels at the beginning of Fiscal Year '88-89 was about $8 million. Compensating balances on May 31, 1989 totalled about $9.9 million. On this date, CMA had financial liabilities totalling about $11 million under 298 executed contracts on behalf of the various panels.

INTEREST on the unexpended cash balance provides supplemental revenue for each CHEMSTAR Panel. This year, panels earned a combined total of approximately $740 thousand in interest income.

EXPENDITURES of CHEMSTAR Panels are based on budgets approved by each panel. In Fiscal Year '88-89, panels spent a collective total of $9.7 million for research, consultants, legal counsel and panel management.

Figure 1

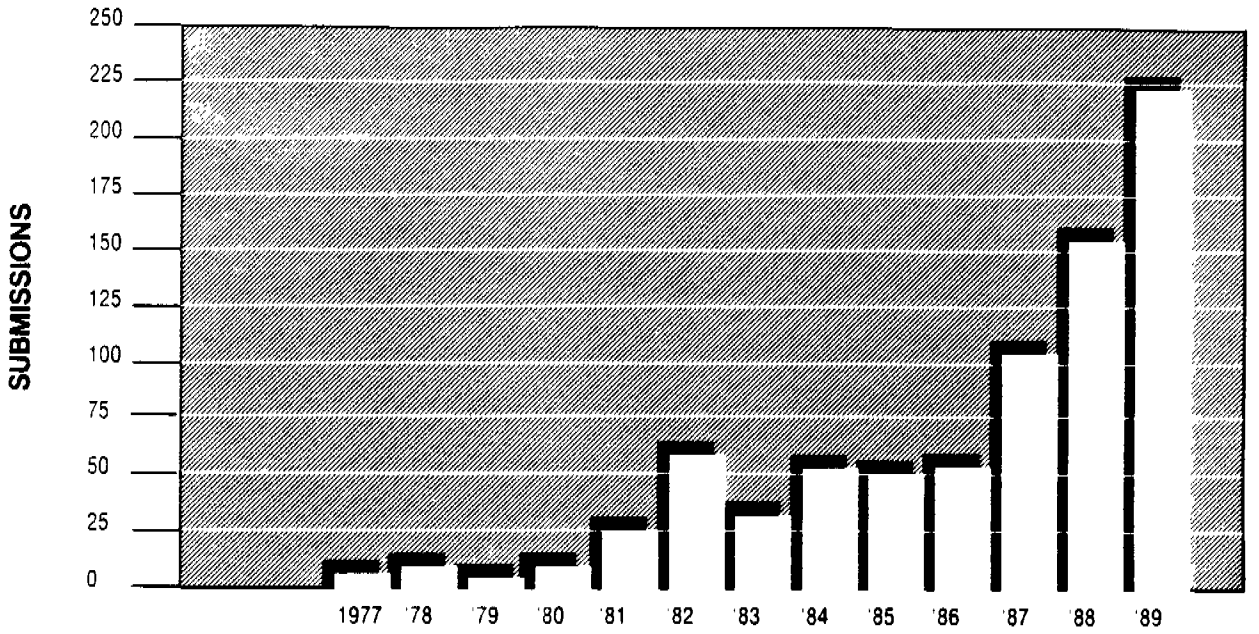
CHEMSTAR PANELS
Financial Allocations



FY 1987-88	FY 1986-87
Advocacy 44%	Advocacy 40%
Research 56%	Research 60%

Figure 2

CHEMSTAR PANELS
Submissions to Government Agencies



Metal Catalysts Panel meeting with Japanese Metal Catalysts Industry Association

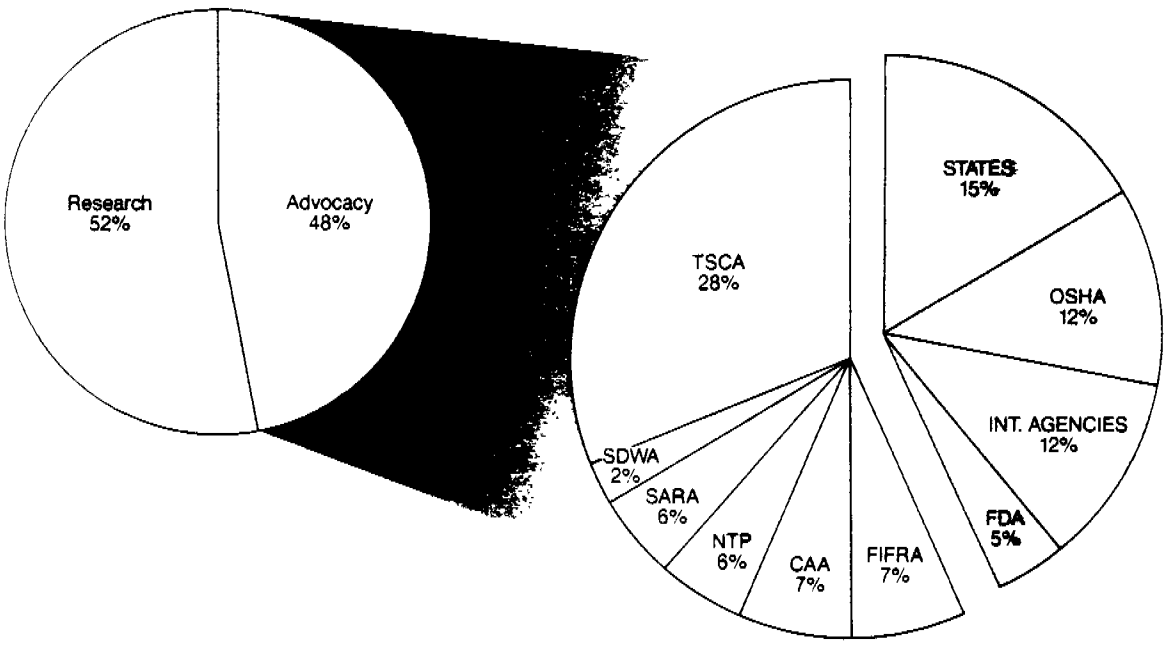
During the year, 42 CHEMSTAR Panels focused their efforts on regulatory issues. Panels submitted comments on pending regulations, and research data, to many federal, state and international agencies.

Of all federal agencies, EPA received the greatest attention from panels. TSCA Section 4 is the chief concern of 21 panels. The emergence of environmental regulations of individual chemicals continued, causing increased panel attentions to the Clean Air Act, SARA, Safe Drinking Water Act, and RCRA. FIFRA concerns also accelerated as an area of panel activity. Among other federal agencies, the Agency for Toxic Substances and Disease Registry, Food and Drug Administration, Occupational Safety and Health Administration, National Toxicology Program, and the National Cancer Institute once again caused panel actions.

Among state agencies, the California Department of Food and Agriculture attracted the most panel activity. This attention was due to Proposition 65 implementation and data call-ins on industrial chemicals. Of the international agencies, the United Nations Environment Programme, U.S. Department of State, International Maritime Organization, and the Food and Agriculture Organization/ World Health Organization were again significant panel focuses.

Figure 3

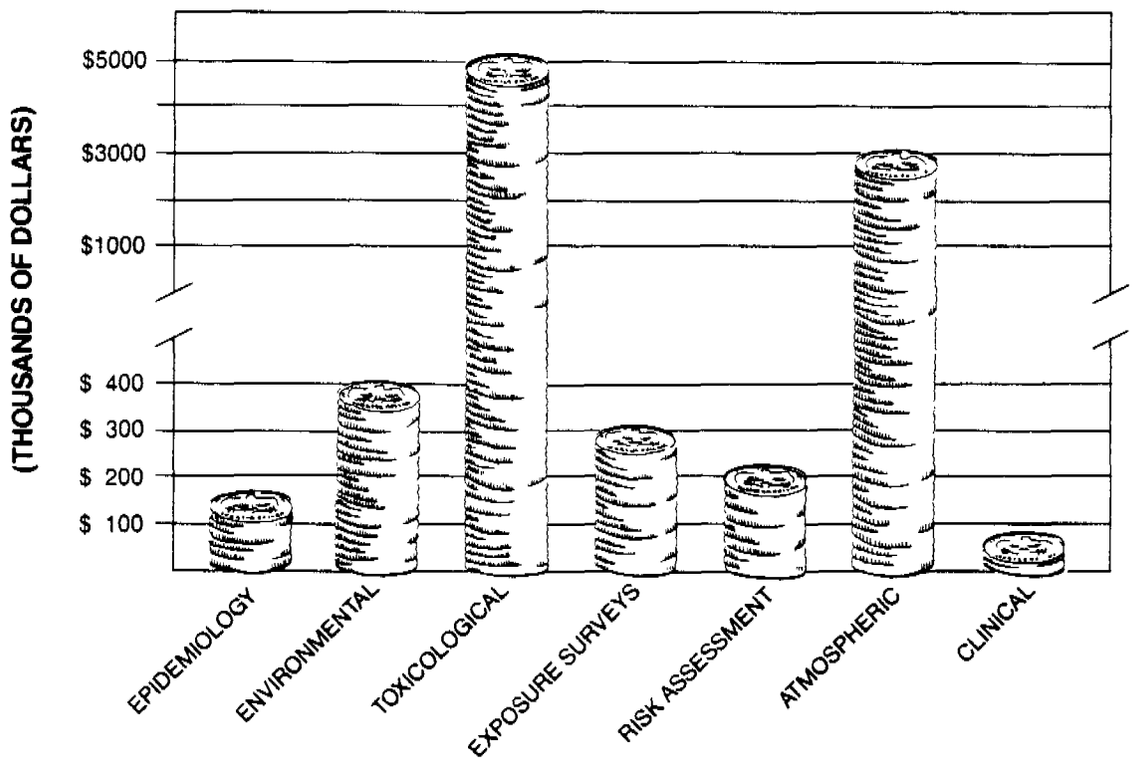
CHEMSTAR DIVISION
Staff Time Allocations



Phthalate Esters Panel Research Symposium

Figure 4

CHEMSTAR PANELS
Summary of Research Expenditures



Thirty-seven CHEMSTAR Panels sponsored research projects in 1988-89. Contracts for research increased dramatically from the previous year to 298 separate agreements.

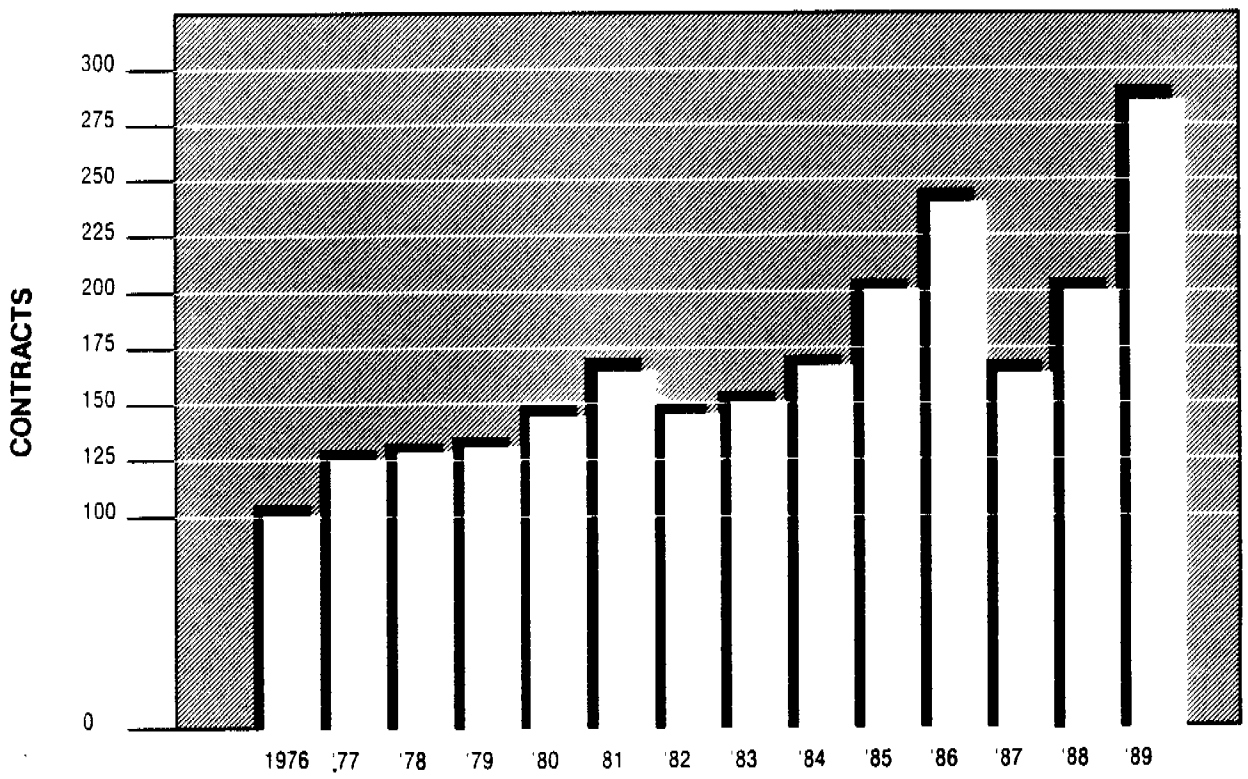
Research efforts again included a strong emphasis on health effects studies. Toxicological research involved subchronic/chronic, mutagenicity, teratogenicity, oncogenicity and pharmacokinetics studies. Several panels investigated direct effects on humans through epidemiology and clinical research. Risk assessments and exposure surveys also were important, being undertaken by nearly a quarter of all panels. Environmental studies continued to expand this year, demonstrating a continued increase of interest in air and water regulations.

Several panels initiated testing required under TSCA Section 4. In most cases, the testing programs are multi-year, large-scale efforts that include many decision points where government and industry scientists must interpret data and decide on next steps. Just as importantly some panels completed their required testing and received acceptance from EPA.

As in previous years, some panels voluntarily sponsored research to fill data needs. "Proactive" research of this kind continues to be an important part of the CHEMSTAR Panels' scientific efforts.

Figure 5

CHEMSTAR DIVISION
Summary of Contracts Managed



GUIDANCE

CHEMSTAR Policy Committee Purpose: The Committee ensures that all CHEMSTAR Panels are conducted in a manner consistent with Association policy, and with the CHEMSTAR Guidelines; counsels with the panels regarding new and revised operating needs; and, reviews and makes recommendations on advocacy activities on individual chemicals when requested by a panel or staff.

CHEMSTAR Policy Committee


Earnest W Deavenport, Jr.


Ernest Drew


Geraldine V. Cox


Gary C. Herrman


David F. Zoll

Chairman - Earnest W. Deavenport, Jr.
Eastman Kodak Company

Vice Chairman - Ernest Drew
Hoechst-Celanese Corporation

Geraldine V. Cox
Vice President-Technical Director
CMA

Gary C. Herrman
Vice President-Treasurer
CMA

David F. Zoll
Vice President-General Counsel
CMA

Staff Executive - Langley A. Spurlock
Director, CHEMSTAR Division
CMA

Figure 6

Summaries of Principal Guidance Statements for the CHEMSTAR Panels

CHEMSTAR PANEL OPERATING PRINCIPLES

The Principles present the general statement of policies and procedures for operation of all CHEMSTAR Panels. They address:

- Panel Authorization
- Participant Financial Obligations
- Research Output

CHEMSTAR GUIDELINES

The Guidelines provide details of policies and procedures that are generally stated in the Operating Principles. This document is the primary reference for specific operations of panels and the CHEMSTAR Division. Topics covered include:

- Panel Initiation Procedures
- Membership Criteria
- Responsibilities of Panel and Task Group Participants
- Financial Administration and Budgeting
- Contracting Procedures
- Information Handling
- Oversight Mechanisms

MANAGEMENT SERVICES

As issues, objectives and locations of effort multiply, management of the CHEMSTAR Panels becomes ever more challenging for panel and task group chairmen. This year, as in the past, a broad array of CMA services was employed to ensure that panels receive adequate support for their operations.

CHEMSTAR Leadership Session

Leadership Training

The annual CHEMSTAR Leadership Session was held in October, and attended by ten panel leaders. The Sessions are designed to assist chairmen in resolving the dilemmas of leading diverse and changing organizations. Sessions are invitational, one-day workshops primarily held for new panel and task group chairmen. Participation by experienced chairmen also is welcome and sought. At the Sessions, a training specialist from a CMA member company provides advice on persuasive leadership, and peers share experiences in dealing with related problems. Because participant ratings continue to be high, another Session is planned for fall 1989.

Communications

Ensuring industry awareness of panel activities and other important specific chemical regulatory and research developments remained a high priority for the CHEMSTAR Division. CHEMSTAR NEWS, a quarterly publication with a circulation of 1,500, is the Division's principal means of reaching a broad industry segment. The NEWS points out upcoming regulatory impacts on specific chemicals, summarizes recent actions of various panels, lists panel reports and agency submissions, and highlights significant changes in panel membership. Through the "Spotlight" article in each issue the accomplishments of individual panels are summarized. This year, the Titanium Dioxide, Ethylene Oxide, Specialty Acrylates/Methacrylates and Ketones Panels were featured.

The CHEMSTAR Alerts, published as needed, are the Division's means of quickly informing panel members and others in the industry when a time-sensitive response is needed on a chemical-specific issue. Subjects in Alerts vary

from a pressing need to submit information to an agency, to the need for joining other companies in a response to a regulatory deadline. In 1988-89, the Division issued five Alerts on a diverse range of topics.

Division Staff

The CHEMSTAR Division responded to this year's increase in panel activities by expanding the management staff and assigning new responsibilities to existing managers. Susan Howe filled a newly created position as Senior Panel Manager, bringing the managing staff to ten persons, all with technical degrees. The total staff complement now is 24.

Barbara Francis also joined the managing staff this year as Panel Manager, replacing Kathryn Rosica who was promoted to Associate Director in CMA's Health and Safety Division. In recognition of her superior achievements, Elizabeth Moran was promoted to Associate Director within the CHEMSTAR Division. Reflecting the Division's increased needs for accounting activities, the CMA Accounting Office created the position of Assistant Controller for the CHEMSTAR Division. The position was filled by Elizabeth Bergan.

Director

Langley A. Spurlock, Ph.D., CAE

Dr. Spurlock completed his seventh year as Director of the CHEMSTAR Division in June. He is responsible for oversight of all panels.

Dr. Spurlock is a Certified Association Executive, awarded by the American Society of Association Executives. Before joining CMA, he held an appointment in the U.S. Government Senior Executive Service at the National Science Foundation. During his tenure at NSF he served as Senior Staff Associate for Operations, Directorate for Mathematical and Physical Sciences, Special Assistant to the Director, Office of Planning and Resources Management, and as Oversight Coordinator and Special Assistant to the Director, Office of Audit and Oversight. Previously, Dr. Spurlock received an appointment as U.S. Department of Health, Education and Welfare Fellow, and served as Special Assistant in the Immediate Office of the Secretary of HEW. Earlier, he was Assistant to the President at the American Council on Education. Before coming to Washington, Dr. Spurlock held an appointment as Associate Professor of Chemistry at Brown University and earlier was Assistant Professor of Chemistry at Temple University. Previously he served as Senior Research Chemist in the General Chemical and Agricultural Chemical Divisions of Allied Corporation. Dr. Spurlock received a Ph.D. in Organic Chemistry from Wayne State University.

Associate Directors

Elizabeth J. Moran, Ph.D.

Dr. Moran joined CMA and the CHEMSTAR Division in 1981. She continued this year as manager of the panels on methylenedianiline, phthalate esters, specialty acrylates/methacrylates, and trimellitate esters.

Dr. Moran is a biochemist and Board Certified Toxicologist. She is currently on the Editorial Board of the Journal of Toxicology and Environmental Health. Before coming to CMA she was a program manager at JRB Associates. Earlier, Dr. Moran directed the Flavor Safety Program at International Flavors and Fragrances, Inc., where she was responsible for toxicological testing on new chemicals. Previously, Dr. Moran conducted lipid nutrition research at the U.S. Department of Agriculture and was a visiting professor at the University of Maryland. Dr. Moran received a Ph.D. in Biochemistry from the University of Maryland.

Robert R. Romano, Ph.D.

Dr. Romano joined CMA in 1980 as a manager in the Environmental Division where he was responsible for the water and air programs. In February 1985, he joined the CHEMSTAR Division as an Associate Director. He continued this year as manager of the programs on ethylene dibromide, ethylene oxide, phosgene and water additives. Recently he also assumed management of the panels on chlorine dioxide and diisocyanates.

Dr. Romano came to CMA from the U.S. Nuclear Regulatory Commission, where he worked as an Associate Project Director. Previously he worked on a school fluoridation project for Indiana State Board of Health. He has also taught at Del Mar College and American University. Presently, Dr. Romano is an adjunct Environmental Engineering Professor at George Washington University and teaches a course in environmental management. He received a Ph.D. in Environmental Sciences from Purdue University.

Hasmukh C. Shah, Ph.D., D.A.B.T.

Dr. Shah joined CMA and the CHEMSTAR Division in 1979. He is responsible for management of the programs on biocides, 2-ethylhexanoic acid, and naphthenates.

Dr. Shah is a Board Certified Toxicologist. Before coming to CMA, he was the Director of the Toxicology and Biomedical Sciences Department of Equitable Environmental Health. He was also the Project Director for the National Institute for Occupational Safety and Health's criteria document project, and for the "Profiles on Occupational Hazards for Criteria Document Priorities." Previously, at the Stanford Research Institute, Dr. Shah was a Project Coordinator, and served as a Senior Toxicologist. He previously was a Visiting Fellow Scientist at the National Institute for Environmental Health Sciences. Dr. Shah received a Ph.D. in Pharmacology and Toxicology from the University of Rhode Island.

Carol R. Stack, Ph.D.

Dr. Stack joined CMA and the CHEMSTAR Division in 1980 and was promoted to Associate Director in 1985. She is currently responsible for management of the panels on benzene, chlorobenzenes, ethylene glycol, glycol ethers, lubricant additives, and hexamethylene diisocyanate.

Before joining CMA, Dr. Stack was employed in the Toxicology and Biomedical Sciences Department at Equitable Environmental Health where she served as an Assistant Project Director responsible for the preparation of NIOSH multi-chemical criteria documents. Earlier, she served as Visiting Scientist at the Neurological Institute in Bogota, Colombia, where she investigated central auditory pathways in echolocating birds. Dr. Stack received a Ph.D. in Biology from New York University.

Senior Panel Managers

Elizabeth Festa Gormley, B.A.

Ms. Festa Gormley joined CMA and the CHEMSTAR Division in 1983. She is responsible for the management of the fluorocarbons, dibenzofurans/dibenzodioxins, polychlorinated biphenyls, hydrogen fluoride, and crystalline silica panels.

Prior to joining CMA, she was Section Staff Executive with the National Electrical Manufacturers Association, where she was responsible for the Nuclear Magnetic Resonance Imaging Section with the Diagnostic Imaging and Therapy Systems Division. Previously, Ms. Festa Gormley worked in the Endocrine Biochemistry section of the National Institute of Arthritis and Metabolic Disease at the National Institutes of Health, and held the position of Research Chemist at both the CENTEC Corporation and Radian Corporation. She was also a recipient of a National Science Foundation Assistantship. Ms. Festa Gormley earned a B.A. in Chemistry from Albertus Magnus College.

Susan R. Howe, M.S.

Ms. Howe joined CMA and the CHEMSTAR Division staff in June 1989. She is responsible for the management of the butylated hydroxytoluene, metal catalysts, oleylamine, phenol, titanium dioxide, and vinyl chloride panels.

Before coming to CMA, Ms. Howe was a Product Safety Representative for the Mobay Corporation. Previously, she was a Regulatory Specialist with Ruetgers-Nease Chemical Company. Ms. Howe holds an M.S. degree in Food Science and a B.A. in Science from The Pennsylvania State University.

Henry J. Sauer, MBA

Mr. Sauer joined the CHEMSTAR Division in 1986. He had been Manager of the CMA Energy and Engineering Section since 1984, and the Energy Committee Staff Executive since he joined CMA in 1977. At CMA he also has served as Manager of the Solid Wastes Managem nt Committee, Manager of the Environmental Management Committee Task Groups on New Source Performance Standards for Industrial Boilers and Process Emission Regulations, Manager of the Insurance Committee, and Manager of the CHEMSTAR Panel on Benzene. He is responsible for management of the panels on alkanolamines, alkylphenols and ethoxylates, cyclohexane, ethylene dichloride, ethylhexanoic acid, hydroquinone, and rubber additives. He also is actively involved in management of the panel on fluorocarbons.

Before coming to CMA, Mr. Sauer had chemical industry experience in sales, marketing research, applications research and commercial development. Just before joining CMA, he was the Development Manager, Fine Chemicals Group, Great Lakes Chemical Corporation. Earlier he was employed at PPG Industries as Marketing Research Representative in the Industrial Chemical Division, and as Assistant to the Sales Manager and Technical Sales Representative in the Coatings and Resins Division. He previously served as First Lieutenant in the U.S. Army Corps of Engineers. Mr. Sauer holds an M.B.A. from the University of Pittsburgh, and a B.S. in Chemical Engineering from Carnegie Mellon University.

Panel Managers

Barbara O. Francis, MBA

Ms. Francis joined CMA and the CHEMSTAR Division staff in March 1989. She is responsible for the management of the panels on cumene, cresols, fluoroalkenes, dinitrotoluenes, and vinylidene chloride.

Before joining CMA, Ms. Francis was with Interspan Inc. Previously, she was a product planner for Hoechst Celanese, Inc. Ms. Francis holds an M.B.A. from Virginia Polytechnic Institute and State University and a B.S. in biology and chemistry from Bishop's University in Quebec, Canada.

Robert Toro, M.S.

Mr. Toro joined CMA and the CHEMSTAR Division staff in May 1988. He is responsible for management of the panels on isopropanol and ketones. He also manages the Phthalate Esters and Glycol Ethers Environmental Research Task Groups, and the Specialty Acrylates/Methacrylates Scientific Issues Task Group.

Before coming to CMA, Mr. Toro was the Quality Assurance Director of Tegeris Laboratories. Previously, he was employed as a toxicologist and Quality Assurance Officer at Gillette Medical Evaluation Laboratories. Mr. Toro received a M.S. in physiology from the University of Maryland.

Legal Counsel

The panels were strongly assisted by the CMA Legal Department in antitrust, contract, research and regulatory areas. Reflecting the importance and complexity of panel issues, a CMA attorney is assigned full-time to the affairs of CHEMSTAR Panels. To ensure that antitrust protection is consistently maintained, CMA attorneys counselled panel chairmen, as well as all Division staff on proper procedures. As usual, staff attorneys reviewed all panel comments, contracts, reports, agendas, and minutes as part of routine protective measures. In research, the assigned CMA counsel intensively supported Division managers in drafting and negotiating the nearly 300 contracts let this year with laboratories and consultants. In advocacy, the CMA counsel supervised the activities of outside counsels retained by the panels. The CMA counsel provided advice on regulatory activities and ensured that member company legal counsels were informed of significant developments.

Assistant General Counsel

Marilyn D. Browning, J.D.

Ms. Browning joined the CMA Legal Department in 1987 as the staff attorney for CHEMSTAR Panels. This year she received a promotion and now represents CHEMSTAR Panels as assistant general counsel. Ms. Browning reviews and provides counsel in production of all substantial panel documents including contracts, regulatory comments, legislative correspondence and testimony, filing in litigation, and press releases. In addition, she counsels panel members and staff on antitrust prevention and supervises outside attorneys who serve individual panels. She also serves as counsel to the Chemical Control Task Group of the CMA International Affairs Committee.

Before coming to CMA, Ms. Browning was in private practice with Augustine and Kern Ltd. of Chicago, representing private and corporate clients. Prior to her legal career, Ms. Browning owned and managed a service agency specializing in fashion advertising. Earlier, she was an instructor of grades K-9. Ms. Browning is a member of the Illinois and District of Columbia Bars. She holds a B.S. from the University of Illinois and a J.D. from the Illinois Institute of Technology, Chicago Kent College of Law.

DIVISION MANAGERS

Clockwise, from lower left to right:

Elizabeth Moran,
Elizabeth Gormley,
Hasmukh Shah,
Caroi Stack,
Henry Sauer,
Langley Spurlock,
Susan Howe,
Robert Romano,
Robert Toro,
Barbara Francis