VINYL CHLORIDE HEALTH COMMITTEE

PROPOSED 1995 PROGRAM

Epidemiology Study Update

- Otto Wong 275 K
- Ken Mundt 350 K

Synthesis of $^{13}C$-vinyl chloride 10 K

UNC Research Program 50 K

ENSR Data Transfer Cost 20 K

Dow Monitoring Cost 30 K

Outside Counsel for TSCA Section 4 Rule 30 K

Administration: 4 days/mo ~~92.25K~~ 100K (incl travel)

- Epidemiology
  - Contract negotiations
  - Work with ENSR for data transfer
  - Contract management
- James Swenberg
  - Research program
- TSCA
  - ATSDR communication
  - EPA negotiations
- Risk Assessment
  - Consultant
  - Risk assessment workshop
  - Agency and contractor communication
  - Modification of Heast Table

Contingency 30 K

590 K
−320 available
270
+30
300 K new

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1994

| Company | Nameplate | % |
|---|---|---|
| Borden | 935 | 6.74 |
| Dow | 2,773 | 19.98 |
| Formosa | 2,160 | 15.56 |
| Geon | 1,400 | 10.09 |
| Georgia Gulf | 1,260 | 9.08 |
| Oxy | 2,600 | 18.73 |
| PPG | 840 | 6.05 |
| Vista | 910 | 6.56 |
| Westlake | 1,000 | 7.21 |
| | 13,878 | 100.00 |

Vinyl Chloride Health Committee

Proposed 1994-1995 Budget

| Budget | Activity (Explanation Attached) |
|---|---|
| $ 400,000 | Epidemiology Study Update<br>Contractor Cost - $ 350,000<br>ENSR Data Transfer Cost - $20,000<br>Dow Chemical's Monitoring Cost - $30,000 |
| 30,000 | Outside Counsel for TSCA Section 4 Prop. Rule<br>The estimated cost of the EPA recommended testing program is $850,000. |
| 60,000 | University of North Carolina Research Program<br>Synthesis of $^{13}$C-vinyl chloride - $10,000<br>Determination of Half-Life of Etheno-Adducts in Animals & Determination of P-450 in Human Tissues at Diff. Ages - $50,000 |
| 10,000 | Vinyl Chloride Risk Assessment<br>Consultant for Modification of the Heast Table (R. Reitz)<br>Consultant to Demonstrate a Biological Threshold for Vinyl Chloride Induced Liver Angiosarcoma and Absence of Cause-Effect Relationship Between Vinyl Chloride and Brain Cancers (C. Tamburo)<br>International Workshop to be Sponsored by the Vinyl Chloride Panel to Assess Available Scientific Information and Review Work in Progress or Planned to Assess Vinyl Chloride Risk |
| ~~100,000~~ | Administration<br>Direct Time Oct.1994 - Dec.1995 - $90,000 (Based on Estimated Level of Effort of Four Days/Month)<br>Travel and Miscellaneous - $10,000 |
| ~~25,000~~ | Contingency |
| $ 625,000 | TOTAL |

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R&S146700

# MEMORANDUM OF UNDERSTANDING FOR VOLUNTARY RESEARCH PROGRAM

Under Section 104(i)(5) of CERCLA

An agreement between

THE AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY
Division of Toxicology
Research Implementation Branch

and

~~(Name of Participating Company)~~

*CHEMICAL MANUFACTURERS ASSOCIATION*
*VINYL CHLORIDE PANEL*

~~(Date of signing this Memorandum of Understanding)~~

*November _____, 1995*

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## I. PURPOSE

This Memorandum of Understanding (MOU) is entered into by the Agency for Toxic Substances and Disease Registry (ATSDR) and the private sector organization(s) identified in Paragraph I below (hereinafter referred to as *"CMA"* ~~the "company"~~) in order to implement Section 104(i)(5) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). These Congressional acts direct ATSDR to assure the initiation of a program of research designed to determine the health effects of hazardous substances for which adequate health effects information is not available. In order to facilitate the discharge of ATSDR's responsibilities under Section 104(i)(5) of CERCLA, and in recognition of the fact that *CMA* ~~the company~~ *represents* ~~includes~~ manufacturers and/or processors, or registrants of the hazardous substance(s) that is the subject of this MOU, ATSDR and *CMA* ~~the company~~ hereby agree as follows:

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## II. IDENTIFICATION OF THE *PRIVATE SECTOR* ~~COMPANIES THAT ARE~~ PARTIES TO THIS MEMORANDUM OF UNDERSTANDING

The following *trade association is a* ~~companies are~~ part*y* ~~ies~~ to this MOU and shall be responsible for ensuring that the obligations and undertakings of *its member* ~~the~~ companies under this MOU are discharged and carried out as provided herein:

Names and Addresses of Participating *nts* ~~Companies~~

*Chemical Manufacturers Association*

*Vinyl Chloride Panel*

*2501 M Street, N.W.*

*Washington, D.C. 20037*

## III. IDENTIFICATION OF THE SUBSTANCE(S) SUBJECT TO RESEARCH REQUIREMENTS UNDER THIS MEMORANDUM OF UNDERSTANDING

The chemical substance(s) that is the subject of this MOU is *vinyl chloride* _____ (CAS No.*75-01-4* ____). The chemical substance to be tested shall be as pure as reasonably can be attained. However, *in* ~~under~~ certain circumstances, ATSDR recognizes that it may be more desirable to test mixtures or technical grade products. ~~[Note: Substitute alternative language when the subject of the research is a human population as in epidemiologic studies].~~

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## IV. IDENTIFICATION OF THE EFFECTS OR CHARACTERISTICS FOR WHICH RESEARCH IS TO BE CONDUCTED

The health effects, environmental fate or other characteristics for which research is to be conducted by *CMA* ~~the company~~ under this MOU are listed below:

~~[ To be listed by the company ]~~

*Reproductive effects -- Inhalation*

*Developmental effects - Inhalation* .

*This research is intended to satisfy the priority data needs for vinyl chloride identified by ATSDR and the Environmental Protection Agency, as described at 59 Fed. Reg. 49937 (Sept. 30 , 1994).*

*ATSDR believes that the proposed research agenda addresses the Agency's priority data needs for vinyl chloride as follows:*

- *ATSDR has identified a priority data need for a multi-generation reproductive toxicity study by the inhalation pathway. HSIA's proposal will meet this data need.*
- *ATSDR has identified a priority data need for a two-species developmental toxicity study by the inhalation pathway. HSIA's proposal, combined with existing data, will meet this data need.*

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## V. IDENTIFICATION OF STUDY PLANS AND TESTING PROTOCOLS AGREED TO BY ATSDR AND *CMA* ~~THE COMPANY~~ PRIOR TO SIGNING OF MOU

The research to be conducted on *vinyl chloride* ~~(name of chemical substance)~~ pursuant to this MOU is ~~identified in Table 1 below. The study plan, guidelines and protocols~~ ~~are listed in Table 1 and~~ described in detail in *the study protocol* *Vinyl Chloride: Combined Inhalation Two-Generation Reproduction and Developmental Toxicity Study in CD Rats* *that was* ~~were~~ *agreed to by ATSDR and CMA* ~~the company~~ *(*Attachment *1* to this MOU*)*. *CMA* ~~The company~~ agrees to ~~perform (or~~ sponsor and fund the performance of~~)~~ the research identified in *Attachment* ~~Table~~ 1 in accordance with the guidelines and schedules established pursuant to the ~~study plan and testing~~ protocol~~.~~*s* ~~agreed to prior to signing of this MOU~~.

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## TABLE 1
## IDENTIFICATION OF STUDY PLANS AND TESTING PROTOCOLS AGREED TO BY ATSDR AND *CMA* ~~THE COMPANY~~ PRIOR TO SIGNING OF MOU

COMPANY _____

TEST SUBSTANCE

_____

IDENTIFICATION OF STUDY PLAN

Title _____

ID # _____

| TEST TO BE CONDUCTED | GUIDELINES | | |
|---|---|---|---|
| | TSCA* | Other EPA Guidelines | Alternate Guidelines |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

* Citation to 40 C.F.R. where appropriate

R&S146708

## VI. SUBMISSION OF STUDY PLANS AND ESTABLISHMENT OF SCHEDULE FOR INITIATION OF RESEARCH AND SUBMISSION OF INTERIM AND FINAL REPORT

A. Prior to signing of this MOU *CMA* ~~the company~~ shall *have* submit*ted* to ATSDR the *protocol* ~~study~~ ~~plan~~ for each test that is to be conducted pursuant to this MOU (see *Attachment* ~~Appendix~~ 1).

B. Prior to entering into this MOU, the study plan including all testing protocols and guidelines shall *have* be*en* reviewed by an ATSDR appointed peer review panel. Consistent with CERCLA section 104(i)(13), the peer review panel will consist of no fewer than three nor more than seven peer reviewers who a) are selected by the Administrator of ATSDR; b) are disinterested scientific experts; c) have a reputation for scientific objectivity; and d) lack institutional ties with any person involved in the conduct of the study under review.

C. The study shall be initiated within 8 weeks of the date on which ATSDR and *CMA* ~~the company~~ have signed this MOU. Written notification of the starting date of the test will be submitted to ATSDR by *CMA* ~~the company~~. The completion date of the study will be established from the approved study plan.

D. Unless modified pursuant to Paragraph VII, a final draft report on the results of testing conducted pursuant to the approved study plan and signed into agreement under this MOU shall be submitted to ATSDR within 20 weeks of the end of the study for ATSDR's peer review, consistent with CERCLA section 104(i)(13). Following acceptance by ATSDR, upon

recommendation by the peer review panel, *CMA* ~~the company~~ will submit a final report of the study to ATSDR within 4 weeks. Final reports will not be accepted if the data is designated Confidential Business Information (CBI) or otherwise restricted from public disclosure with the exception of personally identifiable information on study subjects. ~~[Note: When the MOU covers multiple tests, different final report periods could be established for the different tests]~~.

E. Unless modified pursuant to Paragraph VII, interim progress reports on each testing program conducted pursuant to a study plan approved by ATSDR under this MOU shall be submitted to ATSDR within 6 months after the initiation of testing, and thereafter, within 6 months after the submission of each previous interim report. If the study is scheduled to be completed in one year, an interim brief letter addressing the status of the research must be submitted to ATSDR within 6 months of the initiation of the study.

## VII. MODIFICATION OF STUDY PLANS, GUIDELINES, AND SCHEDULES

A. If *CMA* ~~the company~~ seeks to modify a study plan, guidelines, or schedules that have been approved by ATSDR pursuant to this MOU, *CMA* ~~the company~~ shall notify ATSDR in writing of the proposed modifications and the reasons therefor. ATSDR shall respond in writing to the proposed modifications within 2 to 6 weeks either: (i) approving the modifications as proposed, (ii) approving the modifications as revised by ATSDR, or (iii) disapproving the modifications entirely. If ATSDR does not approve the modifications as proposed, *CMA* ~~the company~~ will have 2 weeks within which to: (i) accept ATSDR's decision and proceed in accordance therewith, (ii) request that ATSDR reconsider its decision, or (iii) withdraw from the MOU. ATSDR will respond to request for reconsideration within 2 weeks (see Figure 1).

B. If *CMA* ~~the company~~ submits a request for modification to ATSDR pursuant to Paragraph VII. A., the time schedule established for completion of these tests shall be extended by the length of time required by ATSDR and *CMA* ~~the company~~ to respond to and approve the modifications.

## VIII. OBSERVANCE OF GOOD LABORATORY PRACTICES

All research agreed to in this MOU shall be conducted in accordance with the Good Laboratory Practice (GLP) standards

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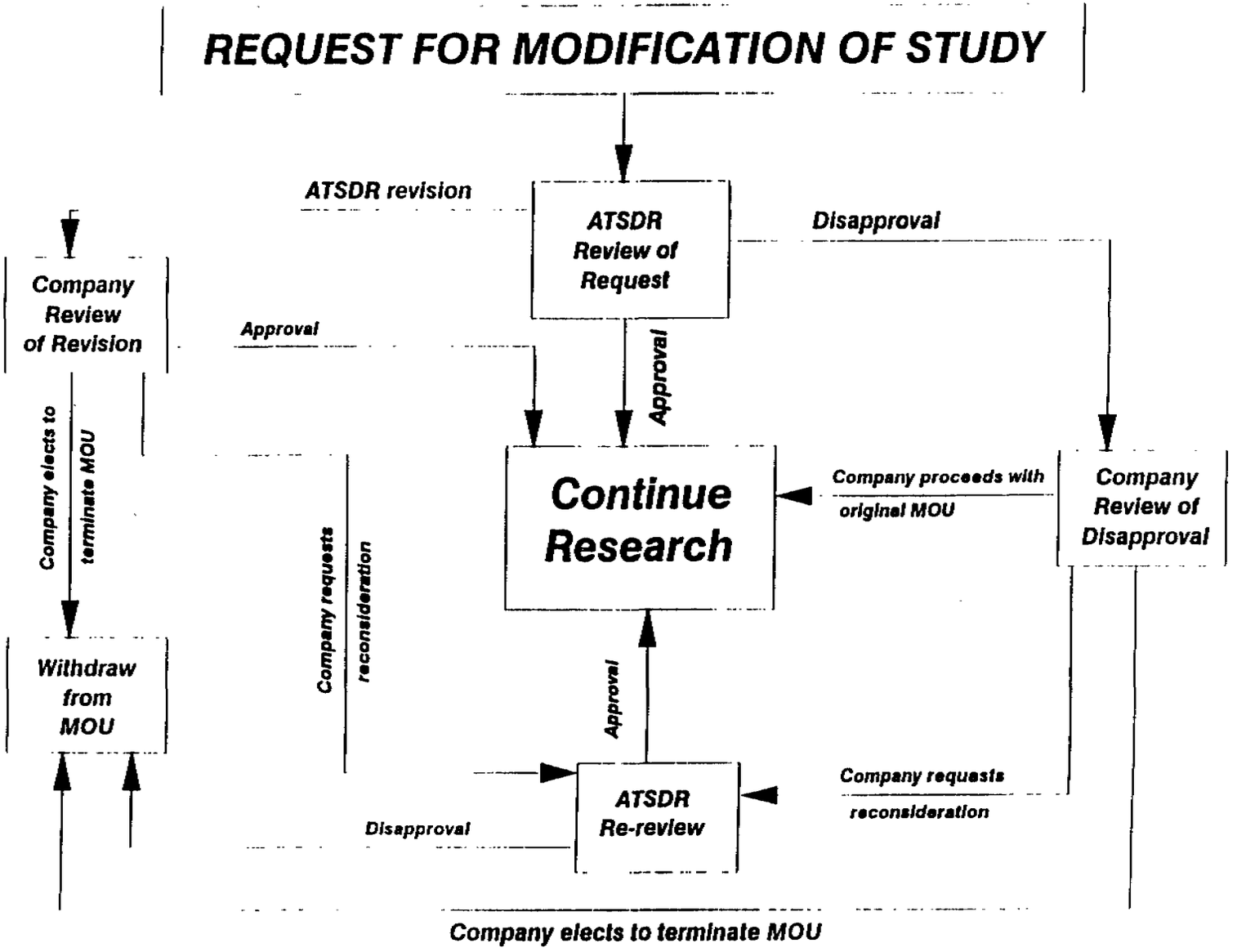
REQUEST FOR MODIFICATION OF STUDY
ATSDR revision
ATSDR Review of Request
Disapproval
Company Review of Revision
Approval
Approval
Company elects to terminate MOU
Continue Research
Company proceeds with original MOU
Company Review of Disapproval
Company requests reconsideration
Withdraw from MOU
Approval
ATSDR Re-review
Company requests reconsideration
Disapproval
Company elects to terminate MOU

Figure 1.

codified in 40 C.F.R. Part 792, Subparts B, C, D, E, F, G, J, and L, to the extent that such GLP standards apply. Should Good Epidemiology Practices ("e.g., Guidelines for Good Epidemiology Practices for Occupational and Environmental EPidemiologic Research"--The Chemical Manufacturers Association's Epidemiology Task Group, Journal of Occupational Medicine, Volume 33, 1221-1229, 1991) be relevant to a research project, those Practices should be affixed to the study plan.

## IX. INSPECTIONS

*CMA* ~~The company~~ shall ensure that an authorized employee or duly designated representative of ATSDR is permitted, at reasonable times and in a reasonable manner, to (i) inspect any research or testing facility that is conducting research pursuant to this MOU, and (ii) inspect (and, in the case of records, copy) any records and specimens required to be maintained in connection with research performed pursuant to this MOU.

## X. PAYMENT OF COST AND EXPENSES

*CMA* ~~The company~~ agrees to pay all costs, direct and indirect, associated with the research programs. ATSDR will assume responsibility for administrative costs including the cost of peer review as part of its overall program.

## XI. EVENTS CONSTITUTING A BREACH OF THIS MEMORANDUM OF UNDERSTANDING

Failure by *CMA* ~~the company~~ to:

i) initiate any test agreed to in *any* ~~the~~ approved study plan~~, appended to this MOU,~~ by the date established pursuant to the study plan;

ii) adhere to GLP's or established test procedures to the extent that these standards apply;

iii) submit any interim report required under this MOU by the date established pursuant to this MOU; or

iv) submit any final report which receives ATSDR's approval following the peer reviewers' recommendations

shall constitute a breach of this MOU. In the event of a breach, ATSDR will not impose any claim to damages, but at the Agency's discretion may terminate the MOU.

Since this MOU is entered into voluntarily by both parties, termination by ATSDR is not considered reviewable agency action pursuant to the Administrative Procedures Act or any other applicable federal law, and there will be no appeal process beyond that set out in the agreement or otherwise mutually agreed to by the parties.

## XII. FINAL REPORT - SUBMISSION AND PUBLICATION OF DATA

All data and reports submitted to ATSDR pursuant to this MOU shall be sent to ATSDR, in duplicate, at the address indicated in Paragraph XIV below. Acceptance of the final report is contingent upon approval by ATSDR following the peer review panel's recommendations, consistent with CERCLA peer review requirements. *CMA* ~~The company~~ maintains all rights to publication of data and results, however all results of research conducted pursuant to this MOU and all supporting data associated with the final research report will be made available by ATSDR to the public as part of its implementation of Section 104(i)(5) of CERCLA. The final report will not be accepted if the data is designated Confidential Business Information (CBI) or otherwise restricted from public disclosure with the exception of personally identifiable information on study subjects.

## XIII. STATUTORY COMPLIANCE

Nothing in this MOU shall be construed to delay or otherwise affect or impair the authority of the President, the Administrator of ATSDR, or the Administrator of EPA to exercise any authority of the President, the Administrator of ATSDR, or the Administrator of EPA under any other provision of law, including TSCA and FIFRA, or the response and abatement authorities of CERCLA.

## XIV. ADDRESSES

Any notifications, reports, or other written statements required to be submitted or sent to a party to this MOU shall be sent by certified mail to the parties at the following addresses:

Agency for Toxic Substances and Disease Registry
Division of Toxicology, Research Implementation Branch
Mail Stop E-29
1600 Clifton Road, N.E.
Atlanta, GA 30333

Attention: Dr. William Cibulas

~~Company I~~ *Chemical Manufacturers Association*
~~Address~~ *Vinyl Chloride Panel*
*2501 M Street, N.W.*
*Washington, D.C. 20037*

Attention: *Dr. Hasmukh C. Shah*

~~Company II~~
~~Address~~

~~Attention:~~

## XV. SIGNATURES

Agency for Toxic Substances and Disease Registry

Date:_____ By:_____

~~Company I.~~ *Chemical Manufacturers Association*

Date:_____ By:_____

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~~Company II.~~

~~Date:~~ _____ ~~By:~~ _____