THE VINYL INSTITUTE TECHNICAL COMMITTEE
FEBRUARY 1993 STATUS REPORT

MISSION STATEMENT

To provide technical support to the proactive VI Task Forces and to VI activities which address regulatory, health, environmental, and other marketplace issues which impact on the existing and future uses of vinyl products.

Fulfillment of this mission encompasses five general categories:

1. Development and documentation of scientifically sound information regarding performance of vinyl products and execution of research projects which fill important technology gaps pertinent to the use of vinyl products.

2. Technical support to the VI Proactive Task Forces (Electrical Materials, PRO, and Packaging Council).

3. Participation in the presentation and promotion of scientific facts about vinyl products to audiences such as government, industry organizations, and environmental organizations.

4. A proactive "early alert" function which recognizes coming issues, recommends action, and takes appropriate action.

5. Liaison with other trade associations and consensus standards organizations (e.g. ASTM) to further the interests of the vinyl industry.

1992 - 1993 COMMITTEE STATUS

BUDGET

1992-93 Fiscal Year: $ 135,000

KEY PROGRAMS

Solid Waste Management / Incineration	$ 45,000
Solvent Cement	$ 25,000
Fire Sciences	- zero -
Medical & Health Effects	$ 15,000
VCM Unit Risk Factor Assessment	$ 10,000
Sensory Irritation / Indoor Air	$ 10,000
Life Cycle Study	$ 20,000
Contingency	$ 10,000

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SOLID WASTE MANAGEMENT - INCINERATION

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

PRIMARY CONTACT(S):
Dr. Magee

STATUS:
1) The European incineration pilot plant projects (Sweden & Norway) are intended to provide greater scientific rigor than previous investigations on the role of PVC in dioxin/furan emissions. While the projects are proceeding slowly, reactor start-up and baseline testing are currently being conducted. PCB's have been added to the by-product analyses. Dr. Magee will continue to monitor the progress of the studies with the next project update occurring in Brussels on April 29, 1993.

2) Discussions continue in the Technical Committee concerning the contribution of PVC to the generation of HCl in MSW incinerators. A review of a literature search (NJIT) and project data (BFG, Dow) indicates that direct recovery of HCl from MSW incinerators is not currently economically feasible. The feasibility of the application of advanced membrane technology to HCl recovery will be researched. In addition to HCl recovery technology, an RFP will be written by Dick Magee and Roy Gottesman to determine the incremental cost of scrubbing PVC generated HCl from the incineration process.

VCM UNIT RISK FACTOR ASSESSMENT

GOAL:
To conduct a new quantitative risk assessment for VCM using pharmacokinetics (PB-PK). The results of this study will be used to update the existing unit risk factors used by regulators today.

PRIMARY CONTACT(S):
Ron McCreedy

STATUS:
1) PHASE I (Completed):
In January 1993, Mel Andersen (CIIT), Dick Reitz (Dow Chemical) and Trevor Green (et. al. ICI) completed a draft of their results using a PB-PK model they developed for VCM. Their study indicates a 100 fold improvement in the safe VCM exposure level (24 hour, continuous) when the results of the PB-PK model is compared to the EPA Health Effects Assessment Summary Tables (EPA HEAST -12/92). Copies of the draft report will be forwarded for review and comments to BFG, Oxy and Vista.

2) PHASE II (Proposed):
During Phase I, data gaps were identified in the existing human inhalation database. It is believed that the safe VCM exposure level would increase more an the initial study indicated if better human metabolic data were available. A proposal for a Phase II study involving in-vitro studies on human, rat and mice livers will be presented to the Technical Committee for consideration.

FIRE SCIENCES

GOAL:
Monitor and promote scientific reasoning in the development of fire codes, standards and regulations that ensure a fair treatment for PVC products.

PRIMARY CONTACT(S):
Bud Hall, Lou Maresca, Alan Olson, Bob Strength

STATUS:
1) The Technical Committee is reviewing several proposals to develop a risk assessment of the smoke corrosivity from several polymers (including PVC). Fred Clarke (Benjamin/ Clarke Associates) has been asked to review the data published by the SPI Polyolefins Division and a RFP from Batelle for data gaps and applicability towards developing a risk assessment for PVC, PE, PPO/PS, acrylic and a fluoropolymer.

SOLVENT CEMENT ISSUE

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

PRIMARY CONTACT(S):
Don Goodman.

STATUS:
1) The SCAQMD is expected to adopt the revised VOC standards and implementation timing (1998) proposed by the Solvent Cement Industry Ad Hoc Task Group.

OPERATION	VOC Content Limit (grams/liter)		
	1/1/93	1/1/94	1/1/98
PVC Welding	850	450	250
CPVC Welding	850	450	250
ABS Welding	850	350	250
Primer Application	850	650	250

The VOC levels and dates listed mean that the status quo will remain for at least 5 years and that small diameter PVC/CPVC pipes and fittings markets will not be adversely affected during this time.

Ronald L. McCreedy
Dow North America
February 12, 1993