

MINUTES of the two-hundred eightieth meeting of the Board of Directors of the Chemical Manufacturers Association, Inc., held at the Galleria Plaza Hotel, Houston, Texas, Tuesday, October 28, 1980, at 2:00 p.m.

Directors:	H. Barclay Morley, Chairman	
	William G. Simeral, Vice Chairman	
	Richard C. Ashley	William G. Kay, Jr.
	Dexter F. Baker	John Morrisroe
	Charles E. Brookes	Paul F. Oreffice
	Harry W. Buchanan	L. John Polite, Jr.
	Carlyle G. Caldwell	Seymour S. Preston III
	Robert S. Dudley	Toy F. Reid
	Richard E. Engebrecht	William C. Roher
	Louis Fernandez	Robert A. Roland
	William J. Ferracone	John P. Sachs
	Robert W. Gerwig	Harold A. Sorgenti
	Arthur L. Goeschel	Alfred C. Stepan, Jr.
	James B. Henderson	Allan J. Tomlinson
	Richard J. Hughes	H. Kent Vanderhoef
	William B. Jackson	Konrad M. Weis
	Leo H. Johnstone	Harriette F. Witmer
	Emerson Kampen	Louis G. Zachary

Secretary:	Bruce M. Barackman
General Counsel:	Edmund B. Frost
Treasurer:	Gary C. Herrman

By Invitation:	Warren M. Anderson, Union Carbide Corporation
	Geraldine V. Cox, CMA
	Richard F. Gold, Stauffer Chemical Company
	W. E. Kennel, Amoco Chemicals Corporation
	W. C. Krumrei, The Procter & Gamble Company
	James N. Sites, CMA
	William M. Stover, CMA

1. The meeting was called to order by Chairman Morley.

2. APPROVAL OF SEPTEMBER 8, 1980 MINUTES

Minutes of the September 8, 1980 meeting, as distributed, were approved.

Table 4. -- A Partial List of 65 Chemicals Designated as
Priority Pollutants

Arsenic
Benzene
Beryllium
Cadmium
Carbon tetrachloride
Chlordane
Chlorinated naphthalenes
Chloroform
2-chlorophenol
Dichlorobenzenes
2,4-Dimethylphenol
2,3,7,8-Tetrachlorodibenzo-p-dioxin
Fluoranthene
Heptachlor
Hexachlorobutadiene
Hexachlorocyclopentadiene
Lead
Nitrosamines
Pentachlorophenol
Selenium
Silver
Tetrachloroethylene .
Thallium
Trichloroethylene
Vinyl Chloride

Table 6. -- Chemicals Having Substantial Evidence of Carcinogenicity; CAG List

2-Acetylaminofluorene *	1,2-Dimethylhydrazine (IARC)
Acrylonitrile (CAG, IARC)	Dimethyl Sulfate (IARC)
Aflatoxins (IARC) *	2,4-Dinitrotoluene (CAG, NCI)
Aldrin (CAG, NCI) *	1,4-Dioxane (NCI)
4-Aminobiphenyl (IARC)	1,2-Diphenylhydrazine (CAG)
Amitrole (IARC) *	Epichlorohydrin (CAG) *
Aramid (IARC)	Ethylenebis(dithiocarbamate) (EBDC) (CAG)
Arsenic and Arsenic Compounds (CAG, IARC)	Ethyleneimine (Aziridine) (IARC) *
Asbestos (CAG, IARC)	Ethylene Oxide (CAG, IARC)
Auramine and the manufacture of Auramine (IARC)	Ethylenethiourea (CAG, IARC)
Azaserine (IARC) *	Ethyl Methanesulfonate (IARC)
Benz(a)acridine (IARC) *	Formaldehyde (CAG)
Benz(a)anthracene (IARC) *	Glycidaldehyde (IARC)
Benzene (CAG, IARC)	Heptachlor (CAG, NCI)
Benzidine (CAG, IARC)	Hexachlorobenzene (CAG, IARC)
Benzo(a)pyrene (IARC)	Hexachlorobutadiene (CAG)
Benzo(b)fluoranthene (IARC)	Hexachlorocyclohexane (HCH)
Benzo(j)fluoranthene (IARC) *	HCH (CAG)
Beryllium and Beryllium Compounds (CAG, IARC)	HCH (Lindane) (CAG)
N,N-Bis(2-Chloroethyl)-2-Naphthylamine (Chlornaphazine) (IARC) *	Technical HCH (CAG)
Cadmium and Cadmium Compounds (CAG, IARC)	Hydrazine (IARC)
Carbon Tetrachloride (CAG, IARC)	Indeno(1,2,3-cd)pyrene (IARC)
Chlorambucil (IARC) *	Iron Dextran (IARC) *
Chloroalkyl Ethers	Isosafrole (IARC)
Bis(2-chloroethyl)ether (BCEE) (CAG) (IARC) *	Kepone (Chlorodecane) (CAG, NCI)
Bis(chloromethyl)ether (BCME) (CAG, IARC)	Lasiocarpine (IARC, NCI)
Chloromethyl methyl ether (CMME), technical grade (IARC)	Melphalan (IARC) *
Chlordane (CAG, NCI)	Methapyriline (FDA) *
Chlorinated Ethanes	3-Methylcholanthrene *
1,2-Dichloroethane [Ethylene Chloride, Ethylene Dichloride (EDC)] (CAG, IARC, NCI)	4,4'-Methylenebis(2-Chloroaniline) (MOCA) (IARC)
Hexachloroethane (CAG)	Methyl Iodide (CAG, IARC)
1,1,2,2-Tetrachloroethane (CAG)	Methyl Methanesulfonate (IARC)
1,1,2-Trichloroethane (CAG, NCI, IARC) *	N-Methyl-N'-nitro-N-nitrosoguanidine (IARC)
Chlorobenzilate (CAG)	Methylthiouracil (IARC) *
Chloroform (CAG, IARC)	Mitomycin C (IARC) *
Chromium Compounds, Hexavalent (CAG, IARC)	Mustard Gas (IARC)
Chrysene (IARC) *	1-Naphthylamine, technical grade (CAG)
Citrus Red No. 2 (IARC)	2-Naphthylamine (IARC)
Coal Tar and Soot (CAG included in IARC's soots, tars, and oils designation)	Nickel and Nickel Compounds (CAG, IARC)
Coke oven Emissions (Polycyclic Organic Matter (POM)) (CAG)	Nitrogen Mustard and its hydrochloride (IARC)
Creosote (CAG)	Nitrogen Mustard N-oxide and its hydrochloride (IARC)
Cycasin (IARC)	5-Nitro-o-toluidine (NCI)
Cyclophosphamide (IARC) *	4-Nitroquinoline-1-oxide *
Daunomycin (IARC) *	Nitrosamines
DDT (Dichlorodiphenyltrichloroethane) (CAG)	N-Nitrosodiethanolamine (IARC)
Diallate (CAG) (IARC) *	N-Nitrosodiethylamine (DNA) (CAG, IARC)
Dibenz(a,h)acridine (IARC)	N-Nitrosodimethylamine (DMNA) (CAG, IARC)
Dibenz(a,j)acridine (IARC)	N-Nitrosodi-n-butylamine (IARC)
Dibenz(a,h)anthracene (IARC)	N-Nitrosodi-n-propylamine (IARC)
7H-Dibenzo(c,g)carbazole (IARC)	N-Nitrosomethylethylamine (IARC)
7H-Dibenzo(c,g)carbazole (IARC)	N-Nitrosomethylvinylamine (IARC)
Dibenzo(a,e)pyrene (IARC)	N-Nitroso-N-Ethylurea (NEU) (CAG, IARC)
Dibenzo(a,h)pyrene (IARC)	N-Nitroso-N-Methylurea (NMU), (CAG, IARC)
Dibenzo(a,i)pyrene (IARC)	N-Nitroso-N-methylurethane (IARC)
1,2-Dibromo-3-chloropropane (DBCP) (CAG, IARC, NCI)	N-Nitrosomorpholine (IARC)
1,2-Dibromoethane [Ethylene Bromide, Ethylene Dibromide (EDB)] (NCI, CAG, IARC)	N-Nitrosornicotine (IARC)
3,3'-Dichlorobenzidine (DCB) (CAG, IARC)	N-Nitrosopiperidine (IARC)
Dieldrin (CAG)	N-Nitrosopyrrolidine (IARC)
Diepoxybutane (IARC)	N-Nitrososarcosine (IARC)
1,2-Diethylhydrazine (IARC)	Pentachloronitrobenzene (PCNB) (CAG)
Diethylstilbestrol (DES) (IARC) *	Phenacetin (IARC) *
Dihydroisoflavan (IARC)	Polychlorinated Biphenyls (PCBs) (CAG, IARC)
3,3'-Dimethoxybenzidine (o-Dianisidine) (IARC)	Pronamide (CAG)
p-Dimethylaminoazobenzene (IARC)	1,3-Propane Sultone (IARC)
7,12-Dimethylbenz(a)anthracene *	Propiolactone (IARC)
3,3'-Dimethylbenzidine (o-Tolidine) (IARC)	Propylthiouracil (IARC) *
Dimethylcarbamoyl Chloride (IARC)	Reserpine (NCI) *
1,1-Dimethylhydrazine (IARC)	Saccharin (FDA) *

Safrole (CAG, IARC) *
Selenium Sulfide (NCI)
Streptozotocin (IARC) *
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) (CAG)
Tetrachloroethylene (Perchloroethylene) (CAG, NCI)
Thioacetamide (IARC)
Thiourea (IARC)
o-Toluidine Hydrochloride (NCI)
Toxaphene (CAG, IARC, NCI)
Trichloroethylene (CAG, NCI)
2,4,6-Trichlorophenol (NCI)
Tris(1-aziridinyl)phosphine sulfide (Thio-TEPA) (IARC, NCI) *
Tris(2,3-dibromopropyl)phosphate (IARC, NCI)
Trypan Blue, commercial grade (IARC)
Uracil Mustard (IARC) *

Urethane (IARC) (Ethyl carbamate; ethyl ester of carbamic acid)
Vinyl Chloride (CAG, IARC)
Vinylidene Chloride (CAG)

* This is not a comprehensive list of all chemicals having substantial evidence of carcinogenicity. Other chemicals will be added. No attempt has been made to select chemicals based upon appropriateness for regulation by EPA. The list is intended to be a basis for selection by the various program offices according to their specific needs.

* Well known carcinogen for which no report has been prepared by CAG or IARC.

* Fungal toxin, not an industrially manufactured product.

* Used as a drug.

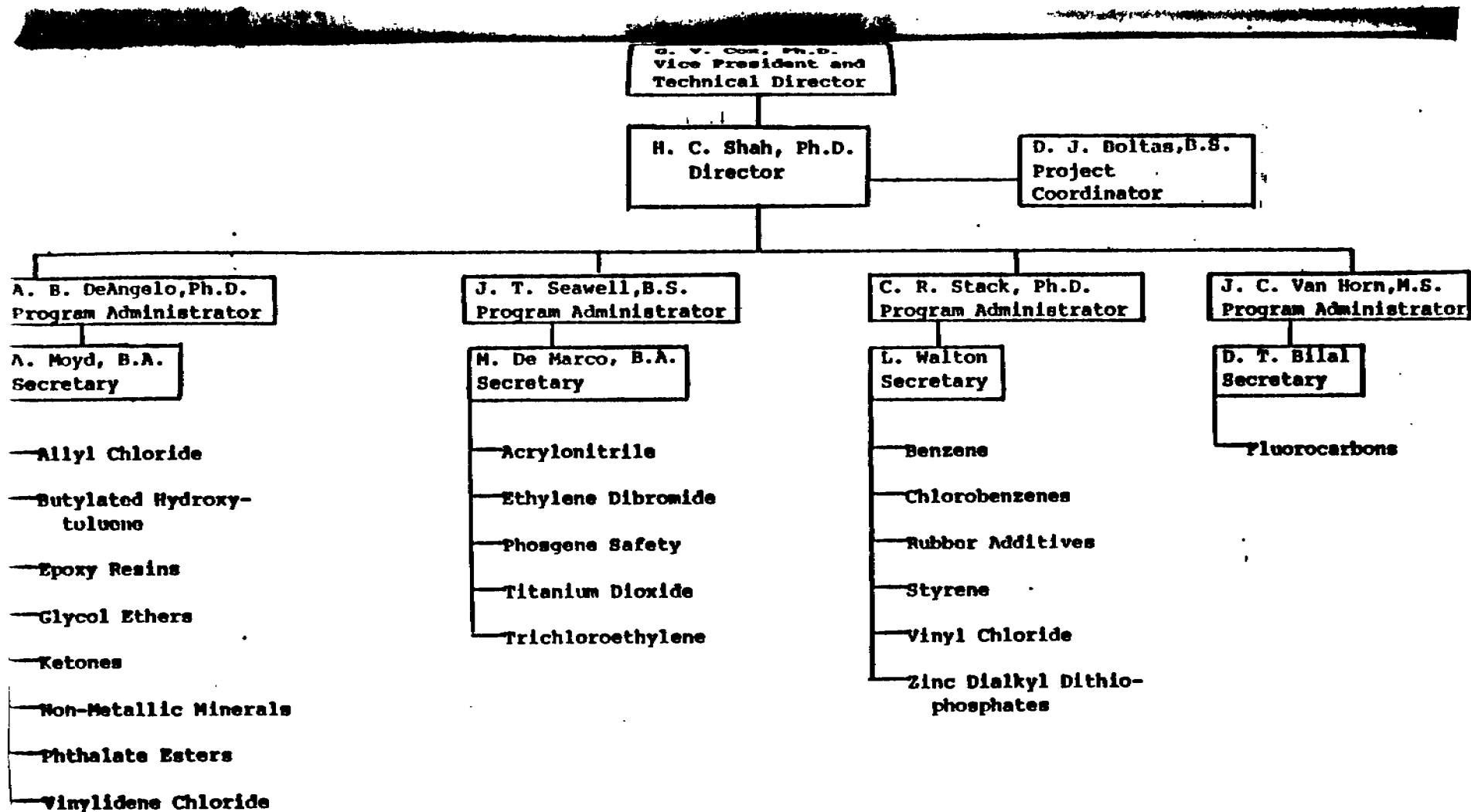
* Evaluated by IARC as not having sufficient evidence of carcinogenicity.

* Used as a food.

Table 7. -- Alphabetical Index of Chemicals Cited in the
NTP Annual Plan

Acetamide	25
Acetin	25
Acetohexamide	36
2-Acetylaminofluorene	40
4-Acetylaminofluorene	40
N-Acetylaminofluorene	40
Acetyl-o-toluidine	25
Acetylsalicyclic acid	36
Acid black	42
Acid orange #3	42
Acid red 25	68
Acrolein	25
Acrylamide	70
Agar agar	42, 55
Agaritrine	42
Aldicarb	36, 5, 62
Allyl chloride	51
Allyl isothiocyanate	42
Allyl isovalerate	42
2-Aminoanthraquinone	36, 51
3-Amino-9-ethylcarbazole hydrochloride	51
3-Amino- α,α,α -trifluorotoluene	25
1-Amino-2-methylantraquinone	51
2-Amino-4-nitrophenol	42
2-Amino-5-nitrophenol	42

Tris (2,3-dibromo propyl) phosphate	67
Tris (1,3-dichloroisopyl) phosphate	67
Tris(2-ethylhexyl)phosphate	32, 50
Tris(isopropylphenyl)phosphate	34
o-Tritolyl phosphate	32
p-Tritolyl phosphate	32
L-Tryptophan	38
Urethane	40
Vitamin A	74
Vinyl chloride	65
Vinylcyclohexane	50
Vinylcyclohexene dioxide	61
Vinylidene chloride	1, 27, 50, 56, 60
Vinyl toluene	50
Violet 3	50
Wollastonite calcium silicates	34, 59
Witch hazel	50
m-Xylene	32, 73
o-Xylene	32, 73
p-Xylene	32, 73
Xylenes, mixed	59, 72, 73
Xylenesulfonic acid, sodium salt	50, 61
2,6-Xylidine	61
Yellow #14	50, 56
Zearalenone	50
Ziram	50, 56



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FIGURE 1. Organization of Biomedical and Environmental Special Programs

CMA
10/8/80

TABLE 8

BIOMEDICAL AND ENVIRONMENTAL SPECIAL PROGRAMS BUDGET^a

<u>PROGRAM</u>	<u>RESEARCH AND ADVOCACY COMMITMENT</u>	<u>ADMINISTRATIVE EXPENSES</u>	<u>TOTAL</u>
Acrylonitrile	\$ 728,484	\$ 59,411	\$ 787,895
Allyl Chloride	210,600	13,948	224,548
Benzene	1,430,444	83,526	1,513,970
Butylated Hydroxytoluene	21,944	25,213	47,157
Chlorobenzenes	300,972	22,334	323,306
Epichlorohydrin	214,882	27,332	242,214
Epoxy Resins	-0-	9,368	9,368
Ethylene Dibromide	10,000	28,836	38,836
Ethylene Dichloride	288,100	59,376	347,479
Glycol Ethers	-0-	-0-	-0-
Ketones	-0-	10,901	10,901
Phosgene	207,912	55,035	262,947
Phthalate Esters	106,471	72,086	178,557
Rubber Additives	27,900	5,867	33,767
Styrene	708,218	54,934	763,152
Titanium Dioxide	30,725	14,615	45,340
Trichloroethylene	490,506	77,152	567,658
Vinyl Chloride	1,326,562	112,958	1,439,520
Vinylidene Chloride	729,482	52,088	781,570
Zinc Dialkyl Dithiophosphates	-0-	-0-	-0-
Subtotal	6,833,202	784,983	7,618,185
<u>Fluorocarbons</u>	<u>7,580,453</u>	<u>509,214</u>	<u>8,089,667</u>
TOTAL	\$14,413,655	\$1,294,197	\$15,707,852

^aFluorocarbons program from start thru May 30, 1980. All other programs start to September, 1980.

^bAPI is co-sponsoring a portion of this research. Its share (\$1,587,786) is not shown in this figure. The figure does include \$303,388 paid to outside legal counsel not shown on the program summary in Appendix A.