

The Society of the
Plastics Industry, Inc.



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BORDEN CHEMICAL

APR 16 1985

LEOMINSTER

April 11, 1985

Dear Member:

Per your request, attached please find the initial response to a survey sent to major chemical manufacturing companies in the U.S. from Representative Henry Waxman (D-CA). Waxman had sent this questionnaire out shortly after the Bhopal tragedy. During a hearing held March 27, 1985, on chemical emissions from plants, Waxman said that this study indicated routine release rates showing extremely high levels of "chemicals such as xylene, or carcinogens such as butadiene and acrylonitrile." From this survey, Waxman's staff has compiled a list of 204 chemicals that industry now determines to be hazardous but, of that 204, only five are currently regulated by EPA. The compilation of the 204 chemicals is also attached.

Sincerely,

Margaret Rita
Federal Research

Attachments

RECEIVED
APR 23 1985
ENVIRONMENTAL AFFAIRS
ROUTE TO VICE PRES —
TH —
CRS —

Have you
seen this?

Nat

BOR 014788

RECEIVED

MAR 28 1985

INTERIM SUMMARY OF RESPONSES TO THE
WAXMAN CHEMICAL COMPANY INQUIRY

THE SOCIETY OF THE
PLASTICS INDUSTRY, INC

The Inquiry

On January 31, Chairman Henry A. Waxman wrote to the chief executive officers of 86 of America's largest chemical companies requesting information on the amount of poison gases and other hazardous compounds being leaked or released into the air from their plants.

No government agency has previously attempted to gather this information. In fact EPA was unable to provide the Subcommittee with an up-to-date list of where the chemical plants in this country are located.

The inquiry focused on 19 substances considered "extremely hazardous" in Union Carbide's chemical evaluation system, and 27 substances listed as suspected hazards by the EPA. (EPA has been unable to decide which substances are dangerous -- only five compounds are now regulated as "hazardous" under the Clean Air Act). Additionally the chemical industry was asked to indicate other chemicals which they believed to be hazardous.

The Response

As of March 22 (last Friday) the Subcommittee had received responses from 67 companies or about 80% of those contacted.

Some responses were thorough, including detailed health studies and monitoring data. (Examples include Pittsburgh Paint and Glass (PPG), and Occidental Petroleum).

Some failed to give the requested information on what chemicals are leaking from their plants. (Monsanto and Union Oil are examples.)

As of last Friday, 19 companies had not responded, including Stauffer Chemical, Sherman Williams, and Phillips Petroleum.

What We've Learned

Some 204 chemicals were identified by industry experts as proven hazards.

Almost every chemical plant that provided information on its leak rates is releasing significant levels of compounds proven or suspected of being hazardous to the public health.

Many of the routine release rates which were reported were extremely high. For example, in Decatur, Alabama, Amoco has a chemical plant that each day dumps 5000 pounds of a suspected neurotoxin, Xylene, into the air. Borg Warner has a plant in Parkersburg, West Virginia, that releases 8600 pounds each day of proven carcinogens (acrylonitrile and butadiene) into the community's air.

It should be emphasized that the information on these leaks was provided by companies responsible enough to respond to the Subcommittee inquiry. How much of which poisons are coming from companies such as Stauffer Chemical, which did not respond to our information request, is not yet known by the Subcommittee or the public.

A brief summary of the responses, indicating which companies responded, is attached.

CHEMICAL COMPANY RESPONSES TO
CONGRESSMAN WAXMAN'S
LETTER OF
JANUARY 31, 1985

March 26, 1985

<u>COMPANY</u>	<u>RESPONDED</u>	<u>INSUFFICIENT EMISSION DATA</u>	<u>NO DATA</u>
Air Products and Chemicals	2/20		
Akzo America, Incorporated	3/14		
Allied Corporation	3/5		
AMAX	2/27		
Amerada Hess	2/25		
American Cyanamid	3/22		
American Hoechst	3/5		
American Petrofina			X
Amoco Chemicals	3/5		
Ashland Oil		3/8	
Atlantic Richfield		2/27	
BASF Wyandotte	3/21		
BF Goodrich	3/22		
Borden Chemical		2/21	
Borg-Warner	2/25		
Celanese Corporation	3/21		
Chevron	2/21		
Ciba Geigy			X
Clark Chemical Corporation	2/22		
Coastal States	3/1		
Continental Chemical			X

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	RESPONDED	INSUFFICIENT EMISSION DATA	NO DATA
	2/8		
Crowley Chemical Company			X
Crown	2/20		
Denka	2/20		
Diamond Shamrock	3/7		
Dow Chemical	3/16		
Du Pont	2/26		
Eastman Kodak	2/20		
Ethyl Corporation	2/19		
Exxon	2/22		
Farro Corporation	3/11		
First Chemical Corporation		3/15	
FMC Corporation			X
GAF Corporation	3/5		
General Electric	3/18		
Georgia-Pacific	2/28		
Goodyear			X
H. Kohnstamm and Company	3/1		
Hanna Mining		2/18	
Hercules			X
High Point Chemical		2/26	
ICI Americas, Incorporated		2/11	
International Minerals & Chemicals	3/15		
Kalama Chemical	2/27		
Kerr-McGee			

	RESPONDED	INSUFFICIENT EMISSION DATA	NO DATA
Koppers Company		2/26	
LTV Steel		3/12	
MAK Chemical Corporation			X
Merichem Company			X
Mobay Chemical Corporation			X
Mobil Oil Corporation	3/7		
Monsanto		2/25	
Nepera, Incorporated	2/21		
Northern Petrochemical	3/25		
Occidental Petroleum	3/6		
Olin	3/21		
Pennwalt Corporation	2/21		
Perstorp	2/20		
Phillips			X
Plastics Engineering	2/19		
PPG Industries	2/20		
Procter and Gamble		2/15	
Publicker Industries			X
Reichold Chemicals		2/25	
Reilly Tar and Chemical	2/28		
Rohm and Haas	3/5		
Shell Oil	2/20		
Sherwin Williams			X
Specialty Organics	2/19		
Standard Chlorine	3/7		

	RESPONDED	INSUFFICIENT EMISSION DATA	NO DATA
Stauffer			X
	2/26		
Stepan Company			
	2/19		
Stimson			
	2/9		
Tenneco			
		3/4	
Texaco			
		2/19	
U.S. Steel			
	3/22		
Union Carbide Corporation			
		3/1	
Union Oil			
	2/27		
Union Pacific			
		3/7	
Uniroyal			
	2/21		
UpJohn			
	3/8		
Veliscol			
	2/22		
Vulcan Chemicals			
	3/5		
W.R. Grace and Company			
			X
Wright Chemical			

UNREGULATED AIR TOXINS IDENTIFIED BY THE CHEMICAL INDUSTRY

The list which follows identifies substances leaked or vented into the air from chemicals plants and considered hazardous to humans by industry experts. It is a product of the January 31, 1985 survey of the chemical industry by Congressman Henry Waxman (D. Ca.), Chairman of the House Health and Environment Subcommittee. Eighty-six of the nation's largest chemical companies were asked to submit information on the amount of poison gases and other hazardous compounds being leaked or vented into the air from their plants.

Each company was asked to submit a list of air contaminants coming from their plants which they believe to be extremely hazardous. It was requested that all substances be included which have health effects similar to those substances regarded as "extremely hazardous" under the chemical classification system used by Union Carbide Corporation. (An industry system was relied upon because EPA has never developed criteria for determining which chemicals are hazardous.) Under Union Carbide's system, extremely hazardous compounds include those which:

- 1.) Are known human carcinogens, or
- 2.) Result in Mutagenesis, teratogenesis, or fertility impairment, or
- 3.) Result in irreversible central nervous system disturbances, or
- 4.) Result in cumulating long term organ toxicity that is irreversible, or
- 5.) Are predominantly fast acting and can produce major injury, or
- 6.) Are covered by workplace standards (OSHA, UCC, or ACGI) with permissible exposure limits of less than 5 parts per million or less than 0.1 milligrams per cubic meter on a time weighted average.

The list which resulted includes 196 compounds not regulated by the Environmental Protection Agency (EPA). In the 15 years since the passage of the Clean Air Act, EPA has issued regulations for five hazardous air pollutants: benzene, vinyl chloride, asbestos, mercury, and beryllium.

UNREGULATED AIR TOXINS

acetaldehyde	aryl chlorosilane
acrolein	acetyl chloride
acrylonitrile	acetic anhydride
allyl chloride	allyl alcohol
aldicarb oxime	2-acetylaminofluorene BOR 014795
aniline	4-aminodiphenyl
ammonia	acrylamide
arsenic trioxide	allyl glycidyl ether
alkyl chlorosilane	N(2 amino)-3-aminopropyl-trimethoxysilane

benzyl chloride
boron triflouride
bromine
bimethylformamide
benzyl chloroformate
sec-butyl chloroformate
1,2-butylene oxide
bromotriflouroethylene
butyl isocyanate
benzidine
benzotrichloride

cadmium
carbon tetrachloride
chlorobenzene
chloroform
chloroprene
coke oven emissions
chlorine
chloromethyl ether
chlorosulfonic acid
crotonaldehyde
chloracetyl chloride
m-chloroaniline
chloropropham
carbon disulfide
carbonyl fluoride
chrysene
cupferron
chloroacetaldehyde
O-, M-, P-Cresol

p-dichlorobenzene
dimethyl nitrosamine
dioxin
disulfur dichloride
diketene
dimethyl sulfate
diethylene triamine
dimethyl amine
diethylamine
divinyl benzene
dimethyl formamide
dibutyl amine
dicyclohexylmethane 4,4-diisocyanate
diethylene glycol bis chloroformate
diisopropylamine
1,2-dibromo-3-chloropropane
3,3-dichlorobenzidine
4-dimethylamino azobenzene
diazomethane
dimethyl carbamyl chloride
dinitrotoluene

BOR 014796

diglycidyl ether

epichlorohydrin
ethylene dichloride
ethylene oxide
ethylene diamine
ethyl mercaptan
ethylene dibromide
- 2-ethyl hexyl acrylate
- ethyl acrylate
B-ethoxy propionitrile
ethyl chloroformate
ethylhexyl chloroformate
ethylhexyl percarbonate
ethyl thio chloroformate
ethyleneimine

- formaldehyde
flourine
fluosulfonic acid
furfural

glutaraldehyde
glycerol polyglycidyl ether
glycidol (epoxypropanol)

hexachloro cyclopentadiene
hydrogen flouride (anhydrous)
hydroflouric acid (anhydrous)
hydrogen peroxide
hydrogen cyanide
hydrazene
hydrogen bromide
hydrogen sulfide
hexane
hydrogen chloride
hexafluoroacetone
hexachlorobutadiene
hexamethyl phosphoramidate
hexamethyl disilazane

isobutylaldehyde
isopropylamine
isobutyl chloroformate
isopropyl chloroformate
isopropyl percarbonate

maleic anhydride
manganese
methyl chloroform
methylen chloride
m thomyl
methomyl oxime
methyl isocyanate

BOR 014797

methylamine
 methyl iodide
 methyl bromide
 methallyl chloride
 methylene diphenyl diisocyanate
 methyl chloroformate
 methyl mercaptan
 methyl chloromethyl ether
 methyl auramine
 4,4'-methylene bis (2-chloroaniline)
 methylene bis (N,N-diethyl) benzenamine
 methyl hydrazine
 4,4'-methylene dianiline
 4,4'-methyl carbamate
 metronidazole

nickel
 nitrobenzene
 nitrosomorpholine
 nitric acid
 nitro methane
 naphthylamine (alpha and beta)
 4-nitrobiphenyl
 N-nitrosodimethylamine
 2-nitropropane

oleum

perchloroethylene
 phenol
 phosgene
 polychlorobiphenyl
 propylene oxide
 phosphorous oxychloride
 phosphorous
 phosphorous trichloride
 propylene oxide
 propionaldehyde
 pyridine
 phosphorous pentasulfide
 n-propyl chloroformate
 pentafluoropropionyl peroxide
 perfluoroisobutylene
 p-phenol (4-dimethylamino-3,5-xyleneol)
 beta-propiolactone
 N-phenyl-beta-naphthylamine
 phenyl glycidyl ether
 propane sultone
 propylene imine

resorpine
 rhodamine

styrene

BOR 014798

sulfuryl flouride
silicone tetrachloride
sodium azide
sulfur monochloride
sulfuryl chloride
sodium hydrasulfide
sulfur trioxide

toluene
- trichloroethylene
toluene diisocyanate
titanium tetrachloride
thionyl chloride
1,1,1-trichloroethane
toluene diamine
tri-N-butyl amine
trifluoropropene
sym-tetrachloroethane
unsym-tetrachloroethane
1,1,2-trichloroethane
trimethylphenyl methylcarbamate
thiourea
o-toluidine
2,4,6-trinitrotoluene

uranium
uranium hexafluoride

vinylidene chloride
vinyl bromide
vanadium pentoxide
vinyl cyclohexene dioxide

xylene (o-,m,-p)