PLAINTIFF'S EXHIBIT

UC-1885

UNION CARBIDE

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

BASED ON CARCINOGENICITY, TERATOGENICITY OR OTHER SIGNIFICANT TOXICITY

(See Reverse Side for Explanations and Definitions)

SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
2-Acetylamino-fluorene (53-96-3)	Suspect cancer agent	Teratogen		As Low As Practical (UCC)
Acrylic acid (79-10-7) 0.3 WT% IN REF. PROPIONIC ACID	TRACE AMOUNTS IN; TAR BOTTOMS MIXED ACIDS	what about impurities in our acid?	1/2PT LAB	2 ppm (UCC)
Acrylonitrile (107-13-1)	Known human carcinogen	Teratogen		2 ppm 10 ppm C (OSHA)
4-Aminodiphenyl (92-67-1)	Known human carcinogen	N.D.		As Low As Practical (UCC)
Asbestos (1332-21-4)	Known human carcinogen	(-) Which building / glove contains the asbestos? 428	802 LAB VARIOUS PARTS AROUND THE PLANT STORES PACKING + GASKETS, TAPE, FIRE BLANKETS, WELD. SCREENS TOOL ROOM	10 Fibers/cc C 2 Fibers/cc >5 µm long (OSHA)
2,2'-Azobis-isobutyronitrile (78-67-1)				0.5 ppm 2 ppm STEL (UCC)

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0487

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UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

(See Reverse Side)

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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0488

UNION CARBIDE

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

BASED ON CARCINOGENICITY, TERATOGENICITY OR OTHER SIGNIFICANT TOXICITY

(See Reverse Side for Explanations and Definitions)

SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
Benzene (71-43-2)	Known human carcinogen DOES NOT APPEAR ON CERTIFICATE OF ANALYSIS	Teratogen (See Footnote A) How much is in the Toluene used ? recovery?	LAB ¼ PT	10 ppm 25 ppm C 50 ppm/10 - min peak (OSHA)
Benzidine (92-87-5)	Known human carcinogen	N.D.		As Low As Practical (UCC)
Benzidine-derived dyes O-Tolidine 119-93-7	Known human carcinogens	N.D.	1 lb LAB	As Low As Practical (UCC)
Benzyl Chloride (100-44-7)	**	N.D. (R)		1 ppm (OSHA)
Bis-2-Chloro-ethyl ether (111-44-4)	**	N.D.		15 ppm C (Skin) (OSHA)
Bis-2-Chloro-ethyl-2-naphthyl-amine (494-03-1)	Known human carcinogen	N.D.		As Low As Practical (UCC)

Footnote: (A) Teratogenic only in presence of maternal toxicity
(R) Revision from previous list

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0489

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST
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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0490

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UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

BASED ON CARCINOGENICITY, TERATOGENICITY OR OTHER SIGNIFICANT TOXICITY

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SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
Bis-Chloromethyl ether (542-88-1)	Known human carcinogen	N.D.		As Low As Practical (UCC) (R)
Cadmium (7440-43-9)	Suspect cancer agent	Teratogen all which had labels all solder Bldg.?	STORES, SOLDER ? BLDG 230	40 µg/m³* 200 µg/m³ C (UCC)
Carbon tetrachloride (56-23-5)	Suspect cancer agent	(-)	Embryotoxic	2 ppm* 4 ppm C (UCC)
Chlorodifluoromethane (Fluorocarbon-22) (75-45-6)	**	Teratogen* Bldg.?	STORES + RX; OTHERS 5 to 6 125# DRUMS/YR NORTH OF BLDG 428	1000 ppm (ACGIH)
Chloroform (67-66-3)	Suspect cancer agent	Teratogen	LAB 16 l	2 ppm* 4 ppm C (UCC)
Chromium-6 compounds	Suspect cancer agents	PAINTS SANDYARD ** 5905 4817 5970 5917 4805 5909	+ STORES SOUTH OF BLDG. 428	0.05 mg/m³ (as Cr) (ACGIH)

Footnote: (R) Revision from previous list

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0491

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UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST
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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0492

UNION CARBIDE

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

BASED ON CARCINOGENICITY, TERATOGENICITY OR OTHER SIGNIFICANT TOXICITY

(See Reverse Side for Explanations and Definitions)

SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
Di-Sec-butoxy-acetophenone (68109-57-9)	Suspect cancer agent*	N.D.		No skin or oral contact (UCC)
3,3'-Dichloro-benzidine (and salts) (91-94-1)	Suspect cancer agent(s)	N.D.		As Low As Practical (UCC)
Diethyl sulfate (64-67-5)	Suspect cancer agent	N.D.		1 ppm No skin or oral contact (UCC)
Diisopropyl sulfate (2973-10-6)	Suspect cancer agent (See Footnote A)	N.D.		1 ppm No skin or oral contact (UCC)
1,2-Dimethoxy-ethane (110-71-4)		Teratogen		10 ppm TWA *(Skin) 25 ppm STEL (UCC) (R)
Dimethyl-acetamide (127-19-5)	N.D.	Teratogen		10 ppm No skin contact (OSHA)

Footnote: (A) Limited evidence for carcinogenic potential in humans, but insufficient to conclude that the material is a known human carcinogen; i.e., is a suspect human carcinogen.
(R) Revision from previous list

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0493

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UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST
(See Reverse Side)

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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0494

UNION CARBIDE

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

BASED ON CARCINOGENICITY, TERATOGENICITY OR OTHER SIGNIFICANT TOXICITY

(See Reverse Side for Explanations and Definitions)

SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
4-Dimethylamino-azobenzene (60-11-7)	Suspect cancer agent	Teratogen		No exposure* (OSHA)
Dimethyl formamide (68-12-2)	**	Teratogen*	LAB 12AT	10 ppm No skin contact (OSHA)
Dimethyl sulfate (77-78-1)	Suspect cancer agent	N.D.		0.1 ppm No skin or oral contact (ACGIH)
Dimethyl sulfoxide (67-68-5)	N.D.	Teratogen	LAB 1GAL	10 ppm* No skin contact (UCC)
1,4-Dioxane (123-91-1)	Suspect cancer agent	** Is this still used as an inhibitor in chloroethene? (R)		50 ppm* No skin or oral contact (UCC)
N-Dodecyl mercaptan (112-55-0)				0.5 ppm (UCC)

Footnote: (R) Revision from previous list

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0495

Union Carbide trial exhibit UC-1885: Union Carbide Internal Exposure Standards List (Corporate HERB, approved 1... Published by AsbestosClaims.Law
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UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST
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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0496

UNION CARBIDE

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BASED ON CARCINOGENICITY, TERATOGENICITY OR OTHER SIGNIFICANT TOXICITY

(See Reverse Side for Explanations and Definitions)

SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
Dripolenes-A,B,C	Suspect cancer agents (See Footnote A)	N.D.		600 $\mu g/m^3$ No skin contact (UCC)
Epichlorohydrin (106-89-8)	Suspect cancer agent	N.D.		0.5 ppm (UCC)
Epoxy resin ERL-2774 (25068-38-6)	Suspect cancer agent	N.D.		10 ppm No skin or oral contact (UCC)
Epoxy resin ERL-4205 (2386-90-5)	Suspect cancer agent	N.D.	SEE LETTER ATTACHED	10 ppm No skin or oral contact (UCC)
Epoxy resin ERL-4206 (106-87-6)	Suspect cancer agent	N.D.		10 ppm No skin or oral contact (UCC)
Epoxy resin ERL-4234 (26616-47-7)	Suspect cancer agent	N.D.		10 ppm No skin or oral contact (UCC)

Footnote: (A) Standard based on suspected presence of Polycyclic Aromatic Hydrocarbons

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0497

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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0498

UNION CARBIDE

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

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(See Reverse Side for Explanations and Definitions)

SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
2-Ethoxyethanol (CELLOSOLVE) (110-80-5)	N.D.	Teratogen		50 ppm C (UCC)
Ethylene dibromide (106-93-4)	Suspect cancer agent	**		0.1 ppm (UCC)
Ethylene dichloride (107-06-2)	Suspect cancer agent	(-) (R)	IRT. LAB	5 ppm (UCC)
Ethyleneimine (151-56-4)	Suspect cancer agent	** (R)	Embryotoxic (R)	As Low As Practical (UCC)
Ethylene oxide (75-21-8)	Suspect cancer agent			5 ppm (UCC)
Ethylene thiourea (96-45-7)	Suspect cancer agent	Teratogen		As Low As Practical (UCC)

Footnote: (R) Revision from previous list

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0499

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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0500

UNION CARBIDE

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

BASED ON CARCINOGENICITY, TERATOGENICITY OR OTHER SIGNIFICANT TOXICITY

(See Reverse Side for Explanations and Definitions)

SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
2-Ethylhexyl acrylate (103-11-7)	Suspect cancer agent (See Footnote A)	N.D.		5 ppm (UCC)
Formaldehyde (50-00-0)	Suspect cancer agent	N.D.	LAB 2 YT	2 ppm (ACGIH)
Formamide (75-12-7)	N.D.	Teratogen		20 ppm No skin contact (ACGIH)
Fuel oil residues	Suspect cancer agents (See Footnote B)	N.D.		As Low As Practical (UCC)
Hexafluoro-acetone (684-16-2)	N.D.	Teratogen		0.1 ppm No skin contact (ACGIH)
Hydrazine (302-01-2)	Suspect cancer agent	(-)	LAB 500 GM	1 ppm* (Skin) (OSHA)

Footnote: (A) Based on chronic skin painting study: To be reviewed on completion of Inter-Industry Acrylate Committee Chronic Toxicity Study.
(B) Standard based on suspected presence of Polycyclic Aromatic Hydrocarbons

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0501

Union Carbide trial exhibit UC-1885: Union Carbide Internal Exposure Standards List (Corporate HERB, approved...
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UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST
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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0502

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

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SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
Hydrogen Sulfide (7783-06-4)		** (R)	1 LECTURE BOTTLE Chemical LAB Asphyxiant	10 ppm (OSHA)
Itaconic Acid (97-65-4)				5 mg/m^3 (UCC)
Lead - SAND YARD PAINTS (7439-92-1) B-5905 4817 5970 5917 5909	(-) LEAD OXIDE 10 LB ACETATE 2LB LEAD TETRAACETATE 1200GM (IN LAB)	Teratogen LAB Paints?	1000 PPM SOLUTION 1PT LEAD NITRATE 1LB LEAD CARBONATE ¼ LB METAL IN STORES	50 µg/m^3 30 µg/m^3 Action Level (OSHA)
Mercury Alkyl Compounds	LAB	Teratogens*		0.01 mg/m^3 (as Hg) (ACGIH)
Mercury, All compounds except Alkyl	METAL 4 ML CHLORIDE 5 LB THIOCYANATE 1 LB NITRATE ½ LB OXIDE ¼ LB	LAB?	METAL IN INS. SHOPS RM? 230	0.05 mg/m^3 (as Hg) (ACGIH)
2-Methoxyethanol (Methyl CELLOSOLVE R) (109-86-4)	LAB 55 GAL	Teratogen Stores? NORTH OF BLDG 428		10 ppm TWA(Skin)* 25 ppm STEL (UCC) (R)

Footnote: (R) Revision from previous list

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0503

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST
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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0504

UNION CARBIDE

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Methyl chloromethyl ether (107-30-2)	Known human carcinogen	N.D.		OSHA Standard
4,4-Methylenedianiline (101-77-9)	Suspect cancer agent	N.D.		0.1 ppm No skin or oral contact (ACGIH)
1-Naphthylamime (134-32-7)	**	N.D.		OSHA Standard
2-Naphthylamine (91-59-8)	Known human carcinogen	N.D.		OSHA Standard
Neopentyl glycol diacrylate (2223-82-7)	Suspect cancer agent	N.D.		No skin or oral contact (UCC)
Nickel, Inorganic Compounds	Suspect cancer agents	LAB	NICKEL CHLORIDE 4 OZ Ni. ACETATE 1 LB Ni AMM. SULFATE 1 LB Ni SULFATE SOLUTION 1 PT	1 mg/m^3 (OSHA)

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0505

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UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST
(See Reverse Side)

NOTES OF EXPLANATION:

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DEFINITIONS:

1. Known Human Carcinogen means a substance for which there is sufficient credible evidence to determine that the material has caused cancer in humans.

2. Suspect Cancer Agent means a substance for which there is credible scientific evidence, based on animal and other related studies, that the material is carcinogenic in laboratory animals, but for which there is insufficient evidence that the substance causes cancer in man.

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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0506

UNION CARBIDE

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

BASED ON CARCINOGENICITY, TERATOGENICITY OR OTHER SIGNIFICANT TOXICITY

(See Reverse Side for Explanations and Definitions)

SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
Nitric Oxide (10102-43-9)			STORES BLDG 126 Chemical Asphyxiant	25 ppm (OSHA)
Nitrobenzene (98-95-3)		N.D. (R)	Chemical Asphyxiant	1 ppm (Skin) (OSHA) (R)
4-Nitrodiphenyl (92-93-3)	Known human carcinogen	N.D.		No exposure* (OSHA)
2-Nitropropane (79-46-9)	Suspect cancer agent	** check paints and adhesives (see attached highlighted sheet)		25 ppm* (OSHA)
N-Nitrosoamine compounds	Suspect cancer agents*			No skin or oral contact (UCC)
N-Nitroso-dimethylamine (62-75-9)	Suspect cancer agent	(-) (R)	Embryotoxic (R)	OSHA Standard

Footnote: (R) Revision from previous list

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0507

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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0508

UNION CARBIDE

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

BASED ON CARCINOGENICITY, TERATOGENICITY OR OTHER SIGNIFICANT TOXICITY

(See Reverse Side for Explanations and Definitions)

SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
N-Nitroso-N-Phenylhydroxylamine (148-97-0)	Suspect cancer agent			*
Perchloroethylene (127-18-4)	**	(-)		50 ppm (ACGIH)
Polychlorinated biphenyls(PCB's)	Suspect cancer agents	** locations? SEE ATTACHMENT	Embryotoxic IN TRANSFORMERS	1 $\mu g/m^3$ 3 $\mu g/m^3$ C* No skin contact (UCC)
B-Propiolactone (57-57-8)	Suspect cancer agent	N.D.		OSHA Standard
Propylene oxide (75-56-9)				20 ppm 100 ppm STEL (UCC)
Pyrolysis fuel oil	Suspect cancer agent	N.D.		200 $\mu g/m^3$ 600 $\mu g/m^3$ C* No skin contact (UCC)

Footnote: (A) Standard based on suspected presence of Polycyclic Aromatic Hydrocarbons

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0509

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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0510

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

BASED ON CARCINOGENICITY, TERATOGENICITY OR OTHER SIGNIFICANT TOXICITY

(See Reverse Side for Explanations and Definitions)

SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
Quench oil	Suspect cancer agent	N.D.		200 $\mu g/m^3$ 600 $\mu g/m^3$ C* No skin contact (UCC)
Radiation	Known human carcinogen	Teratogen*		0.5 REMS During Pregnancy 5 REMS-Equiv./yr (NCRP Report 39, 1971) (R)
Resin B condensates	Suspect cancer agents	N.D.		200 $\mu g/m^3$ 600 $\mu g/m^3$ C* No skin contact (UCC)
2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) (1746-01-6)	Suspect cancer agent	Teratogen		No exposure* (UCC)
Tetramethylurea (632-22-4)	N.D.	Teratogen		No exposure* (UCC)
Toluene-2,4-diamine (95-80-7)	Suspect cancer agent	N.D.		0.1 ppm* No skin or oral contact

Footnote: (A) Standard based on suspected presence of Polycyclic Aromatic Hydrocarbons
(R) Revision from previous list

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0511

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U. C. Corporate HERB
Accepted: 1 March 1982

BRB 0512

UNION CARBIDE

UNION CARBIDE INTERNAL EXPOSURE STANDARDS LIST

BASED ON CARCINOGENICITY, TERATOGENICITY OR OTHER SIGNIFICANT TOXICITY

(See Reverse Side for Explanations and Definitions)

SUBSTANCE (CAS No.)	CARCINOGENICITY	TERATOGENICITY	OTHER SIGNIFICANT TOXICITY	EXPOSURE STANDARD FOLLOWED BY UNION CARBIDE (SOURCE)
Trichloro-ethylene (79-01-6)	**	(-)		50 ppm (ACGIH)
Vinyl Chloride (75-01-4)	Known human carcinogen	Teratogen*		(UCC) 1 ppm 5 ppm/15 min C (OSHA)

U.C. Corporate HERB (Approved 1 March 1982)

BRB 0513

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Accepted: 1 March 1982

BRB 0514

INTERNAL
CORRESPONDENCE

UNION CARBIDE CORPORATION OLD RIDGEBURY ROAD, DANBURY, CT 06817

To (Name) HOLDERS OF THE CORPORATE
Division OCCUPATIONAL HEALTH MANUAL
Location
Area

Date May 28, 1982
Originating Dept.
Area
Subject

Copy to

The attached UCC Internal Exposure Standards List is for inclusion in your Corporate Occupational Health Manual. The list is essentially the same as I transmitted on February 9, 1982, with some changes made based on feedback received from you. Changes from the February list are noted with an "R". Please address any questions regarding the list to Norm Gaines.

The Health Effect Review Board is sponsoring a review of the issues surrounding this list - its purpose, uses, and contents. Representatives from the GOHC are participating in this review, and you will be kept advised of its progress.

Very truly yours,

A. G. Voress

AGV/pob

BRB 0486