

1 Pollution Control Agency

2

3 Adopted Permanent Rules Relating to Hazardous Waste; Corrective  
4 Action, Guarantees, Interim Status, Groundwater, and Lists

5

6 Rules as Adopted

7 7001.0640 ADDITIONAL PART B INFORMATION REQUIREMENTS FOR SURFACE  
8 IMPOUNDMENTS, WASTE PILES, LAND TREATMENT UNITS, AND LANDFILLS.

9 Subpart 1. Groundwater protection. The additional  
10 information designated in items A to G regarding protection of  
11 groundwater is required from owners or operators of hazardous  
12 waste surface impoundments, waste piles, land treatment units,  
13 and landfills, except as otherwise provided in part 7045.0484,  
14 subpart 1, item B, and must be submitted with Part B of the  
15 permit application. The following information is in addition to  
16 the information requirements of parts 7001.0560, 7001.0590,  
17 7001.0600, 7001.0610, and 7001.0620:

18 A. to C. [Unchanged.]

19 D. A description of any plume of contamination that  
20 has entered the groundwater from a regulated unit at the time  
21 that the application is submitted that:

22 (1) [Unchanged.]

23 (2) identifies the concentration of each  
24 constituent listed in part 7045.0143 throughout the plume or  
25 identifies the maximum concentrations of each such constituent  
26 in the plume. The commissioner may require this information on  
27 additional constituents if waste managed at the facility has met  
28 the characteristic of toxicity as defined in part 7045.0131,  
29 subpart 6.

30 E. to G. [Unchanged.]

31 Subp. 2. Corrective action program. The owner or operator  
32 of a hazardous waste surface impoundment, waste pile, land  
33 treatment unit, or landfill shall submit to the commissioner  
34 with Part B of the permit application sufficient information,  
35 supporting data, and analyses to establish a corrective action

1 program that meets the requirements of part 7045.0484, subpart  
2 14. The submittal must demonstrate that corrective action is  
3 feasible if the groundwater protection standard is exceeded. To  
4 demonstrate compliance with part 7045.0484, subpart 14, the  
5 owner or operator shall address the following items:

6 A. to F. [Unchanged.]

7 The permit may contain a schedule for submittal of the  
8 information required in items C and D if the owner or operator  
9 obtains written authorization from the commissioner before  
10 submitting the complete permit application.

11 7045.0135 LISTS OF HAZARDOUS WASTES.

12 Subpart 1. to 3. [Unchanged.]

13 Subp. 4. Discarded commercial chemical products,  
14 off-specification species, containers, and spill residues. The  
15 following materials or items are hazardous wastes when they are  
16 discarded or intended to be discarded; when they are mixed with  
17 waste oil or used oil or other material and applied to the land  
18 for dust suppression or road treatment; or when, in lieu of  
19 their original use, they are produced for use as, or as a  
20 component of a fuel, distributed for use as a fuel, or burned as  
21 a fuel.

22 A. to D. [Unchanged.]

23 E. the commercial chemical products or manufacturing  
24 chemical intermediates, or off-specification commercial chemical  
25 products or manufacturing chemical intermediates referred to in  
26 items A to D and listed in subitems (1) to (17), are identified  
27 as acute hazardous wastes (H) and are subject to the small  
28 quantity exclusion defined in part 7045.0219, subpart 1, items B  
29 and C. The primary hazardous properties of these materials have  
30 been indicated by the letters T (toxicity), and R (reactivity).  
31 Absence of a letter indicates that the compound is listed only  
32 for acute toxicity. These wastes and their corresponding  
33 hazardous waste numbers, Chemical ~~abstracts~~ Abstract Service  
34 registry numbers, if known available, and hazard codes are  
35 listed in subitems (1) to (17).

- 1 (1) Hazardous wastes from commercial chemical  
 2 products beginning with the letter A:
- 3 (a) P023, 107-20-0, Acetaldehyde, chloro-;  
 4 (b) P002, 591-08-2, Acetamide,  
 5 N-(aminothioxomethyl)-;  
 6 (c) P057, 640-19-7, Acetamide, 2-fluoro-;  
 7 (d) P058, 62-74-8, Acetic acid, fluoro-,  
 8 sodium salt;  
 9 (e) ~~P0667-16752-77-57-Acetimidic-acid,~~  
 10 ~~N-[(methylcarbamoyl)oxy]-thio-7-methyl-ester,~~  
 11 (f) P002, 591-08-2, 1-Acetyl-2-thiourea;  
 12 (g) (f) P003, 107-02-8, Acrolein;  
 13 (h) (g) P070, 116-06-3, Aldicarb;  
 14 (i) (h) P004, 309-00-2, Aldrin;  
 15 (j) (i) P005, 107-18-6, Allyl alcohol;  
 16 (k) (j) P006, 20859-73-8, Aluminum phosphide:  
 17 (R,T);  
 18 (l) (k) P007, 2763-96-4,  
 19 5-(Aminomethyl)-3-isoxazolol;  
 20 (m) (l) P008, 504-24-5,  
 21 ~~4-alpha-Aminopyridine~~ 4-Aminopyridine;  
 22 (n) (m) P009, 131-74-8, Ammonium picrate:  
 23 (R);  
 24 (o) (n) P119, 7803-55-6, Ammonium vanadate;  
 25 (o) P099, 506-61-6, Argentate(1-),  
 26 bis(cyano-C)-, potassium;  
 27 (p) P010, 7778-39-4, Arsenic acid H<sub>3</sub>AsO<sub>4</sub>;  
 28 (q) P012, 1327-53-3, Arsenic oxide As<sub>2</sub>O<sub>3</sub>;  
 29 (r) P011, 1303-28-2, Arsenic oxide As<sub>2</sub>O<sub>5</sub>;  
 30 (s) P011, 1303-28-2, Arsenic pentoxide;  
 31 (t) P012, 1327-53-3, Arsenic trioxide;  
 32 (u) P038, 692-42-2, Arsine, diethyl-;  
 33 (v) P036, 696-28-6, Arsonous dichloride,  
 34 phenyl-; and  
 35 (w) P054, 151-56-4, Aziridine; and  
 36 (x) P067, 75-55-8, Aziridine, 2-methyl-.

1 (2) Hazardous wastes from commercial chemical  
2 products beginning with the letter B:

- 3 (a) P013, 542-62-1, Barium cyanide;  
4 (b) P024, 106-47-8, Benzenamine, 4-chloro-;  
5 (c) P077, 100-01-6, Benzenamine, 4-nitro-;  
6 (d) P028, 100-44-7, Benzene,  
7 (chloromethyl)-;  
8 (e) P042, 51-43-4, 1,2-Benzenediol,  
9 4-[1-hydroxy-2-(methylamino)ethyl]-: (R);  
10 (f) P046, 122-09-8, Benzeneethanamine,  
11 alpha, alpha-dimethyl-;  
12 (g) P014, 108-98-5, Benzenethiol;  
13 (h) P001, 81-81-2, 2H-1-Benzopyran-2-one,  
14 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at  
15 concentrations greater than 0.3 percent;  
16 (i) P028, 100-44-7, Benzyl chloride;  
17 (j) P015, 7440-41-7, Beryllium dust;  
18 (k) ~~P016, 542-88-1, Bis(chloromethyl)-ether;~~  
19 ~~(l) P017, 598-31-2, Bromoacetone; and~~  
20 ~~(m) (1) P018, 357-57-3, Brucine; and~~  
21 (n) P045, 39196-18-4, 2-Butanone,  
22 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl]oxime.

23 (3) Hazardous wastes from commercial chemical  
24 products beginning with the letter C:

- 25 (a) P021, 592-01-8, Calcium cyanide;  
26 (b) ~~P022, 75-15-0, Carbon bisulfide~~ P021,  
27 592-01-8, Calcium cyanide Ca(CN)<sub>2</sub>;  
28 (c) P022, 75-15-0, Carbon disulfide;  
29 (d) P095, 75-44-5, Carbonic dichloride;  
30 (e) P023, 107-20-0, Chloroacetaldehyde;  
31 (f) P024, 106-47-8, p-Chloroaniline;  
32 (g) P026, 5344-82-1,  
33 1-(o-Chlorophenyl)thiourea;  
34 (h) P027, 542-76-7, 3-Chloropropionitrile;  
35 (i) P029, 544-92-3, Copper cyanides cyanide;  
36 (j) P029, 544-92-3, Copper cyanide Cu(CN);

1                    {h} (k) P030, ....., Cyanides (soluble  
2 cyanide salts), not otherwise specified;

3                    {i} (l) P031, 460-19-5, Cyanogen;

4                    {j} (m) P033, 506-77-4, Cyanogen chloride;

5 and

6                    (n) P033, 506-77-4, Cyanogen chloride

7 (CN)Cl; and

8                    {k} (o) P034, 131-89-5,

9 2-Cyclohexyl-4,6-dinitrophenol.

10                   (4) Hazardous wastes from commercial chemical  
11 products beginning with the letter D:

12                   (a) P016, 542-88-1, Dichloromethyl ether;

13                   **(b)** P036, 696-28-6, Dichlorophenylarsine;

14                   {b} (c) P037, 60-57-1, Dieldrin;

15                   {c} (d) P038, 692-42-2, Diethylarsine;

16                   {d} (e) P041, 311-45-5,

17 Diethyl-p-nitrophenyl phosphate;

18                   {e} (f) P040, 297-97-2, O,O-Diethyl

19 O-pyrazinyl phosphorothioate;

20                   {f} (g) P043, 55-91-4, Diisopropyl

21 fluorophosphate {DEP} (DFP);

22                   {g} (h) P004, 309-00-2,

23 1,4:5,8-Dimethanonaphthalene,

24 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,

25 4alpha, 4abeta, 5alpha, 8alpha, 8abeta)-;

26                   {h} (i) P060, 465-73-6, 1,4+,

27 5,8-Dimethanonaphthalene,

28 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,

29 4alpha, 4abeta, 5beta, 8beta, 8abeta)-;

30                   {i} (j) P037, 60-57-1,

31 2,7:3,6-dimethanonaphth[2,3b]oxirane

32 Dimethanonaphth[2,3-b]oxirene,

33 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,

34 2beta, 2aalpha, 3beta, 6beta, 6aalpha, 7beta, 7aalpha)-;

35                   {j} (k) P051, 72-20-8,

36 2,7:3,6-dimethanonaphth[2,3b]oxirane

1 Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,  
 2 3,6,6a,7,7a-octahydro-, (1aalpha, 2beta, 2abeta, 3alpha, 6alpha,  
 3 6abeta, 7beta, 7aalpha)-, and metabolites;

4 ~~(k)~~ (l) P044, 60-51-5, Dimethoate;

5 ~~(i)~~-P045, 39-96-18-4,

6 ~~3,3-Dimethyl-1-(methylthio)-2-butanone, 0-~~

7 ~~f(methylamino)carbonyl]-oxime;~~

8 (m) P046, 122-09-8, alpha,

9 alpha-Dimethylphenethylamine;

10 (n) P047, 534-52-1, 4,6-Dinitro-o-cresol and  
 11 salts;

12 (o) P048, 51-28-5, 2,4-Dinitrophenol;

13 (p) P020, 88-85-7, Dinoseb;

14 (q) P085, 152-16-9, Diphosphoramidate,

15 octamethyl-;

16 (r) P111, 107-49-3, Diphosphoric acid,

17 tetraethyl ester;

18 (s) P039, 298-04-4, Disulfoton; and

19 ~~(s)~~ (t) P049, 541-53-7, 2,4 Dithiobiuret.

20 (5) Hazardous wastes from commercial chemical  
 21 products beginning with the letter E:

22 (a) P050, 115-29-7, Endosulfan;

23 (b) P088, 145-73-3, ~~Endothal~~ Endothall;

24 (c) P051, 72-20-8, Endrin;

25 (d) P051, 72-20-8, Endrin, and metabolites;

26 (e) P042, 51-43-4, Epinephrine;

27 (f) P031, 460-19-5, Ethanedinitrile;

28 (g) P066, 16752-77-5, Ethanimidothioic acid,

29 N-[[methylamino)carbonyl]oxy]-, methyl ester;

30 ~~(e)~~ (h) P101, 107-12-0, Ethyl cyanide; and

31 ~~(f)~~ (i) P054, 151-56-4, Ethyleneimine.

32 (6) Hazardous wastes from commercial chemical  
 33 products beginning with the letter F:

34 (a) P097, 52-85-7, Famphur;

35 (b) P056, 7782-41-4, Fluorine;

36 (c) P057, 640-19-7, Fluoroacetamide;

- 1 (d) P058, 62-74-8, Fluoroacetic acid, sodium  
2 salt; and
- 3 (e) P065, 628-86-4, Fulminic acid,  
4 mercury(2+)salt: (R,T).
- 5 (7) Hazardous wastes from commercial chemical  
6 products beginning with the letter H:
- 7 (a) P059, 76-44-8, Heptachlor;  
8 (b) P062, 757-58-4, Hexaethyl  
9 tetraphosphate;
- 10 (c) P116, 79-19-6, Hydrazinecarbothioamide;  
11 (d) P068, 60-34-4, Hydrazine, methyl-;  
12 (e) P063, 74-90-8, Hydrocyanic acid;  
13 (f) P063, 74-90-8, Hydrogen cyanide; and  
14 (g) P096, 7803-51-2, Hydrogen phosphide.
- 15 (8) Hazardous wastes from commercial chemical  
16 products beginning with the letter I:
- 17 (a) ~~P064, 624-83-9, Isocyanic acid, methyl~~  
18 ~~ester;~~
- 19 (b) P060, 465-73-6, Isodrin; and  
20 (c) (b) P007, 2763-96-4, 3(2H)-Isoxazolone,  
21 5-(aminomethyl)-.
- 22 (9) Hazardous wastes from commercial chemical  
23 products beginning with the letter M:
- 24 (a) P092, 62-38-4, Mercury,  
25 (acetato-O)phenyl-;
- 26 (b) P065, 628-86-4, Mercury fulminate:  
27 (R,T);
- 28 (c) P082, 62-75-9, Methamine Methanamine,  
29 N-methyl-N-nitroso-;
- 30 (d) P064, 624-83-9, Methane, isocyanato-;  
31 (e) P016, 542-88-1, Methane,  
32 oxybis(chloro)-;
- 33 (f) (f) P112, 509-14-8, Methane, tetranitro-:  
34 (R);
- 35 (g) (g) P118, 75-70-7, Methanethiol,  
36 trichloro-;

- 1                    ~~(g)~~ (h) P050, 115-29-7,  
2 6,9-Methano-2,4,3-benzodioxathiepen, 6,7,8,9,10,10-hexachloro-  
3 1,5,5a,6,9,9a-hexahydro-, 3-oxide;  
4                    ~~(h)~~ (i) P059, 76-44-8,  
5 4,7-Methano-1H-indene,  
6 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-;  
7                    ~~(i)~~ (j) P066, 16752-77-5, Methomyl;  
8                    ~~(j)~~ P067, 75-55-0, 2-Methylaziridine;  
9                    (k) P068, 60-34-4, Methyl hydrazine;  
10                   (l) P064, 624-83-9, Methyl isocyanate;  
11                   (m) P069, 75-86-5, 2-Methylactonitrile; and  
12                   (n) P071, 298-00-0, Methyl parathion.  
13                   (10) Hazardous wastes from commercial chemical  
14 products beginning with the letter N:  
15                   (a) P072, 86-88-4, alpha-Naphthylthiourea;  
16                   (b) P073, 13463-39-3, Nickel carbonyl;  
17                   (c) P073, 13463-39-3, Nickel  
18 carbonyl Ni(CO)<sub>4</sub>, (T-4)-;  
19                   (d) P074, 557-19-7, Nickel cyanide;  
20                   (e) P074, 557-19-7, Nickel cyanide Ni(CN)<sub>2</sub>;  
21                   (f) P075, 54-11-5, Nicotine and salts;  
22                   ~~(f)~~ (g) P076, 10102-43-9, Nitric oxide;  
23                   ~~(g)~~ (h) P077, 100-01-6, p-Nitroaniline;  
24                   ~~(h)~~ (i) P078, 10102-44-0, Nitrogen dioxide;  
25                   ~~(i)~~ (j) P076, 10102-43-9, Nitrogen oxide NO;  
26                   ~~(j)~~ (k) P078, 10102-44-0, Nitrogen oxide NO  
27 2;  
28                   ~~(k)~~ (l) P081, 55-63-0, Nitroglycerine: (R);  
29                   ~~(l)~~ (m) P082, 62-75-9,  
30 N-Nitrosodimethylamine; and  
31                   ~~(m)~~ (n) P084, 4549-40-0,  
32 N-Nitrosomethylvinylamine.  
33                   (11) Hazardous wastes from commercial chemical  
34 products beginning with the letter O:  
35                   (a) P085, 152-16-9,  
36 Octamethylpyrophosphoramidate;



- 1 (b) P087, 20816-12-0, Osmium oxide OsO<sub>4</sub>,
- 2 (T-4)-;
- 3 (c) P087, 20816-12-0, Osmium tetroxide; and
- 4 (d) P088, 145-73-3,
- 5 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid.
- 6 (12) Hazardous wastes from commercial chemical
- 7 products beginning with the letter P:
- 8 (a) P089, 56-38-2, Parathion;
- 9 (b) P034, 131-89-5, Phenol,
- 10 2-cyclohexyl-4,6-dinitro-;
- 11 (c) P048, 51-28-5, Phenol, 2,4-dinitro-;
- 12 (d) P047, 534-52-1, Phenol,
- 13 2-methyl-4,6-dinitro-, and salts;
- 14 (e) P020, 88-85-7, Phenol,
- 15 2-(1-methylpropyl)-4,6-dinitro-;
- 16 (f) P009, 131-74-8, Phenol, 2,4,6-trinitro-,
- 17 ammonium salt: (R);
- 18 (g) P092, 62-38-4, Phenylmercury acetate;
- 19 (h) P093, 103-85-5, Phenylthiourea;
- 20 (i) P094, 298-02-2, Phorate;
- 21 (j) P095, 75-44-5, Phosgene;
- 22 (k) P096, 7803-51-2, Phosphine;
- 23 (l) P041, 311-45-5, Phosphoric acid, diethyl
- 24 4-nitrophenyl ester;
- 25 (m) P039, 298-04-4, Phosphorodithioic acid,
- 26 O,O-diethyl S-[2-(ethylthio)ethyl]ester;
- 27 (n) P094, 298-02-2, Phosphorodithioic acid,
- 28 O,O-diethyl S-[(ethylthio)methyl]ester;
- 29 (o) P044, 60-51-5, Phosphorodithioic acid,
- 30 O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester;
- 31 (p) P043, 55-91-4, Phosphorofluoric
- 32 Phosphorofluoridic acid, bis(1-methylethyl) ester;
- 33 (q) P089, 56-38-2, Phosphorothioic acid,
- 34 O,O-diethyl O-(4-nitrophenyl) ester;
- 35 (r) P040, 297-97-2, Phosphorothioic acid,
- 36 O,O-diethyl O-pyrazinyl ester;

- 1 (s) P097, 52-85-7, Phosphorothioic acid,  
 2 O-[4-((dimethylamino)sulfonyl)phenyl]O,O-dimethyl ester;  
 3 (t) P071, 298-00-0, Phosphorothioic acid,  
 4 O,O-dimethyl 0-(4-nitrophenyl) ester;  
 5 (u) P110, 78-00-2, Plumbane, tetraethyl-;  
 6 (v) P098, 151-50-8, Potassium cyanide;  
 7 (w) P098, 151-50-8, Potassium cyanide K(CN);  
 8 (x) P099, 506-61-6, Potassium silver  
 9 cyanide;  
 10 ~~(x)~~ (y) P070, 116-06-3, Propanal,  
 11 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime;  
 12 ~~(y)~~ (z) P101, 107-12-0, Propanenitrile;  
 13 ~~(z)~~ (aa) P027, 542-76-7, Propanenitrile,  
 14 3-chloro-;  
 15 ~~(aa)~~ (bb) P069, 75-86-5, Propanenitrile,  
 16 2-hydroxy-2-methyl-;  
 17 ~~(bb)~~ (cc) P081, 55-63-0, 1,2,3-Propanetriol,  
 18 trinitrate: (R);  
 19 ~~(cc)~~ (dd) P017, 598-31-2, 2-Propanone,  
 20 1-bromo-;  
 21 ~~(dd)~~ (ee) P102, 107-19-7, Propargyl alcohol;  
 22 ~~(ee)~~ (ff) P003, 107-02-8, 2-Propenal;  
 23 ~~(ff)~~ (gg) P005, 107-18-6, 2-Propen-1-ol;  
 24 ~~(gg)~~ (hh) P067, 75-55-8, 1,2-Propylenimine;  
 25 ~~(hh)~~ (ii) P102, ~~591-08-2~~ 107-19-7,  
 26 2-Propyn-1-ol;  
 27 ~~(ii)~~ (jj) P008, 504-24-5, 4-Pyridinamine;  
 28 and  
 29 ~~(jj)~~ (kk) P075, 54-11-5, Pyridine, ~~(S)-~~  
 30 3-(1-methyl-2-pyrrolidinyl)-, (S)-, and salts; ~~and~~  
 31 ~~(kk)-P111, 107-49-3, Pyrophosphoric acid,~~  
 32 ~~tetraethyl-ester.~~  
 33 (13) Hazardous wastes from commercial chemical  
 34 products beginning with the letter S:  
 35 (a) P114, 12039-52-0, Selenious acid,  
 36 dithalium(1+) salt;

- 1                    (b) P103, 630-10-4, Selenourea;
- 2                    ~~(b)~~ (c) P104, 506-64-9, Silver cyanide;
- 3                    (d) P104, 506-64-9, Silver cyanide Ag(CN);
- 4                    ~~(e)~~ (e) P105, 26628-22-8, Sodium azide;
- 5                    ~~(d)~~ (f) P106, 143-33-9, Sodium cyanide;
- 6                    (g) P106, 143-33-9, Sodium cyanide Na(CN);
- 7                    ~~(e)~~ (h) P107, 1314-96-1, Strontium sulfide;
- 8                    (i) P107, 1314-96-1, Strontium sulfide SrS;
- 9                    ~~(f)~~ (j) P108, 57-24-9, Strychnidin-10-one,
- 10 and salts;
- 11                    ~~(g)~~ (k) P018, 357-57-3, Strychnidin-10-one,
- 12 2,3-dimethoxy-;
- 13                    ~~(h)~~ (l) P108, 57-24-9, Strychnine and salts;
- 14 and
- 15                    ~~(i)~~ (m) P115, ~~10031-59-1~~ 7446-18-6, Sulfuric
- 16 acid, ~~thallium(I)~~ dithallium(I+) salt.
- 17                    (14) Hazardous wastes from commercial chemical
- 18 products beginning with the letter T:
- 19                    (a) P109, 3689-24-5,
- 20 Tetraethyldithiopyrophosphate;
- 21                    (b) P110, 78-00-2, Tetraethyl lead;
- 22                    (c) P111, 107-49-3, Tetraethyl
- 23 pyrophosphate;
- 24                    (d) P112, 509-14-8, Tetranitromethane: (R);
- 25                    (e) P062, 757-58-4, Tetrphosphoric acid,
- 26 hexaethyl ester;
- 27                    (f) P113, 1314-32-5, Thallic oxide;
- 28                    (g) P113, 1314-32-5, Thallium~~(III)~~ oxide Tl<sub>2</sub>
- 29 O<sub>3</sub>;
- 30                    (h) P114, 12039-52-0, Thallium(I) selenite;
- 31                    (i) P115, ~~10031-59-1~~ 7446-18-6, Thallium(I)
- 32 sulfate;
- 33                    (j) P109, 3689-24-5, Thiodiphosphoric acid,
- 34 tetraethyl ester;
- 35                    (k) P045, 39196-18-4, Thiofanox;
- 36                    (l) P049, 541-53-7, Thioimidodicarbonic

1 diamide [(H<sub>2</sub>N)C(S)]<sub>2</sub>NH;

2 (m) P014, 108-98-5, Thiophenol;

3 (n) P116, 79-19-6, Thiosemicarbazide;

4 (o) P026, 5344-82-1, Thiourea,

5 (2-chlorophenyl)-;

6 (p) P072, 86-88-4, Thiourea,

7 1-naphthalenyl-;

8 (q) P093, 103-85-5, Thiourea, phenyl-;

9 (r) P123, 8001-35-2, Toxaphene; and

10 (s) P118, 75-70-7, Trichloromethanethiol.

11 (15) Hazardous wastes from commercial chemical  
12 products beginning with the letter V:

13 (a) P119, 7803-55-6, Vanadic acid, ammonium  
14 salt;

15 (b) P120, 1314-62-1, Vanadium(V) oxide V<sub>2</sub>O<sub>5</sub>;

16 and

17 (c) P120, 1314-62-1, Vanadium pentoxide; and

18 (d) P084, 4549-40-0, Vinylamine,

19 N-methyl-N-nitroso-.

20 (16) Hazardous wastes from commercial chemical  
21 products beginning with the letter W: P001, 81-81-2, Warfarin,  
22 and salts, when present at concentrations greater than 0.3  
23 percent.

24 (17) Hazardous wastes from commercial chemical  
25 products beginning with the letter Z:

26 (a) P121, 557-21-1, Zinc cyanide; and

27 (b) P121, 557-21-1, Zinc cyanide Zn(CN)<sub>2</sub>;

28 and

29 (c) P122, 1314-84-7, Zinc phosphide Zn<sub>3</sub>P<sub>2</sub>,  
30 when present at concentrations greater than ten percent: (R,T).

31 F. The commercial chemical products or manufacturing  
32 chemical intermediates, or off-specification commercial chemical  
33 products referred to in items A to D, and listed in subitems (1)  
34 to (24) are identified as toxic wastes (T) unless otherwise  
35 designated and are subject to the small quantity exclusion  
36 defined in part 7045.0219, subpart 1, item A. The primary

1 hazardous properties of these materials have been indicated by  
 2 the letters T (toxicity), R (reactivity), I (ignitability), and  
 3 C (corrosivity). Absence of a letter indicates that the  
 4 compound is listed only for toxicity. These wastes and their  
 5 corresponding hazardous waste numbers, Chemical abstracts  
 6 Abstract Service registry numbers, if known available, and  
 7 hazard codes are listed as follows:

8 (1) Hazardous wastes from commercial chemical  
 9 products beginning with the letter A:

- 10 (a) U001, 75-07-0, Acetaldehyde: (I);  
 11 (b) U034, 75-87-6, Acetaldehyde, trichloro-;  
 12 (c) U187, 62-44-2, Acetamide,  
 13 N-(4-ethoxyphenyl)-;  
 14 (d) U005, 53-96-3, Acetamide,  
 15 N-9H-fluoren-2-yl;  
 16 (e) U240, 94-75-7, Acetic acid,  
 17 (2,4-dichlorophenoxy)-, salts and esters;  
 18 (f) U112, 141-78-6, Acetic acid, ethyl  
 19 ester: (I);  
 20 ~~(f)~~ (g) U144, 301-04-2, Acetic acid, lead  
 21 (2+) salt;  
 22 ~~(g)~~ (h) U214, 563-68-8, Acetic acid,  
 23 thallium(1+) salt;  
 24 ~~(h)-U232~~ (i) see F027, 93-76-5, Acetic acid,  
 25 (2,4,5-trichlorophenoxy)-;  
 26 ~~(i)~~ (j) U002, 67-64-1, Acetone: (I);  
 27 ~~(j)~~ (k) U003, 75-05-8, Acetonitrile: (I,T);  
 28 ~~(k)~~ (l) U004, 98-86-2, Acetophenone;  
 29 ~~(l)~~ (m) U005, 53-96-3,  
 30 2-Acetylaminofluorene;  
 31 ~~(m)~~ (n) U006, 75-36-5, Acetyl chloride:  
 32 (C,R,T);  
 33 ~~(n)~~ (o) U007, 79-06-1, Acrylamide;  
 34 ~~(o)~~ (p) U008, 79-10-7, Acrylic acid: (I);  
 35 ~~(p)~~ (q) U009, 107-13-1, Acrylonitrile;  
 36 ~~(q)~~ (r) U011, 61-82-5, Amitrole;

- 1                    ~~(r)~~ (s) U012, 62-53-3, Aniline: (I,T);  
 2                    (t) U136, 75-60-5, Arsinic acid, dimethyl-;  
 3                    ~~(s)~~ (u) U014, 492-80-8, Auramine;  
 4                    ~~(t)~~ (v) U015, 115-02-6, Azaserine; and  
 5                    ~~(u)~~ (w) U010, 50-07-7,  
 6 Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,7-dione,  
 7 6-amino-8-(((aminocarbonyl) oxy)methyl)-1,1a,2,8,8a,8b-hexahydro-  
 8 8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta, 8aalpha, 8balph)]-.  
 9                    (2) Hazardous wastes from commercial chemical  
 10 products beginning with the letter B:  
 11                    (a) U157, 50-49-5 56-49-5,  
 12 Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-;  
 13                    (b) U016, 225-51-4, 3,4-Benzacridine  
 14 Benz[c]acridine;  
 15                    (c) U017, 98-87-3, Benzal chloride;  
 16                    (d) U192, 23950-58-5, Benzamide,  
 17 3,5-dichloro-N-(1,1-diethyl-2-propynyl)-;  
 18                    (e) U018, 56-55-3, Benz[a]anthracene;  
 19                    (f) U094, 57-97-6, Benz[a]anthracene,  
 20 7,12-dimethyl-;  
 21                    (g) U012, 62-53-3, Benzenamine: (I,T);  
 22                    (h) U014, 492-80-8, Benzenamine,  
 23 4,4'-carbonimidoylbis (N,N-dimethyl)-;  
 24                    (i) U049, 3165-93-3, Benzenamine,  
 25 4-chloro-2-methyl-, hydrochloride;  
 26                    (j) U093, 60-11-7, Benzenamine,  
 27 N,N-dimethyl-4-(phenylazo)-;  
 28                    (k) U328, 95-53-4, Benzenamine, 2-methyl-;  
 29                    (l) U353, 106-49-0, Benzenamine, 4-methyl-;  
 30                    (m) U158, 101-14-4, Benzenamine,  
 31 4,4'-methylenebis(2-chloro)-;  
 32                    (n) U222, 636-21-5, Benzenamine, 2-methyl-,  
 33 hydrochloride;  
 34                    (o) U181, 99-55-8, Benzenamine,  
 35 2-methyl-5-nitro-;  
 36                    (p) U019, 71-43-2, Benzene: (I,T);

1 (q) U038, 510-15-6, Benzeneacetic acid,  
2 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester;  
3 (r) U030, 101-55-3, Benzene,  
4 1-bromo-4-phenoxy-;  
5 (s) U035, 305-03-3, Benzenebutanoic acid,  
6 4-[bis(2-chloroethyl)amino]-;  
7 (t) U037, 108-90-7, Benzene, chloro-;  
8 (u) U221, 25376-45-8, Benzenediamine,  
9 ar-methyl-;  
10 (v) U028, 117-81-7, 1,2-Benzenedicarboxylic  
11 acid,bis(2-ethylhexy 2-ethylhexyl) ester;  
12 (w) U069, 84-74-2, 1,2-Benzenedicarboxylic  
13 acid, dibutyl ester;  
14 (x) U088, 84-66-2, 1,2-Benzenedicarboxylic  
15 acid, diethyl ester;  
16 (y) U102, 131-11-3, 1,2-Benzenedicarboxylic  
17 acid, dimethyl ester;  
18 (z) U107, 117-84-0, 1,2-Benzenedicarboxylic  
19 acid, ~~di-n-octyl~~ dioctyl ester;  
20 (aa) U070, 95-50-1, Benzene, 1,2-dichloro-;  
21 (bb) U071, 541-73-1, Benzene, 1,3-dichloro-;  
22 (cc) U072, 106-46-7, Benzene, 1,4-dichloro-;  
23 (dd) U060, 72-54-8, Benzene,  
24 1,1'-(2,2-dichloroethylidene)bis[4-chloro-;  
25 (ee) U017, 98-87-3, Benzene,  
26 (dichloromethyl)-;  
27 ~~(ee)~~ (ff) U223, 26471-62-5, Benzene,  
28 1,3-diisocyanatomethyl-: (R,T);  
29 ~~(ff)~~ (gg) U239, 1330-20-7, Benzene,  
30 dimethyl-: (I,T);  
31 ~~(gg)~~ (hh) U201, 108-46-3, 1,3-Benzenediol;  
32 ~~(hh)~~ (ii) U127, 118-74-1, Benzene,  
33 hexachloro-;  
34 ~~(ii)~~ (jj) U056, 110-82-7, Benzene,  
35 hexahydro-: (I);  
36 ~~(jj)-U060,72-54-8,-Benzene,~~

1 1,1'-(2,2-dichloroethylidene)bis[4-chloro]-  
 2 (kk) U220, 108-88-3, Benzene, methyl-;  
 3 (ll) U105, 121-14-2, Benzene,  
 4 1-methyl-2,4-dinitro-;  
 5 (mm) U106, 606-20-2, Benzene,  
 6 2-methyl-1,3-dinitro-;  
 7 (nn) U055, 98-82-8, Benzene,  
 8 (1-methylethyl)-: (I);  
 9 (oo) U169, 98-95-3, Benzene, nitro-: (I,T);  
 10 (pp) U183, 608-93-5, Benzene, pentachloro-;  
 11 (qq) U185, 82-68-8, Benzene,  
 12 pentachloronitro-;  
 13 (rr) U020, 98-09-9, Benzenesulfonic acid  
 14 chloride: (C,R);  
 15 (ss) U020, 98-09-9, Benzenesulfonyl  
 16 chloride: (C,R);  
 17 (tt) U207, 95-94-3, Benzene,  
 18 1,2,4,5-tetrachloro-;  
 19 (uu) U061, 50-29-3, Benzene,  
 20 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro]-;  
 21 (vv) U247, 72-43-5, Benzene,  
 22 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy]-;  
 23 (ww) U023, 98-07-7, Benzene,  
 24 (trichloromethyl)-:---(C,R,T);  
 25 (xx) U234, 99-35-4, Benzene,  
 26 1,3,5-trinitro-:---(R,T);  
 27 (yy) U021, 92-87-5, Benzidine;  
 28 (zz) U202, 81-07-2,  
 29 1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide and salts;  
 30 (aaa) U203, 94-59-7, 1,3-Benzodioxole,  
 31 5-(2-propenyl)-;  
 32 (bbb) U141, 120-58-1, 1,3-Benzodioxole,  
 33 5-(1-propenyl)-;  
 34 (ccc) U090, 94-58-6, 1,3-Benzodioxole,  
 35 5-propyl-;  
 36 (ddd) U064, 189-55-9, Benzo[rst]pentaphene;



1 (eee) U248, 81-81-2,  
 2 2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, and  
 3 salts, when present at concentrations of 0.3 percent or less;  
 4 (fff) U022, 50-32-8, Benzo[a]pyrene;  
 5 (~~fff~~) (ggg) U197, 106-51-4, p-Benzoquinone;  
 6 (~~ggg~~) (hhh) U023, 98-07-7, Benzotrichloride:  
 7 (C,R,T);  
 8 (~~hhh~~) (iii) U085, 1464-53-5, 2,2'-Bioxirane;  
 9 (~~iii~~);  
 10 (~~iii~~) (jjj) U021, 92-87-5,  
 11 (1,1'-Biphenyl)-4,4'-diamine;  
 12 (~~jjj~~) (kkk) U073, 91-94-1,  
 13 (1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-;  
 14 (~~kkk~~) (lll) U091, 119-90-4,  
 15 (1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-;  
 16 (~~lll~~) (mmm) U095, 119-93-7,  
 17 (1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-;  
 18 (~~mmm~~)-U0277-39638-32-9,  
 19 Bis(~~2-chloroisopropyl~~)-ether,  
 20 (~~nnn~~)-U0247-111-91-17-Bis(~~2-chloromethoxy~~)  
 21 ethane,  
 22  
 23 (~~ooo~~)-U0287-117-81-77-Bis(~~2-ethylhexyl~~)  
 24 phthalate,  
 25 (~~ppp~~) (nnn) U225, 75-25-2, Bromoform;  
 26 (~~qqq~~) (ooo) U030, 101-55-3, 4-Bromophenyl  
 27 phenyl ether;  
 28 (~~rrr~~) (ppp) U128, 87-68-3, 1,3-Butadiene,  
 29 1,1,2,3,4,4-hexachloro-;  
 30 (~~sss~~) (qqq) U172, 924-16-3, 1-Butanamine,  
 31 N-butyl-N-nitroso-;  
 32 (~~ttt~~) (rrr) U031, 71-36-3, 1-Butanol: (I);  
 33 (~~uuu~~) (sss) U159, 78-93-3, 2-Butanone:  
 34 (I,T);  
 35 (~~vvv~~) (ttt) U160, 1338-23-4, 2-Butanone  
 36 peroxide: (R,T);

1                    (~~www~~) (uuu) U053, 4170-30-3, 2-Butenal;  
 2                    (~~xxx~~) (vvv) U074, 764-41-0, 2-Butene,  
 3 1,4-dichloro-: (I,T);  
 4                    (~~yyy~~) (www) U143, 303-34-4, 2-Butenoic acid,  
 5 2-methyl-,  
 6 7-[(2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy)  
 7 methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester,  
 8 [1S-[1alpha(Z),7(2S,3R), 7aalpha]]-; and  
 9                    (~~zzz~~) (xxx) U031, 71-36-3, n-Butyl alcohol:  
 10 (I).  
 11                    (3) Hazardous wastes from commercial chemical  
 12 compounds beginning with the letter C:  
 13                    (a) U136, 75-60-5, Cacodylic acid;  
 14                    (b) U032, 13765-19-0, Calcium chromate;  
 15                    (c) U238, 51-79-6, Carbamic acid, ethyl  
 16 ester;  
 17                    (d) U178, 615-53-2, Carbamic acid,  
 18 methylnitroso-, ethyl ester;  
 19                    (e) U097, 79-44-7, Carbamic chloride,  
 20 dimethyl-;  
 21                    (f) U114, 111-54-6, Carbamodithioic acid,  
 22 1,2-ethanediybis-, salts and esters;  
 23                    (g) U062, 2303-16-4, Carbamothioic acid,  
 24 bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester;  
 25                    (h) U215, 6533-73-9, Carbonic acid,  
 26 dithallium (1+) salt;  
 27                    (i) U033, 353-50-4, Carbonic difluoride;  
 28                    (j) U156, 79-22-1, Carbonochloridic acid,  
 29 methyl ester: (I,T);  
 30                    (k) U033, 353-50-4, Carbon oxyfluoride:  
 31 (R,T);  
 32                    (l) U211, 56-23-5, Carbon tetrachloride;  
 33                    (m) U034, 75-87-6, Chloral;  
 34                    (n) U035, 305-03-3, Chlorambucil;  
 35                    (o) U036, ~~±2789-03-6~~ 57-74-9, Chlordane,  
 36 alpha and gamma isomers;

- 1 (p) U026, 494-03-1, ~~Chlornaphazine~~
- 2 Chlornaphazin;
- 3 (q) U037, 108-90-7, Chlorobenzene;
- 4 (r) U038, 510-15-6, Chlorobenzilate;
- 5 (s) U039, 59-50-7, p-Chloro-m-cresol;
- 6 ~~(s) U041, 106-89-8,~~
- 7 ~~1-Chloro-2,3-epoxypropane~~;
- 8 (t) U042, 110-75-8, 2-Chloroethyl vinyl
- 9 ether;
- 10 (u) U044, 67-66-3, Chloroform;
- 11 (v) U046, 107-30-2, Chloromethyl methyl
- 12 ether;
- 13 (w) U047, 91-58-7, beta-Chloronaphthalene;
- 14 (x) U048, 95-57-8, o-Chlorophenol;
- 15 (y) U049, 3165-93-3, 4-Chloro-o-toluidine,
- 16 hydrochloride;
- 17 (z) U032, 13765-19-0, Chromic acid H<sub>2</sub>CrO<sub>4</sub>,
- 18 calcium salt;
- 19 (aa) U050, 218-01-9, Chrysene;
- 20 (bb) U051, ~~8021-39-4~~ ....., Creosote;
- 21 (cc) U052, 1319-77-3, ~~Cresols~~
- 22 Cresol (Cresylic acid);
- 23 (dd) U053, 4170-30-3, Crotonaldehyde;
- 24 (ee) U055, 98-82-8, Cumene: (I);
- 25 (ff) U246, 506-68-3, Cyanogen
- 26 bromide (CN)Br;
- 27 (gg) U197, 106-51-4,
- 28 2,5-Cyclohexadiene-1,4-dione;
- 29 (hh) U056, 110-82-7, Cyclohexane: (I);
- 30 (ii) U129, 58-89-9, Cyclohexane,
- 31 1,2,3,4,5,6-hexachloro-, (1alpha, 2alpha, 3beta, 4alpha, 5alpha,
- 32 6beta)-;
- 33 (jj) U057, 108-94-1, Cyclohexanone: (I);
- 34 ~~(jj)~~ (kk) U130, 77-47-4,
- 35 1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-; and
- 36 ~~(kk)~~ (ll) U058, 50-18-0, Cyclophosphamide.

- 1 (4) Hazardous wastes from commercial chemical  
 2 products beginning with the letter D:
- 3 (a) U240, 94-75-7, 2,4-D, salts and esters;  
 4 (b) U059, 20830-81-3, Daunomycin;  
 5 (c) U060, 72-54-8, DDD;  
 6 (d) U061, 50-29-3, DDT;  
 7 (e) U062, 2303-16-4, Diallate;  
 8 (f) U063, 53-70-3, Dibenz[a,h]anthracene;  
 9 (g) U064, 189-55-9, Dibenzo[a,i]pyrene;  
 10 (h) U066, 96-12-8,  
 11 1,2-Dibromo-3-chloropropane;  
 12 (i) U069, 84-74-2, Dibutyl phthalate;  
 13 (j) U070, 95-50-1, o-Dichlorobenzene;  
 14 (k) U071, 541-73-1, m-Dichlorobenzene;  
 15 (l) U072, 106-46-7, p-Dichlorobenzene;  
 16 (m) U073, 91-94-1, 3,3'-Dichlorobenzidine;  
 17 (n) U074, 764-41-0, 1,4-Dichloro-2-butene:  
 18 (I,T);  
 19 (o) U075, 75-71-8, Dichlorodifluoromethane;  
 20 (p) U078, 75-35-4, 1,1-Dichloroethylene;  
 21 (q) U079, 156-60-5, 1,2-Dichloroethylene;  
 22 (r) U025, ~~111-44-1~~ 111-44-4, Dichloroethyl  
 23 ether;  
 24 (s) U027, 108-60-1, Dichloroisopropyl ether;  
 25 (t) U024, 111-91-1, Dichloromethoxy ethane;  
 26 (u) U081, 120-83-2, 2,4-Dichlorophenol;  
 27 ~~(t)~~ (v) U082, 87-65-0, 2,6-Dichlorophenol;  
 28 ~~(u)-U2407-94-75-77-2,4-Dichlorophenoxyacetic~~  
 29 ~~acid,-salts-and-esters;~~  
 30 ~~(v)-U0837-78-87-57-1,2-Dichloropropane;~~  
 31 (w) U084, 542-75-6, 1,3-Dichloropropene;  
 32 (x) U085, 1464-53-5, 1,2:3,4-Diepoxybutane:  
 33 (I,T);  
 34 (y) U108, 123-91-1, 1,4-Diethyleneoxide;  
 35 (z) U028, 117-81-7, Diethylhexyl phthalate;  
 36 (aa) U086, 1615-80-1, N,N'-Diethylhydrazine;

1                   ~~(aa)~~ (bb) U087, 3288-58-2, O,O-Diethyl  
2 S-methyl dithiophosphate;  
3                   ~~(bb)~~ (cc) U088, 84-66-2, Diethyl phthalate;  
4                   ~~(cc)~~ (dd) U089, 56-53-1, ~~Diethylstilbestrol~~  
5 Diethylstilbesterol;  
6                   ~~(dd)~~ (ee) U090, 94-58-6, Dihydrosafrole;  
7                   ~~(ee)~~ (ff) U091, 119-90-4,  
8 3,3'-Dimethoxybenzidine;  
9                   ~~(ff)~~ (gg) U092, 124-40-3, Dimethylamine:  
10 (I);  
11                   ~~(gg)~~ (hh) U093, 60-11-7, p-  
12 Dimethylaminoazobenzene;  
13                   ~~(hh)~~ (ii) U094, 57-97-6,  
14 7,12-Dimethylbenz[a]anthracene;  
15                   ~~(ii)~~ (jj) U095, 119-93-7,  
16 3,3'-Dimethylbenzidine;  
17                   ~~(jj)~~ (kk) U096, 80-15-9,  
18 alpha,alpha-Dimethylbenzylhydroperoxide: (R);  
19                   ~~(kk)~~ (ll) U097, 79-44-7, Dimethylcarbamoyl  
20 chloride;  
21                   ~~(ll)~~ (mm) U098, 57-14-7,  
22 1,1-Dimethylhydrazine;  
23                   ~~(mm)~~ (nn) U099, 540-73-8,  
24 1,2-Dimethylhydrazine;  
25                   ~~(nn)~~ (oo) U101, 105-67-9,  
26 2,4-Dimethylphenol;  
27                   ~~(oo)~~ (pp) U102, 131-11-3, Dimethyl  
28 phthalate;  
29                   ~~(pp)~~ (qq) U103, 77-78-1, Dimethyl sulfate;  
30                   ~~(qq)~~ (rr) U105, 121-14-2,  
31 2,4-Dinitrotoluene;  
32                   ~~(rr)~~ (ss) U106, 606-20-2,  
33 2,6-Dinitrotoluene;  
34                   ~~(ss)~~ (tt) U107, 117-84-0, Di-n-octyl  
35 phthalate;  
36                   ~~(tt)~~ (uu) U108, 123-91-1, 1,4-Dioxane;

1                   ~~(uu)~~ (vv) U109, 122-66-7,  
2 1,2-Diphenylhydrazine;  
3                   ~~(vv)~~ (ww) U110, 142-84-7, Dipropylamine:  
4 (I); and  
5                   ~~(ww)~~ (xx) U111, 621-64-7,  
6 Di-n-propylnitrosamine.  
7                   (5) Hazardous wastes from commercial chemical  
8 products beginning with the letter E:  
9                   (a) U041, 106-89-8, Epichlorohydrin;  
10                   **(b)** U001, 75-07-0, Ethanal: (I);  
11                   ~~(b)~~ (c) U174, 55-18-5, Ethanamine,  
12 N-ethyl-N-nitroso-;  
13                   ~~(c)~~ (d) U155, 91-80-5, 1,2-Ethanediamine,  
14 N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-;  
15                   ~~(d)~~ (e) U067, 106-93-4, Ethane,  
16 1,2-dibromo-;  
17                   ~~(e)~~ (f) U076, 75-34-3, Ethane,  
18 1,1-dichloro-;  
19                   ~~(f)~~ (g) U077, 107-06-2, Ethane,  
20 1,2-dichloro-;  
21                   ~~(g)~~ (h) U131, 67-72-1, Ethane, hexachloro-;  
22                   ~~(h)~~ (i) U024, 111-91-1, Ethane, 1,1'-  
23 [methylenebis(oxy)]bis[2-chloro]-;  
24                   ~~(i)~~ (j) U117, 60-29-7, Ethane, 1,1'-oxybis-:  
25 (I);  
26                   ~~(j)~~ (k) U025, 111-44-4, Ethane,  
27 1,1'-oxybis[2-chloro]-;  
28                   ~~(k)~~ (l) U184, 76-01-7, Ethane, pentachloro-;  
29                   ~~(l)~~ (m) U208, 630-20-6, Ethane,  
30 1,1,1,2-tetrachloro-;  
31                   ~~(m)~~ (n) U209, 79-34-5, Ethane,  
32 1,1,2,2-tetrachloro-;  
33                   ~~(n)~~ (o) U218, 62-55-5, Ethanethioamide;  
34                   (p) U226, 71-55-6, Ethane, 1,1,1-trichloro-;  
35                   ~~(o)~~ (q) U227, 79-80-5, Ethane,  
36 2-ethoxy- 79-00-5, Ethane, 1,1,2-trichloro-;

1                                    {p} (r) U359, 79-00-5, Ethane,

2 ~~1,1,2-trichloro-~~ 110-80-5, Ethanol, 2-ethoxy-;

3                                    {q} (s) U173, 1116-54-7, Ethanol,

4 2,2'-(nitrosoimino)bis-;

5                                    {r} (t) U004, 98-86-2, Ethanone, 1-phenyl-;

6                                    {s} (u) U043, 75-01-4, Ethene, chloro-;

7                                    {t} (v) U042, 110-75-8, Ethene,

8 (2-chloroethoxy)-;

9                                    {u} (w) U078, 75-35-4, Ethene,

10 1,1-dichloro-;

11                                    {v} (x) U079, 156-60-5, Ethene,

12 1,2-dichloro-, (E)-;

13                                    {w} (y) U210, 127-18-4, Ethene,

14 tetrachloro-;

15                                    {x} (z) U228, 79-01-6, Ethene, trichloro-;

16                                    {y} (aa) U112, 141-78-6, Ethyl acetate:

17 (I);

18                                    {z} (bb) U113, 140-88-5, Ethyl acrylate:

19 (I);

20                                    {aa} (cc) U238, 51-79-6, Ethyl carbamate

21 (urethane);

22                                    {bb} ~~U038, 510-15-6, Ethyl~~

23 ~~4,4'-dichlorobenzilate,~~

24                                    {dd} U117, 60-29-7, Ethyl ether: (I);

25                                    {cc} (ee) U114, 111-54-6,

26 Ethylenebisdithiocarbamic acid, salts and esters;

27                                    {dd} (ff) U067, 106-93-4, Ethylene

28 dibromide;

29                                    {ee} (gg) U077, 107-06-2, Ethylene

30 dichloride;

31                                    {ff} (hh) U359, 110-80-5, Ethylene glycol

32 monoethyl ether;

33                                    {gg} (ii) U115, 75-21-8, Ethylene oxide:

34 (I,T);

35                                    {hh} (jj) U116, 96-45-7, Ethylene thiourea;

36                                    {ii} ~~U117, 60-29-7, Ethyl ether:--(i);~~

1                   ~~(jj)~~ (kk) U076, 75-34-3, Ethylidene  
 2 dichloride;  
 3                   ~~(kk)~~ (ll) U118, 97-63-2, Ethyl methacrylate;  
 4 and  
 5                   ~~(ll)~~ (mm) U119, 62-50-0,  
 6 Ethylmethanesulfonate.

7                   (6) Hazardous wastes from commercial chemical  
 8 products beginning with the letter F:

- 9                   (a) U120, 206-44-0, Fluoranthene;  
 10                   (b) U122, 50-00-0, Formaldehyde;  
 11                   (c) U123, 64-18-6, Formic acid: (C,T);  
 12                   (d) U124, 110-00-9, Furan: (I);  
 13                   (e) U125, 98-01-1, 2-Furancarboxaldehyde:  
 14 (I);  
 15                   (f) U147, 108-31-6, 2,5-Furandione;  
 16                   (g) U213, 109-99-9, Furan, tetrahydro-:  
 17 (I);  
 18                   (h) U125, 98-01-1, Furfural: (I); and  
 19                   (i) U124, 110-00-9, Furfuran: (I).

20                   (7) Hazardous wastes from commercial chemical  
 21 products beginning with the letter G:

- 22                   (a) U206, 18883-66-4,  $\beta$ -Glucopyranose,  
 23 2-deoxy-2(3-methyl-3-nitrosoureido)-, D-;  
 24                   (b) U206, 18883-66-4, D-Glucose,  
 25 2-deoxy-2-[[methylnitrosoamino)-carbonyl]amino]-;  
 26                   (c) U126, 765-34-4, Glycidylaldehyde; and  
 27                   ~~(c)~~ (d) U163, 70-25-7, Guanidine,  
 28 N-methyl-N'-nitro-N-nitroso-.

29                   (8) Hazardous wastes from commercial chemical  
 30 products beginning with the letter H:

- 31                   (a) U127, 118-74-1, Hexachlorobenzene;  
 32                   (b) U128, 87-68-3, Hexachlorobutadiene;  
 33                   (c) ~~U129, 58-88-9, Hexachlorocyclohexane~~  
 34 ~~(gamma-isomer);~~  
 35                   ~~(d)~~ U130, 77-47-4,  
 36 Hexachlorocyclopentadiene;



- 1                    {e} (d) U131, 67-72-1, Hexachloroethane;  
 2                    {f} (e) U132, 70-30-4, Hexachlorophene;  
 3                    {g} (f) U243, 1888-71-7, Hexachloropropene;  
 4                    {h} (g) U133, 302-01-2, Hydrazine: (R,T);  
 5                    {i} (h) U086, 1615-80-1, Hydrazine,  
 6 1,2-diethyl-;  
 7                    {j} (i) U098, 57-14-7, Hydrazine,  
 8 1,1-dimethyl-;  
 9                    {k} (j) U099, 540-73-8, Hydrazine,  
 10 1,2-dimethyl-;  
 11                   {l} (k) U109, 122-66-7, Hydrazine,  
 12 1,2-diphenyl-;  
 13                   {m} (l) U134, 7664-39-3, Hydrofluoric acid:  
 14 (C,T);  
 15                   {n} (m) U134, 7664-39-3, Hydrogen fluoride:  
 16 (C,T);  
 17                   {o} (n) U135, 7783-06-4, Hydrogen sulfide;  
 18 (o) U135, 7783-06-4, Hydrogen sulfide H<sub>2</sub>S;  
 19 and  
 20                   (p) U096, 80-15-9, Hydroperoxide,  
 21 1-methyl-1-phenylethyl-: (R);--and  
 22                   {q} ~~U136, 75-60-5, Hydroxydimethylarsine~~  
 23 ~~oxide.~~  
 24                   (9) Hazardous wastes from commercial chemical  
 25 products beginning with the letter I:  
 26                   (a) U116, 96-45-7, 2-Imidazolidinethione;  
 27                   (b) U137, 193-39-5, Indeno[1,2,3cd]pyrene;  
 28                   (c) U139, 9004-66-4, Iron dextran;  
 29                   (d) U190, 85-44-9, 1,3-Isobenzofurandione;  
 30                   (e) U140, 78-83-1, Isobutyl alcohol: (I,T);  
 31 and  
 32                   (f) U141, 120-58-1, Isosafrole.  
 33                   (10) Hazardous wastes from commercial chemical  
 34 products beginning with the letter K: U142, 143-50-0, Kepone.  
 35                   (11) Hazardous wastes from commercial chemical  
 36 products beginning with the letter L:

- 1 (a) U143, 303-34-4, Lasiocarpine;  
 2 (b) U144, 301-04-2, Lead acetate;  
 3 (c) U146, 1335-32-6, Lead,  
 4 bis(acetato-O)tetrahydroxytri-;  
 5 (d) U145, 7446-27-7, Lead phosphate;  
 6 (e) U146, 1335-32-6, Lead subacetate; and  
 7 (f) U129, 58-89-9, Lindane.
- 8 (12) Hazardous wastes from commercial chemical  
 9 products beginning with the letter M:
- 10 (a) U163, 70-25-7, MNNG;  
 11 (b) U147, 108-31-6, Maleic anhydride;  
 12 ~~(b)~~ (c) U148, 123-33-1, Maleic hydrazide;  
 13 ~~(c)~~ (d) U149, 109-77-3, Malononitrile;  
 14 ~~(d)~~ (e) U150, 148-82-3, Melphalan;  
 15 ~~(e)~~ (f) U151, 7439-97-6, Mercury;  
 16 ~~(f)~~ (g) U152, 126-98-7, Methacrylonitrile:  
 17 (I,T);
- 18 ~~(g)~~ (h) U092, 124-40-3, Methanamine,  
 19 N-methyl-: (I);
- 20 ~~(h)~~ (i) U029, 74-83-9, Methane, bromo-;  
 21 ~~(i)~~ (j) U045, 74-87-3, Methane, chloro-:  
 22 (I,T);
- 23 ~~(j)~~ (k) U046, 107-30-2, Methane,  
 24 chloromethoxy-;
- 25 ~~(k)~~ (l) U068, 74-95-3, Methane, dibromo-;  
 26 ~~(l)~~ (m) U080, 75-09-2, Methane, dichloro-;  
 27 ~~(m)~~ (n) U075, 75-71-8, Methane,  
 28 dichlorodifluoro-;
- 29 ~~(n)~~ (o) U138, 74-88-4, Methane, iodo-;  
 30 ~~(o)~~ (p) U119, 62-50-0, Methanesulfonic acid,  
 31 ethyl ester;
- 32 ~~(p)~~ (q) U211, 56-23-5, Methane,  
 33 tetrachloro-;
- 34 ~~(q)~~ (r) U153, 74-93-1, Methanethiol: (I,T);  
 35 ~~(r)~~ (s) U225, 75-25-2, Methane, tribromo-;  
 36 ~~(s)~~ (t) U044, 67-66-3, Methane, trichloro-;

1                   ~~(t)~~ (u) U121, 75-69-4, Methane,  
2 trichlorofluoro-;  
3                   ~~(u)~~-~~U123~~-~~64~~-~~18~~-~~6~~-~~Methanoic-acid~~--~~(E,F)~~;  
4                   (v) U036, 57-74-9, 4,7-Methano-1H-indene,  
5 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-;  
6                   (w) U154, 67-56-1, Methanol: (I);  
7                   ~~(w)~~ (x) U155, 91-80-5, Methapyrilene;  
8                   ~~(x)~~ (y) U142, 143-50-0, 1,3,4-Metheno-  
9 2H-cyclobuta[cd]pentalen-2-one,1,1a,3,3a,4,5,5,5a,5b,  
10 6-decachlorooctahydro-;  
11                   ~~(y)~~ (z) U247, 72-43-5, Methoxychlor;  
12                   ~~(z)~~ (aa) U154, 67-56-1, Methyl alcohol:  
13 (I);  
14                   ~~(aa)~~ (bb) U029, 74-83-9, Methyl bromide;  
15                   ~~(bb)~~ (cc) U186, 504-60-9,  
16 1-Methylbutadiene: (I);  
17                   ~~(cc)~~ (dd) U045, 74-87-3, Methyl chloride:  
18 (I,T);  
19                   ~~(dd)~~ (ee) U156, 79-22-1, Methyl  
20 chlorocarbonate: (I,T);  
21                   ~~(ee)~~ (ff) U226, 71-55-6, Methyl chloroform;  
22                   ~~(ff)~~ (gg) U157, 56-49-5,  
23 3-Methylcholanthrene;  
24                   ~~(gg)~~ (hh) U158, 101-14-4, 4,4'-Methylenebis  
25 (2-chloroaniline);  
26                   ~~(hh)~~ (ii) U068, 74-95-3, Methylene bromide;  
27                   ~~(ii)~~ (jj) U080, 75-09-2, Methylene chloride;  
28                   ~~(jj)~~ (kk) U159, 78-93-3, Methyl ethyl ketone  
29 (MEK): (I,T);  
30                   ~~(kk)~~ (ll) U160, 1338-23-4, Methyl ethyl  
31 ketone peroxide: (R,T);  
32                   ~~(ll)~~ (mm) U138, 74-88-4, Methyl iodide;  
33                   ~~(mm)~~ (nn) U161, 108-10-1, Methyl isobutyl  
34 ketone: (I);  
35                   ~~(nn)~~ (oo) U162, 80-62-6, Methyl methacrylate:  
36 (I,T);

1                   ~~(oo)-U163, 70-25-7, N-Methyl-N<sup>1</sup>~~  
2   ~~-nitro-N-nitrosoguanidine;~~  
3                   (pp) U161, 108-10-1, 4-Methyl-2-pentanone:  
4   (I);  
5                   (qq) U164, 56-04-2, Methylthiouracil; and  
6                   (rr) U010, 50-07-7, Mitomycin C.  
7                   (13) Hazardous wastes from commercial chemical  
8   compounds beginning with the letter N:  
9                   (a) U059, 20830-81-3, 5,12-Naphthacenedione,  
10 ~~(8S-cis)-8-acetyl-10-~~  
11 ~~[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]~~  
12 ~~-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-;~~  
13                   (b) U167, 134-32-7, 1-Naphthalenamine;  
14                   (c) U168, 91-59-8, 2-Naphthalenamine;  
15                   (d) U026, 494-03-1,  
16 Naphthalenamine,N,N'-bis(2-chloroethyl)-;  
17                   (e) U165, 91-20-3, Naphthalene;  
18                   ~~(f)~~ (f) U047, 91-58-7, Naphthalene,  
19 2-chloro-;  
20                   ~~(d)~~ (g) U166, 130-15-4,  
21 1,4-Naphthalenedione;  
22                   ~~(e)~~ (h) U236, 72-57-1,  
23 2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl(1,1'-  
24 biphenyl)-4,4'-diyl)}bis  
25 (azo)bis(5-amino-4-hydroxy)-, tetrasodium salt;  
26                   ~~(f)~~ (i) U166, 130-15-4, 1,4-Napthoquinone;  
27                   ~~(g)~~ (j) U167, 134-32-7, alpha-Naphthylamine;  
28                   ~~(h)~~ (k) U168, 91-59-8, beta-Naphthylamine;  
29                   ~~(i)-U026, 494-03-1, 2-Naphthylamine;~~  
30 ~~N,N<sup>1</sup>-bis(2-chloromethyl)-;~~  
31                   ~~(j)-U167, 134-32-7, 1-Naphthylamine;~~  
32                   ~~(k)-U168, 91-59-8, 2-Naphthylamine;~~  
33                   (l) U217, 10102-45-1, Nitric acid,  
34 ~~thellium~~~~(It)~~ thallium(I+) salt;  
35                   (m) U169, 98-95-3, Nitrobenzene: (I,T);  
36                   (n) U170, 100-02-7, p-Nitrophenol;

- 1 (o) U171, 79-46-9, 2-Nitropropane: (I,T);  
 2 (p) U172, 924-16-3,  
 3 N-Nitrosodi-n-butylamine;  
 4 (q) U173, 1116-54-7,  
 5 N-Nitrosodiethanolamine;  
 6 (r) U174, 55-18-5, N-Nitrosodiethylamine;  
 7 (s) U176, 759-73-9, N-Nitroso-N-ethylurea;  
 8 (t) U177, 684-93-5, N-Nitroso-N-methylurea;  
 9 (u) U178, 615-53-2,  
 10 N-Nitroso-N-methylurethane;  
 11 (v) U179, 100-75-4, N-Nitrosopiperidine;  
 12 (w) U180, 930-55-2, N-Nitrosopyrrolidine;  
 13 and  
 14 (x) U181, 99-55-8, 5-Nitro-o-toluidine.  
 15 (14) Hazardous wastes from commercial chemical  
 16 products beginning with the letter O:  
 17 (a) U193, 1120-71-4, 1,2-Oxathiolane,  
 18 2,2-dioxide;  
 19 (b) U058, 50-18-0,  
 20 2H-1,3,2-Oxazaphosphorin-2-amine,N,N-bis  
 21 (2-chloroethyl)tetrahydro-, 2-oxide;  
 22 (c) U115, 75-21-8, Oxirane: (I,T);  
 23 (d) U126, 765-34-4, Oxiranecarboxyaldehyde;  
 24 and  
 25 (e) U041, 106-89-8, Oxirane, (chloromethyl)-.  
 26 (15) Hazardous wastes from commercial chemical  
 27 products beginning with the letter P:  
 28 (a) U182, 123-63-7, Paraldehyde;  
 29 (b) U183, 608-93-5, Pentachlorobenzene;  
 30 (c) U184, 76-01-7, Pentachloroethane;  
 31 (d) U185, 82-68-8, Pentachloronitrobenzene  
 32 (PCNB);  
 33 (e) ~~U242~~ see F027, 87-86-5,  
 34 Pentachlorophenol;  
 35 (f) U161, 108-10-1, Pentanol, 4-methyl-;  
 36 (g) U186, 504-60-9, 1,3-Pentadiene: (I);

1                    {g} (h) U187, 62-44-2, Phenacetin;  
 2                    {h} (i) U188, 108-95-2, Phenol;  
 3                    {i} (j) U048, 95-57-8, Phenol, 2-chloro-;  
 4                    {j} (k) U039, 59-50-7, Phenol,  
 5 4-chloro-3-methyl-;  
 6                    {k} (l) U081, 120-83-2, Phenol,  
 7 2,4-dichloro-;  
 8                    {l} (m) U082, 87-65-0, Phenol,  
 9 2,6-dichloro-;  
 10                   {m} (n) U089, 56-53-1, Phenol,  
 11 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-;  
 12                   {n} (o) U101, 105-67-9, Phenol,  
 13 2,4-dimethyl-;  
 14                   {o} (p) U052, 1319-77-3, Phenol, methyl-;  
 15                   {p} (q) U132, 70-30-4,  
 16 Phenol, 2,2'-methylenebis[3,4,6-trichloro]-;  
 17                   {q} (r) U170, 100-02-7, Phenol, 4-nitro-;  
 18                   {r}-U242 (s) see F027, 87-86-5, Phenol,  
 19 pentachloro-;  
 20                   {s}-U212 (t) see F027, 58-90-2, Phenol,  
 21 2,3,4,6-tetrachloro-;  
 22                   {t}-U230, -95-94-4 (u) see F027, 95-95-4,  
 23 Phenol, 2,4,5-trichloro-;  
 24                   {u}-U231 (v) see F027, 88-06-2, Phenol,  
 25 2,4,6-trichloro-;  
 26                   {v} (w) U150, 148-82-3, L-Phenylalanine,  
 27 4-[bis(2-chloroethyl)amino]-;  
 28                   {w} (x) U145, 7446-27-7, Phosphoric acid,  
 29 lead(2+) salt(2:3);  
 30                   {x} (y) U087, 3288-58-2, Phosphorodithioic  
 31 acid, O,O-diethyl, S-methyl ester;  
 32                   {y} (z) U189, 108-95-2  
 33 1314-80-3, Phosphorous Phosphorus sulfide: (R);  
 34                   {z} (aa) U190, 85-44-9, Phthalic anhydride;  
 35                   {aa} (bb) U191, 109-06-8, 2-Picoline;  
 36                   {bb} (cc) U179, 100-75-4, Piperidine

1 Piperidine, 1-nitroso-;  
2                                    {ee} (dd) U192, 23950-58-5, Pronamide;  
3                                    {dd} (ee) U194, 107-10-8, 1-Propanamine:  
4 (I,T);  
5                                    {ee} (ff) U111, 621-64-7,  
6 1-Propanamine,N-nitroso-N-propyl-;  
7                                    {ff} (gg) U110, 142-84-7, 1-Propanamine,  
8 N-propyl-: (I);  
9                                    {gg} (hh) U066, 96-12-8, Propane,  
10 1,2-dibromo-3-chloro-;  
11                                    {ii} (jj) U083, 78-87-5, Propane, 1,2-dichloro-;  
12                                    {hh} (jj) U149, 109-77-3, Propanedinitrile;  
13                                    {ii} (kk) U171, 79-46-9, Propane, 2-nitro-:  
14 (I,T);  
15                                    {jj} (ll) U027, 39638-32-9 108-60-1,  
16 Propane, 2,2'-oxybis[2-chloro]-;  
17                                    {kk} (mm) U193, 1120-71-4, 1,3-Propane  
18 sultone;  
19                                    {nn} (nn) see F027, 93-72-1, Propanoic acid,  
20 2-(2,4,5-trichlorophenoxy)-;  
21                                    {ll} (oo) U235, 126-72-7, 1-Propanol,  
22 2,3-dibromo-, phosphate (3:1);  
23                                    {mm} (pp) U140, 78-83-1, 1-Propanol,  
24 2-methyl-: (I,T);  
25                                    {nn} (qq) U002, 67-64-1, 2-Propanone: (I);  
26                                    {rr} (rr) U007, 79-06-1, 2-Propenamide;  
27                                    {oo} (ss) U084, 542-75-6,  $\pm$ -Propane  
28 1-Propene, 1,3-dichloro-;  
29                                    {pp} (tt) U152, 126-98-7,  
30 2-Propenenitrile, 2-methyl-: (I,T);  
31                                    {qq} (rr) U007, 79-06-1, 2-Propenamide,  
32                                    {rr} (tt) U243, 1888-71-7, 1-Propene,  
33 1,1,2,3,3,3-hexachloro-;  
34                                    {ss} (uu) U009, 107-13-1, 2-Propenenitrile;  
35                                    {vv} (vv) U152, 126-98-7,  
36 2-Propenenitrile, 2-methyl-: (I,T);

- 1                    ~~(ttt)~~ (ww) U008, 79-10-7, 2-Propenoic acid:  
2 (I);
- 3                    ~~(uu)~~ (xx) U113, 140-88-5, 2-Propenoic acid,  
4 ethyl ester: (I);
- 5                    ~~(vv)~~ (yy) U118, 97-63-2, 2-Propenoic acid,  
6 2-methyl-, ethyl ester;
- 7                    ~~(ww)~~ (zz) U162, 80-66-2 80-62-6, 2-Propenoic  
8 acid, 2-methyl-, methyl ester,: (I,T);
- 9                    ~~(xx)-U2337-93-72-17-Propionic-acid,~~  
10 ~~2-(2,4,5-trichlorophenoxy)-~~
- 11                   ~~(yy)~~ (aaa) U194, 107-10-8, n-Propylamine:  
12 (I,T);
- 13                   ~~(zz)~~ (bbb) U083, 78-87-5, Propylene  
14 dichloride;
- 15                   ~~(aaa)~~ (ccc) U148, 123-33-1,  
16 3,6-Pyridazinedione, 1,2-dihydro-;
- 17                   ~~(bbb)~~ (ddd) U196, 110-86-1, Pyridine;  
18                   ~~(ccc)~~ (eee) U191, 109-06-8, Pyridine,  
19 2-methyl-;
- 20                   ~~(ddd)~~ (fff) U237, 66-75-1,  
21 2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-;
- 22                   ~~(eee)~~ (ggg) U164, 56-04-2,  
23 4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-; and
- 24                   ~~(fff)~~ (hhh) U180, 930-55-2, Pyrrolidine,  
25 1-nitroso-.
- 26                   (16) Hazardous wastes from commercial chemical  
27 products beginning with the letter R:
- 28                   (a) U200, 50-55-5, Reserpine; and  
29                   (b) U201, 108-46-3, Resorcinol.
- 30                   (17) Hazardous wastes from commercial chemical  
31 products beginning with the letter S:
- 32                   (a) U202, 81-07-2, Saccharin and salts;  
33                   (b) U203, 94-59-7, Safrole;  
34                   (c) U204, 7783-00-8, Selenious acid;  
35                   (d) U204, 7783-00-8, Selenium dioxide;  
36                   (e) U205, 7488-56-4, Selenium sulfide;



1                   (f) U205, 7446-34-6 7488-56-4, Selenium  
 2 sulfide SeS<sub>2</sub>: (R,T);  
 3                   ~~(f)~~ (g) U015, 115-02-6, L-Serine,  
 4 diazoacetate (ester);  
 5                   ~~(g)~~-~~U233~~ (h) see F027, 93-72-1,  
 6 Silvex (2,4,5-TP);  
 7                   ~~(h)~~ (i) U206, 18883-66-4, Streptozotocin;  
 8                   ~~(i)~~ (j) U103, 77-78-1, Sulfuric acid,  
 9 dimethyl ester; and  
 10                   ~~(j)~~ (k) U189, 1314-80-3, Sulfur phosphide:  
 11 (R).

12                   (18) Hazardous wastes from commercial chemical  
 13 products beginning with the letter T:

14                   (a) ~~U232~~ see F027, 93-76-5, 2,4,5-T;  
 15                   (b) U207, 95-94-3,  
 16 1,2,4,5-Tetrachlorobenzene;  
 17                   (c) U208, 630-20-6,  
 18 1,1,1,2-Tetrachloroethane;  
 19                   (d) U209, 79-34-5,  
 20 1,1,2,2-Tetrachloroethane;  
 21                   (e) U210, 127-18-4, Tetrachloroethylene;  
 22                   (f) ~~U212~~ see F027, 58-90-2,  
 23 2,3,4,6-Tetrachlorophenol;  
 24                   (g) U213, 109-99-9, Tetrahydrofuran: (I);  
 25                   (h) U214, ~~15843-14-8~~ 563-68-8, Thallium(I)  
 26 acetate;  
 27                   (i) U215, 6533-73-9, Thallium(I) carbonate;  
 28                   (j) U216, 7791-12-0, Thallium(I) chloride;  
 29                   (k) U216, 7791-12-0, Thallium chloride TlCl;  
 30                   (l) U217, 10102-45-1, Thallium(I) nitrate;  
 31                   ~~(l)~~ (m) U218, 62-55-5, Thioacetamide;  
 32                   ~~(m)~~ (n) U153, 74-93-1, Thiomethanol: (I,T);  
 33                   ~~(n)~~ (o) U244, 137-26-8, Thioperoxydicarbonic  
 34 diamide, tetramethyl-;  
 35                   ~~(o)~~ (p) U219, 62-56-6, Thiourea;  
 36                   ~~(p)~~ (q) U244, 137-26-8, Thiuram Thiram;

- 1                    (q) (r) U220, 108-88-3, Toluene;
- 2                    (r) (s) U221, 25376-45-8, Toluenediamine;
- 3                    (s) (t) U223, 26471-62-5, Toluene
- 4 diisocyanate: (R,T);
- 5                    (t) (u) U328, 95-53-4, o-Toluidine;
- 6                    (u) (v) U353, 106-49-0, p-Toluidine;
- 7                    (v) (w) U222, 636-21-5, o-Toluidine
- 8 hydrochloride;
- 9                    (w) (x) U011, 61-82-5,
- 10 1H-1,2,4-Triazol-3-amine;
- 11                    (x) ~~U226, 71-55-6, 1,1,1-Trichloroethane;~~
- 12                    (y) U227, 79-00-5, 1,1,2-Trichloroethane;
- 13                    (z) U228, 79-01-6, Trichloroethylene;
- 14                    (aa) U121, 75-69-4,
- 15 Trichloromonofluoromethane;
- 16                    (bb) ~~U230~~ see F027, 95-95-4,
- 17 2,4,5-Trichlorophenol;
- 18                    (cc) ~~U231~~ see F027, 88-06-2,
- 19 2,4,6-Trichlorophenol;
- 20                    (dd) U234, 99-35-4, sym
- 21 1,3,5-Trinitrobenzene: (R,T);
- 22                    (ee) U182, 123-63-7, 1,3,5-Trioxane,
- 23 2,4,6-trimethyl-;
- 24                    (ff) U235, 126-72-7, Tris
- 25 (2,3-dibromopropyl) phosphate; and
- 26                    (gg) U236, 72-57-1, Trypan blue.
- 27                    (19) Hazardous wastes from commercial chemical
- 28 products beginning with the letter U:
- 29                    (a) U237, 66-75-1, Uracil mustard;
- 30                    (b) U176, 759-73-9, Urea,
- 31 N-ethyl-N-nitroso-; and
- 32                    (c) U177, 684-93-5, Urea,
- 33 N-methyl-N-nitroso-.
- 34                    (20) Hazardous wastes from commercial chemical
- 35 products beginning with the letter V: U043, 75-01-4, Vinyl
- 36 chloride.

1 (21) Hazardous wastes from commercial chemical  
2 products beginning with the letter W: U248, 81-81-2, Warfarin,  
3 and salts, when present at concentrations of 0.3 percent or less.

4 (22) Hazardous wastes from commercial chemical  
5 products beginning with the letter X: U239, 1330-20-7, Xylene:  
6 (I).

7 (23) Hazardous wastes from commercial chemical  
8 products beginning with the letter Y: U200, 50-55-5,  
9 Yohimban-16-carboxylic acid, 11,  
10 17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester,  
11 (3beta, 16beta, 17alpha, 18beta, 20alpha)-.

12 (24) Hazardous wastes from commercial chemical  
13 products beginning with the letter Z: U249, 1314-84-7, Zinc  
14 phosphide Zn<sub>3</sub>P<sub>2</sub>, when present at concentrations of 10 percent or  
15 less.

16 Subp. 5. [Unchanged.]

17 7045.0141 HAZARDOUS CONSTITUENTS.

18 Subpart 1. **Scope.** Hazardous constituents and their  
19 corresponding Chemical abstracts Abstract Service registry  
20 numbers and hazardous waste numbers, if known available, are  
21 listed in subparts 2 to 22.

22 Subp. 2. **"A" constituents.** Hazardous constituents  
23 beginning with the letter A are as follows:

24 A. Acetonitrile, 75-05-8, U003;

25 B. Acetophenone, 98-86-2, U004;

26 C. ~~2-Acetylaminofluorene~~ 2-Acetylaminefluorone,  
27 53-96-3, U005;

28 D. Acetyl chloride, 75-36-5, U006;

29 E. 1-Acetyl-2-thiourea, 591-08-2, P002;

30 F. Acrolein, 107-02-8, P003;

31 G. Acrylamide, 79-06-1, U007;

32 H. Acrylonitrile, 107-13-1, U009;

33 I. Aflatoxins, 1402-68-2, .....;

34 J. Aldicarb, 116-06-3, P070;

35 K. Aldrin, 309-00-2, P004;

- 1 L. Allyl alcohol, 107-18-6, P005;
- 2 ~~M. Allyl chloride, 107-05-1;~~
- 3 ~~N. Aluminum phosphide, 20859-73-8, P006;~~
- 4 ~~O. N. 4-Aminobiphenyl, 92-67-1, .....;~~
- 5 ~~P. O. 5-(Aminomethyl)-3-isoxazolol, 2763-96-4, P007;~~
- 6 ~~Q. P. 4-Aminopyridine, 504-24-5, P008;~~
- 7 ~~R. Q. Amitrole, 61-82-5, U011;~~
- 8 ~~S. R. Ammonium vanadate, 7803-55-6, P119;~~
- 9 ~~T. S. Aniline, 62-53-3, U012;~~
- 10 ~~T. Antimony, 7440-36-0, .....;~~
- 11 U. Antimony and compounds, not otherwise specified in
- 12 this list, ~~7440-36-0 ....., .....;~~
- 13 V. Aramite, 140-57-8, .....;
- 14 W. Arsenic, 7440-38-2, .....;
- 15 X. Arsenic and compounds, not otherwise specified in
- 16 this list, 7440-38-2 ....., .....;
- 17 ~~X. Y. Arsenic acid, 7778-39-4, P010;~~
- 18 ~~Y. Z. Arsenic pentoxide, 1303-28-2, P011;~~
- 19 ~~Z. AA. Arsenic trioxide, 1327-53-3, P012;~~
- 20 ~~AA. BB. Auramine, 492-80-8, P014; and~~
- 21 ~~BB. CC. Azaserine, 115-02-6, U015.~~

22 Subp. 3. "B" constituents. Hazardous constituents  
 23 beginning with the letter B are as follows:

- 24 A. Barium, 7440-39-3, .....;
- 25 B. Barium and compounds, not otherwise specified in
- 26 this list, 7440-39-3 ....., .....;
- 27 ~~B. C. Barium cyanide, 542-62-1, P013;~~
- 28 ~~C. D. Benz[c]acridine, 225-51-4, U016;~~
- 29 ~~D. E. Benz[a]anthracene, 56-55-3, U018;~~
- 30 ~~E. F. Benzal chloride, 98-87-3, U017;~~
- 31 ~~F. G. Benzene, 71-43-2, U019;~~
- 32 ~~G. H. Benzenearsonic acid, 98-05-5, .....;~~
- 33 ~~H. I. Benzidine, 92-87-5, U021;~~
- 34 ~~I. J. Benzo[b]fluoranthene, 205-99-2, .....;~~
- 35 ~~J. K. Benzo[j]fluoranthene, 205-82-3, .....;~~
- 36 ~~K. L. Benzo[a]pyrene, 50-32-8, U022;~~

- 1            ~~B~~ M. p-Benzoquinone, 106-51-4, U197;
- 2            ~~M~~ N. Benzotrichloride, 98-07-7, U023;
- 3            ~~N~~ O. Benzyl chloride, 100-44-7, P028;
- 4            P. Beryllium, 7440-41-7, P015;
- 5            ~~O~~ Q. Beryllium and compounds, not otherwise
- 6 specified in this list, 7440-41-7 .....;
- 7            ~~P~~ --Bis(2-chloromethoxy)ethane, 111-91-1;
- 8            ~~Q~~ --Bis(2-chloroethyl)-ether, 111-44-4;
- 9            ~~R~~ --Bis(2-chloroisopropyl)-ether, 39638-32-9;
- 10           ~~S~~ --Bis(chloromethyl)-ether, 542-88-1;
- 11           ~~T~~ --Bis(2-ethylhexyl)-phthalate, 117-81-7;
- 12           ~~U~~ R. Bromoacetone, 598-31-2, P017;
- 13           ~~V~~ S. Bromoform, 75-25-2, U225;
- 14           ~~W~~ T. 4-Bromophenyl phenyl ether, 101-55-3, U030;
- 15           ~~X~~ U. Brucine, 357-57-3, P018; and
- 16           ~~Y~~ V. Butyl benzyl phthalate, 85-68-7, .....
- 17           Subp. 4. "C" constituents. Hazardous constituents
- 18 beginning with the letter C are as follows:
- 19           A. Cacodylic acid, 75-60-5, U136;
- 20           B. Cadmium, 7440-43-9, .....;
- 21           C. Cadmium and compounds, not otherwise specified in
- 22 this list, 7440-43-9 .....;
- 23           ~~E~~ D. Calcium chromate, 13765-19-0, U032;
- 24           ~~D~~ E. Calcium cyanide, 592-01-8, P021;
- 25           ~~E~~ F. Carbon disulfide, 75-15-0, P022;
- 26           ~~F~~ G. Carbon oxyfluoride, 353-50-4, U033;
- 27           ~~G~~ H. Carbon tetrachloride, 56-23-5, U211;
- 28           ~~H~~ I. Chloral, 75-87-6, U034;
- 29           ~~I~~ J. Chlorambucil, 305-03-3, U035;
- 30           K. Chlordane, 57-74-9, U036;
- 31           ~~J~~ L. Chlordane (alpha and gamma isomers), 57-74-9
- 32 ..... U036;
- 33           ~~K~~ M. Chlorinated benzenes, not otherwise specified
- 34 in this list, .....;
- 35           ~~L~~ N. Chlorinated ethane, not otherwise specified in
- 36 this list, .....;

- 1 M- O. Chlorinated fluorocarbons, not otherwise  
 2 specified in this list, ....., .....;
- 3 N- P. Chlorinated naphthalene, not otherwise  
 4 specified in this list, ....., .....;
- 5 O- Q. Chlorinated phenol, not otherwise specified in  
 6 this list, ....., .....;
- 7 ~~P---~~ R. Chlornaphazine R. Chlornaphazin, 494-03-1, U026;
- 8 Q- S. Chloroacetaldehyde, 107-20-0, P023;
- 9 R- T. Chloroalkyl ethers, not otherwise specified in  
 10 this list, ....., .....;
- 11 S- U. p-Chloroaniline, 106-47-8, P024;
- 12 T- V. Chlorobenzene, 108-90-7, U037;
- 13 U- W. Chlorobenzilate, 510-15-6, U038;
- 14 V- X. p-Chloro-m-cresol, 59-50-7, U039;
- 15 ~~W---~~ Y. 2-Chloro-2,3-epoxypropane, 106-89-8;
- 16 X- Z. 2-Chloroethyl vinyl ether, 110-75-8, U042;
- 17 Y- AA. Chloroform, 67-66-3, U044;
- 18 Z- BB. Chloromethyl methyl ether, 107-30-2, U046;
- 19 ~~AA-~~ BB. beta-Chloronaphthalene, 91-58-7, U047;
- 20 ~~BB-~~ CC. o-Chlorophenol, 95-57-8, U048;
- 21 ~~CC-~~ DD. 1-(o-Chlorophenyl)thiourea, 5344-82-1, P026;
- 22 ~~DD-~~ EE. Chloroprene, 126-99-8, .....;
- 23 ~~EE-~~ FF. 3-Chloropropionitrile, 542-76-7, P027;
- 24 GG. Chromium, 7440-47-3, .....;
- 25 ~~FF-~~ HH. Chromium and compounds, not otherwise  
 26 specified in this list, ~~7440-47-3~~ .....;
- 27 ~~GG-~~ II. Chrysene, 218-01-9, U050;
- 28 ~~HH-~~ JJ. Citrus red No. 2, 6358-53-8, .....;
- 29 ~~II-~~ KK. Coal tars tar creosote, ~~8005-45-2~~ 8007-45-2,  
 30 .....;
- 31 ~~JJ-~~ LL. Copper cyanide, 544-92-3, P029;
- 32 ~~KK-~~ MM. Creosote, ~~8001-58-9~~ ....., U051;
- 33 ~~LL-~~ NN. Cresol (Cresylic acid), 1319-77-3,  
 34 U052;
- 35 ~~MM-~~ OO. Crotonaldehyde, 4170-30-3, U053;
- 36 ~~NN-~~ PP. Cyanides (soluble salts and complexes), not

- 1 otherwise specified in this list, ....., P030;
- 2 ~~OO~~ QQ. Cyanogen, 460-19-5, P031;
- 3 ~~PP~~ RR. Cyanogen bromide, 506-68-3, U246;
- 4 ~~QQ~~ SS. Cyanogen chloride, 506-77-4, P033;
- 5 ~~RR~~ TT. Cycasin, 14901-08-7, .....
- 6 ~~SS~~ UU. 2-Cyclohexyl-4,6-dinitrophenol, 131-89-5,
- 7 P034; and
- 8 ~~FF~~ VV. Cyclophosphamide, 50-18-0, U058.

9 Subp. 5. "D" constituents. Hazardous constituents  
10 beginning with the letter D are as follows:

- 11 A. 2,4-D, 94-75-7, U240;
- 12 B. 2,4-D, salts and esters, ~~94-75-7~~ ....., U240;
- 13 C. Daunomycin, 20830-81-3, U059;
- 14 D. DDD, 72-54-8, U060;
- 15 E. DDE, 72-55-9, .....
- 16 F. DDT, 50-29-3, U061;
- 17 G. Diallate, 2303-16-4, U062;
- 18 H. Dibenz[a,h]acridine, 226-36-8, .....
- 19 I. Dibenz[a,j]acridine, 224-42-0, .....
- 20 J. Dibenz[a,h]anthracene, 53-70-3, U063;
- 21 K. 7H-Dibenzo[c,g]carbazole, 194-59-2, .....
- 22 L. Dibenzo[a,e]pyrene, 192-65-4, .....
- 23 M. Dibenzo[a,h]pyrene, 189-64-0, .....
- 24 N. Dibenzo[a,i]pyrene, 189-55-9, U064;
- 25 O. 1,2-Dibromo-3-chloropropane, 96-12-8, U066;
- 26 P. Dibutylphthalate, 84-74-2, U069;
- 27 Q. o-Dichlorobenzene, 95-50-1, U070;
- 28 R. m-Dichlorobenzene, 541-73-1, U071;
- 29 S. p-Dichlorobenzene, 106-46-7, U072;
- 30 T. Dichlorobenzene, not otherwise specified in  
31 this list, 25321-22-6, .....
- 32 U. 3,3'-Dichlorobenzidine, 91-94-1, U073;
- 33 V. 1,4-Dichloro-2-butene, 764-41-0, U074;
- 34 W. Dichlorodifluoromethane, 75-71-8, U075;
- 35 ~~W~~ 1,2-Dichloroethylene, 156-60-5;
- 36 X. Dichloroethylene, not otherwise specified in this

- 1 list, 25323-30-2, ....;
- 2 Y. 1,1-Dichloroethylene, 75-35-4, U078;
- 3 Z. ~~2,4-Dichlorophenol, 120-83-2~~ 1,2-Dichloroethylene,
- 4 156-60-5, U079;
- 5 AA. Dichloroethyl ether, 111-44-4, U025;
- 6 BB. Dichloroisopropyl ether, 108-60-1, U027;
- 7 CC. Dichloromethoxy ethane, 111-91-1, U024;
- 8 DD. Dichloromethyl ether, 542-88-1, P016;
- 9 EE. 2,4-Dichlorophenol, 120-83-2, U081;
- 10 FF. 2,6-Dichlorophenol, 87-65-0, U082;
- 11 BB. GG. Dichlorophenylarsine, 696-28-6, P036;
- 12 ee. HH. Dichloropropane, not otherwise specified in
- 13 this list, 26638-19-7, ....;
- 14 DD. II. Dichloropropanol, not otherwise specified in
- 15 this list, 26545-73-3, ....;
- 16 EE. JJ. Dichloropropene, not otherwise specified in
- 17 this list, 26952-23-8, ....;
- 18 FF. KK. 1,3-Dichloropropene, 542-75-6, U084;
- 19 GG. LL. Dieldrin, 60-57-1, P037;
- 20 HH. MM. 1,2:3,4-Diepoxybutane, 1464-53-5, U085;
- 21 II. NN. Diethylarsine, 692-42-2, P038;
- 22 JJ. OO. 1,4-Diethyleneoxide, 123-91-1, U108;
- 23 PP. Diethylhexyl phthalate, 117-81-7, U028;
- 24 KK. QQ. N,N'-Diethylhydrazine, 1615-80-1, U086;
- 25 LL. RR. O,O-Diethyl S-methyl dithiophosphate,
- 26 3288-58-2, U087;
- 27 MM. SS. Diethyl-p-nitrophenyl phosphate, 311-45-5,
- 28 P041;
- 29 NN. TT. Diethyl phthalate, 84-66-2, U088;
- 30 OO. UU. O,O-Diethyl O-pyrazinyl phosphorothioate,
- 31 297-97-2, P040;
- 32 PP. VV. Diethylstilbesterol, 56-53-1, U089;
- 33 QQ. WW. Dihydrosafrole, 94-58-6, U090;
- 34 RR. ~~3,4-Dihydroxy-alpha-(methylamino)methyl-benzyl~~
- 35 ~~alcohol, 329-65-7;~~
- 36 SS. XX. Diisopropylfluorophosphate (DFP), 55-91-4,



- 1 P043;  
 2 ~~PP-~~ YY. Dimethoate, 60-51-5, P044;  
 3 ~~HH-~~ ZZ. 3,3'-Dimethoxybenzidine, 119-90-4, U091;  
 4 ~~VV-~~ AAA. p-Dimethylaminoazobenzene, 60-11-7, U093;  
 5 ~~WW-~~ BBB. 7,12-Dimethylbenz[a]anthracene, 57-97-6,  
 6 U094;  
 7 ~~XX-~~ CCC. 3,3'-Dimethylbenzidine, 119-93-7, U095;  
 8 ~~YY-~~ DDD. Dimethylcarbamoyl chloride, 79-44-7, U097;  
 9 ~~ZZ-~~ EEE. 1,1-Dimethylhydrazine, 57-14-7, U098;  
 10 ~~AAA-~~ FFF. 1,2-Dimethylhydrazine, 540-73-8, U099;  
 11 ~~BBB-~~ GGG. alpha, alpha-Dimethylphenethylamine,  
 12 122-09-8, P046;  
 13 ~~EEE-~~ HHH. 2,4-Dimethylphenol, 105-67-9, U101;  
 14 ~~BBB-~~ III. Dimethyl phthalate, 131-11-3, U102;  
 15 ~~EEE-~~ JJJ. Dimethyl sulfite, 77-78-1, U103;  
 16 ~~FFF-~~ KKK. Dinitrobenzene, not otherwise specified in  
 17 this list, 25154-54-5, ....;  
 18 LLL. 4,6-Dinitro-o-cresol, 534-52-1, P047;  
 19 ~~GGG-~~ MMM. 4,6-Dinitro-o-cresol and salts, 534-52-1  
 20 ....., P047;  
 21 ~~HHH-~~ NNN. 2,4-Dinitrophenol, 51-28-5, P048;  
 22 ~~III-~~ OOO. 2,4-Dinitrotoluene, 121-14-2, U105;  
 23 ~~PPP-~~ PPP. 2,6-Dinitro toluene, 606-20-2, U106;  
 24 ~~KKK-~~ QQQ. Dinoseb, 88-85-7, P020;  
 25 ~~BBB-~~ RRR. Di-n-octylphthalate, 117-84-0, U017;  
 26 ~~MMM-~~ SSS. Diphenylamine, 122-39-4, ....;  
 27 ~~NNN-~~ TTT. 1,2-Diphenylhydrazine, 122-66-7, U109;  
 28 ~~OOO-~~ UUU. Di-n-propylnitrosamine, 621-64-7, U111;  
 29 ~~PPP-~~ VVV. Disulfoton, 298-04-4, P039; and  
 30 ~~QQQ-~~ WWW. Dithiobiuret, 541-53-7, P049.

31 Subp. 6. "E" constituents. Hazardous constituents  
 32 beginning with the letter E are as follows:

- 33 A. Endosulfan, 115-29-7, P050;  
 34 B. ~~Endothal~~ Endothall, 145-73-3, P088;  
 35 C. Endrin, 72-20-8, P051;  
 36 D. Endrin metabolites, ....., P051;

- 1            E. Epichlorohydrin, 106-89-8, U041;  
 2            F. Epinephrine, 51-43-4, P042;  
 3            G. Ethyl carbamate (urethane), 51-79-6, U238;  
 4            ~~E.~~ H. Ethyl cyanide, 107-12-0, P101;  
 5            I. Ethylenebisdithiocarbamic acid, 111-54-6, U114;  
 6            ~~F.~~ J. Ethylenebisdithiocarbamic acid, salts and  
 7            esters, 111-54-6 ....., U114;  
 8            ~~G.~~ K. Ethylene dibromide, 106-93-4, U067;  
 9            ~~H.~~ L. Ethylene dichloride, 107-06-2, U077;  
 10           ~~F.~~ M. Ethylene glycol monoethyl ether (Ethanol,  
 11           2-ethoxy), 110-80-5, U359;  
 12           ~~F.~~ N. Ethyleneimine, 151-56-4, P054;  
 13           ~~K.~~ O. Ethylene oxide, 75-21-8, U115;  
 14           ~~E.~~ P. Ethylenethiourea, 96-45-7, U116;  
 15           ~~M.~~ Q. Ethylidene dichloride, 75-34-3, U076;  
 16           ~~N.~~ R. Ethyl methacrylate, 97-63-2, U118; and  
 17           ~~Θ.~~ S. Ethyl methanesulfonate, 62-50-0, U119.

18           Subp. 7. "F" constituents. Hazardous constituents  
 19 beginning with the letter F are as follows:

- 20           A. Famphur, 52-85-7, P097;  
 21           B. Fluoranthene, 206-44-0, U120;  
 22           C. Fluorine, 7782-41-4, P056;  
 23           D. Fluoroacetamide, 640-19-7, P057;  
 24           E. Fluoroacetic acid, sodium salt, 62-74-8, P058; and  
 25           F. Formaldehyde, 50-00-0, U122; and  
 26           G. Formic acid, 64-18-6, U123.

27           Subp. 8. "G" constituents. Hazardous constituents  
 28 beginning with the letter G are as follows: Glycidylaldehyde,  
 29 765-34-4, U126.

30           Subp. 9. "H" constituents. Hazardous constituents  
 31 beginning with the letter H are as follows:

- 32           A. ~~Halomethane~~ Halomethanes, not otherwise specified  
 33 in this list, ....., .....;  
 34           B. Heptachlor, 76-44-8, P059;  
 35           C. Heptachlor epoxide, 1024-57-3, .....;  
 36           D. Heptachlor epoxide (alpha, beta, and gamma

- 1 isomers), ~~1024-57-3~~ .....;
- 2 D- E. Hexachlorobenzene, 118-74-1, U127;
- 3 E- F. Hexachlorobutadiene, 87-68-3, U128;
- 4 F- G. Hexachlorocyclopentadiene, 77-47-4, U130;
- 5 G- H. Hexachlorodibenzo-p-dioxins, .....;
- 6 H- I. Hexachlorodibenzofurans, .....;
- 7 I- J. Hexachloroethane, 67-72-1, U131;
- 8 J- K. Hexachlorophene, 70-30-4, U132;
- 9 K- L. Hexachloropropene, 1888-71-7, U243;
- 10 L- M. Hexaethyltetraphosphate, 757-58-4, P062;
- 11 M- N. Hydrazine, 302-01-2, U133;
- 12 N- O. Hydrogen cyanide (Hydrocyanic-acid), 74-90-8,  
13 P063;
- 14 O- P. Hydrogen fluoride (Hydrofluoric-acid),  
15 7664-39-3, U134; and
- 16 P- Q. Hydrogen sulfide, 7783-06-4, U135.

17 Subp. 10. "I" constituents. Hazardous constituents  
18 beginning with the letter I are as follows:

- 19 A. Indeno(1,2,3cd)pyrene, 193-39-5, U137;
- 20 B. Iron dextran, 9004-66-4, U139;
- 21 C. Isobutyl alcohol, 78-83-1, U140;
- 22 D. Isodrin, ~~7783-06-4~~ 465-73-6, P060; and
- 23 E. Isosafrole, 120-58-1, U141.

24 Subp. 11. "K" constituents. Hazardous constituents  
25 beginning with the letter K are as follows: Kepone, 143-50-0,  
26 U142.

27 Subp. 12. "L" constituents. Hazardous constituents  
28 beginning with the letter L are as follows:

- 29 A. Lasiocarpine, ~~303-34-4~~ 303-34-1, U143;
- 30 B. Lead, 7439-92-1, .....;
- 31 C. Lead and compounds, not otherwise specified in  
32 this list, ~~7439-92-1~~ .....;
- 33 E- D. Lead acetate, 301-04-2, U144;
- 34 D- E. Lead phosphate, 7446-27-7, U145;
- 35 E- F. Lead subacetate, 1335-32-6, U146; and
- 36 F- G. Lindane, 58-89-9, U129.

- 1 Subp. 13. "M" constituents. Hazardous constituents  
 2 beginning with the letter M are as follows:
- 3 A. Maleic anhydride, 108-31-6, U147;  
 4 B. Maleic hydrazide, 123-33-1, U148;  
 5 C. Malononitrile, 109-77-3, U149;  
 6 D. Melphalan, 148-82-3, U150;  
 7 E. Mercury, 7439-97-6, U151;  
 8 F. Mercury compounds, not otherwise specified in this  
 9 list, . . . . ., . . . . ;
- 10 G. Mercury fulminate, 628-86-4, P065;  
 11 ~~F. Mercury and compounds not otherwise specified in~~  
 12 ~~this list, 7439-97-6,~~
- 13 ~~G. H. Methacrylonitrile, 126-98-7, U152~~;  
 14 ~~H. I. Methapyrilene, 91-80-5, U155~~;  
 15 ~~I. J. Methomyl, 16752-77-5, P066~~;  
 16 ~~J. K. Methoxychlor, 72-43-5, U247~~;  
 17 ~~K. L. Methyl bromide, 74-83-9, U029~~;  
 18 ~~L. M. Methyl chloride, 74-87-3, U045~~;  
 19 ~~M. N. Methyl chlorocarbonate, 79-22-1, U156~~;  
 20 ~~N. O. Methyl chloroform, 71-55-6, U226~~;  
 21 ~~O. P. 3-Methylcholanthrene, 56-49-5, U157~~;  
 22 ~~P. Q. 4,4'-Methylenebis(2-chloroaniline), 101-14-4,~~  
 23 ~~U158;~~
- 24 ~~Q. R. Methylene bromide, 74-95-3, U068~~;  
 25 ~~R. S. Methylene chloride, 75-09-2, U080~~;  
 26 ~~S. T. Methyl ethyl ketone (MEK), 78-93-3, U159~~;  
 27 ~~T. U. Methyl ethyl ketone peroxide, 1338-23-4, U160~~;  
 28 ~~U. V. Methyl hydrazine, 60-34-4, P068~~;  
 29 ~~V. W. Methyl iodide, 74-88-4, U138~~;  
 30 ~~W. X. Methyl isocyanate, 624-83-9, P064~~;  
 31 ~~X. Y. 2-Methylactonitrile, 75-86-5, P069~~;  
 32 ~~Y. Z. Methyl methacrylate, 80-62-6, U162~~;  
 33 ~~Z. AA. Methyl methanesulfonate, 66-27-3, . . . . ;~~
- 34 ~~AA. BB. Methyl parathion, 298-00-0, P071~~;  
 35 ~~BB. CC. Methylthiouracil, 56-04-2, U164~~;  
 36 ~~CC. DD. Mitomycin C, 50-07-7, U010~~;

- 1           ~~DD~~ EE. MNNG, 70-25-7, U163; and
- 2           ~~EE~~ FF. Mustard gas, 505-60-2, .....
- 3           Subp. 14. "N" constituents. Hazardous constituents
- 4 beginning with the letter N are as follows:
- 5           A. Naphthalene, 91-20-3, U165;
- 6           B. 1,4-Naphthoquinone, 130-15-4, U166;
- 7           C. alpha-Naphthylamine, 134-32-7, U167;
- 8           D. beta-Naphthylamine, 91-59-8, U168;
- 9           E. alpha-Naphthylthiourea, 86-88-4, P072;
- 10          F. Nickel, 7440-02-0, .....;
- 11          G. Nickel and compounds, not otherwise specified in
- 12 this list, 7440-02-0 ....., .....;
- 13          ~~G~~ H. Nickel carbonyl, 13463-39-3, P073;
- 14          ~~H~~ I. Nickel cyanide, 557-19-7, P074;
- 15          J. Nicotine, 54-11-5, P075;
- 16          ~~I~~ K. Nicotine and salts, 54-11-5 ....., P075;
- 17          ~~J~~ L. Nitric oxide, 10102-43-9, P076;
- 18          ~~K~~ M. p-Nitroaniline, 100-01-6, P077;
- 19          ~~L~~ N. Nitrobenzene, 98-95-3, U169;
- 20          ~~M~~ O. Nitrogen dioxide, 10102-44-0, P078;
- 21          P. Nitrogen mustard, 51-75-2, .....;
- 22          ~~N~~ Q. Nitrogen mustard and, hydrochloride salt,
- 23 51-75-2 ....., .....;
- 24          R. Nitrogen mustard, N-oxide, 126-85-2, .....;
- 25          ~~O~~ S. Nitrogen mustard, N-oxide and, hydrochloride
- 26 salt, 126-85-2 ....., .....;
- 27          ~~P~~ T. Nitroglycerin, 55-63-0, P081;
- 28          ~~Q~~ U. p-Nitrophenol, 100-02-7, U170;
- 29          ~~R~~ V. 2-Nitropropane (Propane, 2-nitro), 79-46-9,
- 30 U171;
- 31          ~~S~~ --4-Nitroquinoline-1-oxide, 56-57-5;
- 32          ~~T~~ --Nitrosamine W. Nitrosamines, not otherwise
- 33 specified in this list, 35576-91-1D, .....;
- 34          ~~U~~ X. N-Nitrosodi-n-butylamine, 924-16-3, U172;
- 35          ~~V~~ Y. N-Nitrosodiethanolamine, 1116-54-7, U173;
- 36          ~~W~~ Z. N-Nitrosodiethylamine, 55-18-5, U174;

- 1       ~~X~~: AA. N-Nitrosodimethylamine, 62-75-9, P082;  
 2       ~~Y~~: BB. N-Nitroso-N-ethylurea, 759-73-9, U176;  
 3       ~~Z~~: CC. N-Nitrosomethylethylamine, 10595-95-6, .....;  
 4       ~~AA~~: DD. N-Nitroso-N-methylurea, 684-93-5, U177;  
 5       ~~BB~~: EE. N-Nitroso-N-methylurethane, 615-53-2, U178;  
 6       ~~CC~~: FF. N-Nitrosomethylvinylamine, 4549-40-0, P084;  
 7       ~~DD~~: GG. N-Nitrosomorpholine, 59-89-2, .....;  
 8       ~~EE~~: HH. N-Nitrosornicotine, 16543-55-8, .....;  
 9       ~~FF~~: II. N-Nitrosopiperidine, 100-75-4, U179;  
 10       ~~GG~~: JJ. N-Nitrosopyrrolidine, 930-55-2, U180;  
 11       ~~HH~~: KK. N-Nitrososarcosine, 13256-22-9, .....; and  
 12       ~~II~~: LL. 5-Nitro-o-toluidine, 99-55-8, U181.

13       Subp. 15. "O" constituents. Hazardous constituents  
 14 beginning with the letter O are as follows:

- 15           A. Octamethylpyrophosphoramidate, 152-16-9, P085; and  
 16           B. Osmium tetroxide, 20816-12-0, P087.

17       Subp. 16. "P" constituents. Hazardous constituents  
 18 beginning with the letter P are as follows:

- 19           A. Paraldehyde, 123-63-7, U182;  
 20           B. Parathion, 56-38-2, P089;  
 21           C. Pentachlorobenzene, 608-93-5, U183;  
 22           D. Pentachlorodibenzo-p-dioxins, ....., .....;  
 23           E. Pentachlorodibenzofurans, ....., .....;  
 24           F. Pentachloroethane, 76-01-7, U184;  
 25           G. Pentachloronitrobenzene (PCNB), 82-68-8, U185;  
 26           H. Pentachlorophenol, 87-86-5, F027;  
 27           I. Phenacetin, 62-44-2, U187;  
 28           J. Phenol, 108-95-2, U188;  
 29           K. Phenylenediamine, 25265-76-3, .....;  
 30           L. Phenylmercury acetate, 62-38-4, P092;  
 31           M. Phenylthiourea, 103-85-5, P093;  
 32           N. Phorate, 298-02-2, P094;  
 33           O. Phosgene, 75-44-5, P095;  
 34           P. Phosphine, 7803-51-2, P096;  
 35           Q. Phthalic acid esters, not otherwise specified in  
 36 this list, ....., .....;

- 1 R. Phthalic anhydride, 85-44-9, U190;
- 2 S. 2-Picoline, 109-06-8, U191;
- 3 T. Polychlorinated biphenyls, not otherwise specified
- 4 in this list, ....., .....;
- 5 U. Potassium cyanide, 151-50-8, P098;
- 6 V. Potassium silver cyanide, 506-61-6, P099;
- 7 W. Pronamide, 23950-58-5, U192;
- 8 X. 1,3-Propane sultone, 1120-71-4, U193;
- 9 Y. n-Propylamine, 107-10-8, U194;
- 10 Z. Propargyl alcohol, 107-19-7, P102;
- 11 AA. Propylene dichloride, 78-87-5, U083;
- 12 BB. 1,2-Propylenimine, 75-55-8, P067;
- 13 CC. Propylthiouracil, 51-52-5, .....; and
- 14 DD. Pyridine, 110-86-1, U196.

15 Subp. 17. "R" constituents. Hazardous constituents  
 16 beginning with the letter R are as follows:

- 17 A. ~~Reserpinen~~ Reserpine, 50-55-5, U200; and
- 18 B. Recorcinol, 108-46-3, U201.

19 Subp. 18. "S" constituents. Hazardous constituents  
 20 beginning with the letter S are as follows:

- 21 A. Saccharin, 81-07-2, U202;
- 22 B. Saccharin and salts, 81-07-2 ....., U202;
- 23 ~~B.~~ C. Safrole, 94-59-7, U203;
- 24 D. Selenium, 7782-49-2, .....;
- 25 E. Selenium compounds, not otherwise specified in

26 this list, ....., .....;

- 27 ~~E.~~ F. Selenium dioxide (Selenious acid), 7783-00-8,
- 28 U204;

29 ~~D.--Selenium-and-compounds-not-otherwise-specified-in~~  
 30 ~~this-list, 7782-49-2,~~

- 31 ~~E.~~ G. Selenium sulfide, 7446-34-6 7488-56-4, U205;
- 32 ~~F.~~ H. Selenourea, 630-10-4, P103;
- 33 I. Silver, 7440-22-4, .....;

34 ~~G.~~ J. Silver and compounds, not otherwise specified  
 35 in this list, 7440-22-4 ....., .....;

- 36 ~~H.~~ K. Silver cyanide, 506-64-9, P104;

- 1 ~~F.~~ L. Silvex (2,4,5-TP), 93-72-1, F027;
- 2 ~~F.~~ M. Sodium cyanide, 143-33-9, P106;
- 3 ~~K.~~ N. Streptozotocin, 18883-66-4, U206;
- 4 ~~H.~~ O. Strontium sulfide, 1314-96-1, P107; and
- 5 P. Strychnine, 57-24-9, P108; and
- 6 ~~M.~~ Q. Strychnine and salts, 57-24-9 ....., P108.
- 7 Subp. 19. "T" constituents. Hazardous constituents
- 8 beginning with the letter T are as follows:
- 9 A. TCDD, 1746-01-6, .....;
- 10 B. 1,2,4,5-Tetrachlorobenzene, 95-94-3, U207;
- 11 ~~B.---2,3,7,8-Tetrachlorodibenzo-p-dioxin-(TCDD),~~
- 12 ~~1746-01-6,~~
- 13 C. Tetrachlorodibenzo-p-dioxins , ....., .....;
- 14 D. Tetrachlorodibenzofurans, ....., .....;
- 15 E. Tetrachloroethane, not otherwise specified in this
- 16 list, 25322-20-7, .....;
- 17 F. 1,1,1,2-Tetrachloroethane, 630-20-6, U208;
- 18 G. 1,1,2,2-Tetrachloroethane, 79-34-5, U209;
- 19 H. Tetrachloroethylene, 127-18-4, U210;
- 20 I. 2,3,4,6-Tetrachlorophenol, 58-90-2, F027;
- 21 J. Tetraethyldithiopyrophosphate, 3689-24-5, P109;
- 22 K. Tetraethyl lead, 78-00-2, P110;
- 23 L. Tetraethylpyrophosphate, 107-49-3, P111;
- 24 M. Tetranitromethane, 509-14-8, P112;
- 25 N. Thallium, 7440-28-0, .....;
- 26 O. Thallium and compounds, not otherwise specified in
- 27 this list, ~~7440-28-0~~ ....., .....;
- 28 ~~O.~~ P. Thallic oxide, 1314-32-5, P113;
- 29 ~~P.~~ Q. Thallium (I) acetate, 563-68-8, U214;
- 30 ~~Q.~~ R. Thallium (I) carbonate, 6533-73-9, U215;
- 31 ~~R.~~ S. Thallium (I) chloride, 7791-12-0, U216;
- 32 ~~S.~~ T. Thallium (I) nitrate, 10102-45-1, U217;
- 33 ~~T.~~ U. Thallium selenite, 12039-52-0, P114;
- 34 ~~U.~~ V. Thallium (I) sulfate, ~~10031-59-1~~ 7446-18-6,
- 35 P115;
- 36 ~~V.~~ W. Thioacetamide, 62-55-5, U218;



1 W- X. Thiofanox, 39196-18-4, P045;  
 2 X- Y. Thiomethanol, 74-93-1, U153;  
 3 Y- Z. Thiophenol, 108-98-5, P014;  
 4 Z- AA. Thiosemicarbazide, 79-19-6, P116;  
 5 AA- BB. Thiourea, 62-56-6, U219;  
 6 BB- CC. Thiram, 137-26-8, U244;  
 7 CC- DD. Toluene, 108-88-3, U220;  
 8 DD- EE. Toluenediamine, ~~not otherwise specified in~~  
 9 ~~this list~~, 25376-45-8, U221;  
 10 ~~EE--2,4-Toluenediamine~~ FF. Toluene-2,4-diamine,  
 11 95-80-7, ....;  
 12 ~~FF--2,6-Toluenediamine~~ GG. Toluene-2,6-diamine,  
 13 823-40-5, ....;  
 14 ~~GG--3,4-Toluenediamine~~ HH. Toluene-3,4-diamine,  
 15 496-72-0, ....;  
 16 HH- II. Toluene diisocyanate, 584-84-9 26471-62-5,  
 17 U223;  
 18 JJ. o-Toluidine, 95-53-4, U328;  
 19 KK. o-Toluidine hydrochloride, 636-21-5, U222;  
 20 ~~KK- LL.~~ LL. p-Toluidine, 106-49-0, U353;  
 21 ~~LL--o-Toluidine-hydrochloride, 636-21-5~~;  
 22 ~~LL- MM.~~ MM. Toxaphene, 8001-35-2, P123;  
 23 ~~MM- NN.~~ NN. 1,2,4-Trichlorobenzene, 120-82-1, ....;  
 24 ~~NN- OO.~~ OO. 1,1,2-Trichloroethane, 79-00-5, U227;  
 25 ~~OO- PP.~~ PP. Trichloroethylene, 79-01-6, U228;  
 26 ~~PP- QQ.~~ QQ. Trichloromethanethiol, 75-70-7, P118;  
 27 ~~QQ- RR.~~ RR. Trichloromonofluoromethane, 75-69-4, U121;  
 28 ~~RR- SS.~~ SS. 2,4,5-Trichlorophenol, 95-95-4, F027;  
 29 ~~SS- TT.~~ TT. 2,4,6-Trichlorophenol, 88-06-2, F027;  
 30 ~~SS--2,4,5-Trichlorophenoxyacetic-acid-(2,4,5-T)~~ UU.  
 31 2,4,5-T, 93-76-5, F027;  
 32 ~~TT- VV.~~ VV. Trichloropropane, not otherwise specified in  
 33 this list, 25735-29-9, ....;  
 34 ~~VV- WW.~~ WW. 1,2,3-Trichloropropane, 96-18-4, ....;  
 35 ~~WW- XX.~~ XX. 0,0,0-Triethyl phosphorothioate, 126-68-1,  
 36 ....;

- 1            ~~WW~~--~~sym~~ YY. 1,3,5-Trinitrobenzene, 99-35-4, U234;  
 2            ~~XX~~: ZZ. Tris(1-azridinyl)phosphine sulfide, 52-24-4,  
 3            ....;  
 4            ~~YY~~: AAA. Tris(2,3-dibromopropyl) phosphate, 126-72-7,  
 5            U235; and  
 6            ~~ZZ~~: BBB. Trypan blue, 72-57-1, U236.

7            Subp. 20. "U" constituents. Hazardous constituents  
 8 beginning with the letter U are as follows:

- 9            ~~A~~: Uracil mustard, 66-75-1, and  
 10            ~~B~~: Undecamethylenediamine, N,N'-bis(2-chlorobenzyl)-  
 11 dihydrochloride, 2056-25-9, U237.

12            Subp. 21. "V" constituents. Hazardous constituents  
 13 beginning with the letter V are as follows:

- 14            A. Vanadium pentoxide, 1314-62-1, P120; and  
 15            B. Vinyl chloride, 75-01-4, U043.

16            Subp. 22. "W" constituents. Hazardous constituents  
 17 beginning with the letter W are as follows:

- 18            A. Warfarin, when present at concentrations less than  
 19 0.3 percent, 81-81-2, U248;  
 20            B. Warfarin, when present at concentrations greater  
 21 than 0.3 percent, 81-81-2, P001;  
 22            C. Warfarin salts, when present at concentrations  
 23 less than 0.3 percent, ....., U248; and  
 24            D. Warfarin salts, when present at concentrations  
 25 greater than 0.3 percent, ....., P001.

26            Subp. 23. "Z" constituents. Hazardous constituents  
 27 beginning with the letter Z are as follows:

- 28            A. Zinc cyanide, 557-21-1, P121; and  
 29            B. Zinc phosphide, when present at concentrations  
 30 greater than ten percent, 1314-84-7, P122; and  
 31            C. Zinc phosphide, when present at concentrations of  
 32 ten percent or less, 1314-84-7, U249.

33 7045.0143 GROUNDWATER PROTECTION HAZARDOUS CONSTITUENTS LIST.

34            Subpart 1. Scope. For the purposes of the groundwater  
 35 protection requirements in parts 7001.0640, subpart 1, item D,

1 subitem (2); and 7045.0484, subparts 12, item H, subitem (2),  
2 and 13, item E, the hazardous constituents are listed with their  
3 corresponding Chemical Abstract Service registry numbers in  
4 subparts 2 to 27. Where "total" is entered for the Chemical  
5 Abstract Service registry number, all species in the groundwater  
6 that contain this element are included.

7 Subp. 2. "A" constituents. Hazardous constituents  
8 beginning with the letter A are as follows:

- 9 A. Acenaphthene, 83-32-9;
- 10 B. Acenaphthylene, 208-96-8;
- 11 C. Acetone, 67-64-1;
- 12 D. Acetophenone, 98-86-2;
- 13 E. Acetonitrile; Methyl cyanide, 75-05-8;
- 14 F. 2-Acetylaminofluorene; 2-AAF, 53-96-3;
- 15 G. Acrolein, 107-02-8;
- 16 H. Acrylonitrile, 107-13-1;
- 17 I. Aldrin, 309-00-2;
- 18 J. Allyl chloride, 107-05-1;
- 19 K. 4-Aminobiphenyl, 92-67-1;
- 20 L. Aniline, 62-53-3;
- 21 M. Anthracene, 120-12-7;
- 22 N. Antimony, (Total);
- 23 O. Aramite, 140-57-8; and
- 24 P. Arsenic, (Total).

25 Subp. 3. "B" constituents. Hazardous constituents  
26 beginning with the letter B are as follows:

- 27 A. Barium, (Total);
- 28 B. Benzene, 71-43-2;
- 29 C. Benzo[a]anthracene; Benzanthracene, 56-55-3;
- 30 D. Benzo[b]fluoranthene, 205-99-2;
- 31 E. Benzo[k]fluoranthene, 207-08-9;
- 32 F. Benzo[ghi]perylene, 191-24-2;
- 33 G. Benzo[a]pyrene, 50-32-8;
- 34 H. Benzyl alcohol, 100-51-6;
- 35 I. Beryllium, (Total);
- 36 J. alpha-BHC, 319-84-6;

- 1 K. beta-BHC, 319-85-7;
- 2 L. delta-BHC, 319-86-8;
- 3 M. gamma-BHC; Lindane, 58-89-9;
- 4 N. Bis(2-chloroethoxy)methane, 111-91-1;
- 5 O. Bis(2-chloroethyl)ether, 111-44-4;
- 6 P. Bis(2-chloro-1-methylethyl) ether;
- 7 2,2'-Dichlorodiisopropyl ether, 108-60-1;
- 8 Q. Bis(2-ethylhexyl)phthalate, 117-81-7;
- 9 R. Bromodichloromethane, 75-27-4;
- 10 S. Bromoform; Tribromomethane, 75-25-2;
- 11 T. 4-Bromophenyl phenyl ether, 101-55-3; and
- 12 U. Butyl benzyl phthalate; Benzyl butyl phthalate,
- 13 85-68-7.

14 Subp. 4. "C" constituents. Hazardous constituents  
15 beginning with the letter C are as follows:

- 16 A. Cadmium, (Total);
- 17 B. Carbon disulfide, 75-15-0;
- 18 C. Carbon tetrachloride, 56-23-5;
- 19 D. Chlordane, 57-74-9;
- 20 E. p-Chloroaniline, 106-47-8;
- 21 F. Chlorobenzene, 108-90-7;
- 22 G. Chlorobenzilate, 510-15-6;
- 23 H. p-Chloro-m-cresol, 59-50-7;
- 24 I. Chloroethane; Ethyl chloride, 75-00-3;
- 25 J. Chloroform, 67-66-3;
- 26 K. 2-Chloronaphthalene, 91-58-7;
- 27 L. 2-Chlorophenol, 95-57-8;
- 28 M. 4-Chlorophenyl phenyl ether, 7005-72-3;
- 29 N. Chloroprene, 126-99-8;
- 30 O. Chromium, (Total);
- 31 P. Chrysene, 218-01-9;
- 32 Q. Cobalt, (Total);
- 33 R. Copper, (Total);
- 34 S. m-Cresol, 108-39-4;
- 35 T. o-Cresol, 95-48-7;
- 36 U. p-Cresol, 106-44-5; and

- 1 V. Cyanide, 57-12-5.
- 2 Subp. 5. "D" constituents. Hazardous constituents
- 3 beginning with the letter D are as follows:
- 4 A. 2,4-D; 2,4-Dichlorophenoxyacetic acid, 94-75-7;
- 5 B. 4,4'-DDD, 72-54-8;
- 6 C. 4,4'-DDE, 72-55-9;
- 7 D. 4,4'-DDT, 50-29-3;
- 8 E. Diallate, 2303-16-4;
- 9 F. Dibenz[a,h]anthracene, 53-70-3;
- 10 G. Dibenzofuran, 132-64-9;
- 11 H. Dibromochloromethane; Chlorodibromomethane,
- 12 124-48-1;
- 13 I. 1,2-Dibromo-3-chloropropane; DBCP, 96-12-8;
- 14 J. 1,2-Dibromoethane; Ethylene dibromide, 106-93-4;
- 15 K. Di-n-butyl phthalate, 84-74-2;
- 16 L. o-Dichlorobenzene, 95-50-1;
- 17 M. m-Dichlorobenzene, 541-73-1;
- 18 N. p-Dichlorobenzene, 106-46-7;
- 19 O. 3,3'-Dichlorobenzidine, 91-94-1;
- 20 P. trans-1,4-Dichloro-2-butene, 110-57-6;
- 21 Q. Dichlorodifluoromethane, 75-71-8;
- 22 R. 1,1-Dichloroethane, 75-34-3;
- 23 S. 1,2-Dichloroethane; Ethylene dichloride, 107-06-2;
- 24 T. 1,1-Dichloroethylene; Vinylidene chloride,
- 25 75-35-4;
- 26 U. trans-1,2-Dichloroethylene, 156-60-5;
- 27 V. 2,4-Dichlorophenol, 120-83-2;
- 28 W. 2,6-Dichlorophenol, 87-65-0;
- 29 X. 1,2-Dichloropropane, 78-87-5;
- 30 Y. cis-1,3-Dichloropropene, 10061-01-5;
- 31 Z. trans-1,3-Dichloropropene, 10061-02-6;
- 32 AA. Dieldrin, 60-57-1;
- 33 BB. Diethyl phthalate, 84-66-2;
- 34 CC. 0,0-Diethyl 0-2-pyrazinyl phosphorothioate;
- 35 Thionazin, 297-97-2;
- 36 DD. Dimethoate, 60-51-5;

- 1 EE. p-(Dimethylamino)azobenzene, 60-11-7;  
2 FF. 7,12-Dimethylbenz[a]anthracene, 57-97-6;  
3 GG. 3,3'-Dimethylbenzidine, 119-93-7;  
4 HH. alpha, alpha-Dimethylphenethylamine, 122-09-8;  
5 II. 2,4-Dimethylphenol, 105-67-9;  
6 JJ. Dimethyl phthalate, 131-11-3;  
7 KK. m-Dinitrobenzene, 99-65-0;  
8 LL. 4,6-Dinitro-o-cresol, 534-52-1;  
9 MM. 2,4-Dinitrophenol, 51-28-5;  
10 NN. 2,4-Dinitrotoluene, 121-14-2;  
11 OO. 2,6-Dinitrotoluene, 606-20-2;  
12 PP. Dinoseb; DNEP; 2-sec-Butyl-4,6-dinitrophenol,  
13 88-85-7;  
14 QQ. Di-n-octyl phthalate, 117-84-0;  
15 RR. 1,4-Dioxane, 123-91-1;  
16 SS. Diphenylamine, 122-39-4; and  
17 TT. Disulfoton, 298-04-4.

18 Subp. 6. "E" constituents. Hazardous constituents  
19 beginning with the letter E are as follows:

- 20 A. Endosulfan I, 959-98-8;  
21 B. Endosulfan II, 33213-65-9;  
22 C. Endosulfan sulfate, 1031-07-8;  
23 D. Endrin, 72-20-8;  
24 E. Endrin aldehyde, 7421-93-4;  
25 F. Ethylbenzene, 100-41-4;  
26 G. Ethyl methacrylate, 97-63-2; and  
27 H. Ethyl methanesulfonate, 62-50-0.

28 Subp. 7. "F" constituents. Hazardous constituents  
29 beginning with the letter F are as follows:

- 30 A. Famphur, 52-85-7;  
31 B. Fluoranthene, 206-44-0; and  
32 C. Fluorene, 86-73-7.

33 Subp. 9. "H" constituents. Hazardous constituents  
34 beginning with the letter H are as follows:

- 35 A. Heptachlor, 76-44-8;  
36 B. Heptachlor epoxide, 1024-57-3;

- 1 C. Hexachlorobenzene, 118-74-1;
- 2 D. Hexachlorobutadiene, 87-68-3;
- 3 E. Hexachlorocyclopentadiene, 77-47-4;
- 4 F. Hexachloroethane, 67-72-1;
- 5 G. Hexachlorophene, 70-30-4;
- 6 H. Hexachloropropene, 1888-71-7; and
- 7 I. 2-Hexanone, 591-78-6.
- 8 Subp. 10. "I" constituents. Hazardous constituents
- 9 beginning with the letter I are as follows:
- 10 A. Indeno(1,2,3-cd)pyrene, 193-39-5;
- 11 B. Isobutyl alcohol, 78-83-1;
- 12 C. Isodrin, 465-73-6;
- 13 D. Isophorone, 78-59-1; and
- 14 E. Isosafrole, 120-58-1.
- 15 Subp. 12. "K" constituents. Hazardous constituents
- 16 beginning with the letter K are as follows: Kepone, 143-50-0.
- 17 Subp. 13. "L" constituents. Hazardous constituents
- 18 beginning with the letter L are as follows: Lead, (Total).
- 19 Subp. 14. "M" constituents. Hazardous constituents
- 20 beginning with the letter M are as follows:
- 21 A. Mercury, (Total);
- 22 B. Methacrylonitrile, 126-98-7;
- 23 C. Methapyrilene, 91-80-5;
- 24 D. Methoxychlor, 72-43-5;
- 25 E. Methyl bromide; Bromomethane, 74-83-9;
- 26 F. Methyl chloride; Chloromethane, 74-87-3;
- 27 G. 3-Methylcholanthrene, 56-49-5;
- 28 H. Methylene bromide; Dibromomethane, 74-95-3;
- 29 I. Methylene chloride; Dichloromethane, 75-09-2;
- 30 J. Methyl ethyl ketone; MEK, 78-93-3;
- 31 K. Methyl iodide; Iodomethane, 74-88-4;
- 32 L. Methyl methacrylate, 80-62-6;
- 33 M. Methyl methanesulfonate, 66-27-3;
- 34 N. 2-Methylnaphthalene, 91-57-6;
- 35 O. Methyl parathion; Parathion methyl, 298-00-0; and
- 36 P. 4-Methyl-2-pentanone; Methyl isobutyl ketone,

1 108-10-1.

2 Subp. 15. "N" constituents. Hazardous constituents

3 beginning with the letter N are as follows:

- 4 A. Naphthalene, 91-20-3;
- 5 B. 1,4-Naphthoquinone, 130-15-4;
- 6 C. 1-Naphthylamine, 134-32-7;
- 7 D. 2-Naphthylamine, 91-59-8;
- 8 E. Nickel, (Total);
- 9 F. o-Nitroaniline, 88-74-4;
- 10 G. m-Nitroaniline, 99-09-2;
- 11 H. p-Nitroaniline, 100-01-6;
- 12 I. Nitrobenzene, 98-95-3;
- 13 J. o-Nitrophenol, 88-75-5;
- 14 K. p-Nitrophenol, 100-02-7;
- 15 L. 4-Nitroquinoline 1-oxide, 56-57-5;
- 16 M. N-Nitrosodi-n-butylamine, 924-16-3;
- 17 N. N-Nitrosodiethylamine, 55-18-5;
- 18 O. N-Nitrosodimethylamine, 62-75-9;
- 19 P. N-Nitrosodiphenylamine, 86-30-6;
- 20 Q. N-Nitrosodipropylamine; Di-n-propylnitrosamine,
- 21 621-64-7;
- 22 R. N-Nitrosomethyl ethylamine, 10595-95-6;
- 23 S. N-Nitrosomorpholine, 59-89-2;
- 24 T. N-Nitrosopiperidine, 100-75-4;
- 25 U. N-Nitrosopyrrolidine, 930-55-2; and
- 26 V. 5-Nitro-o-toluidine, 99-55-8.

27 Subp. 17. "P" constituents. Hazardous constituents

28 beginning with the letter P are as follows:

- 29 A. Parathion, 56-38-2;
- 30 B. Polychlorinated biphenyls; PCBs, 1336-36-3;
- 31 C. Polychlorinated dibenzo-p-dioxins; PCDDs,
- 32 .....;
- 33 D. Polychlorinated dibenzofurans; PCDFs, .....;
- 34 E. Pentachlorobenzene, 608-93-5;
- 35 F. Pentachloroethane, 76-01-7;
- 36 G. Pentachloronitrobenzene, 82-68-8;



- 1 H. Pentachlorophenol, 87-86-5;
- 2 I. Phenacetin, 62-44-2;
- 3 J. Phenanthrene, 85-01-8;
- 4 K. Phenol, 108-95-2;
- 5 L. p-Phenylenediamine, 106-50-3;
- 6 M. Phorate, 298-02-2;
- 7 N. 2-Picoline, 109-06-8;
- 8 O. Pronamide, 23950-58-5;
- 9 P. Propionitrile; Ethyl cyanide, 107-12-0;
- 10 Q. Pyrene, 129-00-0; and
- 11 R. Pyridine, 110-86-1.

12 Subp. 20. "S" constituents. Hazardous constituents  
13 beginning with the letter S are as follows:

- 14 A. Safrole, 94-59-7;
- 15 B. Selenium, (Total);
- 16 C. Silver, (Total);
- 17 D. Silvex; 2,4,5-TP, 93-72-1;
- 18 E. Styrene, 100-42-5; and
- 19 F. Sulfide, 18496-25-8.

20 Subp. 21. "T" constituents. Hazardous constituents  
21 beginning with the letter T are as follows:

- 22 A. 2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid,  
23 93-76-5;
- 24 B. 2,3,7,8-TCDD; 2,3,7,8-Tetrachlorodibenzo-p-dioxin,  
25 1746-01-6;
- 26 C. 1,2,4,5-Tetrachlorobenzene, 95-94-3;
- 27 D. 1,1,1,2-Tetrachloroethane, 630-20-6;
- 28 E. 1,1,2,2-Tetrachloroethane, 79-34-5;
- 29 F. Tetrachloroethylene; Perchloroethylene;  
30 Tetrachloroethene, 127-18-4;
- 31 G. 2,3,4,6-Tetrachlorophenol, 58-90-2;
- 32 H. Tetraethyl dithiopyrophosphate; Suifotepp,  
33 3689-24-5;
- 34 I. Thallium, (Total);
- 35 J. Tin, (Total);
- 36 K. Toluene, 108-88-3;

- 1 L. o-Toluidine, 95-53-4;  
2 M. Toxaphene, 8001-35-2;  
3 N. 1,2,4-Trichlorobenzene, 120-82-1;  
4 O. 1,1,1-Trichloroethane; Methylchloroform, 71-55-6;  
5 P. 1,1,2-Trichloroethane, 79-00-5;  
6 Q. Trichloroethylene; Trichloroethene, 79-01-6;  
7 R. Trichlorofluoromethane, 75-69-4;  
8 S. 2,4,5-Trichlorophenol, 95-95-4;  
9 T. 2,4,6-Trichlorophenol, 88-06-2;  
10 U. 1,2,3-Trichloropropane, 96-18-4;  
11 V. 0,0,0-Triethyl phosphorothioate, 126-68-1; and  
12 W. sym-Trinitrobenzene, 99-35-4.

13 Subp. 23. "V" constituents. Hazardous constituents  
14 beginning with the letter V are as follows:

- 15 A. Vanadium, (Total);  
16 B. Vinyl acetate, 108-05-4; and  
17 C. Vinyl chloride, 75-01-4.

18 Subp. 25. "X" constituents. Hazardous constituents  
19 beginning with the letter X are as follows: Xylene(total),  
20 1330-20-7.

21 Subp. 27. "Z" constituents. Hazardous constituents  
22 beginning with the letter Z are as follows: Zinc, (Total).

23 7045.0484 GROUNDWATER PROTECTION.

24 Subpart 1. to 11. [Unchanged.]

25 Subp. 12. Detection monitoring program. An owner or  
26 operator required to establish a detection monitoring program  
27 under this part shall perform the following:

28 A. to G. [Unchanged.]

29 H. If the owner or operator determines that there is  
30 a statistically significant increase for monitoring parameters  
31 or hazardous constituents specified under item A, or item E,  
32 subitem (2), where applicable, at any monitoring well at the  
33 compliance point, the owner or operator shall:

34 (1) [Unchanged.]

35 (2) Immediately sample the groundwater in all

1 monitoring wells and determine whether hazardous constituents  
2 identified in the list in part 7045.0143 are present and, if  
3 they are present, determine the concentration for each.

4 (3) Determine a background value for each  
5 hazardous constituent that has been found at the compliance  
6 point under subitem (2), as follows:

7 (a) to (c) [Unchanged.]

8 (4) [Unchanged.]

9 (5) Immediately institute a compliance monitoring  
10 program as specified in the permit and, within 90 days, submit  
11 to the agency an application for permit modification if it is  
12 necessary to revise the compliance monitoring program to meet  
13 the requirements of subpart 13. The application must include  
14 the following information:

15 (a) an identification of the concentration  
16 of each hazardous constituent found in the groundwater at each  
17 monitoring well at the compliance point;

18 (b) to (d) [Unchanged.]

19 I. to K. [Unchanged.]

20 **Subp. 13. Compliance monitoring program.** An owner or  
21 operator required to establish a compliance monitoring program  
22 under this part shall perform the following:

23 A. to D. [Unchanged.]

24 E. The owner or operator shall analyze samples from  
25 all monitoring wells at the compliance point to determine  
26 whether hazardous constituents identified in the list in part  
27 7045.0143 are present and, if they are present, determine the  
28 concentration of each. The analysis must be conducted at least  
29 annually to determine whether additional part 7045.0143  
30 hazardous constituents are present in the monitoring wells. The  
31 owner or operator shall report the concentrations of all  
32 hazardous constituents to the commissioner within seven days  
33 after completion of the analysis. The agency shall require a  
34 permit modification to include additional hazardous  
35 constituents, which have been detected in the groundwater, in  
36 all subsequent quarterly groundwater monitoring under item D.

1 F. to K. [Unchanged.]

2 Subp. 14. [Unchanged.]

3 7045.0494 NOTICE TO LOCAL LAND AUTHORITY.

4 Subpart 1. [Unchanged.]

5 Subp. 2. Post-closure notices. Within 60 days after  
6 certification of closure of each hazardous waste disposal unit,  
7 the owner or operator shall submit to the local zoning authority  
8 or the authority with jurisdiction over local land use and to  
9 the commissioner a record of the type, location, and quantity of  
10 hazardous waste disposed of within each cell or other disposal  
11 unit of the facility. For hazardous wastes disposed of before  
12 January 12, 1981, the owner or operator shall comply with all  
13 requirements of Code of Federal Regulations, title 40, section  
14 264.119 (1983). The owner or operator shall identify the type,  
15 location, and quantity of the waste to the best of his or her  
16 knowledge and in accordance with any records he or she has  
17 kept. A change in the type, location, or quantity of hazardous  
18 waste disposed of within each cell or area of the facility that  
19 occurs after the survey plat and record of waste have been filed  
20 must be reported to the local zoning authority or the authority  
21 with jurisdiction over local land use and to the commissioner.

22 7045.0518 LIABILITY REQUIREMENTS.

23 Subpart 1. Coverage for sudden accidental occurrences. An  
24 owner or operator of a hazardous waste treatment, storage, or  
25 disposal facility, or a group of facilities, shall demonstrate  
26 financial responsibility for bodily injury and property damage  
27 to third parties caused by sudden accidental occurrences arising  
28 from operations of the facility or group of facilities. The  
29 owner or operator shall have and maintain liability coverage for  
30 sudden accidental occurrences in the amount of at least  
31 \$1,000,000 per occurrence with an annual aggregate of at least  
32 \$2,000,000, exclusive of legal defense costs. This liability  
33 coverage may be demonstrated in one of the following ways:

34 A. [Unchanged.]

35 B. An owner or operator may meet the requirements of

1 this part by passing a financial test or using the corporate  
2 guarantee for liability coverage as specified in subparts 6 and  
3 7.

4 C. An owner or operator may demonstrate the required  
5 liability coverage through use of the financial test, insurance,  
6 the corporate guarantee, a combination of the financial test and  
7 insurance, or a combination of the corporate guarantee and  
8 insurance, as these mechanisms are specified in this part. The  
9 amounts of coverage demonstrated must total at least the minimum  
10 amounts required by subpart 1.

11 Subp. 2. Coverage for nonsudden accidental occurrences.

12 An owner or operator of a surface impoundment, landfill, or land  
13 treatment facility which is used to manage hazardous waste, or a  
14 group of such facilities, shall demonstrate financial  
15 responsibility for bodily injury and property damage to third  
16 parties caused by nonsudden accidental occurrences arising from  
17 operations of the facility or group of facilities. The owner or  
18 operator shall have and maintain liability coverage for  
19 nonsudden accidental occurrences in the amount of at least  
20 \$3,000,000 per occurrence with an annual aggregate of at least  
21 \$6,000,000, exclusive of legal defense costs. This liability  
22 coverage may be demonstrated in one of the following ways:

23 A. [Unchanged.]

24 B. An owner or operator may meet the requirements of  
25 this part by passing a financial test or using the corporate  
26 guarantee for liability coverage as specified in subparts 6 and  
27 7.

28 C. An owner or operator may demonstrate the required  
29 liability coverage through use of the financial test, insurance,  
30 the corporate guarantee, a combination of the financial test and  
31 insurance, or a combination of the corporate guarantee and  
32 insurance, as these mechanisms are specified in this part. The  
33 amounts of coverage must total at least the minimum amounts  
34 required by subpart 2.

35 D. [Unchanged.]

36 Subp. 3. to 6. [Unchanged.]

1 Subp. 7. Corporate guarantee for liability coverage. The  
2 corporate guarantee for liability coverage is as follows:

3 A. Subject to item B, an owner or operator may meet  
4 the requirements of this part by obtaining a written corporate  
5 guarantee. The guarantor must be the parent corporation of the  
6 owner or operator. The guarantor must meet the requirements for  
7 owners or operators in subpart 6. The wording of the corporate  
8 guarantee must be identical to the wording specified in part  
9 7045.0524, subpart 8a. The guarantee must be signed by two  
10 corporate officers of the parent corporation. A corporate  
11 resolution authorizing the parent corporation to provide the  
12 corporate guarantee for the subsidiary must be attached to the  
13 corporate guarantee. A certified copy of the corporate  
14 guarantee must accompany the items sent to the commissioner as  
15 provided in subpart 6, item E. The terms of the corporate  
16 guarantee must provide that:

17 (1) if the owner or operator fails to satisfy a  
18 judgment based on a determination of liability for bodily injury  
19 or property damage to third parties caused by sudden or  
20 nonsudden accidental occurrences, or both, as the case may be,  
21 arising from the operation of facilities covered by this  
22 corporate guarantee, or fails to pay an amount agreed to in  
23 settlement of claims arising from or alleged to arise from the  
24 injury or damage, the guarantor will do so up to the limits of  
25 coverage; and

26 (2) the corporate guarantee will remain in force  
27 unless the guarantor sends notice of cancellation by certified  
28 mail to the owner or operator and to the commissioner. This  
29 guarantee may not be terminated unless and until the  
30 commissioner approves alternate liability coverage complying  
31 with this part and/or part 7045.0620.

32 B. A corporate guarantee may be used to satisfy the  
33 requirements of this part only if:

34 (1) in the case of corporations incorporated in  
35 the United States, the attorney general or insurance  
36 commissioner of the state in which the guarantor is incorporated

1 and of each state in which a facility covered by the guarantee  
 2 is located has submitted a written statement to the commissioner  
 3 and the United States Environmental Protection Agency that a  
 4 corporate guarantee executed as described in this part and part  
 5 7045.0524, subpart 8a, is a legally valid and enforceable  
 6 obligation in that state; and

7                   (2) in the case of corporations incorporated  
 8 outside the United States, the non-United States corporation has  
 9 identified a registered agent for service of process in each  
 10 state in which a facility covered by the guarantee is located  
 11 and in the state in which it has its principal place of  
 12 business, and the attorney general or insurance commissioner of  
 13 each state in which a facility covered by the guarantee is  
 14 located and the state in which the guarantor corporation has its  
 15 principal place of business, has submitted a written statement  
 16 to the commissioner and the United States Environmental  
 17 Protection Agency that a corporate guarantee executed as  
 18 described in this part and part 7045.0524, subpart 8a, is a  
 19 legally valid and enforceable obligation in that state.

20 7045.0524 WORDING OF INSTRUMENTS.

21           Subpart 1. to 5. [Unchanged.]

22           Subp. 6. Letter from chief financial officer for  
 23 corrective action, closure, and/or post-closure care. A letter  
 24 from the chief financial officer as specified in part 7045.0504,  
 25 subpart 7; 7045.0508, subpart 7; 7045.0514, subpart 7;  
 26 7045.0612, subpart 6; or 7045.0616, subpart 6 must be worded as  
 27 specified in this subpart, except that instructions in brackets  
 28 must be replaced with the relevant information and the brackets  
 29 deleted.

30           LETTER FROM CHIEF FINANCIAL OFFICER FOR CORRECTIVE

31                   ACTION, CLOSURE, AND/OR POST-CLOSURE CARE

32 [Agency Commissioner]

33 Minnesota Pollution Control Agency

34           I am the chief financial officer of [name and address of  
 35 firm]. This letter is in support of this firm's use of the

1 financial test to demonstrate financial assurance, as specified  
2 in Minnesota Rules, parts 7045.0498 to 7045.0524 and 7045.0608  
3 to 7045.0624.

4 [Fill out the following five paragraphs regarding  
5 facilities and associated cost estimates. If your firm has no  
6 facilities that belong in a particular paragraph, write "None"  
7 in the space indicated. For each facility, include its  
8 identification number, name, address, and current corrective  
9 action, closure, and/or post-closure cost estimates. Identify  
10 each cost estimate as to whether it is for corrective action,  
11 closure, or post-closure care.]

12 1. to 4. [Unchanged.]

13 5. This firm is the owner or operator of the following  
14 underground injection control (UIC) facilities for which  
15 financial assurance for plugging and abandonment is required  
16 under Code of Federal Regulations, title 40, part 144. The  
17 current closure cost estimates as required by Code of Federal  
18 Regulations, title 40, section 144.62 are shown for each  
19 facility.

20 This firm [insert "is required" or "is not required"] to  
21 file a Form 10K with the Securities and Exchange Commission  
22 (SEC) for the latest fiscal year.

23 The fiscal year of this firm ends on [month, day]. The  
24 figures for the following items marked with an asterisk are  
25 derived from this firm's independently audited, year-end  
26 financial statements for the latest completed fiscal year, ended  
27 [date].

28 [Fill in Alternative I if the criteria of Minnesota Rules,  
29 part 7045.0504, subpart 7, item B; 7045.0508, subpart 7, item B;  
30 7045.0514, subpart 7, item B; 7045.0612, subpart 6, item B;  
31 7045.0616, subpart 6, item B are used. Fill in Alternative II  
32 if the criteria of Minnesota Rules, part 7045.0504, subpart 7,  
33 item C; 7045.0508, subpart 7, item C; 7045.0514, subpart 7, item  
34 C; or 7045.0612, subpart 6, item C; or 7045.0616, subpart 6,  
35 item C are used.]

36

ALTERNATIVE I



- 1 1. Sum of current corrective action, closure, and
- 2 post-closure cost estimate [total of all cost
- 3 estimates shown in the five paragraphs above] \$ \_\_\_\_\_
- 4 \*2. Total liabilities [if any portion of the
- 5 corrective action, closure, or post-closure
- 6 cost estimates is included in total liabilities,
- 7 you may deduct the amount of that portion from
- 8 this line and add that amount to lines 3 and 4]. \$ \_\_\_\_\_
- 9 \*3. Tangible net worth \$ \_\_\_\_\_
- 10 \*4. Net worth \$ \_\_\_\_\_
- 11 \*5. Current assets \$ \_\_\_\_\_
- 12 \*6. Current liabilities \$ \_\_\_\_\_
- 13 7. Net working capital [line 5 minus line 6] \$ \_\_\_\_\_
- 14 \*8. The sum of net income plus depreciation,
- 15 depletion, and amortization \$ \_\_\_\_\_
- 16 \*9. Total assets in United States (required only
- 17 if less than 90 percent of firm's assets are
- 18 located in United States) \$ \_\_\_\_\_
- 19 YES NO
- 20 10. Is line 3 at least \$10,000,000? \_\_\_\_\_
- 21 11. Is line 3 at least 6 times line 1? \_\_\_\_\_
- 22 12. Is line 7 at least 6 times line 1? \_\_\_\_\_
- 23 \*13. Are at least 90 percent of firm's assets located
- 24 in the United States? If not, complete line 14 \_\_\_\_\_
- 25 14. Is line 9 at least 6 times line 1? \_\_\_\_\_
- 26 15. Is line 2 divided by line 4 less than 2.0? \_\_\_\_\_
- 27 16. Is line 8 divided by line 2 greater than 0.1? \_\_\_\_\_
- 28 17. Is line 5 divided by line 6 greater than 1.5? \_\_\_\_\_
- 29

ALTERNATIVE II

- 30 1. Sum of current corrective action, closure, and
- 31 post-closure cost estimates [total of all cost
- 32 estimates shown in the five paragraphs above] \$ \_\_\_\_\_
- 33 2. Current bond rating of most recent issuance of
- 34 this firm and name of rating service \_\_\_\_\_
- 35 3. Date of issuance of bond \_\_\_\_\_
- 36 4. Date of maturity of bond \_\_\_\_\_
- 37 \*5. Tangible net worth [if any portion of the
- 38 corrective action, closure, and post-closure
- 39 cost estimates is included in "total liabilities"
- 40 on your firm's financial statements, you may add
- 41 the amount of that portion to this line] \$ \_\_\_\_\_
- 42 \*6. Total assets in United States (required only
- 43 if less than 90 percent of firm's assets are
- 44 located in United States) \$ \_\_\_\_\_
- 45 YES NO
- 46 7. Is line 5 at least \$10,000,000? \_\_\_\_\_
- 47 8. Is line 5 at least 6 times line 1? \_\_\_\_\_
- 48 \*9. Are at least 90 percent of firm's assets located
- 49 in United States? If not, complete line 10 \_\_\_\_\_
- 50 10. Is line 6 at least 6 times line 1? \_\_\_\_\_
- 51 I hereby certify that the wording of this letter is

52 identical to the wording specified in Minnesota Rules, part

53 7045.0524, subpart 6, as such rules were constituted on the date

54 shown immediately below.

55 [SIGNATURE]

56 [NAME]

57 [TITLE]

58 [DATE]

59 Subp. 7. Letter from chief financial officer for liability

60 coverage. A letter from the chief financial officer as

1 specified in part 7045.0518, subpart 6 or 7045.0620, subpart 5  
 2 must be worded as specified in this subpart, except that  
 3 instructions in brackets must be replaced with the relevant  
 4 information and the brackets deleted.

5 LETTER FROM CHIEF FINANCIAL OFFICER

6 FOR LIABILITY COVERAGE OR LIABILITY COVERAGE,

7 CORRECTIVE ACTION, CLOSURE, AND/OR POST-CLOSURE CARE

8 [Agency Commissioner]

9 Minnesota Pollution Control Agency

10 I am the chief financial officer of [firm's name and  
 11 address]. This letter is in support of the use of the financial  
 12 test to demonstrate financial responsibility for liability  
 13 coverage [insert "and corrective action, closure, and/or  
 14 post-closure care" if applicable] as specified in Minnesota  
 15 Rules, parts 7045.0498 to 7045.0524 and 7045.0608 to 7045.0624.

16 [Fill out the following paragraph regarding facilities and  
 17 liability coverage. If there are no facilities that belong in a  
 18 particular paragraph, write "None" in the space indicated. For  
 19 each facility, include its identification number, name, and  
 20 address.]

21 The firm identified above is the owner or operator of the  
 22 following facilities for which liability coverage for [insert  
 23 "sudden" or "nonsudden" or "both sudden and nonsudden"]  
 24 accidental occurrences is being demonstrated through the  
 25 financial test specified in Minnesota Rules, parts 7045.0498 to  
 26 7045.0524 and 7045.0608 to 7045.0624:

27 \_\_\_\_\_  
 28 The firm identified above guarantees, through the corporate  
 29 guarantee specified in Minnesota Rules, parts 7045.0498 to  
 30 7045.0524 and 7045.0608 to 7045.0624, liability coverage for  
 31 [insert "sudden" or "nonsudden" or "both sudden and nonsudden"]  
 32 accidental occurrences at the following facilities owned or  
 33 operated by the following subsidiaries of the firm:

34 \_\_\_\_\_  
 35 [If you are using the financial test to demonstrate  
 36 coverage of both liability and corrective action, closure, and

1 post-closure care, fill in the following five paragraphs  
2 regarding facilities and associated corrective action, closure,  
3 and post-closure cost estimates. If there are no facilities  
4 that belong in a particular paragraph, write "None" in the space  
5 indicated. For each facility, include its identification  
6 number, name, address, and current corrective action, closure,  
7 and/or post-closure cost estimates. Identify each cost estimate  
8 as to whether it is for corrective action, closure, or  
9 post-closure care.]

10 1. The firm identified above owns or operates the  
11 following facilities for which financial assurance for  
12 corrective action, closure, or post-closure care is demonstrated  
13 through the financial test specified in Minnesota Rules, parts  
14 7045.0498 to 7045.0524 and 7045.0608 to 7045.0624. The current  
15 corrective action, closure, and/or post-closure cost estimates  
16 covered by the test are shown for each facility:  
17 \_\_\_\_\_.

18 2. The firm identified above guarantees, through the  
19 corporate guarantee specified in Minnesota Rules, part 7045.0498  
20 to 7045.0524 and 7045.0608 to 7045.0624, the corrective action,  
21 closure, and post-closure care of the following facilities owned  
22 or operated by its subsidiaries. The current cost estimates for  
23 the corrective action, closure, or post-closure care so  
24 guaranteed are shown for each facility:  
25 \_\_\_\_\_.

26 3. In states other than Minnesota, this firm is  
27 demonstrating financial assurance for the corrective action,  
28 closure, or post-closure care of the following facilities either  
29 to the United States Environmental Protection Agency through the  
30 use of the financial test specified in Code of Federal  
31 Regulations, title 40, parts 264 or 265, subpart H, or to an  
32 authorized state through the use of a test equivalent or  
33 substantially equivalent to the specified financial test. The  
34 current corrective action, closure, and/or post-closure cost  
35 estimates covered by such a test are shown for each facility:  
36 \_\_\_\_\_.

1       4. The firm identified above owns or operates the  
 2 following hazardous waste management facilities for which  
 3 financial assurance for corrective action, if required, closure,  
 4 or, if a disposal facility, post-closure care, is not  
 5 demonstrated either to the United States Environmental  
 6 Protection Agency, or a state through the financial test or any  
 7 other financial assurance mechanism specified in Code of Federal  
 8 Regulations, title 40, parts 264 or 265, subpart H, or  
 9 equivalent or substantially equivalent state mechanisms. The  
 10 current corrective action, closure, and/or post-closure cost  
 11 estimates not covered by such financial assurance are shown for  
 12 each facility: \_\_\_\_\_.

13       5. The firm identified above owns or operates the  
 14 following underground injection control (UIC) facilities for  
 15 which financial assurance for plugging and abandonment is  
 16 required under Code of Federal Regulations, title 40, part 144.  
 17 The current closure cost estimates as required by Code of  
 18 Federal Regulations, title 40, section 144.62 are shown for each  
 19 facility:

20 \_\_\_\_\_.

21       This firm [insert "is required" or "is not required"] to  
 22 file a Form 10K with the Securities and Exchange Commission  
 23 (SEC) for the latest fiscal year.

24       The fiscal year of this firm ends on [month, day]. The  
 25 figures for the following items marked with an asterisk are  
 26 derived from this firm's independently audited, year-end  
 27 financial statements for the latest completed fiscal year, ended  
 28 [date].

29       [Fill in Part A if you are using the financial test to  
 30 demonstrate coverage only for the liability requirements.]

31 Part A. Liability Coverage for Accidental Occurrences.

32       [Fill in Alternative I if the criteria of Minnesota Rules,  
 33 part 7045.0518, subpart 6, item B or 7045.0620, subpart 5, item  
 34 B are used. Fill in Alternative II if the criteria of Minnesota  
 35 Rules, part 7045.0518, subpart 6, item C or 7045.0620, subpart  
 36 5, item C are used.]

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ALTERNATIVE I

- 1. Amount of annual aggregate liability coverage to be demonstrated \$ \_\_\_\_\_
- \*2. Current assets \$ \_\_\_\_\_
- \*3. Current liabilities \$ \_\_\_\_\_
- 4. Net working capital (line 2 minus line 3) \$ \_\_\_\_\_
- \*5. Tangible net worth \$ \_\_\_\_\_
- \*6. If less than 90 percent of assets are located in the United States, give total United States assets \$ \_\_\_\_\_
- 7. Is line 5 at least \$10,000,000? YES NO
- 8. Is line 4 at least 6 times line 1? \_\_\_\_\_
- 9. Is line 5 at least 6 times line 1? \_\_\_\_\_
- \*10. Are at least 90 percent of assets located in the United States? If not, complete line 11 \_\_\_\_\_
- 11. Is line 6 at least 6 times line 1? \_\_\_\_\_

ALTERNATIVE II

- 1. Amount of annual aggregate liability coverage to be demonstrated \$ \_\_\_\_\_
- 2. Current bond rating of most recent issuance and name of rating service \_\_\_\_\_
- 3. Date of issuance of bond \_\_\_\_\_
- 4. Date of maturity of bond \_\_\_\_\_
- \*5. Tangible net worth \$ \_\_\_\_\_
- \*6. Total assets in United States (required only if less than 90 percent of assets located in the United States) \$ \_\_\_\_\_
- 7. Is line 5 at least \$10,000,000? YES NO
- 8. Is line 5 at least 6 times line 1? \_\_\_\_\_
- \*9. Are at least 90 percent of assets located in the United States? If not, complete line 10 \_\_\_\_\_
- 10. Is line 6 at least 6 times line 1? \_\_\_\_\_

Part B. Corrective Action, Closure, or Post-Closure Care and Liability Coverage.

[Fill in Alternative I if the criteria of Minnesota Rules, parts 7045.0504, subpart 7, item B; 7045.0508, subpart 7, item B; 7045.0514, subpart 7, item B; and 7045.0518, subpart 6, item B are used or if the criteria of Minnesota Rules, parts 7045.0612, subpart 6, item B or 7045.0616, subpart 6, item B; and 7045.0620, subpart 5, item B are used. Fill in Alternative II if the criteria of Minnesota Rules, parts 7045.0504, subpart 7, item C; 7045.0508, subpart 7, item C; 7045.0514, subpart 7, item C; and 7045.0518, subpart 6, item C are used or if the criteria of Minnesota Rules, parts 7045.0612, subpart 6, item C; 7045.0616, subpart 6, item C; and 7045.0620, subpart 5, item C are used.]

ALTERNATIVE I

- 1. Sum of current corrective action, closure, and post-closure cost estimates (total of all cost estimates listed above) \$ \_\_\_\_\_
- 2. Amount of annual aggregate liability coverage to be demonstrated \$ \_\_\_\_\_

- 1 3. Sum of lines 1 and 2 \$ \_\_\_\_\_
- 2 \*4. Total liabilities (if any portion of your current
- 3 corrective action, closure, or post-closure cost
- 4 estimates is included in your total liabilities,
- 5 you may deduct that portion from this line and
- 6 add that amount to lines 5 and 6) \$ \_\_\_\_\_
- 7 \*5. Tangible net worth \$ \_\_\_\_\_
- 8 \*6. Net worth \$ \_\_\_\_\_
- 9 \*7. Current assets \$ \_\_\_\_\_
- 10 \*8. Current liabilities \$ \_\_\_\_\_
- 11 9. Net working capital (line 7 minus line 8) \$ \_\_\_\_\_
- 12 \*10. The sum of net income plus depreciation,
- 13 depletion, and amortization \$ \_\_\_\_\_
- 14 \*11. Total assets in United States (required only
- 15 if less than 90 percent of assets are located in
- 16 the United States) \$ \_\_\_\_\_
- 17 YES NO
- 18 12. Is line 5 at least \$10,000,000? \_\_\_\_\_
- 19 13. Is line 5 at least 6 times line 3? \_\_\_\_\_
- 20 14. Is line 9 at least 6 times line 3? \_\_\_\_\_
- 21 \*15. Are at least 90 percent of assets located
- 22 in the United States? If not, complete line 16 \_\_\_\_\_
- 23 16. Is line 11 at least 6 times line 3? \_\_\_\_\_
- 24 17. Is line 4 divided by line 6 less than 2.0? \_\_\_\_\_
- 25 18. Is line 10 divided by line 4 greater than
- 26 0.1? \_\_\_\_\_
- 27 19. Is line 7 divided by line 8 greater than
- 28 1.5? \_\_\_\_\_

29 ALTERNATIVE II

- 30 1. Sum of current corrective action, closure, and
- 31 post-closure cost estimates (total of all cost
- 32 estimates listed above) \$ \_\_\_\_\_
- 33 2. Amount of annual aggregate liability coverage
- 34 to be demonstrated \$ \_\_\_\_\_
- 35 3. Sum of lines 1 and 2 \$ \_\_\_\_\_
- 36 4. Current bond rating of most recent issuance and
- 37 name of rating service \_\_\_\_\_
- 38 5. Date of issuance of bond \_\_\_\_\_
- 39 6. Date of maturity of bond \_\_\_\_\_
- 40 \*7. Tangible net worth (if any portion of the current
- 41 corrective action, closure, or post-closure cost
- 42 estimates is included in "total liabilities" on
- 43 your financial statements you may add that portion
- 44 to this line) \$ \_\_\_\_\_
- 45 \*8. Total assets in the United States (required only
- 46 if less than 90 percent of assets are located in
- 47 the United States) \$ \_\_\_\_\_
- 48 YES NO
- 49 9. Is line 7 at least \$10,000,000? \_\_\_\_\_
- 50 10. Is line 7 at least 6 times line 3? \_\_\_\_\_
- 51 \*11. Are at least 90 percent of assets located in
- 52 the United States? If not, complete line 12 \_\_\_\_\_
- 53 12. Is line 8 at least 6 times line 3? \_\_\_\_\_
- 54 I hereby certify that the wording of this letter is

55 identical to the wording specified in Minnesota Rules, part  
 56 7045.0524, subpart 7, as the rules were constituted on the date  
 57 shown immediately below.

58 [SIGNATURE]

59 [NAME]

60 [TITLE]

61 [DATE]

62 Subp. 8. [Unchanged.]

1 Subp. 8a. Corporate guarantee for liability coverage. A  
2 corporate guarantee as specified in part 7045.0518, subpart 7,  
3 or 7045.0620, subpart 6, must be worded as follows, except that  
4 instructions in brackets are to be replaced with the relevant  
5 information and the brackets deleted:

6 CORPORATE GUARANTEE FOR LIABILITY COVERAGE

7 Guarantee made this [date] by [name of guaranteeing  
8 entity], a business corporation organized under the laws of [if  
9 incorporated within the United States, insert "the State of  
10 .....]" and insert name of state; if incorporated outside  
11 the United States, insert the name of the country in which  
12 incorporated, the principal place of business within the United  
13 States, and the name and address of the registered agent in the  
14 state of the principal place of business], referred to in this  
15 guarantee as the guarantor. This guarantee is made on behalf of  
16 our subsidiary [owner or operator] of [business address], to any  
17 and all third parties who have sustained or may sustain bodily  
18 injury or property damage caused by [sudden and/or nonsudden]  
19 accidental occurrences arising from operation of the  
20 facility(ies) covered by this guarantee.

21 Recitals

22 1. Guarantor meets or exceeds the financial test criteria  
23 and agrees to comply with the reporting requirements for  
24 guarantors as specified in Minnesota Rules, parts 7045.0518,  
25 subpart 7, and 7045.0620, subpart 6.

26 2. [Owner or operator] owns or operates the following  
27 hazardous waste management facility(ies) covered by this  
28 guarantee: [List for each facility: EPA Identification Number,  
29 name, and address; and if guarantor is incorporated outside the  
30 United States, list the name and address of the guarantor's  
31 registered agent in each state.] This corporate guarantee  
32 satisfies RCRA third-party liability requirements for [insert  
33 "sudden" or "nonsudden" or "both sudden and nonsudden"]  
34 accidental occurrences in above-named owner or operator  
35 facilities for coverage in the amount of [insert dollar amount]  
36 for each occurrence and [insert dollar amount] annual aggregate.

1           3. For value received from [owner or operator], guarantor  
2 guarantees to any and all third parties who have sustained or  
3 may sustain bodily injury or property damage caused by [sudden  
4 and/or nonsudden] accidental occurrences arising from operations  
5 of the facility(ies) covered by this guarantee that in the event  
6 that [owner or operator] fails to satisfy a judgment or award  
7 based on a determination of liability for bodily injury or  
8 property damage to third parties caused by [sudden and/or  
9 nonsudden] accidental occurrences, arising from the operation of  
10 the above-named facilities, or fails to pay an amount agreed to  
11 in settlement of a claim arising from or alleged to arise from  
12 such injury or damage, the guarantor will satisfy such  
13 judgment(s), award(s), or settlement agreement(s), up to the  
14 limits of coverage identified above.

15           4. Guarantor agrees that if, at the end of any fiscal year  
16 before termination of this guarantee, the guarantor fails to  
17 meet the financial test criteria, guarantor shall send within 90  
18 days, by certified mail, notice to the commissioner and to  
19 [owner or operator] that (s)he intends to provide alternate  
20 liability coverage as specified in Minnesota Rules, parts  
21 7045.0518 and 7045.0620, as applicable, in the name of [owner or  
22 operator]. Within 120 days after the end of that fiscal year,  
23 the guarantor shall establish the liability coverage unless  
24 [owner or operator] has done so.

25           5. The guarantor agrees to notify the commissioner by  
26 certified mail of a voluntary or involuntary proceeding under  
27 Title 11 (bankruptcy), United States Code, naming guarantor as  
28 debtor, within ten days after commencement of the proceeding.

29           6. Guarantor agrees that within 30 days after being  
30 notified by the commissioner of a determination that guarantor  
31 no longer meets the financial test criteria or that (s)he is  
32 disallowed from continuing as a guarantor, (s)he shall establish  
33 alternate liability coverage as specified in Minnesota Rules,  
34 part 7045.0518 or 7045.0620 in the name of [owner or operator],  
35 unless [owner or operator] has done so.

36           7. Guarantor reserves the right to modify this agreement



1 to take into account amendment or modification of the liability  
2 requirements established by Minnesota Rules, parts 7045.0518 and  
3 7045.0620, but the modification becomes effective only if the  
4 commissioner does not disapprove the modification within 30 days  
5 of receipt of notification of the modification.

6 8. Guarantor agrees to remain bound under this guarantee  
7 for so long as [owner or operator] must comply with the  
8 applicable requirements of Minnesota Rules, parts 7045.0518 and  
9 7045.0620 for the above-listed facility(ies), except as provided  
10 in paragraph 9 of this agreement.

11 9. Guarantor may terminate this guarantee by sending  
12 notice by certified mail to the commissioner and to [owner or  
13 operator] but this guarantee may not be terminated unless and  
14 until [owner or operator] obtains, and the commissioner approves  
15 alternate liability coverage complying with Minnesota Rules,  
16 parts 7045.0518 and/or 7045.0620.

17 10. Guarantor hereby expressly waives notice of acceptance  
18 of this guarantee by any party.

19 11. Guarantor agrees that this guarantee is in addition to  
20 and does not affect any other responsibility or liability of the  
21 guarantor with respect to the covered facilities.

22 12. Exclusions

23 This corporate guarantee does not apply to:

24 A. Bodily injury or property damage for which the owner or  
25 operator is obliged to pay damages by reason of the assumption  
26 of liability in a contract or agreement. This exclusion does  
27 not apply to liability for damages that the owner or operator  
28 would be obligated to pay in the absence of the contract or  
29 agreement.

30 B. Any obligation of the owner or operator under a  
31 workers' compensation, disability benefits, or unemployment  
32 compensation law or any similar law.

33 C. Bodily injury to:

34 (1) an employee of the owner or operator arising from, and  
35 in the course of, employment by the owner or operator; or

36 (2) the spouse, child, parent, brother, or sister of that

1 employee as a consequence of, or arising from, and in the course  
2 of, employment by the owner or operator.

3 This exclusion applies whether the owner or operator is  
4 liable as an employer or in any other capacity. This exclusion  
5 also applies to any obligation to share damages with or repay  
6 another person who must pay damages because of the injury to  
7 persons identified in item C.

8 D. Bodily injury or property damage arising out of the  
9 ownership, maintenance, use, or entrustment to others of any  
10 aircraft, motor vehicle, or watercraft.

11 E. Property damage to:

12 (1) any property owned, rented, or occupied by the owner or  
13 operator;

14 (2) premises that are sold, given away, or abandoned by the  
15 owner or operator if the property damage arises out of any part  
16 of those premises;

17 (3) property loaned to the owner or operator;

18 (4) personal property in the care, custody, or control of  
19 the owner or operator; and

20 (5) that particular part of real property on which the  
21 owner or operator or any contractors or subcontractors working  
22 directly or indirectly on behalf of the owner or operator are  
23 performing operations, if the property damage arises out of  
24 these operations.

25 I hereby certify that the wording of the guarantee is  
26 identical to the wording specified in Minnesota Rules, part  
27 7045.0524, subpart 8a.

28 Effective date: .....

29 [Name of guarantor]

30 [Authorized signatures for guarantor]

31 [Names of persons signing]

32 [Titles of persons signing (Two corporate officers must sign for  
33 parent corporation.)]

34 Corporate resolution attached [(Attach resolution adopted by  
35 parent corporation authorizing parent corporation to provide the  
36 corporate guarantee for subsidiary)]

1 Signature of witness or notary:

2 \_\_\_\_\_

3 Subp. 9. and 10. [Unchanged.]

4 7045.0602 POST-CLOSURE CARE AND USE OF PROPERTY.

5 Subpart 1. and 2. [Unchanged.]

6 Subp. 3. Post-closure use of property. Post-closure use  
7 of property on or in which hazardous wastes remain after closure  
8 must never be allowed by the owner or operator to disturb the  
9 integrity of the final cover, liners, or any other components of  
10 any containment system or the function of the facility's  
11 monitoring system, unless the owner or operator can demonstrate  
12 to the commissioner either in the post-closure plan or by  
13 petition that the disturbance:

14 A. and B. [Unchanged.]

15 Subp. 4. [Unchanged.]

16 7045.0610 COST ESTIMATE FOR FACILITY CLOSURE.

17 Subpart 1. Cost estimate requirements. The owner or  
18 operator shall prepare a detailed written estimate, in current  
19 dollars, of the cost of closing the facility in accordance with  
20 the closure plan in part 7045.0594 and applicable closure  
21 requirements in parts 7045.0626, subpart 8; 7045.0628, subpart  
22 5; 7045.0630, subpart 6; 7045.0632, subpart 7; 7045.0634,  
23 subpart 6; 7045.0638, subpart 4; 7045.0640, subpart 5; and  
24 7045.0642, subpart 5. The closure cost estimate must equal the  
25 cost of closure at the point in the facility's operating life  
26 when the extent and manner of its operation would make closure  
27 the most expensive, as indicated by its closure plan. The  
28 closure cost shall be estimated as follows:

29 A. [Unchanged.]

30 B. The closure cost estimate may not incorporate any  
31 salvage value that may be realized with the sale of hazardous  
32 wastes, facility structures or equipment, land, or other assets  
33 associated with the facility at the time of partial or final  
34 closure.

35 C. [Unchanged.]

1 Subp. 2. to 4. [Unchanged.]

2 7045.0620 LIABILITY REQUIREMENTS.

3 Subpart 1. Coverage for sudden accidental occurrences. An  
4 owner or operator of a hazardous waste treatment, storage, or  
5 disposal facility, or a group of these facilities, shall  
6 demonstrate financial responsibility for bodily injury and  
7 property damage to third parties caused by sudden accidental  
8 occurrences arising from operations of the facility or group of  
9 facilities. The owner or operator shall have and maintain  
10 liability coverage for sudden accidental occurrences in the  
11 amount of at least \$1,000,000 per occurrence with an annual  
12 aggregate of at least \$2,000,000, exclusive of legal defense  
13 costs. This liability coverage may be demonstrated in one of  
14 three ways, as specified in items A, B, and C:

15 A. [Unchanged.]

16 B. An owner or operator may meet the requirements of  
17 this part by passing a financial test or using the corporate  
18 guarantee for liability coverage as specified in subparts 5 and  
19 6.

20 C. An owner or operator may demonstrate the required  
21 liability coverage through use of the financial test, insurance,  
22 the corporate guarantee, a combination of the financial test and  
23 insurance, or a combination of the corporate guarantee and  
24 insurance as these mechanisms are specified in this part. The  
25 amounts of coverage demonstrated must total at least the minimum  
26 amounts required by subpart 1.

27 Subp. 2. Coverage for nonsudden accidental occurrences.

28 An owner or operator of a surface impoundment, landfill, or land  
29 treatment facility which is used to manage hazardous waste, or a  
30 group of these facilities, shall demonstrate financial  
31 responsibility for bodily damage and property damage to third  
32 parties caused by nonsudden accidental occurrences arising from  
33 operations of the facility or group of facilities. The owner or  
34 operator shall have and maintain liability coverage for  
35 nonsudden accidental occurrences in the amount of at least

1 \$3,000,000 per occurrence with an annual aggregate of at least  
2 \$6,000,000, exclusive of legal defense costs. This liability  
3 coverage may be demonstrated in one of three ways as specified  
4 in items A, B, and C:

5 A. [Unchanged.]

6 B. An owner or operator may meet the requirements of  
7 this part by passing a financial test or using the corporate  
8 guarantee for liability coverage as specified in subparts 5 and  
9 6.

10 C. An owner or operator may demonstrate the required  
11 liability coverage through use of the financial test, insurance,  
12 the corporate guarantee, a combination of the financial test and  
13 insurance, or a combination of the corporate guarantee and  
14 insurance as these mechanisms are specified in this part. The  
15 amounts of coverage must total at least the minimum amounts  
16 required by subpart 1.

17 D. and E. [Unchanged.]

18 Subp. 3. to 5. [Unchanged.]

19 Subp. 6. **Corporate guarantee for liability coverage.** The  
20 corporate guarantee for liability coverage is as follows:

21 A. Subject to item B, an owner or operator may meet  
22 the requirements of this part by obtaining a written corporate  
23 guarantee. The guarantor must be the parent corporation of the  
24 owner or operator. The guarantee must meet the requirements for  
25 owners or operators in subpart 5. The wording of the corporate  
26 guarantee must be identical to the wording specified in part  
27 7045.0524, subpart 8a. The guarantee must be signed by two  
28 corporate officers of the parent corporation. A corporate  
29 resolution authorizing the parent corporation to provide the  
30 corporate guarantee for the subsidiary must be attached to the  
31 guarantee. A certified copy of the corporate guarantee must  
32 accompany the items sent to the commissioner as specified in  
33 subpart 5, item E. The terms of the corporate guarantee must  
34 provide that:

35 (1) if the owner or operator fails to satisfy a  
36 judgment based on a determination of liability for bodily injury

1 or property damage to third parties caused by sudden or  
2 nonsudden accidental occurrences, or both, as the case may be,  
3 arising from the operation of facilities covered by this  
4 corporate guarantee, or fails to pay an amount agreed to in  
5 settlement of claims arising from or alleged to arise from such  
6 injury or damage, the guarantor will do so up to the limits of  
7 coverage; and

8 (2) the corporate guarantee will remain in force  
9 unless the guarantor sends notice of cancellation by certified  
10 mail to the owner or operator and to the commissioner. This  
11 guarantee may not be terminated unless and until the  
12 commissioner approves alternate liability coverage complying  
13 with this part and/or part 7045.0518.

14 B. A corporate guarantee may be used to satisfy the  
15 requirements of this part only if:

16 (1) in the case of corporations incorporated in  
17 the United States, the attorney general or insurance  
18 commissioner of the state in which the guarantor is incorporated  
19 and of each state in which a facility covered by the guarantee  
20 is located has submitted a written statement to the commissioner  
21 and the United States Environmental Protection Agency that a  
22 corporate guarantee executed as described in this part and part  
23 7045.0524, subpart 8a, is a legally valid and enforceable  
24 obligation in that state; and

25 (2) in the case of corporations incorporated  
26 outside the United States, the non-United States corporation has  
27 identified a registered agent for service of process in each  
28 state in which a facility covered by the guarantee is located  
29 and in the state in which it has its principal place of  
30 business, and the attorney general or insurance commissioner of  
31 each state in which a facility covered by the guarantee is  
32 located and the state in which the guarantor corporation has its  
33 principal place of business, has submitted a written statement  
34 to the commissioner and the United States Environmental  
35 Protection Agency that a corporate guarantee executed as  
36 described in this part and part 7045.0524, subpart 8a, is a

1 legally valid and enforceable obligation in that state.

2 7045.0630 SURFACE IMPOUNDMENTS.

3 Subpart 1. to 5. [Unchanged.]

4 Subp. 6. Closure and post-closure. The requirements of  
5 closure and post-closure are as follows:

6 A. At closure, the owner or operator may elect to  
7 remove from the impoundment or decontaminate any standing  
8 liquids, waste and waste residues, contaminated containment  
9 system components including liners, if any, underlying and  
10 surrounding contaminated soil, and structures and equipment  
11 contaminated with waste and leachate.

12 B. If the owner or operator removes or decontaminates  
13 all the impoundment materials described in item A, the  
14 impoundment is not further subject to the requirements of parts  
15 7045.0552 to 7045.0642. At closure and throughout the operating  
16 period, unless the owner or operator can demonstrate that any  
17 waste removed from the surface impoundment is not a hazardous  
18 waste, he or she becomes a generator of hazardous waste and must  
19 manage it in accordance with all applicable requirements of  
20 parts 7045.0205 to 7045.0397 and 7045.0552 to 7045.0642.

21 C. If the owner or operator does not remove or  
22 decontaminate all the impoundment materials described in item A,  
23 he or she shall close the impoundment and provide post-closure  
24 care as for a landfill under parts 7045.0594 to 7045.0606 and  
25 7045.0638, subpart 4, including the following:

26 (1) eliminate free liquids by removing liquid  
27 wastes or solidifying the remaining wastes and waste residues;

28 (2) stabilize remaining wastes to a bearing  
29 capacity sufficient to support the final cover; and

30 (3) cover the surface impoundment with a final  
31 cover designed and constructed to provide long-term minimization  
32 of the migration of liquids through the closed impoundment,  
33 function with minimum maintenance, promote drainage and minimize  
34 erosion or abrasion of the cover, accommodate settling and  
35 subsidence so that the cover's integrity is maintained, and have

1 a permeability less than or equal to the permeability of any  
2 bottom liner system or natural subsoils present.

3 D. In addition to the requirements of parts 7045.0594  
4 to 7045.0606 and 7045.0638, subpart 4, during the post-closure  
5 care period, the owner or operator of a surface impoundment in  
6 which wastes, waste residues, or contaminated materials remain  
7 after closure in accordance with item C shall:

8 (1) maintain the integrity and effectiveness of  
9 the final cover, including making repairs to the cover as  
10 necessary to correct the effects of settling, subsidence,  
11 erosion, or other events;

12 (2) maintain and monitor the groundwater  
13 monitoring system and comply with all other applicable  
14 requirements of part 7045.0590; and

15 (3) prevent run-on and run-off from eroding or  
16 otherwise damaging the final cover.

17 The closure requirements under part 7045.0638, subpart 4,  
18 will vary with the amount and nature of the residues remaining,  
19 if any, and the degree of contamination of the underlying and  
20 surrounding soil. The commissioner may vary post-closure  
21 requirements, according to part 7045.0602, subpart 1.

22 Subp. 7. and 8. [Unchanged.]