



eDocument Workflow Data Ingestion Form

DERR - Hazardous Waste Permitting

Note: All HW Permitting Documents fall under "Permit-Intermediate" doc type.

Keyword Summary:

Secondary ID:	OH7 571 724 312	Stamped date on doc:	12/23/2020
Facility Name:	Wright Patterson AFB		
County:	Greene	CBI/Trade Secret Info (see protocol below)	
Program:	RCRA C – Hazardous Waste	Request contains CBI/TS claim?	No
Permit Type:	Permit to Install & Operate	Was a "public" copy included?	No
Permit Subtype:	Application & Support	Financial Assurance Info (see protocol below)	
Permit Classification:	Permit Application	Request contains FA policy/account # info?	Yes
Permit Purpose:	Renewal	Contingency Plan Info (see protocol below)	
Confidentiality Status:	Public Record for Publication	Request contains facility staff pers/home phone #'s?	Yes

CBI/Trade Secret Protocol

Applications or requests that contain a claim of Confidential Business Information (CBI) or "trade secret" **are not be ingested** into the Agency's eDoc system. However, any claims must be made at the time of application submission, as required by both OAC rule 3745-49-03 and OAC rule 3745-50-30. Permittees must comply with the complete requirements of the above-cited rules, which include, among other things, submission of a corresponding "public" copy of the application or request which should be ingested into eDocs.

Financial Assurance Info Protocol

If the application contains "original signature" financial assurance documents, these documents **must be forwarded** to CO FA staff (Shawn Sellers or Melissa Cheung) as these types of documents must be secured in CO's fireproof file cabinet. Also, even if the FA information included in a mod application is not "original signature", if it includes information like insurance policy, bank account, letter of credit or bond numbers, these impacted pages should simply be physically removed and not scanned/included as a part of the ingested application. In place of the removed page, a page can be inserted which states: "Pages of this application which contain financial assurance mechanism details specific to policy or account numbers have been removed from this web-available version of the document."

Regarding review of FA components of mods, ERAS has set up a [tracking/request system](#) on SharePoint where DO staff can make a review request the HW FA Review Request list which can be accessed from the DMWM's Financial Assurance site.

Contingency Plan Info Protocol

If the application contains facility staff personal/home phone number information, the impacted pages should simply be physically removed and not scanned/included as a part of the ingested application. In place of the removed page, a page can be inserted which states: "Pages of this application which contain facility staff personal/home phone number information have been removed from this web-available version of the document."

Form Completed by: Chloé Mercier

12/23/2020

Comments



DIVISION OF ENVIRONMENTAL RESPONSE AND REVITALIZATION

**APPLICATION FOR NEW OR RENEWAL OF HAZARDOUS WASTE FACILITY
INSTALLATION AND OPERATION PERMIT**

Facility Name: WRIGHT-PATTERSON AIR FORCE BASE

Facility Location: 1918 13TH STREET
(Street)

WPAFB OH 45433
(City) (State) (Zip Code)

Facility Mailing Address: 1450 LITRELL ROAD
(If different from above) (Street)

WPAFB OH 45433
(City) (State) (Zip Code)

U. S. EPA ID No.: OH7571724312

Facility Contact: ZACHARY OLDS COMPLIANCE SECTION CHIEF
(Name) (Title)

Facility Telephone: 937-257-9009

I hereby apply for new or renewal of the Ohio Hazardous Waste Facility Installation and Operation Permit issued for the facility indicated above.

CERTIFICATION STATEMENT

I certify under penalty of law that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for the known violations.

<u>PATRICK G. MILLER</u> (Name - Type or Print)	<u>1374074</u> Revenue I.D. (Office Use)
<u>COLONEL, USAF, COMMANDER</u> (Title - Type or Print)	<u>\$1,500.00</u> Amount Enclosed
<u>MILLER.PATRICK</u> G.1039670280 (Signature & Date)	<u></u> Check Receipt - Date & No. (Office Use)

Digitally signed by
MILLER.PATRICK.G.1039670280
Date: 2020.12.17 16:12:20 -05'00'

**RCRA PART B PERMIT RENEWAL APPLICATION
WRIGHT-PATTERSON AIR FORCE BASE
TREATMENT, STORAGE, AND DISPOSAL FACILITY
FACILITY 20479, AREA B
EPA ID NUMBER OH7571724312**



**PREPARED BY
INSTALLATION MANAGEMENT DIVISION
88 CEG/CEI
1450 LITRELL ROAD
WRIGHT-PATTERSON AIR FORCE BASE
NOVEMBER 2020**

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United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT PART A FORM



1. Facility Permit Contact

First Name	ZACHARY	MI	M	Last Name	OLDS
Title	COMPLIANCE SECTION CHIEF				
Email	ZACHARY.OLDS@US.AF.MIL				
Phone	(937) 257-9009	Ext	N/A	Fax	N/A

2. Facility Permit Contact Mailing Address

Street Address	1450 LITRELL ROAD				
City, Town, or Village	WPAFB				
State	OH	Country	USA	Zip Code	45433-5209

3. Facility Existence Date (mm/dd/yyyy)

1/13/1948

4. Other Environmental Permits

A. Permit Type	B. Permit Number												C. Description
													SEE ATTACHMENT

5. Nature of Business

This facility provides storage (not to exceed one year) for industrial wastes, solvents and chemical wastes generated by aircraft maintenance and research & development laboratories on WPAFB. This facility accepts mixed waste from off-site DOD facilities. The 88 ABW is the host organization at this AFMC installation whose primary function is national defense. No disposal operations function on base.

6. Process Codes and Design Capacities

Line Number		A. Process Code			B. Process Design Capacity		C. Process Total Number of Units	D. Unit Name
					(1) Amount	(2) Unit of Measure		
0	1	S	0	1	17,820	G	1	Facility 20479

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.		A. EPA Hazardous Waste No.				B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes									
								(1) Process Codes								(2) Process Description (if code is not entered in 7.D1))	
See attached table for complete list																	

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

9. Facility Drawing

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

10. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

11. Comments

4. OTHER ENVIRONMENTAL PERMITS

		Permit Type
GW Treatment Plant	1IN00156*FD	E
Basewide NPDES	1IO00001*ID	N
Basewide MS4	OHQ000003	E
04-29-0475	Ohio HW	E

OEPA #**	PTI #	Facility	Description	Permit Type
B118	08-3672	10840	boiler #6, 16.75 MMBtu/Hr (400 hp) natural gas-fired	P
B140	P0123562	20770	Boiler #5 16.74 MMBtu/hr natural gas and distillate oil fired boiler	P
B312	P0108291	20018C	55 MMBtu/hr heater for R&D, natural gas, JP-4, JP-8, kerosene	P
B315	08-4062	20018C	66.2 MMBtu/hr JP-8 fired test cell, combustion research facility	P
B395	P0123975	20071B	500 kW non-emergency generator	P
P310	08-2744	20098	Seven jet engine test stand	P
B302	08-3429	20559	boiler, 20.93 MMBTU/hr (500 hp) gas, Cleaver Brooks #1	P
B355	08-04484	20559	boiler, 20.93 MMBTU/hr (500 hp) gas, Cleaver Brooks #2	P
B307	P0119472	20770	boiler, 96.9 MMBtu/hr natural gas boiler #2	P
B308	P0119472	20770	boiler, 96.9 MMBtu/hr natural gas boiler #1	P
B309	P0119472	20770	boiler, 169 MMBtu/hr converted gas-fired boiler #4	P
B310	P0119472	20770	boiler, 169 MMBtu/hr converted gas-fired boiler #3	P
K601	08-2870	30093	paint spray booth, Binks - AGE shop	P
K607	08-3167	30901	surface coating; paint spray booth	P
B607	P0121270	31240	boiler, 105 MMBtu/hr converted gas-fired boiler (#5), International Boiler Works	P
B608	P0121270	31240	boiler, 105 MMBtu/hr converted gas-fired boiler (#6), International Boiler Works	P
B609	P0119472	31240	boiler, 99.8 MMBtu/hr gas (#3), International Boiler Works	P

K608	08-2815	34007	spray paint coating - fuel cell facility	P
K610	08-2814	34015	surface coating; touch up aircraft painting in open hangar	P
K609	08-2813	34016	spray paint coating of aircraft w/ exhaust system	P
B604	P0112688	34019	boiler, 18.3 MMBtu/Hr (448 hp) dual-fired	P
B605	P0112688	34019	boiler, 18.3 MMBtu/Hr (448 hp) dual-fired	P
B660	P0112688	34019	boiler, 18.75 MMBtu/Hr (448 hp) boiler	P
K617	08-4095	34024	Paint spray room	P

** 0829700441 followed by the letter/number in this column is the Title V permit designation for each of these sources.

Wright Patterson Air Force Base Title V Permit Number: P0092038

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
01	D001	30,000	P	S01	Ignitable
02	D002	22,000	P	S01	Corrosive
03	D003	10,000	P	S01	Reactive
04	D004	1	P	S01	Arsenic (TCLP)
05	D005	1	P	S01	Barium (TCLP)
06	D006	1	P	S01	Cadmium (TCLP)
07	D007	1	P	S01	Chromium (TCLP)
08	D008	25,000	P	S01	Lead (TCLP)
09	D009	1	P	S01	Mercury (TCLP)
10	D010	1	P	S01	Selenium (TCLP)
11	D011	1	P	S01	Silver (TCLP)
12	D012	1	P	S01	Endrin (TCLP)
13	D013	1	P	S01	Lindane (TCLP)
14	D014	1	P	S01	Methoxychlor (TCLP)
15	D015	1	P	S01	Toxaphene (TCLP)
16	D016	1	P	S01	2, 4-D (TCLP)
17	D017	1	P	S01	2, 4, 5-TP Silvex (TCLP)
18	D018	1	P	S01	Benzene (TCLP)
19	D019	1	P	S01	Carbon tetrachloride (TCLP)
20	D020	1	P	S01	Chlordane (TCLP)
21	D021	1	P	S01	Chlorobenzene (TCLP)
22	D022	1	P	S01	Chloroform (TCLP)
23	D023	1	P	S01	O-Cresol (TCLP)
24	D024	1	P	S01	M-Cresol (TCLP)
25	D025	1	P	S01	P-Cresol (TCLP)
26	D026	1	P	S01	Cresol (TCLP)
27	D027	1	P	S01	1, 4-Dichlorobenzene (TCLP)
28	D028	1	P	S01	1, 2-Dichloroethane (TCLP)
29	D029	1	P	S01	1, 1-Dichloroethylene (TCLP)
30	D030	1	P	S01	2, 4-Dinitrotoluene (TCLP)
31	D031	1	P	S01	Heptachlor (TCLP)
32	D032	1	P	S01	Hexachlorobenzene (TCLP)
33	D033	1	P	S01	Hexachlor-1, 3-Butadiene (TCLP)
34	D034	1	P	S01	Hexachloroethane (TCLP)
35	D035	1	P	S01	Methyl Ethyl Ketone (TCLP)
36	D036	1	P	S01	Nitrobenzene (TCLP)
37	D037	1	P	S01	Pentachlorophenol (TCLP)
38	D038	1	P	S01	Pyridine (TCLP)
39	D039	1	P	S01	Tetrachloroethylene (TCLP)
40	D040	1	P	S01	Trichloroethylene (TCLP)
41	D041	1	P	S01	2, 4, 5-Trichlorophenol (TCLP)
42	D042	1	P	S01	2, 4, 6-Trichlorophenol (TCLP)
43	D043	1	P	S01	Vinyl Chloride (TCLP)
44	F001	1,600	P	S01	Spent Halogenated Solvents (T)
45	F002	9,000	P	S01	Spent Halogenated Solvents (T)
46	F003	16,000	P	S01	Spent Non-Halogenated Solvents (I, T)
47	F004	90	P	S01	Spent Non-Halogenated Solvents (T)
48	F005	16,000	P	S01	Spent Non-Halogenated Solvents (I, T)
49	F006	1	P	S01	Electroplating Wastewater Sludge (T)
50	F007	1,520	P	S01	Spent Cyanides (R, T)
51	F008	1,000	P	S01	Spent Plating Bath Residues (R, T)
52	F009	4,000	P	S01	Spent Stripping and Bath Solutions (R, T)
53	F010	1	P	S01	Quenching Bath Sludge (R, T)
54	F011	1	P	S01	Spent Cyanide Solutions (R, T)
55	F012	1	P	S01	Wastewater Sludges (T)
56	F019	1	P	S01	Wastewater Sludges (T)
57	F020	1	P	S01	Production Wastes (T)
58	F021	1	P	S01	Production Wastes (T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
59	F022	1	P	S01	Manufacturing Wastes (T)
60	F023	1	P	S01	Production Wastes (T)
61	F024	1	P	S01	Production Wastes (T)
62	F025	1	P	S01	Chlorinated Aliphatic Hydrocarbons (T)
63	F026	1	P	S01	Production Wastes (T)
64	F027	1	P	S01	Unused Formulations (T)
65	F028	1	P	S01	Incineration Residues (T)
66	F039	1	P	S01	Multi-Source Leachate (T)
67	P001	25	P	S01	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3% (T)
67	P001	1	P	S01	Warfarin, & salts, when present at concentrations greater than 0.3% (T)
68	P002	1	P	S01	Acetamide, N-(aminothioxomethyl)- (T)
68	P002	1	P	S01	1-Acetyl-2-thiourea (T)
69	P003	1	P	S01	Acrolein (T)
69	P003	1	P	S01	2-Propenal (T)
70	P004	1	P	S01	Aldrin (T)
70	P004	1	P	S01	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)- (T)
71	P005	1	P	S01	Allyl alcohol (T)
71	P005	1	P	S01	2-Propen-1-ol (T)
72	P006	1	P	S01	Aluminum phosphide (R,T)
73	P007	1	P	S01	5-(Aminomethyl)-3-isoxazolol (T)
73	P007	1	P	S01	3(2H)-Isloxazolone, 5-(aminomethyl)- (T)
74	P008	1	P	S01	4-Aminopyridine (T)
74	P008	1	P	S01	4-Pyridinamine (T)
75	P009	1	P	S01	Ammonium picrate (R)
75	P009	1	P	S01	Phenol, 2,4,6-trinitro-, ammonium salt (R)
76	P010	1	P	S01	Arsenic acid H3 AsO4 (T)
77	P011	1	P	S01	Arsenic oxide As2 O5 (T)
77	P011	1	P	S01	Arsenic pentoxide (T)
78	P012	1	P	S01	Arsenic oxide As2 O3 (T)
78	P012	1	P	S01	Arsenic trioxide (T)
79	P013	1	P	S01	Barium cyanide (T)
80	P014	1	P	S01	Benzenethiol (T)
80	P014	1	P	S01	Thiophenol (T)
81	P015	1	P	S01	Beryllium powder (T)
82	P016	1	P	S01	Dichloromethyl ether (T)
82	P016	1	P	S01	Methane, oxybis[chloro- (T)
83	P017	1	P	S01	Bromoacetone (T)
83	P017	1	P	S01	2-Propanone, 1-bromo- (T)
84	P018	1	P	S01	Brucine (T)
84	P018	1	P	S01	Strychnidin-10-one, 2,3-dimethoxy- (T)
85	P020	1	P	S01	Dinoseb (T)
85	P020	1	P	S01	Phenol, 2-(1-methylpropyl)-4,6-dinitro- (T)
86	P021	1	P	S01	Calcium cyanide (T)
87	P022	35	P	S01	Carbon disulfide (T)
88	P023	1	P	S01	Acetaldehyde, chloro- (T)
88	P023	1	P	S01	Chloroacetaldehyde (T)
89	P024	1	P	S01	Benzenamine, 4-chloro- (T)
89	P024	1	P	S01	p-Chloroaniline (T)
90	P026	1	P	S01	1-(o-Chlorophenyl)thiourea (T)
90	P026	1	P	S01	Thiourea, (2-chlorophenyl)- (T)
91	P027	1	P	S01	3-Chloropropionitrile (T)
91	P027	1	P	S01	Propanenitrile, 3-chloro- (T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1)
92	P028	1	P	S01	Benzene, (chloromethyl)- (T)
92	P028	1	P	S01	Benzyl chloride (T)
93	P029	100	P	S01	Copper cyanide (T)
94	P030	1,500	P	S01	Cyanides (soluble cyanide salts), not otherwise specified (T)
95	P031	1	P	S01	Cyanogen (T)
95	P031	1	P	S01	Ethanedinitrile (T)
96	P033	1	P	S01	Cyanogen chloride (T)
97	P034	1	P	S01	2-Cyclohexyl-4,6-dinitrophenol (T)
97	P034	1	P	S01	Phenol, 2-cyclohexyl-4,6-dinitro- (T)
98	P036	1	P	S01	Arsonous dichloride, phenyl- (T)
98	P036	1	P	S01	Dichlorophenylarsine (T)
99	P037	1	P	S01	Dieldrin (T)
99	P037	1	P	S01	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta, 7aalpha)- (T)
100	P038	1	P	S01	Arsine, diethyl- (T)
100	P038	1	P	S01	Diethylarsine (T)
101	P039	1	P	S01	Disulfoton (T)
101	P039	1	P	S01	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester (T)
102	P040	1	P	S01	O,O-Diethyl O-pyrazinyl phosphorothioate (T)
102	P040	1	P	S01	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester (T)
103	P041	1	P	S01	Diethyl-p-nitrophenyl phosphate (T)
103	P041	1	P	S01	Phosphoric acid, diethyl 4-nitrophenyl ester (T)
104	P042	1	P	S01	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl] (R)
104	P042	1	P	S01	Epinephrine (T)
105	P043	1	P	S01	Diisopropylfluorophosphate (DFP) (T)
105	P043	1	P	S01	Phosphorofluoric acid, bis(1-methylethyl) ester (T)
106	P044	1	P	S01	Dimethoate (T)
106	P044	1	P	S01	Phosphorodithioic acid, O,O-dimethyl S-[2-(methyl amino)-2-oxoethyl] ester (T)
107	P045	1	P	S01	Thiofanox (T)
107	P045	1	P	S01	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl] oxime (T)
108	P046	1	P	S01	Benzeneethanamine, alpha,alpha-dimethyl- (T)
108	P046	1	P	S01	alpha,alpha-Dimethylphenethylamine (T)
109	P047	1	P	S01	4,6-Dinitro-o-cresol, & salts (T)
109	P047	1	P	S01	Phenol, 2-methyl-4,6-dinitro-, & salts (T)
110	P048	1	P	S01	2,4-Dinitrophenol (T)
110	P048	1	P	S01	Phenol, 2,4-dinitro- (T)
111	P049	1	P	S01	Dithiobiuret (T)
111	P049	1	P	S01	Thioimidodicarbonic diamide [(H2 N)C(S)]2 NH (T)
112	P050	1	P	S01	Endosulfan (T)
112	P050	1	P	S01	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide (T)
113	P051	1	P	S01	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites (T)
113	P051	1	P	S01	Endrin (T)
113	P051	1	P	S01	Endrin, & metabolites (T)
114	P054	1	P	S01	Aziridine (T)
114	P054	1	P	S01	Ethyleneimine (T)
115	P056	1	P	S01	Fluorine (T)
116	P057	1	P	S01	Acetamide, 2-fluoro- (T)
116	P057	1	P	S01	Fluoroacetamide (T)
117	P058	1	P	S01	Acetic acid, fluoro-, sodium salt (T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
117	P058	1	P	S01	Fluoroacetic acid, sodium salt (T)
118	P059	1	P	S01	Heptachlor (T)
118	P059	1	P	S01	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro- (T)
119	P060	1	P	S01	Isodrin (T)
119	P060	1	P	S01	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)- (T)
120	P062	1	P	S01	Hexaethyl tetraphosphate (T)
120	P062	1	P	S01	Tetraphosphoric acid, hexaethyl ester (T)
121	P063	1	P	S01	Hydrocyanic acid (T)
121	P063	1	P	S01	Hydrogen cyanide (T)
122	P064	1	P	S01	Methane, isocyanato- (T)
122	P064	1	P	S01	Methyl isocyanate (T)
123	P065	1	P	S01	Fulminic acid, mercury(2 +) salt (R,T)
123	P065	1	P	S01	Mercury fulminate (R,T)
124	P066	1	P	S01	Ethanimidothioic acid, N-[[[(methylamino)carbonyl]oxy]-, methyl ester (T)
124	P066	1	P	S01	Methomyl (T)
124	P066	1	P	S01	Ethanimidothioic acid, N-[[[(methylamino)carbonyl]oxy]-, methyl ester (T)
125	P067	1	P	S01	Aziridine, 2-methyl- (T)
125	P067	1	P	S01	1,2-Propylenimine (T)
126	P068	1	P	S01	Hydrazine, methyl- (T)
126	P068	1	P	S01	Methyl hydrazine (T)
127	P069	1	P	S01	2-Methylactonitrile (T)
127	P069	1	P	S01	Propanenitrile, 2-hydroxy-2-methyl- (T)
128	P070	1	P	S01	Aldicarb (T)
128	P070	1	P	S01	Propanal, 2-methyl-2-(methylthio)-, O-[[[(methylamino)carbonyl]oxime (T)
129	P071	1	P	S01	Methyl parathion (T)
129	P071	1	P	S01	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester (T)
130	P072	1	P	S01	alpha-Naphthylthiourea (T)
130	P072	1	P	S01	Thiourea, 1-naphthalenyl- (T)
131	P073	1	P	S01	Nickel carbonyl (T)
131	P073	1	P	S01	Nickel carbonyl Ni(CO)4, (T-4)- (T)
132	P074	1	P	S01	Nickel cyanide (T)
133	P075	1	P	S01	Nicotine, & salts (this listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies). (T)
133	P075	1	P	S01	Pyridine, 3-(1-methyl-2-pyrrolidiny)-, (S)-, & salts (this listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies). (T)
134	P076	1	P	S01	Nitric oxide (T)
134	P076	1	P	S01	Nitrogen oxide NO (T)
135	P077	1	P	S01	Benzenamine, 4-nitro- (T)
135	P077	1	P	S01	p-Nitroaniline (T)
136	P078	1	P	S01	Nitrogen dioxide (T)
136	P078	1	P	S01	Nitrogen oxide NO2 (T)
137	P081	1	P	S01	Nitroglycerine (R)
137	P081	1	P	S01	1,2,3-Propanetriol, trinitrate (R)
138	P082	1	P	S01	Methanamine, N-methyl-N-nitroso- (T)
138	P082	1	P	S01	N-Nitrosodimethylamine (T)
139	P084	1	P	S01	N-Nitrosomethylvinylamine (T)
139	P084	1	P	S01	Vinylamine, N-methyl-N-nitroso- (T)
140	P085	1	P	S01	Diphosphoramidate, octamethyl- (T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
140	P085	1	P	S01	Octamethylpyrophosphoramidate (T)
141	P087	1	P	S01	Osmium oxide OsO ₄ , (T-4)- (T)
141	P087	1	P	S01	Osmium tetroxide (T)
142	P088	1	P	S01	Endothall (T)
142	P088	1	P	S01	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid (T)
143	P089	1	P	S01	Parathion (T)
143	P089	1	P	S01	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester (T)
144	P092	1	P	S01	Mercury, (acetato-O)phenyl- (T)
144	P092	1	P	S01	Phenylmercury acetate (T)
145	P093	1	P	S01	Phenylthiourea (T)
145	P093	1	P	S01	Thiourea, phenyl- (T)
146	P094	1	P	S01	Phorate (T)
146	P094	1	P	S01	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester (T)
147	P095	1	P	S01	Carbonic dichloride (T)
147	P095	1	P	S01	Phosgene (T)
148	P096	1	P	S01	Hydrogen phosphide (T)
148	P096	1	P	S01	Phosphine (T)
149	P097	1	P	S01	Famphur (T)
149	P097	1	P	S01	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester (T)
150	P098	30	P	S01	Potassium cyanide (T)
151	P099	1	P	S01	Argentate(1-), bis(cyano-C)-, potassium (T)
151	P099	1	P	S01	Potassium silver cyanide (T)
152	P101	1	P	S01	Ethyl cyanide (T)
152	P101	1	P	S01	Propanenitrile (T)
153	P102	1	P	S01	Propargyl alcohol (T)
153	P102	1	P	S01	2-Propyn-1-ol (T)
154	P103	1	P	S01	Selenourea (T)
155	P104	1	P	S01	Silver cyanide (T)
156	P105	5	P	S01	Sodium azide (T)
157	P106	500	P	S01	Sodium cyanide (T)
158	P108	1	P	S01	Strychnidin-10-one, & salts (T)
158	P108	1	P	S01	Strychnine, & salts (T)
159	P109	1	P	S01	Tetraethyldithiopyrophosphate (T)
159	P109	1	P	S01	Thiodiphosphoric acid, tetraethyl ester (T)
160	P110	1	P	S01	Plumbane, tetraethyl- (T)
160	P110	1	P	S01	Tetraethyl lead (T)
161	P111	1	P	S01	Diphosphoric acid, tetraethyl ester (T)
161	P111	1	P	S01	Tetraethyl pyrophosphate (T)
162	P112	1	P	S01	Methane, tetranitro- (R)
162	P112	1	P	S01	Tetranitromethane (R)
163	P113	1	P	S01	Thallic oxide (T)
163	P113	1	P	S01	Thallium oxide Tl ₂ O ₃ (T)
164	P114	1	P	S01	Selenious acid, dithallium(1 +) salt (T)
164	P114	1	P	S01	Thallium(I) selenite (T)
165	P115	1	P	S01	Sulfuric acid, dithallium(1 +) salt (T)
165	P115	1	P	S01	Thallium(I) sulfate (T)
166	P116	1	P	S01	Hydrazinecarbothioamide (T)
166	P116	1	P	S01	Thiosemicarbazide (T)
167	P118	1	P	S01	Methanethiol, trichloro- (T)
167	P118	1	P	S01	Trichloromethanethiol (T)
168	P119	1	P	S01	Ammonium vanadate (T)
168	P119	1	P	S01	Vanadic acid, ammonium salt (T)
169	P120	1	P	S01	Vanadium oxide V ₂ O ₅ (T)
169	P120	1	P	S01	Vanadium pentoxide (T)
170	P121	1	P	S01	Zinc cyanide (T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
171	P122	1	P	S01	Zinc phosphide Zn ₃ P ₂ , when present at concentrations greater than 10% (R,T)
172	P123	1	P	S01	Toxaphene (T)
173	P127	1	P	S01	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate. (T)
173	P127	1	P	S01	Carbofuran (T)
174	P128	1	P	S01	Mexacarbate (T)
174	P128	1	P	S01	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester). (T)
175	P185	1	P	S01	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)-carbonyl]oxime. (T)
175	P185	1	P	S01	Tirpate (T)
176	P188	1	P	S01	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1) (T)
176	P188	1	P	S01	Physostigmine salicylate (T)
177	P189	1	P	S01	Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester (T)
177	P189	1	P	S01	Carbosulfan (T)
178	P190	1	P	S01	Carbamic acid, methyl-, 3-methylphenyl ester (T)
178	P190	1	P	S01	Metolcarb (T)
179	P191	1	P	S01	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester (T)
179	P191	1	P	S01	Dimetilan (T)
180	P192	1	P	S01	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester (T)
180	P192	1	P	S01	Isolan (T)
181	P194	1	P	S01	Ethanimidthioic acid, 2-(dimethylamino)-N-[[[(methylamino)carbonyl]oxy]-2-oxo-, methyl ester (T)
181	P194	1	P	S01	Oxamyl (T)
182	P196	1	P	S01	Manganese, bis(dimethylcarbomodithioato-S,S'), (T)
182	P196	1	P	S01	Manganese dimethyldithiocarbamate (T)
183	P197	1	P	S01	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[[(methylamino)carbonyl]oxy]phenyl]- (T)
183	P197	1	P	S01	Formparanate (T)
184	P198	1	P	S01	Formetanate hydrochloride (T)
184	P198	1	P	S01	Methanimidamide, N,N-dimethyl-N'-[3-[[[(methylamino)carbonyl]oxy]phenyl]-monohydrochloride (T)
185	P199	1	P	S01	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate (T)
185	P199	1	P	S01	Methiocarb (T)
186	P201	1	P	S01	Promecarb (T)
186	P201	1	P	S01	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate (T)
187	P202	1	P	S01	m-Cumenyl methylcarbamate (T)
187	P202	1	P	S01	3-Isopropylphenyl N-methylcarbamate (T)
187	P202	1	P	S01	Phenol, 3-(1-methylethyl)-, methyl carbamate (T)
188	P203	1	P	S01	Aldicarb sulfone (T)
188	P203	1	P	S01	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime (T)
189	P204	1	P	S01	Physostigmine (T)
189	P204	1	P	S01	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)- (T)
190	P205	1	P	S01	Zinc, bis(dimethylcarbomodithioato-S,S'), (T)
190	P205	1	P	S01	Ziram (T)
191	U001	2	P	S01	Acetaldehyde (I)
191	U001	1	P	S01	Ethanal (I)
192	U002	500	P	S01	Acetone (I)
192	U002	1	P	S01	2-Propanone (I)
193	U003	2	P	S01	Acetonitrile (I,T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
194	U004	2	P	S01	Acetophenone (T)
194	U004	1	P	S01	Ethanone, 1-phenyl- (T)
195	U005	1	P	S01	Acetamide, -9H-fluoren-2-yl- (T)
195	U005	1	P	S01	2-Acetylaminofluorene (T)
196	U006	3	P	S01	Acetyl chloride (C,R,T)
197	U007	1	P	S01	Acrylamide (T)
197	U007	1	P	S01	2-Propenamide (T)
198	U008	1	P	S01	Acrylic acid (I)
198	U008	1	P	S01	2-Propenoic acid (I)
199	U009	22	P	S01	Acrylonitrile (T)
199	U009	1	P	S01	2-Propenenitrile (T)
200	U010	1	P	S01	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]- (T)
200	U010	1	P	S01	Mitomycin C (T)
201	U011	1	P	S01	Amitrole (T)
201	U011	1	P	S01	1H-1,2,4-Triazol-3-amine (T)
202	U012	25	P	S01	Aniline (I,T)
202	U012	1	P	S01	Benzenamine (I,T)
203	U014	1	P	S01	Auramine (T)
203	U014	1	P	S01	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl]- (T)
204	U015	1	P	S01	Azaserine (T)
204	U015	1	P	S01	L-Serine, diazoacetate (ester) (T)
205	U016	1	P	S01	Benz[c]acridine (T)
206	U017	1	P	S01	Benzal chloride (T)
206	U017	1	P	S01	Benzene, (dichloromethyl)- (T)
207	U018	1	P	S01	Benz[a]anthracene (T)
208	U019	260	P	S01	Benzene (I,T)
209	U020	1	P	S01	Benzenesulfonic acid chloride (C,R)
209	U020	1	P	S01	Benzenesulfonyl chloride (C,R)
210	U021	1	P	S01	Benzidine (T)
210	U021	1	P	S01	[1,1'-Biphenyl]-4,4'-diamine (T)
211	U022	1	P	S01	Benzo[a]pyrene (T)
212	U023	20	P	S01	Benzene, (trichloromethyl)- (T)
212	U023	1	P	S01	Benzotrichloride (C,R,T)
213	U024	1	P	S01	Dichloromethoxy ethane (T)
213	U024	1	P	S01	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro- (T)
214	U025	1	P	S01	Dichloroethyl ether (T)
214	U025	1	P	S01	Ethane, 1,1'-oxybis[2-chloro- (T)
215	U026	1	P	S01	Chlornaphazine (T)
215	U026	1	P	S01	Naphthalenamine, N,N'-bis(2-chloroethyl)- (T)
216	U027	1	P	S01	Dichloroisopropyl ether (T)
216	U027	1	P	S01	Propane, 2,2'-oxybis[2-chloro- (T)
217	U028	1	P	S01	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester (T)
217	U028	1	P	S01	Diethylhexyl phthalate (T)
218	U029	1	P	S01	Methane, bromo- (T)
218	U029	1	P	S01	Methyl bromide (T)
219	U030	1	P	S01	Benzene, 1-bromo-4-phenoxy- (T)
219	U030	1	P	S01	4-Bromophenyl phenyl ether (T)
220	U031	70	P	S01	1-Butanol (I)
220	U031	1	P	S01	n-Butyl alcohol (I)
221	U032	1	P	S01	Calcium chromate (T)
221	U032	35	P	S01	Chromic acid H2 CrO4, calcium salt (T)
222	U033	1	P	S01	Carbonic difluoride (T)
222	U033	1	P	S01	Carbon oxyfluoride (R,T)
223	U034	1	P	S01	Acetaldehyde, trichloro- (T)
223	U034	1	P	S01	Chloral (T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
224	U035	1	P	S01	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]- (T)
224	U035	1	P	S01	Chlorambucil (T)
225	U036	15	P	S01	Chlordane, alpha & gamma isomers (T)
225	U036	1	P	S01	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro- (T)
226	U037	1	P	S01	Benzene, chloro- (T)
226	U037	65	P	S01	Chlorobenzene (T)
227	U038	1	P	S01	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester (T)
227	U038	1	P	S01	Chlorobenzilate (T)
228	U039	1	P	S01	p-Chloro-m-cresol (T)
228	U039	1	P	S01	Phenol, 4-chloro-3-methyl- (T)
229	U041	1	P	S01	Epichlorohydrin (T)
229	U041	1	P	S01	Oxirane, (chloromethyl)- (T)
230	U042	1	P	S01	2-Chloroethyl vinyl ether (T)
230	U042	1	P	S01	Ethene, (2-chloroethoxy)- (T)
231	U043	1	P	S01	Ethene, chloro- (T)
231	U043	1	P	S01	Vinyl chloride (T)
232	U044	1,100	P	S01	Chloroform (T)
232	U044	1	P	S01	Methane, trichloro- (T)
233	U045	1	P	S01	Methane, chloro- (l,T)
233	U045	1	P	S01	Methyl chloride (l,T)
234	U046	1	P	S01	Chloromethyl methyl ether (T)
234	U046	1	P	S01	Methane, chloromethoxy- (T)
235	U047	1	P	S01	beta-Chloronaphthalene (T)
235	U047	1	P	S01	Naphthalene, 2-chloro- (T)
236	U048	1	P	S01	o-Chlorophenol (T)
236	U048	1	P	S01	Phenol, 2-chloro- (T)
237	U049	1	P	S01	Benzenamine, 4-chloro-2-methyl-, hydrochloride (T)
237	U049	1	P	S01	4-Chloro-o-toluidine, hydrochloride (T)
238	U050	1	P	S01	Chrysene (T)
239	U051	1	P	S01	Creosote (T)
240	U052	28	P	S01	Cresol (Cresylic acid) (T)
240	U052	1	P	S01	Phenol, methyl- (T)
241	U053	1	P	S01	2-Butenal (T)
241	U053	1	P	S01	Crotonaldehyde (T)
242	U055	1	P	S01	Benzene, (1-methylethyl)-(l)
242	U055	1	P	S01	Cumene (l)
243	U056	1	P	S01	Benzene, hexahydro-(l)
243	U056	200	P	S01	Cyclohexane (l)
244	U057	44	P	S01	Cyclohexanone (l)
245	U058	1	P	S01	Cyclophosphamide (T)
245	U058	1	P	S01	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide (T)
246	U059	1	P	S01	Daunomycin (T)
246	U059	1	P	S01	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl]oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)- (T)
247	U060	1	P	S01	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro- (T)
247	U060	1	P	S01	DDD (T)
248	U061	1	P	S01	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro- (T)
248	U061	1	P	S01	DDT (T)
249	U062	1	P	S01	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-di chloro-2-propenyl) ester (T)
249	U062	1	P	S01	Diallate (T)
250	U063	1	P	S01	Dibenz[a,h]anthracene (T)
251	U064	1	P	S01	Benzo[rst]pentaphene (T)
251	U064	1	P	S01	Dibenzo[a,i]pyrene (T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
252	U066	1	P	S01	1,2-Dibromo-3-chloropropane (T)
252	U066	1	P	S01	Propane, 1,2-dibromo-3-chloro- (T)
253	U067	1	P	S01	Ethane, 1,2-dibromo- (T)
253	U067	2	P	S01	Ethylene dibromide (T)
254	U068	1	P	S01	Methane, dibromo- (T)
254	U068	1	P	S01	Methylene bromide (T)
255	U069	1	P	S01	1,2-Benzenedicarboxylic acid, dibutyl ester (T)
255	U069	3	P	S01	Dibutyl phthalate (T)
256	U070	4	P	S01	Benzene, 1,2-dichloro- (T)
256	U070	1	P	S01	o-Dichlorobenzene (T)
257	U071	1	P	S01	Benzene, 1,3-dichloro- (T)
257	U071	15	P	S01	m-Dichlorobenzene (T)
258	U072	1	P	S01	Benzene, 1,4-dichloro- (T)
258	U072	2	P	S01	p-Dichlorobenzene (T)
259	U073	1	P	S01	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro- (T)
259	U073	1	P	S01	3,3'-Dichlorobenzidine (T)
260	U074	1	P	S01	2-Butene, 1,4-dichloro-(l,T)
260	U074	1	P	S01	1,4-Dichloro-2-butene (l,T)
261	U075	1	P	S01	Dichlorodifluoromethane (T)
261	U075	1	P	S01	Methane, dichlorodifluoro- (T)
262	U076	3,000	P	S01	Ethane, 1,1-dichloro- (T)
262	U076	1	P	S01	Ethylidene dichloride (T)
263	U077	1	P	S01	Ethane, 1,2-dichloro- (T)
263	U077	1	P	S01	Ethylene dichloride (T)
264	U078	1	P	S01	1,1-Dichloroethylene (T)
264	U078	1	P	S01	Ethene, 1,1-dichloro- (T)
265	U079	1	P	S01	1,2-Dichloroethylene (T)
265	U079	1	P	S01	Ethene, 1,2-dichloro-, (E)- (T)
266	U080	815	P	S01	Methane, dichloro- (T)
266	U080	1	P	S01	Methylene chloride (T)
267	U081	1	P	S01	2,4-Dichlorophenol (T)
267	U081	1	P	S01	Phenol, 2,4-dichloro- (T)
268	U082	1	P	S01	2,6-Dichlorophenol (T)
268	U082	1	P	S01	Phenol, 2,6-dichloro- (T)
269	U083	1	P	S01	Propane, 1,2-dichloro- (T)
269	U083	1	P	S01	Propylene dichloride (T)
270	U084	1	P	S01	1,3-Dichloropropene (T)
270	U084	1	P	S01	1-Propene, 1,3-dichloro- (T)
271	U085	1	P	S01	2,2'-Bioxirane (l, T)
271	U085	1	P	S01	1,2:3,4-Diepoxybutane (l,T)
272	U086	1	P	S01	N,N'-Diethylhydrazine (T)
272	U086	1	P	S01	Hydrazine, 1,2-diethyl- (T)
273	U087	1	P	S01	O,O-Diethyl S-methyl dithiophosphate (T)
273	U087	1	P	S01	Phosphorodithioic acid, O,O-diethyl S-methyl ester (T)
274	U088	1	P	S01	1,2-Benzenedicarboxylic acid, diethyl ester (T)
274	U088	2	P	S01	Diethyl phthalate (T)
275	U089	1	P	S01	Diethylstilbesterol (T)
275	U089	1	P	S01	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)- (T)
276	U090	1	P	S01	1,3-Benzodioxole, 5-propyl- (T)
276	U090	1	P	S01	Dihydrosafrole (T)
277	U091	1	P	S01	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy- (T)
277	U091	1	P	S01	3,3'-Dimethoxybenzidine (T)
278	U092	1	P	S01	Dimethylamine (l)
278	U092	1	P	S01	Methanamine, -methyl-(l)
279	U093	1	P	S01	Benzenamine, N,N-dimethyl-4-(phenylazo)- (T)
279	U093	1	P	S01	p-Dimethylaminoazobenzene (T)
280	U094	1	P	S01	Benz[a]anthracene, 7,12-dimethyl- (T)
280	U094	1	P	S01	7,12-Dimethylbenz[a]anthracene (T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
281	U095	1	P	S01	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl- (T)
281	U095	1	P	S01	3,3'-Dimethylbenzidine (T)
282	U096	1,500	P	S01	alpha,alpha-Dimethylbenzylhydroperoxide (R)
282	U096	1	P	S01	Hydroperoxide, 1-methyl-1-phenylethyl-(R)
283	U097	1	P	S01	Carbamic chloride, dimethyl- (T)
283	U097	1	P	S01	Dimethylcarbamoyl chloride (T)
284	U098	3	P	S01	1,1-Dimethylhydrazine (T)
284	U098	1	P	S01	Hydrazine, 1,1-dimethyl- (T)
285	U099	1	P	S01	1,2-Dimethylhydrazine (T)
285	U099	1	P	S01	Hydrazine, 1,2-dimethyl- (T)
286	U101	2	P	S01	2,4-Dimethylphenol (T)
286	U101	1	P	S01	Phenol, 2,4-dimethyl- (T)
287	U102	1	P	S01	1,2-Benzenedicarboxylic acid, dimethyl ester (T)
287	U102	1	P	S01	Dimethyl phthalate (T)
288	U103	1	P	S01	Dimethyl sulfate (T)
288	U103	1	P	S01	Sulfuric acid, dimethyl ester (T)
289	U105	1	P	S01	Benzene, 1-methyl-2,4-dinitro- (T)
289	U105	1	P	S01	2,4-Dinitrotoluene (T)
290	U106	1	P	S01	Benzene, 2-methyl-1,3-dinitro- (T)
290	U106	1	P	S01	2,6-Dinitrotoluene (T)
291	U107	1	P	S01	1,2-Benzenedicarboxylic acid, dioctyl ester (T)
291	U107	1	P	S01	Di-n-octyl phthalate (T)
292	U108	1	P	S01	1,4-Diethyleneoxide (T)
292	U108	15	P	S01	1,4-Dioxane (T)
293	U109	1	P	S01	1,2-Diphenylhydrazine (T)
293	U109	1	P	S01	Hydrazine, 1,2-diphenyl- (T)
294	U110	1	P	S01	Dipropylamine (I)
294	U110	1	P	S01	1-Propanamine, N-propyl-(I)
295	U111	1	P	S01	Di-n-propylnitrosamine (T)
295	U111	1	P	S01	1-Propanamine, N-nitroso-N-propyl- (T)
296	U112	1	P	S01	Acetic acid ethyl ester (I)
296	U112	16,000	P	S01	Ethyl acetate (I)
297	U113	1	P	S01	Ethyl acrylate (I)
297	U113	1	P	S01	2-Propenoic acid, ethyl ester (I)
298	U114	1	P	S01	Carbamodithioic acid, 1,2-ethanediybis-, salts & esters (T)
298	U114	1	P	S01	Ethylenebisdithiocarbamic acid, salts & esters (T)
299	U115	1	P	S01	Ethylene oxide (I,T)
299	U115	1	P	S01	Oxirane (I,T)
300	U116	1	P	S01	Ethylenethiourea (T)
300	U116	1	P	S01	2-Imidazolidinethione (T)
301	U117	1	P	S01	Ethane, 1,1'-oxybis-(I)
301	U117	485	P	S01	Ethyl ether (I)
302	U118	1	P	S01	Ethyl methacrylate (T)
302	U118	1	P	S01	2-Propenoic acid, 2-methyl-, ethyl ester (T)
303	U119	1	P	S01	Ethyl methanesulfonate (T)
303	U119	1	P	S01	Methanesulfonic acid, ethyl ester (T)
304	U120	1	P	S01	Fluoranthene (T)
305	U121	1	P	S01	Methane, trichlorofluoro- (T)
305	U121	1	P	S01	Trichloromonofluoromethane (T)
306	U122	200	P	S01	Formaldehyde (T)
307	U123	12	P	S01	Formic acid (C,T)
308	U124	2	P	S01	Furan (I)
308	U124	1	P	S01	Furfuran (I)
309	U125	200	P	S01	2-Furancarboxaldehyde (I)
309	U125	1	P	S01	Furfural (I)
310	U126	1	P	S01	Glycidylaldehyde (T)
310	U126	1	P	S01	Oxiranecarboxyaldehyde (T)
311	U127	1	P	S01	Benzene, hexachloro- (T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
311	U127	2	P	S01	Hexachlorobenzene (T)
312	U128	1	P	S01	1,3-Butadiene, 1,1,2,3,4,4-hexachloro- (T)
312	U128	1	P	S01	Hexachlorobutadiene (T)
313	U129	1	P	S01	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)- (T)
313	U129	1	P	S01	Lindane (T)
314	U130	1	P	S01	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro- (T)
314	U130	1	P	S01	Hexachlorocyclopentadiene (T)
315	U131	1	P	S01	Ethane, hexachloro- (T)
315	U131	2	P	S01	Hexachloroethane (T)
316	U132	1	P	S01	Hexachlorophene (T)
316	U132	1	P	S01	Phenol, 2,2'-methylenebis[3,4,6-trichloro- (T)
317	U133	6	P	S01	Hydrazine (R,T)
318	U134	1	P	S01	Hydrofluoric acid (C,T)
318	U134	260	P	S01	Hydrogen fluoride (C,T)
319	U135	1	P	S01	Hydrogen sulfide (T)
319	U135	1	P	S01	Hydrogen sulfide H2S (T)
320	U136	1	P	S01	Arsinic acid, dimethyl- (T)
320	U136	1	P	S01	Cacodylic acid (T)
321	U137	1	P	S01	Indeno[1,2,3-cd]pyrene (T)
322	U138	2	P	S01	Methane, iodo- (T)
322	U138	1	P	S01	Methyl iodide (T)
323	U140	3	P	S01	Isobutyl alcohol (I,T)
323	U140	1	P	S01	1-Propanol, 2-methyl- (I,T)
324	U141	1	P	S01	1,3-Benzodioxole, 5-(1-propenyl)- (T)
324	U141	1	P	S01	Isosafrole (T)
325	U142	1	P	S01	Kepone (T)
325	U142	1	P	S01	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro- (T)
326	U143	1	P	S01	2-Butenoic acid, 2-methyl-, 7-[[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7alpha]]- (T)
326	U143	1	P	S01	Lasiocarpine (T)
327	U144	1	P	S01	Acetic acid, lead(2 +) salt (T)
327	U144	4	P	S01	Lead acetate (T)
328	U145	1	P	S01	Lead phosphate (T)
328	U145	8	P	S01	Phosphoric acid, lead(2 +) salt (2:3) (T)
329	U146	1	P	S01	Lead, bis(acetato-O)tetrahydroxytri- (T)
329	U146	1	P	S01	Lead subacetate (T)
330	U147	1	P	S01	2,5-Furandione (T)
330	U147	2	P	S01	Maleic anhydride (T)
331	U148	1	P	S01	Maleic hydrazide (T)
331	U148	1	P	S01	3,6-Pyridazinedione, 1,2-dihydro- (T)
332	U149	1	P	S01	Malononitrile (T)
332	U149	1	P	S01	Propanedinitrile (T)
333	U150	4	P	S01	Melphalan (T)
333	U150	4	P	S01	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]- (T)
334	U151	1,600	P	S01	Mercury (T)
335	U152	1	P	S01	Methacrylonitrile (I,T)
335	U152	1	P	S01	2-Propenenitrile, 2-methyl- (I,T)
336	U153	1	P	S01	Methanethiol (I,T)
336	U153	1	P	S01	Thiomethanol (I,T)
337	U154	1,500	P	S01	Methanol (I)
337	U154	1	P	S01	Methyl alcohol (I)
338	U155	1	P	S01	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)- (T)
338	U155	1	P	S01	Methapyrilene (T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
339	U156	1	P	S01	Carbonochloridic acid, methyl ester (I,T)
339	U156	35	P	S01	Methyl chlorocarbonate (I,T)
340	U157	1	P	S01	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl- (T)
340	U157	1	P	S01	3-Methylcholanthrene (T)
341	U158	1	P	S01	Benzenamine, 4,4'-methylenebis[2-chloro- (T)
341	U158	1	P	S01	4,4'-Methylenebis(2-chloroaniline) (T)
342	U159	1	P	S01	2-Butanone (I,T)
342	U159	1,100	P	S01	Methyl ethyl ketone (MEK) (I,T)
343	U160	1	P	S01	2-Butanone, peroxide (R,T)
343	U160	1	P	S01	Methyl ethyl ketone peroxide (R,T)
344	U161	1	P	S01	Methyl isobutyl ketone (I)
344	U161	1	P	S01	4-Methyl-2-pentanone (I)
344	U161	1	P	S01	Pentanol, 4-methyl- (T)
345	U162	1	P	S01	Methyl methacrylate (I,T)
345	U162	1	P	S01	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
346	U163	1	P	S01	Guanidine, -methyl-N'-nitro-N-nitroso- (T)
346	U163	1	P	S01	MNNG (T)
347	U164	1	P	S01	Methylthiouracil (T)
347	U164	1	P	S01	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo- (T)
348	U165	1	P	S01	Naphthalene (T)
349	U166	1	P	S01	1,4-Naphthalenedione (T)
349	U166	1	P	S01	1,4-Naphthoquinone (T)
350	U167	1	P	S01	1-Naphthalenamine (T)
350	U167	1	P	S01	alpha-Naphthylamine (T)
351	U168	1	P	S01	2-Naphthalenamine (T)
351	U168	1	P	S01	beta-Naphthylamine (T)
352	U169	1	P	S01	Benzene, nitro- (T)
352	U169	1	P	S01	Nitrobenzene (I,T)
353	U170	1	P	S01	p-Nitrophenol (T)
353	U170	1	P	S01	Phenol, 4-nitro- (T)
354	U171	1	P	S01	2-Nitropropane (I,T)
354	U171	1	P	S01	Propane, 2-nitro- (I,T)
355	U172	1	P	S01	1-Butanamine, N-butyl-N-nitroso- (T)
355	U172	1	P	S01	N-Nitrosodi-n-butylamine (T)
356	U173	1	P	S01	Ethanol, 2,2'-(nitrosoimino)bis- (T)
356	U173	1	P	S01	N-Nitrosodiethanolamine (T)
357	U174	1	P	S01	Ethanamine, -ethyl-N-nitroso- (T)
357	U174	1	P	S01	N-Nitrosodiethylamine (T)
358	U176	1	P	S01	N-Nitroso-N-ethylurea (T)
358	U176	1	P	S01	Urea, N-ethyl-N-nitroso- (T)
359	U177	1	P	S01	N-Nitroso-N-methylurea (T)
359	U177	1	P	S01	Urea, N-methyl-N-nitroso- (T)
360	U178	1	P	S01	Carbamic acid, methylnitroso-, ethyl ester (T)
360	U178	1	P	S01	N-Nitroso-N-methylurethane (T)
361	U179	1	P	S01	N-Nitrosopiperidine (T)
361	U179	1	P	S01	Piperidine, 1-nitroso- (T)
362	U180	1	P	S01	N-Nitrosopyrrolidine (T)
362	U180	1	P	S01	Pyrrolidine, 1-nitroso- (T)
363	U181	1	P	S01	Benzenamine, 2-methyl-5-nitro- (T)
363	U181	1	P	S01	5-Nitro-o-toluidine (T)
364	U182	1	P	S01	1,3,5-Trioxane, 2,4,6-trimethyl- (T)
364	U182	1,500	P	S01	Paraldehyde (T)
365	U183	1	P	S01	Benzene, pentachloro- (T)
365	U183	2	P	S01	Pentachlorobenzene (T)
366	U184	1	P	S01	Ethane, pentachloro- (T)
366	U184	1	P	S01	Pentachloroethane (T)
367	U185	1	P	S01	Benzene, pentachloronitro- (T)
367	U185	1	P	S01	Pentachloronitrobenzene (PCNB) (T)

7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
368	U186	1	P	S01	1-Methylbutadiene (I)
368	U186	1	P	S01	1,3-Pentadiene (I)
369	U187	1	P	S01	Acetamide, -(4-ethoxyphenyl)- (T)
369	U187	1	P	S01	Phenacetin (T)
370	U188	4	P	S01	Phenol (T)
371	U189	1	P	S01	Phosphorus sulfide (R)
371	U189	1	P	S01	Sulfur phosphide (R)
372	U190	20	P	S01	1,3-Isobenzofurandione (T)
372	U190	1	P	S01	Phthalic anhydride (T)
373	U191	1	P	S01	2-Picoline (T)
373	U191	1	P	S01	Pyridine, 2-methyl- (T)
374	U192	1	P	S01	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)- (T)
374	U192	1	P	S01	Pronamide (T)
375	U193	1	P	S01	1,2-Oxathiolane, 2,2-dioxide (T)
375	U193	1	P	S01	1,3-Propane sultone (T)
376	U194	1	P	S01	1-Propanamine (I,T)
376	U194	1	P	S01	n-Propylamine (I,T)
377	U196	175	P	S01	Pyridine (T)
378	U197	1	P	S01	p-Benzoquinone (T)
378	U197	1	P	S01	2,5-Cyclohexadiene-1,4-dione (T)
379	U200	1	P	S01	Reserpine (T)
379	U200	1	P	S01	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester,(3beta,16beta,17alpha,18beta,20alpha)- (T)
380	U201	1	P	S01	1,3-Benzenediol (T)
380	U201	2	P	S01	Resorcinol (T)
381	U203	1	P	S01	1,3-Benzodioxole, 5-(2-propenyl)- (T)
381	U203	1	P	S01	Safrole (T)
382	U204	2	P	S01	Selenious acid (T)
382	U204	2	P	S01	Selenium dioxide (T)
383	U205	1	P	S01	Selenium sulfide (T)
383	U205	1	P	S01	Selenium sulfide SeS2 (R,T)
384	U206	1	P	S01	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D- (T)
384	U206	1	P	S01	D-Glucose, 2-deoxy-2-[[[(methylnitrosoamino)-carbonyl]amino]- (T)
384	U206	1	P	S01	Streptozotocin (T)
385	U207	1	P	S01	Benzene, 1,2,4,5-tetrachloro- (T)
385	U207	1	P	S01	1,2,4,5-Tetrachlorobenzene (T)
386	U208	1	P	S01	Ethane, 1,1,1,2-tetrachloro- (T)
386	U208	1	P	S01	1,1,1,2-Tetrachloroethane (T)
387	U209	1	P	S01	Ethane, 1,1,2,2-tetrachloro- (T)
387	U209	20	P	S01	1,1,2,2-Tetrachloroethane (T)
388	U210	1	P	S01	Ethene, tetrachloro- (T)
388	U210	1,500	P	S01	Tetrachloroethylene (T)
389	U211	140	P	S01	Carbon tetrachloride (T)
389	U211	30	P	S01	Methane, tetrachloro- (T)
390	U213	1	P	S01	Furan, tetrahydro-(I)
390	U213	1,200	P	S01	Tetrahydrofuran (I)
391	U214	1	P	S01	Acetic acid, thallium(1 +) salt (T)
391	U214	1	P	S01	Thallium(I) acetate (T)
392	U215	1	P	S01	Carbonic acid, dithallium(1 +) salt (T)
392	U215	1	P	S01	Thallium(I) carbonate (T)
393	U216	1	P	S01	Thallium(I) chloride (T)
393	U216	1	P	S01	Thallium chloride TlCl (T)
394	U217	1	P	S01	Nitric acid, thallium(1 +) salt (T)
394	U217	1	P	S01	Thallium(I) nitrate (T)
395	U218	1	P	S01	Ethanethioamide (T)

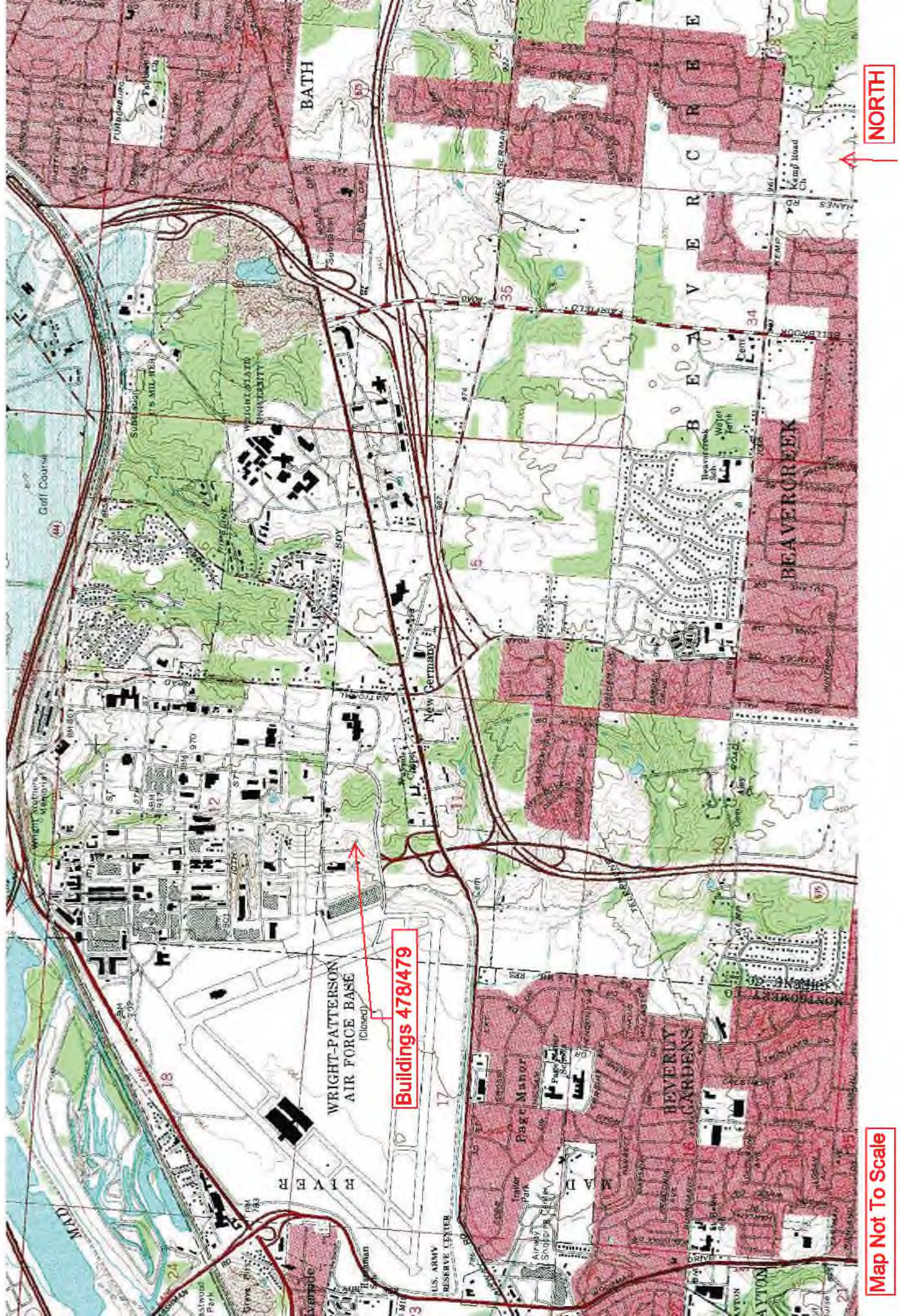
7. Description of Hazardous Waste Table

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
395	U218	1	P	S01	Thioacetamide (T)
396	U219	1	P	S01	Thiourea (T)
397	U220	1	P	S01	Benzene, methyl- (T)
397	U220	2,200	P	S01	Toluene (T)
398	U221	1	P	S01	Benzenediamine, ar-methyl- (T)
398	U221	2	P	S01	Toluenediamine (T)
399	U222	1	P	S01	Benzenamine, 2-methyl-, hydrochloride (T)
399	U222	1	P	S01	o-Toluidine hydrochloride (T)
400	U223	1	P	S01	Benzene, 1,3-diisocyanatomethyl- (R,T)
400	U223	1	P	S01	Toluene diisocyanate (R,T)
401	U225	1	P	S01	Bromoform (T)
401	U225	1	P	S01	Methane, tribromo- (T)
402	U226	1	P	S01	Ethane, 1,1,1-trichloro- (T)
402	U226	1	P	S01	Methyl chloroform (T)
402	U226	4,500	P	S01	1,1,1-Trichloroethane (T)
403	U227	1	P	S01	Ethane, 1,1,2-trichloro- (T)
403	U227	40	P	S01	1,1,2-Trichloroethane (T)
404	U228	1	P	S01	Ethene, trichloro- (T)
404	U228	1,530	P	S01	Trichloroethylene (T)
405	U234	1	P	S01	Benzene, 1,3,5-trinitro- (T)
405	U234	1	P	S01	1,3,5-Trinitrobenzene (R,T)
406	U235	1	P	S01	1-Propanol, 2,3-dibromo-, phosphate (3:1) (T)
406	U235	1	P	S01	Tris(2,3-dibromopropyl) phosphate (T)
407	U236	1	P	S01	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt (T)
407	U236	1	P	S01	Trypan blue (T)
408	U237	1	P	S01	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]- (T)
408	U237	1	P	S01	Uracil mustard (T)
409	U238	1	P	S01	Carbamic acid, ethyl ester (T)
409	U238	1	P	S01	Ethyl carbamate (urethane) (T)
410	U239	1	P	S01	Benzene, dimethyl- (I,T)
410	U239	1,155	P	S01	Xylene (I)
411	U240	1	P	S01	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters (T)
411	U240	1	P	S01	2,4-D, salts & esters (T)
412	U243	1	P	S01	Hexachloropropene (T)
412	U243	1	P	S01	1-Propene, 1,1,2,3,3,3-hexachloro- (T)
413	U244	1	P	S01	Thioperoxydicarbonic diamide [(H2N)C(S)]2 S2, tetramethyl- (T)
413	U244	1	P	S01	Thiram (T)
414	U246	1	P	S01	Cyanogen bromide (CN)Br (T)
415	U247	1	P	S01	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy- (T)
415	U247	1	P	S01	Methoxychlor (T)
416	U248	1	P	S01	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less (T)
416	U248	1	P	S01	Warfarin, & salts, when present at concentrations of 0.3% or less (T)
417	U249	1	P	S01	Zinc phosphide Zn3 P2, when present at concentrations of 10% or less (T)
418	U271	1	P	S01	Benomyl (T)
418	U271	1	P	S01	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester (T)
419	U278	1	P	S01	Bendiocarb (T)
419	U278	1	P	S01	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate (T)
420	U279	1	P	S01	Carbaryl (T)
420	U279	1	P	S01	1-Naphthalenol, methylcarbamate (T)

7. Description of Hazardous Waste Table

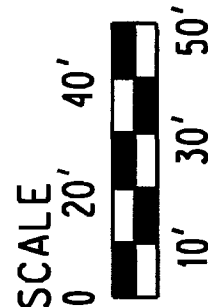
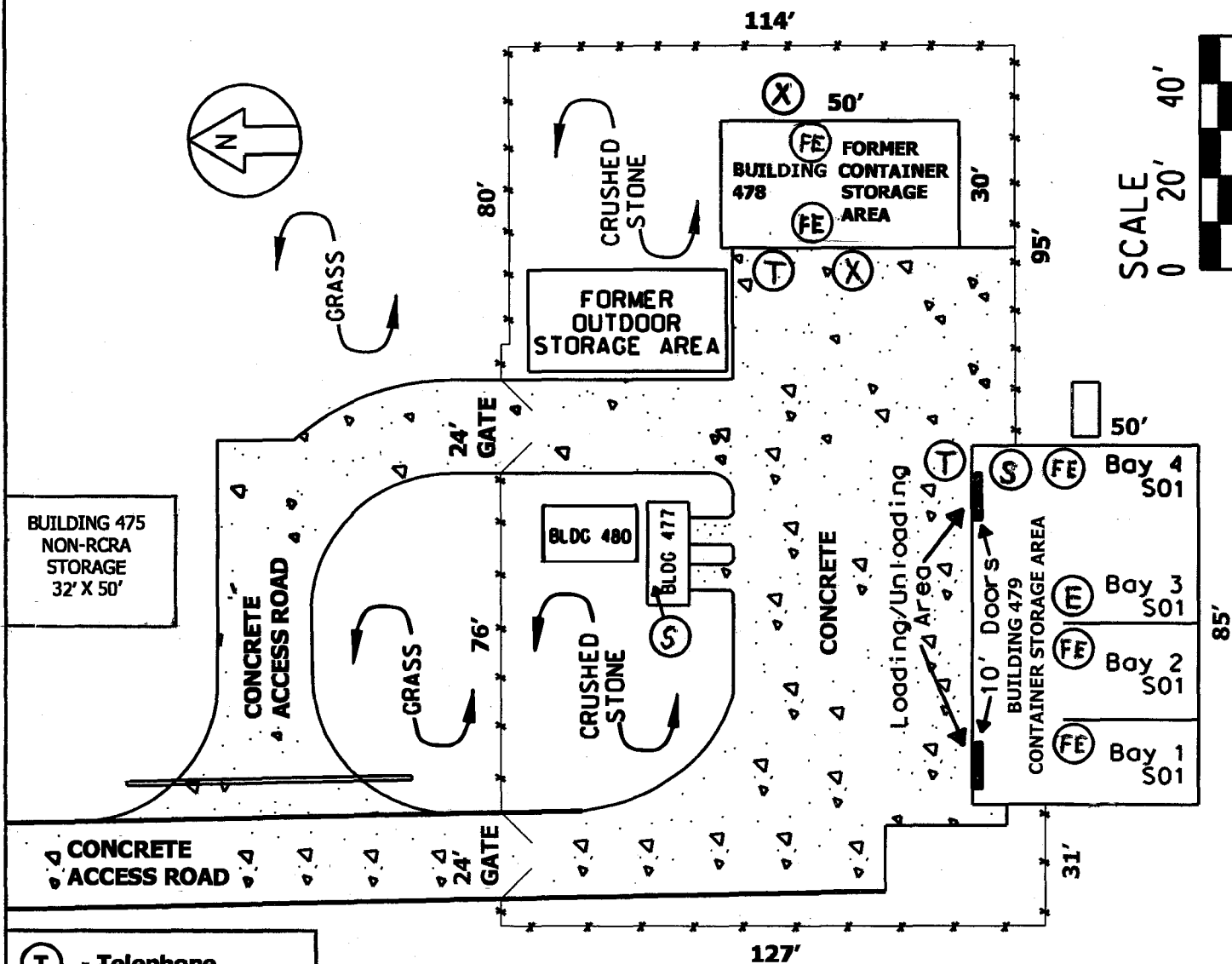
Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes	
				(1) Process Codes	(2) Process Description (if code is not entered in 7.D1))
421	U280	1	P	S01	Barban (T)
421	U280	1	P	S01	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester (T)
422	U328	1	P	S01	Benzenamine, 2-methyl- (T)
422	U328	1	P	S01	o-Toluidine (T)
423	U353	1	P	S01	Benzenamine, 4-methyl- (T)
423	U353	1	P	S01	p-Toluidine (T)
424	U359	1	P	S01	Ethanol, 2-ethoxy- (T)
424	U359	1	P	S01	Ethylene glycol monoethyl ether (T)
425	U364	1	P	S01	Bendiocarb phenol (T)
425	U364	1	P	S01	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, (T)
426	U367	1	P	S01	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl- (T)
426	U367	1	P	S01	Carbofuran phenol (T)
427	U372	1	P	S01	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester (T)
427	U372	1	P	S01	Carbendazim (T)
428	U373	1	P	S01	Carbamic acid, phenyl-, 1-methylethyl ester (T)
428	U373	1	P	S01	Propham (T)
429	U387	1	P	S01	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester (T)
429	U387	1	P	S01	Prosulfocarb (T)
430	U389	1	P	S01	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester (T)
430	U389	1	P	S01	Triallate (T)
431	U394	1	P	S01	A2213 (T)
431	U394	1	P	S01	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester (T)
432	U395	1	P	S01	Diethylene glycol, dicarbamate (T)
432	U395	1	P	S01	Ethanol, 2,2'-oxybis-, dicarbamate (T)
433	U404	1	P	S01	Ethanamine, N,N-diethyl- (T)
433	U404	1	P	S01	Triethylamine (T)
434	U409	1	P	S01	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester (T)
434	U409	1	P	S01	Thiophanate-methyl (T)
435	U410	1	P	S01	Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester (T)
435	U410	1	P	S01	Thiodicarb (T)
436	U411	1	P	S01	Phenol, 2-(1-methylethoxy)-, methylcarbamate (T)
436	U411	1	P	S01	Propoxur (T)
437	F027	1	P	S01	Acetic acid, (2,4,5-trichlorophenoxy)- (T)
437	F027	1	P	S01	Pentachlorophenol (T)
437	F027	1	P	S01	Phenol, pentachloro- (T)
437	F027	1	P	S01	Phenol, 2,3,4,6-tetrachloro- (T)
437	F027	1	P	S01	Phenol, 2,4,5-trichloro- (T)
437	F027	1	P	S01	Phenol, 2,4,6-trichloro- (T)
437	F027	1	P	S01	Propanoic acid, 2-(2,4,5-trichlorophenoxy)- (T)
437	F027	1	P	S01	Silvex (2,4,5-TP) (T)
437	F027	1	P	S01	2,4,5-T (T)
437	F027	1	P	S01	2,3,4,6-Tetrachlorophenol (T)
437	F027	1	P	S01	2,4,5-Trichlorophenol (T)
437	F027	1	P	S01	2,4,6-Trichlorophenol (T)

8. Map of Facility



9. BUILDINGS 20479 FACILITY DRAWING

Revision 0
November 2020



- (T) - Telephone
- (X) - Fire Alarm
- (FE) - Fire Extinguisher
- (E) - Eyewash
- (S) - Spill Equipment

10. Photographs

REVISION 0
NOVEMBER 2020



Building 479 (S01 Storage)

**REVISION 0
NOVEMBER 2020**



Building 479 (S01 Ignitable Storage Bay)

REVISION 0
NOVEMBER 2020



Building 479 (S01 Corrosive Storage Bay)

REVISION 0
NOVEMBER 2020



Building 479 (S01 Toxic Storage Bay)

MAIL THE COMPLETED FORM TO: Ohio EPA, DERR P.O. Box 1049 Columbus, OH 43216-1049	 RCRA SUBTITLE C SITE IDENTIFICATION FORM		For Ohio EPA Use Only
1. Reason for Submittal	Reason for Submittal: ☐ Obtaining or updating an EPA ID number for regulated activity ☐ As a component of the Hazardous Waste Report for the year ____ ☐ Notifying that regulated activity is no longer occurring at this site ☒ As a component of a First or Revised RCRA Hazardous Waste Part A Permit Application		
2. Site EPA ID Number	OH7571724312		
3. Site Name	WRIGHT-PATTERSON AIR FORCE BASE		
4. Site Location Information	Street Address: 1918 13 TH STREET		
	City, Town, or Village: WPAFB		County: GREENE
	State: OH	Country: USA	Zip: 45433
5. Site Land Type	☐ Private ☐ County ☐ District ☒ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other		
6. North American Industry Classification System (NAICS)	A. (Primary) 928110		B.
	C.		D.
7. Site Contact Person:	First Name: ZACHARY		MI: M
	Last Name: OLDS		
	Title: COMPLIANCE SECTION CHIEF		
	Street or P.O. Box: 1450 LITTRELL ROAD		
	City, Town or Village: WPAFB		
	State: OH	Country: USA	Zip Code: 45433
	E-mail: ZACHARY.OLDS@US.AF.MIL		
	Phone & Ext.: (937) 257-9009		Fax: N/A
8. Legal Owner and Operator of the Site Additional Owners and/or Operators should be listed in the Comment Section or on another copy of this form page.	Name of Site's Legal Owner: UNITED STATES AIR FORCE		Date Became Owner (mm/dd/yyyy): 01/13/1948
	Owner Type: ☐ Private ☐ County ☐ District ☒ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other		
	Street or P.O. Box: 5135 Pearson Rd		City: WPAFB
	State: OH	Country: USA	Zip Code: 45433
	Email: 88abw.cc@us.af.mil		Phone: (937) 257-8800
	Name of Site's Operator: UNITED STATES AIR FORCE		Date Became Operator (mm/dd/yyyy): 01/13/1948
	Operator Type: ☐ Private ☐ County ☐ District ☒ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other		
	Street or P.O. Box: 5135 Pearson Rd		City: WPAFB
	State: OH	Country: USA	Zip Code: 45433
	Email: 88abw.cc@us.af.mil		Phone: (937) 257-8800

9.	Type of Regulated Waste Activity (If "Yes" Mark "X" in the appropriate boxes.)																	
A. Hazardous Waste Activities: 1. Generator of Hazardous Waste (choose only one of the following three categories or leave blank if not a Generator) ☒ a. Large Quantity Generator (LQG): Greater than 1,000 kg/mo (2,200 lbs.) of non-acute hazardous waste; or ☐ b. Small Quantity Generator (SQG): 100 to 1,000 kg/mo (220-2,200 lbs.) of non-acute hazardous waste; or ☐ c. Conditionally Exempt Small Quantity Generator (CESQG): Less than 100 kg/mo of non-acute hazardous waste In addition, indicate other generator activities (check all that apply) ☐ d. Temporary Generator (generate from a one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments. ☐ e. Episodic Generator (a CESQG or SQG with an episodic event of limited duration that has put the site into a higher generator category) ☒ f. Mixed Waste (hazardous and radioactive) Generator 2. Hazardous Waste Report Generator Status (choose one only if the Reason for Submittal is the Hazardous Waste Report) ☒ a. Large Quantity Generator (LQG): Greater than 1,000 kg (2,200 lbs.) of non-acute hazardous waste was generated at the site in any one month; or ☐ b. Small Quantity Generator (SQG): In one or more months, the site generated greater than 100 kg (220 lbs.) but in no month, did it generate more than 1,000 kg (2,200 lbs.) of non-acute hazardous waste; or ☐ c. Conditionally Exempt Small Quantity Generator (CESQG): The site generated no more than 100 kg (220 lbs.) of non-acute hazardous waste in any one month; or ☐ d. Non-Generator: The site did not generate any hazardous waste during the calendar year. 3. Transporter of Hazardous Waste ☐ a. Transporter ☐ b. Transfer Facility (at your site) ☒ 4. Treater, Storer or Disposer of Hazardous Waste (at your site) Note: A hazardous waste permit is required for this activity. 5. Recycler of Hazardous Waste (at your site) Note: A hazardous waste permit may be required for this activity. ☐ a. Recycler who stores prior to recycling ☐ b. Recycler who does not store prior to recycling ☐ c. 72-hour Recycler 6. Exempt Boiler and/or Industrial Furnace ☐ a. Small Quantity On-site Burner Exemption ☐ b. Smelting, Melting and Refining Furnace Exemption ☐ 7. Underground Injection Control ☒ 8. Receives Hazardous Waste from Off-site ☐ 9. United States Importer of Hazardous Waste 10. Recognized Trader ☐ a. Importer ☐ b. Exporter 11. Spent Lead Acid Battery ☐ a. Importer ☐ b. Exporter ☐ 12. Electronic Manifest Broker																		
B. Universal Waste Activities 1. Large Quantity Handler of Universal Waste (accumulate 5,000 kg or more): <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 20%; text-align: center;"><u>Managed</u></th> </tr> </thead> <tbody> <tr><td>a. Batteries</td><td style="text-align: center;">☒</td></tr> <tr><td>b. Pesticides</td><td style="text-align: center;">☒</td></tr> <tr><td>c. Mercury Containing Equipment</td><td style="text-align: center;">☒</td></tr> <tr><td>d. Lamps</td><td style="text-align: center;">☒</td></tr> <tr><td>e. Aerosol Cans</td><td style="text-align: center;">☒</td></tr> <tr><td>f. Antifreeze</td><td style="text-align: center;">☐</td></tr> <tr><td>g. Paint / Paint Related</td><td style="text-align: center;">☐</td></tr> </tbody> </table> ☐ 2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity. C. Used Oil Activities: 1. Used Oil Transporter ☐ a. Transporter ☐ b. Transfer Facility (at your site) 2. Used Oil Processor and/or Re-refiner ☐ a. Processor ☐ b. Re-refiner ☐ 3. Off-Specification Used Oil Burner 4. Used Oil Fuel Marketer ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications				<u>Managed</u>	a. Batteries	☒	b. Pesticides	☒	c. Mercury Containing Equipment	☒	d. Lamps	☒	e. Aerosol Cans	☒	f. Antifreeze	☐	g. Paint / Paint Related	☐
	<u>Managed</u>																	
a. Batteries	☒																	
b. Pesticides	☒																	
c. Mercury Containing Equipment	☒																	
d. Lamps	☒																	
e. Aerosol Cans	☒																	
f. Antifreeze	☐																	
g. Paint / Paint Related	☐																	

D. Eligible Academic Entities with Laboratories – Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to OAC rules 3745-52-200 through 3745-52-216 ☐ 1. Opting into or currently operating under OAC rules 3745-52-200 through 3745-52-216 for the management of hazardous wastes in laboratories. Mark all that apply: ☐ a. College or University ☐ b. Teaching hospital that is owned by or has a formal written affiliation agreement with a college or university ☐ c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university ☐ 2. Withdrawing from OAC rules 3745-52-200 through 3745-52-216 for the management of hazardous waste in laboratories					
10.	Waste codes for Federally Regulated Hazardous Wastes. Please list the codes for the federally regulated hazardous waste handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more space is needed.				
	D001	D002	D003	D004	D005
	D007	D008	D009	D010	D011
	D013	D014	D015	D016	D017
	D019	D020	D021	D022	D023
					D006
					D012
					D018
					D024
11.	Comments REPORTED WEIGHTS ARE DERIVED BY ROUNDING CONTAINER WEIGHTS UP. ACTUAL WEIGHTS TRACKED MAY VARY SLIGHTLY FROM THOSE REPORTED.				
12. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or person who manage the system, or those persons directly responsible for gathering the information, the information is submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.					
Signature of owner, operator, or an authorized representative MILLER.PATRICK.G.1039670280 Digitally signed by MILLER.PATRICK.G.1039670280 Date: 2020.12.17 16:18:57 -05'00'			Name (type or print) PATRICK G. MILLER		
Email PATRICK.MILLER.7@US.AF.MIL		Official Title COLONEL, USAF, COMMANDER		Date (mm/dd/yyyy) 12/17/2020	
Signature of owner, operator, or an authorized representative			Name (type or print)		
Email		Official Title		Date (mm/dd/yyyy)	

WRIGHT-PATTERSON AIR FORCE BASE

RCRA SUBTITLE C SITE IDENTIFICATION FORM

Block 10 Additional Waste Codes:

D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043, F001, F002, F003, F004, F005, F006, F007, F008, F009, F010, F011, F012, F019, F020, F021, F022, F023, F024, F025, F026, F027, F028, F039, P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, P012, P013, P014, P015, P016, P017, P018, P020, P021, P022, P023, P024, P026, P027, P028, P029, P030, P031, P033, P034, P036, P037, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P054, P056, P057, P058, P059, P060, P062, P063, P064, P065, P066, P067, P068, P069, P070, P071, P072, P073, P074, P075, P076, P077, P078, P081, P082, P084, P085, P087, P088, P089, P092, P093, P094, P095, P096, P097, P098, P099, P101, P102, P103, P104, P105, P106, P108, P109, P110, P111, P112, P113, P114, P115, P116, P118, P119, P120, P121, P122, P123, P127, P128, P185, P188, P189, P190, P191, P192, P194, P196, P197, P198, P199, P201, P202, P203, P204, P205, U001, U002, U003, U004, U005, U006, U007, U008, U009, U010, U011, U012, U014, U015, U016, U017, U018, U019, U020, U021, U022, U023, U024, U025, U026, U027, U028, U029, U030, U031, U032, U033, U034, U035, U036, U037, U038, U039, U041, U042, U043, U044, U045, U046, U047, U048, U049, U050, U051, U052, U053, U055, U056, U057, U058, U059, U060, U061, U062, U063, U064, U066, U067, U068, U069, U070, U071, U072, U073, U074, U075, U076, U077, U078, U079, U080, U081, U082, U082, U083, U084, U085, U086, U087, U088, U089, U090, U091, U092, U093, U094, U095, U096, U097, U098, U099, U101, U102, U103, U105, U106, U107, U108, U109, U110, U111, U112, U113, U114, U115, U116, U117, U118, U119, U120, U121, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U133, U134, U135, U136, U137, U138, U140, U141, U142, U143, U144, U145, U146, U147, U148, U149, U150, U151, U152, U153, U154, U155, U156, U157, U158, U159, U160, U161, U162, U163, U164, U165, U166, U167, U168, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U186, U187, U188, U189, U190, U191, U192, U193, U194, U196, U197, U200, U201, U202, U203, U204, U205, U206, U207, U208, U209, U210, U211, U213, U214, U215, U216, U217, U218, U219, U220, U221, U222, U223, U225, U226, U227, U228, U234, U235, U236, U237, U238, U239, U240, U243, U244, U246, U247, U248, U249, U271, U278, U279, U280, U328, U353, U359, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409, U410, U411

SECTION B

FACILITY DESCRIPTION

This section provides a general description of the hazardous waste management unit (HWMU) as required by 40 CFR 270.14(b) and OAC 3745-50-41. The following description is intended to acquaint the permit application reviewer and permit writer with an overview of the facility. More complete details can be found in other parts of this permit application.

B-1 General Description [40 CFR 270.14(b)(1) Guidance]

In 1980, the Department of Defense (DoD) designated the Defense Logistics Agency (DLA) as the organization responsible for the disposal of hazardous materials/wastes. The DLA Disposition Services (DLA-DS) manages the disposal of hazardous waste for DoD activities, maximizing the use of each item and minimizing environmental risks and costs. The DLA-DS does not dispose of radiological or radioactive mixed waste. This responsibility falls to the U. S. Army. The liason for radioactive mixed waste is the Air Force Radioactive Recycling and Disposal (AFRRAD) office located at Wright-Patterson Air Force Base. The Installation Management Division is responsible for the day-to-day activities of accepting hazardous materials/wastes from DoD generators and for disposing of these items in an approved manner.

WPAFB is located in southwestern Ohio east of the city of Dayton. The base occupies 8,145 acres and is composed of two airfields (Wright and Patterson) separated by State Route 444 and the Consolidated Rail Corporation Tracks. Wright Field, designated as Area B, is situated in Montgomery and Greene counties. Patterson Field, composed of Area A, is located in Greene County except for 1.5 miles adjacent to the Mad River in Montgomery County. Clark County abuts the base at the northeast property line.

Area B encompasses approximately 2,840 acres and is bordered on the north by State Route 444 and Springfield Pike, on the east by Wright State University, on the south by Airway Road, and on the west by Harshman Road. Area B includes over 200 buildings (not including base housing). The western half of Area B was once used solely by the air runway system. Today, these runways are

no longer in service. The National Museum of the U. S. Air Force is now located in this area. Building 479, the existing hazardous waste container storage facility, is located in a sparsely populated area near the Southern boundary of Area B.

NATURE OF OPERATIONS

Wright-Patterson Air Force Base (WPAFB) is one of the nation's most important military installations. The base is the headquarters for vast, worldwide logistics systems and is the foremost research and development center in the U.S. Air Force. More than 110 organizations representing a broad spectrum of Air Force and Department of Defense (DoD) activities are located at WPAFB and scattered among nine states. By many measures, the base is the largest, most diverse and organizationally complex in the Air Force and can be compared to a large industrial park or medium-size community.

WPAFB is the largest employer in the state at a single location and the largest employer among U.S. Air Force bases worldwide. Civilian workers comprise more than half of the work force.

Air Force Materiel Command (AFMC), one of ten major commands in the Air Force, has its headquarters at WPAFB. The mission of AFMC is to research, develop, test, deliver, and sustain every Air Force weapon system -- from the drawing board, through its operational life, to its final disposition.

The command's work force of military and civilian employees operates major product centers, a laboratory, test centers, and logistics centers throughout the United States. It is the Air Force's largest command in terms of civilian employees and funding.

The Air Force Research Laboratory (AFRL) at WPAFB is assigned to AFMC. AFRL consists of four directorates: Aerospace Systems, 711 Human Performance Wing, Materials and Manufacturing, Propulsion and Sensors.

Air Force Life Cycle Management Center (AFLCMC), headquartered at WPAFB, Ohio is responsible for the acquisition, research, development, test evaluation, and support of Air Force aeronautical systems and related equipment. It is the largest research and development center of AFMCLC.

Priorities under AFLCMC acquisition management include streamlining acquisition processes while strengthening strategic and conventional forces, expanding airlift capabilities, and modernizing and expanding the combat air forces.

Other organizations generating hazardous waste at WPAFB include the following:

The 88th Air Base Wing Maintenance Unit generates waste oil.

The Air Force Institute of Technology is a component of Air University that is responsible for the scientific, engineering, managerial, medical, and related professional education of Air Force officers. The research laboratories generate various laboratory chemical wastes.

The USAF Medical Center provides in-patient and out-patient medical service to local military personnel and their families. It also provides specialty care for personnel throughout the U.S. This center also provides emergency response care in the event of an emergency related to the base's hazardous waste storage facility, and generates various medical and laboratory chemical wastes.

The 445th Airlift Wing Reserves Unit conducts aircraft maintenance on aircraft and generates solvents and waste oil.

The National Museum of the U. S. Air Force displays items of current and historical significance in military aviation. The aircraft restoration and preservation and exhibits division generates solvents, paints, and thinners.

The AFRRAD office provides disposal and recycling services for all DoD branches and receives mixed waste from off-site DoD installations for storage only.

The point of contact for the hazardous waste management activities at Wright Patterson AFB is:

Zachary Olds
88th CEG/CEI

B-2 Topographic Map [40 CFR 270.14 (b)(19)]

Figure B-1 is the United States Geological Survey 7.5-minute series map for the Fairborn, Ohio quadrangle, which encompasses WPAFB and shows topographic features in the region of Building 479.

Map 1, the Location and Site Plan includes contours sufficient to show surface water flow in the vicinity of and down gradient from Building 479. Map 1 also indicates the location of storm drainage ditches down gradient from Building 479.

B-3 General Requirements

B-3a(1) Land Uses

The land surrounding Building 479 is an Air Force Base. There are no residential areas within 1,000 feet of Building 479.

B-3a(2) Hazardous Waste Management Unit Facility Boundary

Building 479 is located more than 1,600 feet northwest of the nearest boundary of WPAFB (Map 2).

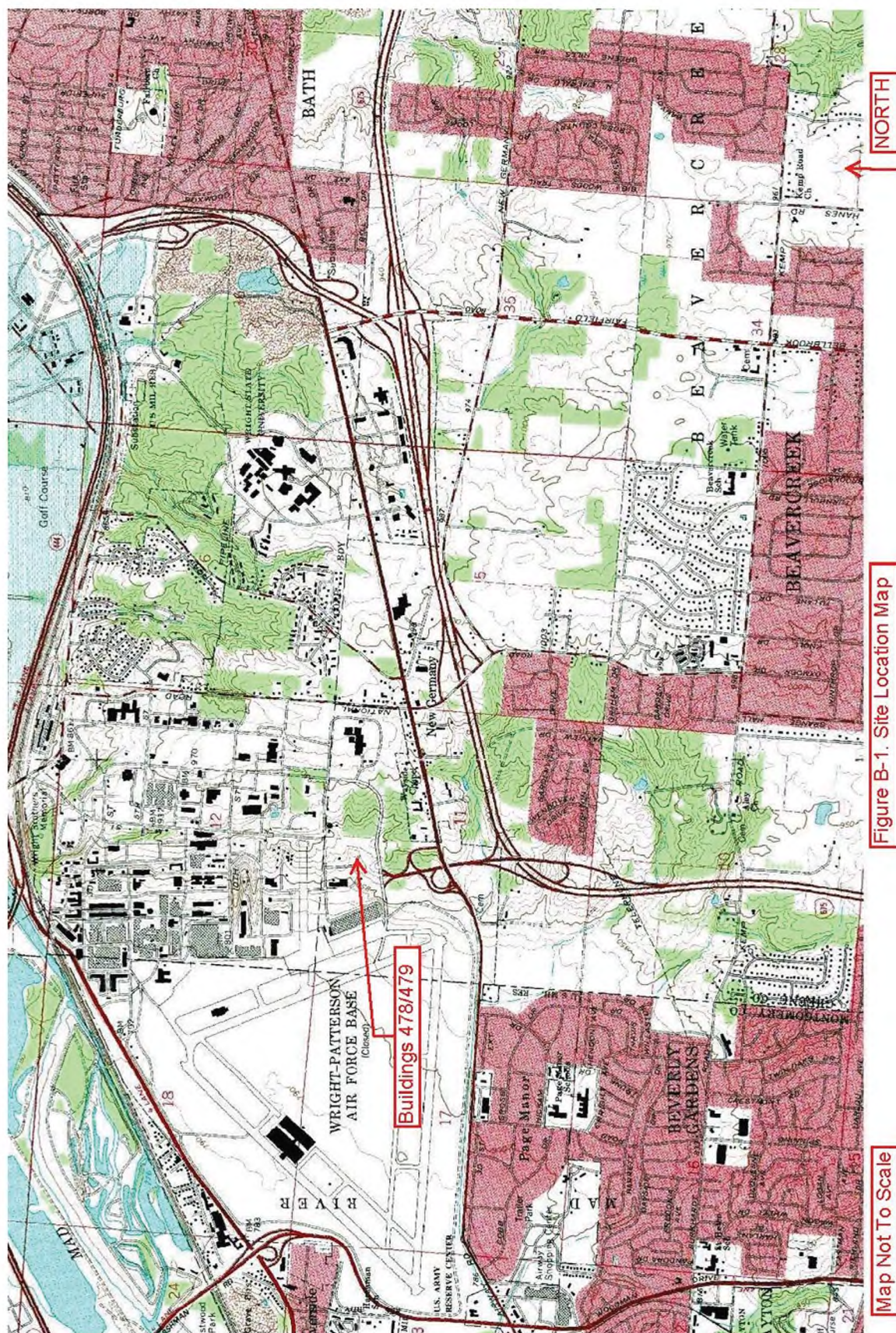
B-3a(3) Wind Rose

Figure B-2 illustrates the most recent annual wind rose of meteorological data collected at WPAFB by the Weather Squadron.

B-3a(4) Access Control

Area B of WPAFB is enclosed by a 6-foot-high-metal chain-link fence topped with three strands of barbed wire. Access to the base is controlled by 88th Air Base Wing Security Forces Squadron, and only those with proper authorization are permitted to enter.

Access to this facility is controlled. The entrance to facility 479 is also enclosed by a



This wind rose shows the total percent of winds by speed group and direction based on true bearing.

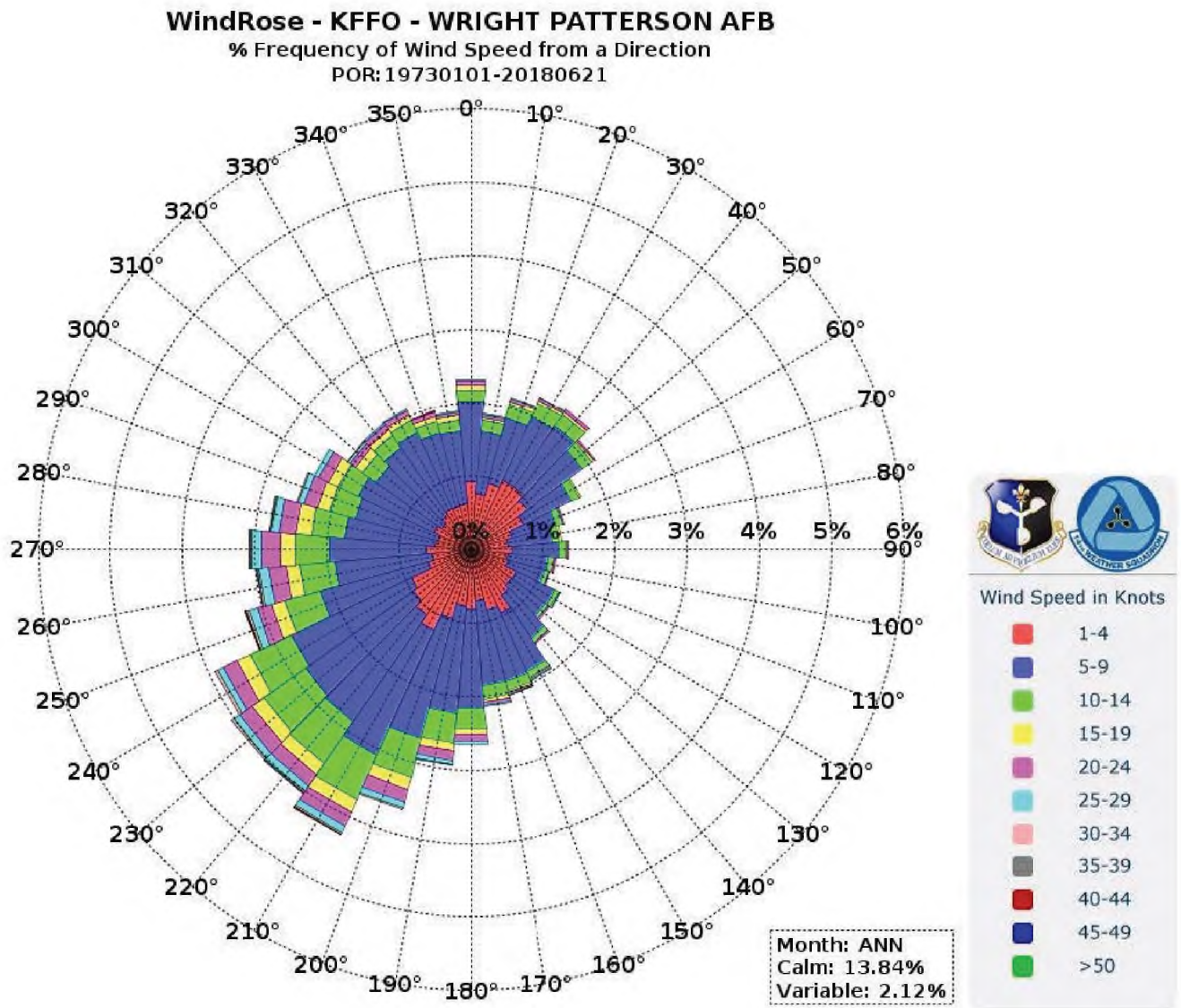


Figure B-2. Annual Wind Rose

chain-link fence and barbed wire, and access is controlled. Gates to Building 479 are locked when not in use.

B-3a(5) Injection and Withdrawal Wells

There are no known injection or withdrawal wells within 1,000 feet of Buildings 478 or 479. The base water supply is taken from groundwater wells in areas A and B of the base. There are ten active wells (see Map 3) at the base. All water supply wells are located in highly permeable glacial deposits and average approximately 60 feet in depth.

B-3a(6) Buildings, Treatment, Storage, Disposal Areas, and Other Structures

Building 478 is a one-story concrete block building 30 ft by 50 ft in dimension. There will be no storage of hazardous waste adjacent to or inside of Building 478.

Building 479 is a 50 ft by 85 ft one-story, four-sided structure with a concrete slab foundation. All drums and containers will be loaded and unloaded in the contained area within Building 479, through the access doors located at the east and west ends on the northern side of the building.

Building 477 is a 9 ft by 24 ft portable concrete building with two separate bays (east and west) that is used for waste consolidation activities and empty container storage only. Building 477 will not be used for any waste storage.

Building 475 is a one-story metal structure with a concrete slab foundation located north of the fenced-in area. It is used to store used lamps as universal waste. Constructed in 2009, it was needed in anticipation of waste increases due to Base Realignment and Closure (BRAC) activities beginning in 2010. The floor is coated with a chemical resistant paint and the building does have secondary containment.

The three buildings, 477, 478 and 479, are adjacent to each other and share a reinforced concrete pad. Building 479 will be operated as a hazardous waste container storage facility. Figure B-3 presents the site plan for these buildings.

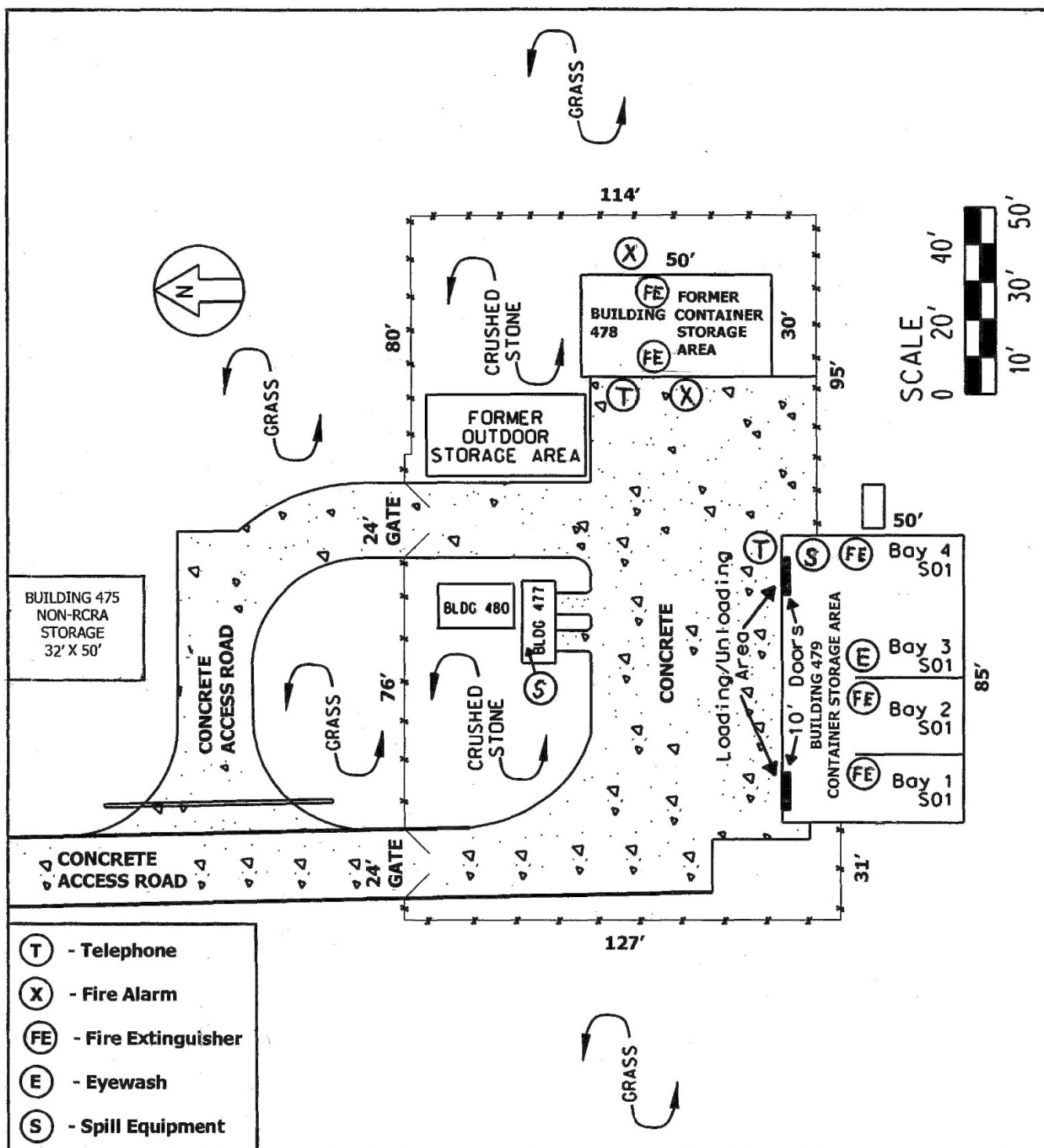


FIGURE B-3.
BUILDINGS 478/479 SITE PLAN

B-3a(7) Recreation Areas

No recreation areas are located within 1,000 feet of Buildings 478 or 479.

B-3a(8) Runoff Control Systems

The floors of Building 479 have collection trenches and the loading and unloading area pad are sloped to collection trenches.

B-3a(9) Storm, Sanitary, and Process Sewers

The storm and sanitary sewer systems are shown in Maps 4 and 5. There are no process sewers located at Building 479.

B-3a(10) Loading and Unloading Areas

The loading and unloading area for Building 479 is located on its northern side. This area consists of two concrete pads (the north ends of Bays 1 and 4) located inside the building. One pad is 15 ft by 20 ft, and the other is 15 ft by 25 ft. Both pads are sloped to inside collection trenches.

B-3a(11) Fire Control Facilities

There are three fire stations on the base. Station 3 is located within 3,000 feet of the facility. ABC fire extinguishers are available in Building 479 as shown on Figure B-3 (3 for Building 479). Fire hydrants are located near the facilities as shown on Map 2.

Additionally, Building 479 has an automatic fire suppression system. The fire suppression system for Building 479 was designed per the requirements of NFPA 30, “Flammable and Combustible Liquids Code.” The fire suppression media will be a foam solution consisting of 3% alcohol foam concentrate and 97% water. The system has a supply density of 0.3 gpm per square foot with enough capacity to provide a 15-minute foam supply over a 2,000-square-foot area.

The foam system is located in Building 478 in an equipment room with 2-hour fire-rated walls; access to the room is from outside the building only. The fire-suppression system is an air-pressurized, dry pipe system. When a sprinkler head opens, air pressure is released, causing the dry pipe valve to open and fill the sprinkler piping system. The foam solution is then dispersed through

the open sprinkler head(s) to Buildings 478 and 479. Standard sprinkler heads are used and are located just below each building's roof structure with a maximum spacing of 100 square feet per head. The sprinkler heads will activate at 165° F. Water flow will activate an audible alarm bell and send a signal to the building's fire alarm panel.

A fire department connection to the sprinkler system is installed at the intersection of 13th Street and the access road to the building. Appendix B-1 provides specifications on the fire-suppression system.

B-3a(12) Surface Waters

The base is primarily drained by the Mad River and its tributaries, which encompass a total area of 635 square miles. Drainage of the base is accomplished by overland flow to small streams such as Mudd Run, Hebble, or Trout Creeks. Streams run in two open culverts adjacent to Building 479 (113 and 205 feet from the area). All surface drainage associated with Building 479 is handled through WPAFB's existing NPDES permit.

B-3a(13) Flood Control/Drainage Barriers

Drainage from the area around Building 479 flows westward and terminates at the Mad River. None of the facilities are located in the 100-year floodplain. Building 479 is completely enclosed, preventing drainage into the facility.

B-4 Location Information [40 CFR 270.14(b)(11)]

B-4a Seismic Considerations [40 CFR 270.14(b)(11)(i) and (ii), 264.18(a) and 264 Appendix VI]

Building 479 is not located within 200 feet of a fault that has had displacement in Holocene time.

B-4b Floodplain Standard [40 CFR 270.14(b)(11)(iii) and 264.18(b)]

Building 479 is not within the 100-year floodplain (see Map 6).

B-5 Traffic Information

Access to WPAFB is shown in Map 2 - Base Map. Building 479 are located inside the fenced perimeter of the Air Force Base. This area is surrounded by 6-foot-high metal chain-link fence with gates that are locked during non-duty hours. Contractors will remove hazardous waste as necessary from the storage facilities using 24-foot closed vans and 40-foot trailers.

Wastes are shipped off base for disposal through licensed, commercial hazardous waste transporters. All wastes are packaged and labeled according to DOT specifications. All arrangements for shipment and the actual shipment of hazardous wastes from Area A to Area B of the base are coordinated through the Installation Management Division, if required.

B-5a Traffic Pattern [40 CFR 270.14(b)(10)]

Transportation of waste materials is permitted only along pre-designated routes. The prescribed route to and from the storage facility (Building 479) prevents the waste shipments from passing base housing and the base hospital.

All waste shipments from Area A destined for Building 479 in Area B must exit through Gate 15A, then south on I-675 and enter Area B through Gate 22B. Once through the gate, vehicles take a right turn on Loop Road, a left on 13th Street, and a left onto the access road leading to Buildings 478 and 479. The primary routes inbound and outbound for transportation of waste shipments to and from Buildings 479 are shown on Map 7.

B-5b Traffic Control

Every effort is made to minimize the risk of transportation accidents at WPAFB. Hazardous wastes are transported off base for disposal only by DLA approved commercial hazardous waste transporters. Wastes are packaged, labeled, and transported according to all applicable U. S. DOT Regulations. Transportation of hazardous waste within the base is allowed along pre-designated routes only.

Traffic regulations within WPAFB are enforced by the 88th Security Forces Squadron. Yield signs or stop signs are positioned at all intersections along the pre-designated route to control the flow of traffic. Roads along the pre-designated route are designed, constructed, and maintained to safely handle all waste shipments.

Traffic accident information for the hazardous waste transportation routes identified is compiled by the Reports and Analysis Section of WPAFB's 88th Security Forces Squadron. Whenever possible, incoming and outgoing shipments from Building 479 will be scheduled to avoid high-accident time periods.

B-5c Access Road Surfacing

All roads are constructed of either asphalt or 8-inch concrete overlaying an 8-inch base of compacted aggregate.

B-5d Load-Bearing Capacity

The gross loaded weight of the largest shipment of waste is 60,000 to 80,000 pounds. The base roads are designed for loads of 18,000 pounds per single axle and 32,000 pounds per dual axle, thereby being able to withstand this type of load.

APPENDIX B-1
FIRE SUPPRESSION SPECIFICATIONS
BUILDINGS 478/479

SECTION C

WASTE CHARACTERISTICS

This section describes the chemical and physical nature of the hazardous wastes stored at Wright-Patterson AFB (Building 479) and the Waste Analysis Plan for sampling, testing and evaluating the wastes to assure that sufficient information is available for the safe handling and storage of the waste. The information submitted is in accordance with the requirements of OAC 3745-50-44(A)(2), 3745-50-44(A)(3), and 3745-54-13(A).

Due to the nature of operations at WPAFB the Installation Management Division may be requested to accept any listed or characteristic hazardous wastes (except K-wastes).

C-1 Chemical and Physical Analysis [270.14(b)(2), 264.13(a)]

Wastes stored at Building 479 are generated by research labs and industrial shops at WPAFB and by off-site DoD installations. Waste received from off-site generators is mixed waste consisting of rags, wipes, or PPE contaminated with F005 solvents, cadmium, and tritium. This waste is generated from the maintenance of nuclear weapon systems. Table C-1 lists examples of waste streams stored on a regular basis at WPAFB. While the quantities and composition of wastes change, all wastes accepted for storage in Building 479 are listed in Appendix C-1.

All waste stored at Building 479 are either solid, liquid, sludges, or compressed gas cylinders, and are handled according to their hazard designations based upon known characteristics of the waste such as ignitability, reactivity, corrosivity, or toxicity characteristic. For listed wastes, the hazard designation is based upon the hazard codes provided in OAC 3745-51-31 through 33. A description of each waste and the associated hazard characteristic is provided in Appendix C-1. Physical and chemical characteristics for all wastes permitted for storage at WPAFB are contained in Appendix C-2.

TABLE C-1. EXAMPLES OF WASTE STREAMS STORED AT WPAFB

Waste	Code
Waste paint related material	D001, F002, F003, F005
Waste halogenated solvents, mixed	F001, F002
Mercury, metallic spill residue include mercury contaminated manometers	U151, D009
Sulfuric acid	D002
Waste paint	D001, F005
Waste solvent mix	D001, F001, F002, F003, F005
Diesel fuel spill debris	D001
Lead paint abatement waste	D008
Rubber cement	D001, D005
Contaminated oil paint products	D001, D008, F002, F003, F005
Trichlorofluoromethane	D002
Potassium	D002
Paint thinner	D001, F003, F005
Acetone	D001, F003
Reactives	D003
Compressed gas cylinders	D001, D002, D003
Mixed waste solvents and tritium	D006, F005

C-1a Containerized Waste [270.15(b)(1)]

All waste stored at WPAFB is stored in containers. All containers are managed as if they contain free liquids. All wastes, regardless of physical state, are stored in an area that is equipped with a secondary containment system, therefore, no documentation or information is provided to show that the wastes do not contain free liquids.

C-1b Waste in Tank Systems [270.16, 264.190-264.200]

The facility does not utilize storage tanks.

C-1c Surface Impoundments [270.17, 264.220-264.232]

No surface impoundments will be maintained at this facility.

C-1d Waste Piles [270.18, 264.250-264.259]

No waste piles will be maintained at this facility.

C-1e Incinerators [270.19, 264.340-264.351, 270.62(b)(2)(i)]

No wastes will be incinerated at this facility.

C-1f Land Treatment [270.20, 264.270-264.283]

No land treatment units will exist at this facility.

C-1g Landfills [270.21, 264.271(a)(1) and (2), 264.272, Part 261, Appendix VIII]

No landfills will be maintained at this facility.

C-1h Additional Requirements for Land Storage, Treatment and Disposal Facilities

Since this facility does not utilize hazardous waste tanks, surface impoundments, incinerators, waste piles, land treatment units or landfills, no additional procedures need to be described.

C-2 Waste Analysis Plan [270.14(b)(3), 264.13(b) and (c), 268.7]

This Waste Analysis Plan (WAP) describes the necessary sampling methodologies, analytical techniques and overall procedures used to ensure the proper storage of all hazardous waste at Building 479. Specifically, this plan details the following:

- Pre-acceptance procedures to determine the acceptability of any incoming waste
- Sampling and analysis procedures - including sampling methods and equipment, and the analytical test methods used
- Quality control for waste shipments
- Rejection criteria for waste shipments

Building 479 may receive hazardous wastes from any activity on WPAFB and may receive low-level mixed waste from other DoD installations. The Installation Management Division will only accept hazardous wastes for which it is permitted under the WPAFB Hazardous Waste Facility Operating Permit. The Installation Management Division will inform base generating activities of the hazardous wastes it is permitted to receive and store.

C-2a Parameters and Rationale [264.13(b)(1)]

All solid waste that is generated at WPAFB is evaluated to determine if the waste is a hazardous waste and therefore subject to the requirements of 40 CFR 264.13 and OAC 3745-54. This determination may be conducted by either using the waste generator's knowledge of the hazardous characteristics of waste and the materials or processes used, or by analytical testing as described in 40 CFR 261 and OAC 3745-51. For the vast majority of waste streams at WPAFB, generator knowledge of the waste will be used to determine whether or not waste is restricted from land disposal. The data to support this determination will be retained on site in the generator's files in accordance with 40 CFR 268 and OAC 3745-270. Mixed waste from off-site DoD installations is evaluated using generator knowledge.

- a. If the waste stream is determined to not be either RCRA hazardous waste or a DOT Hazmat, and is in a solid form or state, the waste may be disposed of via the base's solid waste contract.

b. If the generator determines that their waste stream is indeed a hazardous waste and is not exempt from the regulation, it must be turned in to the Installation Management Division.

1. All hazardous waste turned in to the Installation Management Division must be properly characterized, packaged, marked and labeled. Generators must assure that correct EPA Hazardous Waste numbers are applied and that they have sufficient data to validate their waste determination.

2. The generating activity must submit with their waste, a completed hazardous waste pickup request either through the base's HWTS or SharePoint website, Figure C-1). Each item turned in must have either a Safety Data Sheet (SDS) or lab results to demonstrate generator knowledge. This form does not apply to mixed waste received from off-site installations.

3. Generating activities may also produce a non-RCRA liquid waste. These wastes are also turned in to the Installation Management Division along with a SDS or other laboratory data to validate their waste determination.

c. After the hazardous waste pickup request submission, the DLA-DS hazardous waste contractor will contact the generator to arrange pick up of the waste. Waste generated in Area A is transported to Facility 30247. Waste generated in Area B is transported to 20479. Facility 30247 is a 90-day accumulation site and facility 20479 is a one-year accumulation site.

d. The DLA-DS contractor will evaluate the pickup form with the waste number and type of containers, measure the quantity (pounds and/or gallons) and physical state. In the event the contractor and generator would disagree on classification or other information provided on the pickup form, the waste will not be removed and the Installation Management Division hazardous waste team shall be notified to resolve the discrepancy.

HazWaste Pickup - New Item ×

EDIT

Save Cancel Paste Cut Copy Attach File Spelling

Commit Clipboard Actions Spelling

Name *

Office Symbol *

Phone # *

Bldg # *

Common Name *
☐ Specify your own value:

Physical State *

Waste Labels Needed * ☐ Yes
☐ No

Container Type *

Container Size *

of Containers *

Container Tracking # ☐ Added to tracking log
☒ Specify your own value:

CEIE Only

EPA Waste Code

CEIE Only

GateKeeper
CEIE Only

Comments

Status New

Figure C-1. Hazardous Waste SharePoint Pickup Request

1. A further step in the evaluation procedure involves the waste analysis information that is provided with the submittal. Analytical data must include all of the information required to treat, store or dispose of a waste in accordance with 40 CFR Parts 265.13 and 268. The following data must be included with the accompanying documentation before the waste will be accepted by the contractor:
 - (a) Physical state or mixed states as applicable,
 - (b) Pertinent physical properties such as pH or flash point for mixed wastes that are not identified in common reference material. Equivalent notations may be used, e.g., pH <2,
 - (c) Noun name as catalogued in the Federal Supply System and the National Stock Number (NSN) or if not catalogued in the Federal Supply System, the chemical names of the hazardous components,
 - (d) Chemical names of hazardous contaminants and the noun name of non-hazardous components,
 - (e) Amounts of hazardous and nonhazardous ingredients based on user's knowledge or testing of the items, expressed in a range of content by percentage or parts per million (ppm) or its equivalent, milligrams per liter (mg/l), as appropriate.
2. This information will allow the DLA-DS contractor to utilize standard references to determine the chemical characteristics for proper storage and to identify applicable land disposal restrictions in 40 CFR Part 268.
3. All shipments of waste in unopened, manufacturer's containers with their original labeling including paints, proprietary chemical compositions and reagent grade chemicals are visually inspected by the DLA-DS contractor. If there is some doubt concerning the composition of such waste it will remain in the

custody of the generator until its composition is verified. When these wastes are turned in for disposal, the HazMat tracking number is required from the HAZMAT Cell to verify that all avenues were explored to redistribute the excess material via the Free Issue SharePoint.

4. Whenever a hazardous waste is to be shipped off-site from the base, the DLA-DS contractor must notify the receiving TSD facility of the applicable treatment standards. The notification must include:

- (a) The EPA Hazardous Waste Number
- (b) The applicable treatment standard
- (c) The Uniform Hazardous Waste Manifest number, and
- (d) The waste analysis data and/or statement of knowledge.

e. If the generator of a solid waste or a hazardous waste is unsure of the chemical characteristics of their waste, they shall request a sample analysis to be accomplished. This analysis may be required to identify it as a hazardous waste or to further classify its hazards if there is incomplete data.

1. Analysis can be accomplished based on:

- (a) Qualitative determinations from previous experience with the same waste,
- (b) Knowledge of the generation process, or
- (c) Analytical measurements.

2. Where the analysis is based on (a) or (b) above, intrinsic properties such as color, odor, specific gravity, flash point, flammability, physical and chemical sensitivities and/or other properties or characteristics if not already known, can be derived from published or documented data references such as:

- (a) The Merck Index, 11th Edition, Merck and Co., Inc. Rahway, NJ

- (b) Chemistry of Hazardous Materials, E. Meyer, 1997, Prentice-Hall, Inc., Englewood Cliffs, NJ
- (c) Pocket Guide to Chemical Hazards, DHEW (NIOSH) Publication No. 78-210, 2005, U.S. Government Printing Office (GP) Stock #017-03343-4
- (d) Hazardous Materials Emergency Response Guidebook, DOT Publications P5800.3, 2008, U.S. Government Printing Office
- (e) Fire Protection Guide on Hazardous Materials, 7th Edition, National Fire Protection Association, Batterymarch Park, Quincy, MA
- (f) Dangerous Properties of Industrial Materials, Sax, Van Nostrand Reinhold Co., New York, NY

C-2b Test Methods [264.13(b)(2)]

All of the physical and chemical analyses of the waste will be conducted following ASTM, EPA, or EPA-sponsored Methods. Table C-2 lists the test methods that will be used.

C-2c Sampling Methods [264.13(b)(3), Part 261, Appendix I]

The methods and equipment used for sampling wastes for analytical measurement will vary with the form and consistency of the waste material. Representative samples shall be collected using the sampling protocols listed below for sampling wastes with properties similar to the indicated materials. Detailed guidance of the number of samples to be taken and the type of sample containers is presented in “Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846. Table C-2 lists the test methods that will be used. Alternatively, a representative sample can be obtained by any other method capable of yielding a representative sample within the meaning of 40 CFR Part 260. The following sampling protocols are specified by the U.S. EPA:

**TABLE C-2. WRIGHT-PATTERSON AFB'S WASTE IDENTIFICATION
TESTING METHODS**

Test	Test Method	Reference	Rationale
Flashpoint	Pensky-Martens Closed-Cup or Seta-flash Closed-Cup	Method 1010* or 1020*	This method analyzes ignitibility of a waste, which dictates handling procedures, storage areas, and disposal criteria.
pH	Electrometric measurement	Method 9040*, 9045	This method quantifies hydrogen in concentration of a waste, which is related to corrosivity. From this analysis proper waste containers and storage areas can be selected. Also, this analysis confirms hazardous waste determinations, determines compatibility with other wastes, and establishes disposal criteria.
Reactivity	RCRA definition	---	This method verifies hazardous waste determinations, applicability of California list land disposal restrictions, handling and storage criteria.
Specific gravity	Specific gravity	ASTM D941	This method of analysis is used to provide information that can be important during waste handling operations.
TCLP (metals)	TCLP extraction	Method 6010*/7470/7471	This method verifies hazardous waste determinations and establishes applicable land disposal restrictions. This method is an analysis for toxic metals as defined by 40 CFR 261.24 and OAC 3745-51-24. Toxic metals may be found in combination with each other and/or with other hazardous organic constituents.
TCLP (organics)	TCLP extraction	Method 8240*/8270*	This method verifies hazardous waste determinations based on the presence of toxic organics as defined by 40 CFR 261.24.
Volatile organics	GCMS	Method 8240*/8260*	This method verifies hazardous waste determinations based on the presence of volatile organics.
Semivolatile organics	GCMS	Method 8240*/8270*	This method verifies hazardous waste determinations based on the presence of volatile organics.

(continued)

TABLE C-2 (continued)

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Test	Test Method	Reference	Rationale
Sulfide	Titration	Method 7342*	This method verifies hazardous waste determinations based on the presence of sulfide. Sulfide must be measured at the ppm level because there are possible toxic effects to be considered during handling, storage, and/or incineration.
Cyanide	Colorimetric	Method 9012A	This method verifies hazardous waste determinations based on the presence of cyanide. Cyanide must be measured at the ppm level because there are possible toxic effects to be considered during handling, storage, and/or incineration.
Organochlorine pesticides, herbicides, and dioxins	GC	Methods 8080*, 8150*	This method verifies hazardous waste determinations based on the presence of toxic pesticides. These pesticides are defined as toxic by 40 CFR 261.24 and OAC 3745-51-24.

*EPA SW-846

- a. Extremely viscous liquid - ASTM Standard D140-70
- b. Crushed or powdered material - ASTM Standard D346-75
- c. Soil or rock-like material - ASTM Standard D420-69
- d. Soil-like material - ASTM Standard D1452-65
- e. Fly ash-like material - ASTM Standard D2234-76
- f. Containerized liquid wastes - “Coliwassa,” described in EPA Publication SW-846 sampler,” described in SW-846.
- g. Liquid waste in pits, ponds, lagoons, and similar reservoirs - “Pond Sampler”, described in SW-846.

C-2d Frequency of Analysis [264.13(b)(4)]

Waste analyses will be evaluated annually for all identified waste streams that are generated at WPAFB or whenever the process or constituents change. Waste Profile Sheets are completed for each container via the electronic HWTS. Copies are maintained by the Installation Management Division.

C-2e Additional Requirements for Waste Generated in Area A [263.13(c)]

Due to the layout of the base, waste generated in Area A and received at Building 479 is considered to be generated off-site. All waste submitted to Building 479 will be accompanied by a Hazardous Waste Pickup request (Figure C-1) and, when appropriate, a Manifest and a Land Ban Certification form. Mixed waste received from off-site will be accompanied by a manifest and a Land Ban Certification form.

Each load of waste arriving at Building 479 has been inspected and analyzed, or characterized based on personal knowledge of the generator, before being accepted for storage as described in Section C-2a.

If at any time during the receiving process a waste turn-in is determined to be misidentified or unidentified, it will not be accepted for storage in 479, and will remain in the custody of the generator until the discrepancy is rectified. Since the wastes stored at Building 479 are generated by research labs and industrial shops at WPAFB it will be possible to resolve any discrepancies prior to

acceptance. If mixed waste received at Building 479 is misidentified or unidentified, AFRRAD personnel will contact the generator, and if necessary, conduct on-site sampling and analysis to acquire sufficient knowledge to properly identify the waste.

C-2f Additional Requirements for Facilities Handling Ignitable, Reactive or Incompatible Waste [264.13(b)(6), 264.17]

No additional testing of ignitable, reactive, or incompatible hazardous waste is necessary because of the requirements stated in Section C-2 a through e. These requirements provide the necessary information to properly store ignitable and reactive wastes, and prevent the mixing of incompatible wastes. Precautions to prevent the accidental ignition or reaction of ignitable, reactive, or incompatible wastes are described in Section F-5 of this permit application. Additionally, Appendix C-3 presents a summary of potentially incompatible waste materials/waste components and the adverse consequences that could result from mixing one group with another.

**C-3 Waste Analysis Requirements Pertaining to Land Disposal Restrictions
[270.14(b)(3), 264.13, 268.7, 268.8, 268.30, 268.31, 268.32, 268.33,
268.34, 268.41, 268.42, 268.43, 268.50, Part 268 Appendix I]**

Using the information provided during pre-acceptance, including Waste Profile Sheets and Hazardous Pickup requests, WPAFB will consider all accepted hazardous waste containing substances banned from land disposal to exceed the treatment standards for acceptable land disposal, unless analytical data indicate otherwise. WPAFB will ensure that all waste sent off-site for treatment or disposal will be accompanied by written notification to the receiving treatment or disposal facility that the waste does not currently meet the appropriate treatment standards. The notification will include the following:

- EPA hazardous waste code
- Manifest number
- Waste analysis data or if previously submitted, incorporate the data by reference
- The applicable treatment standards

WPAFB maintains for at least five years, documentation associated with notification and certification of land disposal restricted waste. These records are maintained at the Installation Management Division.

APPENDIX C-1

**HAZARDOUS WASTE POTENTIALLY STORED
POTENTIALLY STORED AT BUILDING 479**

HAZARDOUS WASTE THAT WRIGHT-PATTERSON CURRENTLY STORES

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Ignitables	D001	Ignitable	30,000
Corrosives	D002	Corrosive	22,000
Reactives	D003	Reactive	10,000
Arsenic	D004	TCLP	1
Barium	D005	TCLP	1
Cadmium	D006	TCLP	1
Chromium	D007	TCLP	1
Lead	D008	TCLP	25,000
Mercury	D009	TCLP	1
Selenium	D010	TCLP	1
Silver	D011	TCLP	1
Endrin	D012	TCLP	1
Lindane	D013	TCLP	1
Methoxychlor	D014	TCLP	1
Toxaphene	D015	TCLP	1
2,4-D	D016	TCLP	1
2,4,5-TP Silvex	D017	TCLP	1
Benzene	D018	TCLP	1
Carbon tetrachloride	D019	TCLP	1
Chlordane	D020	TCLP	1
Chlorobenzene	D021	TCLP	1
Chloroform	D022	TCLP	1
O-Cresol	D023	TCLP	1
M-Cresol	D024	TCLP	1
P-Cresol	D025	TCLP	1
Cresol	D026	TCLP	1
1,4-Dichlorobenzene	D027	TCLP	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
1,2-Dichloroethane	D028	TCLP	1
1,1-Dichloroethylene	D029	TCLP	1
2,4-Dinitrotoluene	D030	TCLP	1
Heptachlor	D031	TCLP	1
Hexachlorobenzene	D032	TCLP	1
Hexachloro-1,3-Butadiene	D033	TCLP	1
Hexachloroethane	D034	TCLP	1
Methyl Ethyl Ketone	D035	TCLP	1
Nitrobenzene	D036	TCLP	1
Pentachlorophenol	D037	TCLP	1
Pyridine	D038	TCLP	1
Tetrachloroethylene	D039	TCLP	1
Trichloroethylene	D040	TCLP	1
2,4,5-Trichlorophenol	D041	TCLP	1
2,4,6-Trichlorophenol	D042	TCLP	1
Vinyl Chloride	D043	TCLP	1
Spent Halogenated Solvents	F001	Toxic	1,600
Spent Halogenated Solvents	F002	Toxic	9,000
Spent Non-Halogenated Solvents	F003	Ignitable, Toxic	16,000
Spent Non-Halogenated Solvents	F004	Toxic	90
Spent Non-Halogenated Solvents	F005	Ignitable, Toxic	16,000
Wastewater Treatment Sludges from Electroplating Operations	F006	Toxic	1
Spent Cyanides	F007	Reactive, Toxic	1,520
Spent Plating Bath Residues	F008	Reactive, Toxic	1,000
Spent Stripping and Bath Solutions	F009	Reactive, Toxic	4,000
Quenching Bath Sludge from Oil Baths from Metal Heat Treating Operations	F010	Reactive, Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Spent Cyanide Solutions	F011	Reactive, Toxic	1
Quenching Wastewater Treatment Sludges	F012	Toxic	1
Wastewater Treatment Sludges	F019	Toxic	1
Wastes from the Production and Manufacturing Use of tri-, or tetrachlorophenol	F020	Toxic	1
Wastes from the Production and Manufacturing Use of pentachlorophenol	F021	Toxic	1
Wastes from the Manufacturing Use of tetra, penta, or hexachloro-benzenes	F022	Toxic	1
Wastes from the Production of Materials on Equipment previously used for the Production and Manufacturing use of tri-, and tetrachlorophenols	F023	Toxic	1
Wastes from the Production of chlorinated aliphatic hydrocarbons	F024	Toxic	1
Wastes from the Production of Materials on Equipment previously used for the Production and Manufacturing of tetra-, penta-, or hexachlorobenzenes	F026	Toxic	1
Discarded Unused Formulations containing tri-, tetra, or pentachlorophenols	F027	Toxic	1
Residues Resulting from Incineration or Thermal Treatment of Soil Contaminated with EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026, and F027	F028	Toxic	1
Leachate	F039	Toxic	1
2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts	P001	Toxic	25
1- Acetyl-2-thiourea	P002	Toxic	1
Acrolein	P003	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Aldrin	P004	Toxic	1
Allyl Alcohol	P005	Toxic	1
Aluminum Phosphide	P006	Reactive, Toxic	1
5-(Aminomethyl)-3-isoxazeolol	P007	Toxic	1
4-a Aminopyridine	P008	Toxic	1
Ammonium Picrate	P009	Reactive	1
Arsenic Acid	P010	Toxic	1
Arsenic Pentoxide	P011	Toxic	1
Arsenic Trioxide	P012	Toxic	1
Barium Cyanide	P013	Toxic	1
Triphenol	P014	Toxic	1
Beryllium Powder	P015	Toxic	1
Dichloromethyl Ether	P016	Toxic	1
Bromoacetone	P017	Toxic	1
Brucine	P018	Toxic	1
Dinoseb	P020	Toxic	1
Calcium Cyanide	P021	Toxic	1
Carbon Disulfide	P022	Toxic	35
Chloroacetaldehyde	P023	Toxic	1
p-Chloroaniline	P024	Toxic	1
Thiourea, (2-chlorophenyl)-	P026	Toxic	1
3-Chloropropionitrile	P027	Toxic	3
Benzyl Chloride	P028	Toxic	1
Copper Cyanides	P029	Toxic	100
Cyanides	P030	Toxic	1,500
Cyanogen	P031	Toxic	1
Chlorine Cyanide	P033	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Phenol, 2-cyclohexyl-4,6-dinitro-	P034	Toxic	1
Dichlorophenylarsine	P036	Toxic	1
Dieldrin	P037	Toxic	1
Diethylarsine	P038	Toxic	1
Disulfoton	P039	Toxic	1
O,O-Diethyl O-pyrazinyl Phosphorothioate	P040	Toxic	1
Diethyl-p-nitrophenyl Phosphate	P041	Toxic	1
Epinephrine	P042	Toxic	1
Diisopropyl Fluorophosphate	P043	Toxic	1
Dimethoate	P044	Toxic	1
Thiofanox	P045	Toxic	1
alpha, alpha-Dimethylphethylamine	P046	Toxic	1
4,6-Dinitro-O-cresol and Salts	P047	Toxic	1
2,4-Dinitrophenol	P048	Toxic	1
2,4-Dithiobiuret	P049	Toxic	1
Endosulfan	P050	Toxic	1
Endrin	P051	Toxic	1
Aziridine	P054	Toxic	1
Fluorine	P056	Toxic	1
Fluoroacetamide	P057	Toxic	1
Acetic Acid, fluoro-, Sodium Salt	P058	Toxic	1
Heptachlor	P059	Toxic	1
Isodrin	P060	Toxic	1
Hexaethyl Tetraphosphate	P062	Toxic	1
Hydrocyanic Acid	P063	Toxic	1
Methyl Isocyanate	P064	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Mercury Fulminate	P065	Reactive, Toxic	1
Methomyl	P066	Toxic	1
2-Methylaziridine	P067	Toxic	1
Methyl Hydrazine	P068	Toxic	1
2-Methylactonitrile	P069	Toxic	1
Aldicarb	P070	Toxic	1
Methyl Parathion	P071	Toxic	1
alpha-Naphthylthiourea	P072	Toxic	1
Nickel Carbonyl	P073	Toxic	1
Nickel Cyanide	P074	Toxic	1
Nicotine and Salts	P075	Toxic	1
Nitric Oxide	P076	Toxic	1
P-Nitroaniline	P077	Toxic	1
Nitrogen Dioxide	P078	Toxic	1
Nitroglycerine	P081	Reactive	1
Methanamine, N-methyl-N-nitroso	P082	Toxic	1
N-Nitrosomethylvinylamine	P084	Toxic	1
Diphosphoramidate, Octamethyl	P085	Toxic	1
Osmium Oxide	P087	Toxic	1
Endothall	P088	Toxic	1
Parthion	P089	Toxic	1
Mercury, (acetato-O) phenyl-	P092	Toxic	1
Phenylthiourea	P093	Toxic	1
Phorate	P094	Toxic	1
Phosgene	P095	Toxic	1
Phosphine	P096	Toxic	1
Famphur	P097	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Pottassium Cyanide	P098	Toxic	30
Pottassium Silver Cyanide	P099	Toxic	1
Ethyl Cyanide	P101	Toxic	1
Propargyl Alcohol	P102	Toxic	1
Selenourea	P103	Toxic	1
Silver Cyanide	P104	Toxic	1
Sodium Azide	P105	Toxic	5
Sodium Cyanide	P106	Toxic	500
Strychnine and Salts	P108	Toxic	1
Tetraethyldithiopyrophosphate	P109	Toxic	1
Tetraethyl Lead	P110	Toxic	1
Tetraethyl Pyrophosphate	P111	Toxic	1
Tetranitromethane	P112	Reactive	1
Thallic Oxide	P113	Toxic	1
Thallium (I) Selenite	P114	Toxic	1
Thallium (I) Sulfate	P115	Toxic	1
Thiosemicarbazide	P116	Toxic	1
Trichloromethanethiol	P118	Toxic	1
Ammonium Vanadate	P119	Toxic	1
Vanadium Pentoxide	P120	Toxic	1
Zinc Cyanide	P121	Toxic	1
Zinc phosphide Zn ₃ P ₂ , when present at concentrations greater than 10%	P122	Reactive, Toxic	1
Toxaphene	P123	Toxic	1
Carbofuran	P127	Toxic	1
Mexacarbate	P128	Toxic	1
Tirpate	P185	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Physostigmine Salicylate	P188	Toxic	1
Carbosulfan	P189	Toxic	1
Metolcarb	P190	Toxic	1
Dimetilan	P191	Toxic	1
Isolan	P192	Toxic	1
Oxamyl	P194	Toxic	1
Manganese dimethyldithiocarbamate	P196	Toxic	1
Formparanate	P197	Toxic	1
Formetanate hydrochloride	P198	Toxic	1
Methiocarb	P199	Toxic	1
Promecarb	P201	Toxic	1
m-Cymenyl methylcarbamate	P202	Toxic	1
Aldicarb Sulfone	P203	Toxic	1
Physostigmine	P204	Toxic	1
Ziram	P205	Toxic	1
Ethanal	U001	Ignitable	1
Acetone	U002	Ignitable	500
Acetonitrile	U003	Ignitable, Toxic	2
Acetophenone	U004	Toxic	2
2-Acetylaminofluorene	U005	Toxic	1
Acetyl Chloride	U006	Corrosive, Reactive, Toxic	3
Acrylamide	U007	Toxic	1
Acrylic Acid	U008	Ignitable	1
Acrylonitrile	U009	Toxic	22
Mitomycin C	U010	Toxic	1
Amitrole	U011	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Aniline	U012	Ignitable, Toxic	25
Auramine	U014	Toxic	1
Azaserine	U015	Toxic	1
Benz[c] Acridine	U016	Toxic	1
Benzal Chloride	U017	Toxic	1
Benz[a]anthracene	U018	Toxic	1
Benzene	U019	Ignitable, Toxic	260
Benzenesulfonyl Chloride	U020	Corrosive, Reactive	1
Benzidine	U021	Toxic	1
3,4-Benzopyrene	U022	Toxic	1
Benzene, (trichloromethyl)-	U023	Toxic	20
Dichloromethoxy ethane	U024	Toxic	1
Dichloroethyl Ether	U025	Toxic	1
Chlornaphazine	U026	Toxic	1
Dichloroisopropyl ether	U027	Toxic	1
Diethylhexyl phthalate	U028	Toxic	1
Methyl Bromide	U029	Toxic	1
4-Bromophenyl Phenyl Ether	U030	Toxic	1
1-Butanol	U031	Ignitable	70
Chromic Acid, Calcium Salt	U032	Toxic	35
Carbon Oxyfluoride	U033	Reactive, Toxic	1
Chloral	U034	Toxic	1
Chlorambucil	U035	Toxic	1
Chlordane, alpha & gamma isomers	U036	Toxic	15
Chlorobenzene	U037	Toxic	65
Chlorobenzilate	U038	Toxic	1
4-Chloro-m-cresol	U039	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Oxirane, (chloromethyl)	U041	Toxic	1
Ethene, (2-chloroethoxy)	U042	Toxic	1
Vinyl Chloride	U043	Toxic	1
Chloroform	U044	Toxic	1,100
Methyl Chloride	U045	Ignitable, Toxic	1
Methane, Chloromethoxy-	U046	Toxic	1
beta-Chloronaphthalene	U047	Toxic	4
o-Chlorophenol	U048	Toxic	1
Benzenamine, 4-chloro-2-methyl-, hydrochloride	U049	Toxic	1
Chrysene	U050	Toxic	1
Creosote	U051	Toxic	1
Cresol (Cresylic acid)	U052	Toxic	28
2-Butenal	U053	Toxic	1
Cumene	U055	Ignitable	1
Cyclohexane	U056	Ignitable	200
Cyclohexanone	U057	Ignitable	44
Cyclophosphamide	U058	Toxic	1
Daunomycin	U059	Toxic	1
DDD	U060	Toxic	1
DDT	U061	Toxic	1
Diallate	U062	Toxic	1
Dibenz[a,]anthracene	U063	Toxic	1
Dibenzo[a,i]pyrene	U064	Toxic	1
1,2-Dibromo-3-chloropropane	U066	Toxic	1
Ethylene Dibromide	U067	Toxic	2
Methylene Bromide	U068	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Dibutyl Phthalate	U069	Toxic	3
Benzene, 1,2-dichloro-	U070	Toxic	4
m-Dichlorobenzene	U071	Toxic	15
p-Dichlorobenzene	U072	Toxic	2
3,3'-Dichlorobenzidine	U073	Toxic	1
1,4-Dichloro-2-butene	U074	Ignitable, Toxic	1
Dichlorodifluoromethane	U075	Toxic	1
Ethane, 1,1-dichloro-	U076	Toxic	3,000
Ethylene Dichloride	U077	Toxic	1
1,1-Dichloroethylene	U078	Toxic	1
1,2-Dichloroethylene	U079	Toxic	1
Methane, dichloro-	U080	Toxic	815
2,4-Dichlorophenol	U081	Toxic	1
2,6-Dichlorophenol	U082	Toxic	1
Propylene Dichloride	U083	Toxic	1
1,3-Dichloropropene	U084	Toxic	1
2,2'-Bioxirane	U085	Ignitable, Toxic	1
N,N-Diethyldiazine	U086	Toxic	1
O,O-Diethyl-S-methyl-dithiophosphate	U087	Toxic	1
Diethyl Phthalate	U088	Toxic	2
Diethylstilbestrol	U089	Toxic	1
Dihydrosafrole	U090	Toxic	1
3,3'-Dimethoxybenzidine	U091	Toxic	1
Dimethylamine	U092	Ignitable	1
p-Dimethylaminoazobenzene	U093	Toxic	1
7,12-Dimethylbenz[a]anthracene	U094	Toxic	1
3,3'-Dimethylbenzidine	U095	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
alpha, alpha-Dimethylbenzyl-hydroperoxide	U096	Reactive	1,500
Dimethylcarbamoyl Chloride	U097	Toxic	1
1,1-Dimethylhydrazine	U098	Toxic	3
1,2-Dimethylhydrazine	U099	Toxic	1
2,4-Dimethylphenol	U101	Toxic	2
Dimethyl Phthalate	U102	Toxic	1
Dimethyl Sulfate	U103	Toxic	1
2,4-Dinitrotoluene	U105	Toxic	1
2,6-Dinitrotoluene	U106	Toxic	1
Din-n-octyl phthalate	U107	Toxic	1
1,4-Dioxane	U108	Toxic	15
1,2-Diphenylhydrazine	U109	Toxic	1
Dipropylamine	U110	Ignitable	1
Di-N-propylnitrosamine	U111	Toxic	1
Ethyl Acetate	U112	Ignitable	16,000
Ethyl Acrylate	U113	Ignitable	1
Ethylenebisdithiocarbamic acid, salts & esters	U114	Toxic	1
Oxirane	U115	Ignitable, Toxic	1
Ethylene Thiourea	U116	Toxic	1
Ethyl Ether	U117	Ignitable	485
Ethylmethacrylate	U118	Toxic	1
Ethyl Methanesulfonate	U119	Toxic	1
Fluoranthene	U120	Toxic	1
Trichloromonofluoromethane	U121	Toxic	1
Formaldehyde	U122	Toxic	200
Formic Acid	U123	Corrosive, Toxic	12

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Furan	U124	Ignitable	2
2-Furancarboxaldehyde	U125	Ignitable	200
Glycidylaldehyde	U126	Toxic	1
Hexachlorobenzene	U127	Toxic	2
Hexachlorobutadiene	U128	Toxic	1
Lindane	U129	Toxic	1
Hexachlorocyclopentadiene	U130	Toxic	1
Hexachloroethane	U131	Toxic	2
Hexachlorophene	U132	Toxic	1
Hydrazine	U133	Toxic/Reactive	6
Hydrogen Fluoride	U134	Corrosive, Toxic	260
Hydrogen Sulfide	U135	Toxic	1
Cacodylic Acid	U136	Toxic	1
Ideno[1,2,3-cd] pyrene	U137	Toxic	1
Methane, iodo-	U138	Toxic	2
Isobutyl Alcohol	U140	Ignitable, Toxic	3
Isosaffrole	U141	Toxic	1
Kepone	U142	Toxic	1
Lasiocarpine	U143	Toxic	1
Lead Acetate	U144	Toxic	4
Phosphoric Acid, Lead Salt	U145	Toxic	8
Lead Subacetate	U146	Toxic	1
Maleic Anhydride	U147	Toxic	2
Maleic Hydrazine	U148	Toxic	1
Malononitrile	U149	Toxic	1
Melphalon	U150	Toxic	4
Mercury	U151	Toxic	1,600

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Methacrylonitrile	U152	Ignitable, Toxic	1
Methanethiol	U153	Ignitable, Toxic	1
Methanol	U154	Ignitable	1,500
Methapyrilene	U155	Toxic	1
Methyl Chlorocarbonate	U156	Ignitable, Toxic	35
3-Methylcholanthrene	U157	Toxic	1
4,4'-Methylenebis (2-chloro-aniline)	U158	Toxic	1
Methyl Ethyl Ketone	U159	Ignitable, Toxic	1,100
2-Butanone Peroxide	U160	Reactive, Toxic	1
Methyl Isobutyl Ketone	U161	Ignitable	1
Methyl Methacrylate	U162	Ignitable, Toxic	1
Guanidine, -methyl-N'-nitro-N-nitroso	U163	Toxic	1
Methylthiouracil	U164	Toxic	1
Naphthalene	U165	Toxic	1
1,4-Naphthaquinone	U166	Toxic	1
1-Naphthalenamine	U167	Toxic	1
2-Naphthylamine	U168	Toxic	1
Nitrobenzene	U169	Ignitable, Toxic	1
p-Nitrophenol	U170	Toxic	1
2-Nitropropane	U171	Toxic	1
N-Nitrosodi-n-butylamine	U172	Toxic	1
N-Nitrosodiethanolamine	U173	Toxic	1
N-Nitrosodiethylamine	U174	Toxic	1
N-Nitroso-N-ethylurea	U176	Toxic	1
N-Nitroso-N-methylurea	U177	Toxic	1
N-Nitroso-N-methylurethane	U178	Toxic	1
N-Nitrosopiperidine	U179	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
N-Nitrosopyrrolidine	U180	Toxic	1
5-Nitro-o-toluidine	U181	Toxic	1
Paraldehyde	U182	Toxic	1,500
Pentachlorobenzene	U183	Toxic	2
Pentchloroethane	U184	Toxic	1
Pentachloronitrobenzene	U185	Toxic	1
1,3-Pentadiene	U186	Ignitable	1
Phenacetin	U187	Toxic	1
Phenol	U188	Toxic	4
Sulfur Phosphide	U189	Reactive	1
1,3-Isobenzofurandione	U190	Toxic	20
2-Picoline	U191	Toxic	1
Pronamide	U192	Toxic	1
1,3-Propane Sultone	U193	Toxic	1
1-Propanamine	U194	Ignitable, Toxic	1
Pyridine	U196	Toxic	175
p-Benzoquinone	U197	Toxic	1
Reserpine	U200	Toxic	1
Resorcinol	U201	Toxic	2
Safrole	U203	Toxic	1
Selenium Dioxide	U204	Toxic	2
Selenium Sulfide	U205	Reactive, Toxic	1
Streptozotocin	U206	Toxic	1
Benzene,1,2,4,5-tetrachloro-	U207	Toxic	1
1,1,1,2-Tetrachloroethane	U208	Toxic	1
1,1,2,2-Tetrachloroethane	U209	Toxic	20
Tetrachloroethylene	U210	Toxic	1,500

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Carbon Tetrachloride	U211	Toxic	140
Tetrahydrofuran	U213	Ignitable	1,200
Thallium (I) Acetate	U214	Toxic	1
Thallium (I) Carbonate	U215	Toxic	1
Thallium (I) Chloride	U216	Toxic	1
Thallium (I) Nitrate	U217	Toxic	1
Thioacetamide	U218	Toxic	1
Thiourea	U219	Toxic	1
Toluene	U220	Toxic	2,200
Toluenediamine	U221	Toxic	2
O-Toluidine Hydrochloride	U222	Toxic	1
Toluene Diisocyanate	U223	Reactive, Toxic	1
Bromoform	U225	Toxic	1
1,1,1-Trichloroethane	U226	Toxic	4,500
1,1,2-Trichloroethane	U227	Toxic	40
Trichloroethylene	U228	Toxic	1,530
1,3,5-Trinitrobenzene	U234	Reactive, Ignitable	1
Tris(2,3-dibromopropyl) Phosphate	U235	Toxic	1
Typan Blue	U236	Toxic	1
Uracil Mustard	U237	Toxic	1
Ethyl Carbamate (urethane)	U238	Toxic	1
Xylene	U239	Ignitable	1,155
2,4-D, Salts and Esters	U240	Toxic	1
Hexachloropropene	U243	Toxic	1
Thiram	U244	Toxic	1
Cyanogen Bromide	U246	Toxic	1
Methoxychlor	U247	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Warfarin, & salts, when present at concentrations of 0.3% or less	U248	Toxic	1
Zinc phosphide, when present at concentrations of 10% or less	U249	Toxic	1
Benomyl	U271	Toxic	1
Bendiocarb	U278	Toxic	1
Carbaryl	U279	Toxic	1
Barban	U280	Toxic	1
o-Toluidine	U328	Toxic	1
p-Toluidine	U353	Toxic	1
Ethylene glycol monoethyl ether	U359	Toxic	1
Bendiocarb phenol	U364	Toxic	1
Carbofuran phenol	U367	Toxic	1
Carbendazim	U372	Toxic	1
Propham	U373	Toxic	1
Prosulfocarb	U387	Toxic	1
Triallate	U389	Toxic	1
A2213	U394	Toxic	1
Diethylene glycol, dicarbamate	U395	Toxic	1
Triethylamine	U404	Toxic	1
Thiophanate-methyl	U409	Toxic	1
Thiodicarb	U410	Toxic	1
Propoxur	U411	Toxic	1
Acetic acid, (2,4,5-trichlorophenoxy)-	F027	Toxic	1
Pentachlorophenol	F027	Toxic	1
Phenol, pentachloro-	F027	Toxic	1
Phenol, 2,3,4,6-tetrachloro-	F027	Toxic	1
Phenol, 2,4,5-trichloro-	F027	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Phenol, 2,4,6-trichloro-	F027	Toxic	1
Propanoic acid, 2-(2,4,5-trichlorophenoxy)	F027	Toxic	1
Silvex (2,4,5-TP)	F027	Toxic	1
2,4,5-T	F027	Toxic	1
2,3,4,6-Tetrachlorophenol	F027	Toxic	1
2,4,5-Trichlorophenol	F027	Toxic	1
2,4,6-Trichlorophenol	F027	Toxic	1

(continued)

APPENDIX C-2

**WASTES CHARACTERISTICS FOR WASTE CODES
POTENTIALLY STORED AT BUILDING 479**

WASTE CODES

D AND F

APPENDIX C-2									
WASTE CHARACTERISTICS FOR WASTE CODE PREFIXES D AND F									
Hazardous Waste Number	General description and hazardous constituents	Hazard code	Reactivity group number(s)	Halogen content % Wt	Specific gravity	Viscosity SSU	Physical form % solid Wt	Hazardous constituent % Wt	Water content % Wt
D001	Characteristically ignitable	I	varies	0-96	0.8-1.8	1-700	0-20	1-99	10-40
D002	Characteristically corrosive	C	varies	0-96	0.8-1.8	1-700	0-20	1-99	5-99
D003	Characteristically reactive	R	varies	0-96	0.8-1.8	1-700	1-100	1-10	0-99
D004	Arsenic (TCLP)	E	24	0-96	0.8-1.8	1-700	1-100	1-10	0-99
D005	Barium (TCLP)	E	24	0-96	0.8-1.8	1-700	1-100	1-10	0-99
D006	Cadmium (TCLP)	E	24	0-96	0.8-1.8	1-700	1-100	1-10	0-99
D007	Chromium (TCLP)	E	24	0-96	0.8-1.8	1-700	1-100	1-10	0-99
D008	Lead (TCLP)	E	24	0-96	0.8-1.8	1-700	1-100	1-10	0-99
D009	Mercury (TCLP)	E	24	0-96	0.8-1.8	1-700	1-100	1-10	0-99
D010	Selenium (TCLP)	E	24	0-96	0.8-1.8	1-700	1-100	1-10	0-99
D011	Silver (TCLP)	E	24	0-96	0.8-1.8	1-700	1-100	1-10	0-99
D012	Endrin (TCLP)	E	17	1-56	0.8-1.8	1-700	1-100	1-80	0-99
D013	Lindane (TCLP)	E	17	1-74	0.8-1.8	1-700	1-100	1-80	0-99
D014	Methoxychlor (TCLP)	E	17	1-70	0.8-1.8	1-700	1-100	1-80	0-99
D015	Toxaphene (TCLP)	E	17	1-70	0.8-1.8	1-700	1-100	1-80	0-99
D016	2, 4-D (TCLP)	E	17	1-70	0.8-1.8	1-700	1-100	1-80	0-99
D017	2, 4, 5-TP Silver (TCLP)	E	17	1-42	0.8-1.8	1-700	1-100	1-80	0-99
D018	Benzene (TCLP)	E	16	0	0.8-1.8	1-700	1-100	1-80	0-99
D019	Carbon tetrachloride (TCLP)	E	17	1-92	0.8-1.8	1-700	1-100	1-80	0-99
D020	Chlordane (TCLP)	E	17	1-70	0.8-1.8	1-700	1-100	1-80	0-99
D021	Chlorobenzene (TCLP)	E	17	1-33	0.8-1.8	1-700	1-100	1-80	0-99
D022	Chloroform (TCLP)	E	17	1-89	0.8-1.8	1-700	1-100	1-80	0-99
D023	O-Cresol (TCLP)	E	31	1-15	0.8-1.8	1-700	1-100	1-80	0-99
D024	m-Cresol (TCLP)	E	31	1-15	0.8-1.8	1-700	1-100	1-80	0-99
D025	p-Cresol (TCLP)	E	31	1-15	0.8-1.8	1-700	1-100	1-80	0-99
D026	Cresol (TCLP)	E	31	1-15	0.8-1.8	1-700	1-100	1-80	0-99
D027	1, 4-Dichlorobenzene (TCLP)	E	17	1-44	0.8-1.8	1-700	1-100	1-80	0-99
D028	1, 2-Dichloroethane (TCLP)	E	17	1-71	0.8-1.8	1-700	1-100	1-80	0-99
D029	1, 1-Dichloroethylene (TCLP)	E	17	1-73	0.8-1.8	1-700	1-100	1-80	0-99

APPENDIX C-2 (continued)									
Hazardous Waste Number	General description and hazardous constituents	Hazard code	Reactivity group number(s)	Halogen content % Wt	Specific gravity	Viscosity SSU	Physical form % solid Wt	Hazardous constituent % Wt	Water content % Wt
D030	2, 4-Dinitrotoluene (TCLP)	E	17	1-24	0.8-1.8	1-700	1-100	1-80	0-99
D031	Heptachlor (TCLP)	E	17	1-67	0.8-1.8	1-700	1-100	1-80	0-99
D032	Hexachlorobenzene (TCLP)	E	17	1-75	0.8-1.8	1-700	1-100	1-80	0-99
D033	Hexachloro-1, 3-butadiene (TCLP)	E	17	1-81	0.8-1.8	1-700	1-100	1-80	0-99
D034	Hexachloroethane (TCLP)	E	17	1-90	0.8-1.8	1-700	1-100	1-80	0-99
D035	Methyl Ethyl Ketone (TCLP)	E	19	1-22	0.8-1.8	1-700	1-100	1-80	0-99
D036	Nitrobenzene (TCLP)	E	17	1-15	0.8-1.8	1-700	1-100	1-80	0-99
D037	Pentachlorophenol (TCLP)	E	17	1-66	0.8-1.8	1-700	1-100	1-80	0-99
D038	Pyridine (TCLP)	E	17	1-7	0.8-1.8	1-700	1-100	1-80	0-99
D039	Tetrachloroethylene (TCLP)	E	17	1-85	0.8-1.8	1-700	1-100	1-80	0-99
D040	Trichloroethylene (TCLP)	E	17	1-75	0.8-1.8	1-700	1-100	1-80	0-99
D041	2, 4, 5-Trichlorophenol (TCLP)	E	17	1-54	0.8-1.8	1-700	1-100	1-80	0-99
D042	2, 4, 6-Trichlorophenol (TCLP)	E	17	1-54	0.8-1.8	1-700	1-100	1-80	0-99
D043	Vinyl Chloride (TCLP)	E	17	1-73	0.8-1.8	1-700	1-100	1-80	0-99
F001	Spent halogenated solvents and sludges from degreasing operations								
	Tetrachloroethylene	T	17	1-86	0.8-1.8	1-700	1-100	20-80	0-99
	Trichloroethylene	T	17	1-81	0.8-1.8	1-700	1-100	20-80	0-99
	Methylene Chloride	T	17	1-84	0.8-1.8	1-700	1-100	20-80	0-99
	1, 1, 1-Trichloroethane	T	17	1-80	0.8-1.8	1-700	1-100	20-80	0-99
	Carbon Tetrachloride	T	17	1-93	0.8-1.8	1-700	1-100	20-80	0-99
	Chlorinated fluorocarbons	T	17	1-90	0.8-1.8	1-700	1-100	20-80	0-99
F002	Spent halogenated solvents and still bottoms from recovery								
	Tetrachloroethylene	T	17	1-85	0.8-1.8	1-700	1-100	20-80	0-99
	Methylene Chloride	T	17	1-81	0.8-1.8	1-700	1-100	20-80	0-99
	Trichloroethylene	T	17	1-84	0.8-1.8	1-700	1-100	20-80	0-99
	1, 1, 1-Trichloroethane	T	17	1-80	0.8-1.8	1-700	1-100	20-80	0-99
	Chlorobenzene	T	17	1-88	0.8-1.8	1-700	1-100	20-80	0-99
	1, 1, 2-Trichloro-1, 2, 2-Trifluoroethane	T	17	1-80	0.8-1.8	1-700	1-100	20-80	0-99
	o-Dichlorobenzene	T	17	0-49	0.8-1.8	1-700	1-100	20-80	0-99
	Trichlorofluoromethane	T	17	0-91	0.8-1.8	1-700	1-100	20-80	0-99

APPENDIX C-2 (continued)										
Hazardous Waste Number	General description and hazardous constituents	Hazard code	Reactivity group number(s)	Halogen content % Wt	Specific gravity	Viscosity SSU	Physical form % solid Wt	Hazardous constituent % Wt	Water content % Wt	
F003	Spent non-halogenated solvents and still bottoms									
	Xylene	I	16	0-1	0.8-1.8	1-700	1-100	20-80	0-99	
	Acetone	I	19	0-1	0.8-1.8	1-700	1-100	20-80	0-99	
	Ethyl acetate	I	13	0-1	0.8-1.8	1-700	1-100	20-80	0-99	
	Ethyl benzene	I	16	0-1	0.8-1.8	1-700	1-100	20-80	0-99	
	Ethyl ether	I	14	0-1	0.8-1.8	1-700	1-100	20-80	0-99	
	N-butyl alcohol	I	4	0-1	0.8-1.8	1-700	1-100	20-80	0-99	
	Cyclohexane	I	19	0-1	0.8-1.8	1-700	1-100	20-80	0-99	
	Methanol	I	4	0-1	0.8-1.8	1-700	1-100	20-80	0-99	
F004	Spent non-halogenated solvents and still bottoms									
	Cresol and cresylic acid	T	31	0-1	0.8-1.8	1-700	1-99	20-80	0-99	
	Nitrobenzene	T	27	0-1	0.8-1.8	1-700	1-99	20-80	0-99	
F005	Spent non-halogenated solvents and still bottoms									
	Toluene	I, T	16	0-1	0.8-1.8	1-700	1-99	20-80	0-99	
	Methyl Ethyl Ketone	I, T	19	0-1	0.8-1.8	1-700	1-99	20-80	0-99	
	Carbon disulfide	I, T	20	0-1	0.8-1.8	1-700	1-99	20-80	0-99	
	Isobutanol	I, T	4	0-1	0.8-1.8	1-700	1-99	20-80	0-99	
	Pyridine	I, T	7	0-1	0.8-1.8	1-700	1-99	20-80	0-99	
F006	Wastewater treatment sludges from electroplating operations									
	Cadmium	E	24	0-96	0.8-1.8	1-700	1-100	1-10	0-99	
	Hexavalent Chromium	T	24	0-1	0.8-1.5	1-700	1-99	1-99	1-99	
	Nickel	T	22, 24	varies	8.90	varies	varies	varies	varies	
	Cyanide (complexed)	T	11	a	a	a	a	a	a	
F007	Spent cyanide plating bath solutions from electroplating operations									
	Cyanide (salts)	T	11	a	a	a	a	a	a	
F008	Plating sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process									
	Cyanide (salts)	T	11	a	a	a	a	a	a	
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process									
	Cyanide (salts)	T	11	a	a	a	a	a	a	

APPENDIX C-2 (continued)									
Hazardous Waste Number	General description and hazardous constituents	Hazard code	Reactivity group number(s)	Halogen content % Wt	Specific gravity	Viscosity SSU	Physical form % solid Wt	Hazardous constituent % Wt	Water content % Wt
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process								
	Cyanide (salts)	T	11	a	a	a	a	a	a
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations								
	Cyanide (salts)	T	11	a	a	a	a	a	a
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process								
	Cyanide (complexed)	T	11	a	a	a	a	a	a
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum								
	Hexavalent Chromium	T	24	0-1	0.8-1.5	1-700	1-99	1-99	1-99
	Cyanide (complexed)	T	11	a	a	a	a	a	a
F020	Wastes from the production or manufacturing use of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives								
	Tetrachlorodibenzo-p-dioxins	T	14, 17	a	a	a	a	a	a
	Pentachlorodibenzo-p-dioxins	T	14, 17	a	a	a	a	a	a
	Tetrachlorodibenzofuran	T	14	0-1	0.9	a	a	a	a
	Pentachlorodibenzofuran	T	14	0-1	0.9	a	a	a	a
	Trichlorophenol	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	Tetrachlorophenol	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	Chlorophenoxy derivative acids	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	Esters	T	13	varies	varies	varies	varies	-	-
	Ethers	T	14	1-84	0.708	1-700	1-99	1-99	1-99
	Amines and other salts	T	7	varies	varies	varies	varies	-	-
F021	Wastes from the production or manufacturing use of pentachlorophenol, or of intermediates used to produce its derivatives								
	Pentachlorodibenzo-p-dioxins	-	17	a	a	a	a	a	a
	Hexachlorodibenzo-p-dioxins	-	17	a	a	a	a	a	a
	Pentachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
	Hexachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
	Pentachlorophenol	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	Derivatives of pentachlorophenol	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99

APPENDIX C-2 (continued)									
Hazardous Waste Number	General description and hazardous constituents	Hazard code	Reactivity group number(s)	Halogen content % Wt	Specific gravity	Viscosity SSU	Physical form % solid Wt	Hazardous constituent % Wt	Water content % Wt
F022	Wastes from the manufacturing use of tetra-, penta- or hexachlorobenzenes under alkaline conditions								
	Tetrachlorodibenzo-p-dioxins	T	17	a	a	a	a	a	a
	Pentachlorodibenzo-p-dioxins	T	17	a	a	a	a	a	a
	Hexachlorodibenzo-p-dioxins	T	17	a	a	a	a	a	a
	Tetrachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
	Pentachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
	Hexachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
F023	Wastes from the production of materials on equipment previously used for the production or manufacturing use of tri- and tetrachlorophenols								
	Tetrachlorodibenzo-p-dioxins	T	17	a	a	a	a	a	a
	Pentachlorodibenzo-p-dioxins	T	17	a	a	a	a	a	a
	Tetrachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
	Pentachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
	Trichlorophenol	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	Tetrachlorophenol	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	Chlorophenoxy derivative acids	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	Esters	T	17, 31	varies	varies	varies	varies	varies	varies
	Ethers	T	13	varies	varies	varies	varies	varies	varies
	Amines and other salts	T	14	varies	varies	varies	varies	varies	varies
F024	Distillation residue tars, heavy ends from production of chlorinated aliphatic hydrocarbons with 1 to 5 carbon units								
	Chloromethane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Dichloromethane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Trichloromethane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Carbon tetrachloride	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Chloroethylene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	1, 1-Dichloroethane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	1, 2-Dichloroethane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	trans-1-2-Dichloroethylene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	1, 1-Dichloroethylene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	1, 1, 1-Trichloroethane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99

APPENDIX C-2 (continued)									
Hazardous Waste Number	General description and hazardous constituents	Hazard code	Reactivity group number(s)	Halogen content % Wt	Specific gravity	Viscosity SSU	Physical form % solid Wt	Hazardous constituent % Wt	Water content % Wt
F024	1, 1, 2-Trichloroethane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
(cont.)	Trichloroethylene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	1, 1, 1, 2-Tetrachloroethane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	1, 1, 2, 2-Tetrachloroethane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Tetrachloroethylene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Pentachloroethane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Hexachloroethane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Allyl chloride (3-Chloropropene)	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Dichloropropane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Dichloropropene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	2-Chloro-1, 3-butadiene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Hexachloro-1, 3-butadiene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Hexachlorocyclopentadiene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Hexachlorocyclohexane	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Benzene	I, T	16	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Chlorobenzene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Dichlorobenzene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	1, 2, 4-Trichlorobenzene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Tetrachlorobenzene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Pentachlorobenzene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Hexachlorobenzene	T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Toluene	I, T	17	20-96	0.8-1.8	1-700	1-99	20-80	0-99
	Naphthalene	T, I	16	20-96	0.8-1.8	1-700	1-99	20-80	0-99
F025		T	Wastes from the production of certain aliphatic hydrocarbons by free radical catalyzed processes. Chlorinated aliphatic hydrocarbons having carbon chain lengths ranging from one to, and including five, with varying amounts and position of chlorine substitution.						
F026	Wastes from the production of materials on equipment previously used for the manufacturing use of tetra-, penta- or hexachlorobenzene under alkaline conditions								
	Tetrachlorodibenzo-p-dioxins	T	17	a	a	a	a	a	a

APPENDIX C-2 (continued)									
Hazardous Waste Number	General description and hazardous constituents	Hazard code	Reactivity group number(s)	Halogen content % Wt	Specific gravity	Viscosity SSU	Physical form % solid Wt	Hazardous constituent % Wt	Water content % Wt
F026	Pentachlorodibenzo-p-dioxins	T	17	a	a	a	a	a	a
(cont.)	Hexachlorodibenzo-p-dioxins	T	17	a	a	a	a	a	a
	Tetrachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
	Pentachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
	Hexachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
F027	Discarded unused formulations containing tri-, tetra- or penta-chlorophenol or discarded unused formulations containing compounds (H) derived from these chlorophenols (this list does not include formulations containing hexachlorophene synthesized from prepurified 2, 4, 5-trichlorophenol as the sole component)								
	Pentachlorophenol	I, T	17	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	2, 3, 4, 6-Tetrachlorophenol	T	17	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	2, 4, 5-Trichlorophenol	T	17	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	2, 4, 6-Trichlorophenol	T	17	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	Silvex	T	17	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	2, 4, 5-Trichloroacetic acids, salts and esters	T	17	1-85	0.8-1.8	1-700	1-99	1-99	1-99
	2, 4, 5-Trichlorophenoxypropionic acids, salts and esters	T	17	1-58	0.8-1.8	1-700	1-99	1-99	1-99
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA hazardous waste numbers								
	F020, F021, F022, F023, F026 and F027								
	Tetrachlorodibenzo-p-dioxins	T	17	a	a	a	a	a	a
	Pentachlorodibenzo-p-dioxins	T	17	a	a	a	a	a	a
	Hexachlorodibenzo-p-dioxins	T	17	a	a	a	a	a	a
	Tetrachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
	Pentachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
	Hexachlorodibenzofuran	T	17, 31	a	a	a	a	a	a
	Trichlorophenol	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	Tetrachlorophenol	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	Pentachlorophenol	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99
	Chlorophenoxy derivative acids	T	17, 31	1-84	0.8-1.8	1-700	1-99	1-99	1-99

APPENDIX C-2 (continued)

WASTE CODE

P

Chemical Name: Warfarin	
Synonyms: 3-(alpha-Acetylbenzyl)-4-hydroxycoumarin and salts	
Physical State: Crystals	Formula: C ₁₉ H ₁₆ O ₄
Viscosity: NA	Mol. Weight: 308.32
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P001	Hazard Code: H
Hazardous Organic Constituents: Warfarin	
Chemical Name: Acetamide, N-(aminothioxomethyl)-	
Synonyms: (1-Acetyl-2-thiourea) (Acetyl thiourea)	
Physical State: NA	Formula: C ₃ H ₆ N ₂ OS
Viscosity: NA	Mol. Weight: 118.17
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P002	Hazard Code: H
Hazardous Organic Constituents: Acetamide, N-...	
Chemical Name: Acrolein	
Synonyms: (Acrylic aldehyde) (Aqualin) (Ethylene aldehyde) (2-Propenal)	
Physical State: Liquid	Formula: CH ₂ =CHCHO
Viscosity: .35 cp @ 20° C	Mol. Weight: 56.06
Specific Gravity: 0.841 @ 20° C	Halogen Content: 0%
Waste Number: P003	Hazard Code: H
Hazardous Organic Constituents: Acrolein	
Chemical Name: 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo-exodimethanonaphthalene	
Synonyms: (Aldrin)	
Physical State: Crystals, sol. in halog. solv.	Formula: C ₁₂ H ₈ Cl ₆
Viscosity: NA	Mol. Weight: 364.9
Specific Gravity: NA	Halogen Content: Cl - 58.4%
Waste Number: P004	Hazard Code: H
Hazardous Organic Constituents: 1,2,3,4,10,10-Hexachloro.....	
Chemical Name: Allyl Alcohol	
Synonyms: (Vinyl carbinol) (2-Propene-1-ol)	
Physical State: Liquid	Formula: CH ₂ =CHCH ₂ OH
Viscosity: 31. SSU @ 20° C	Mol. Weight: 58.08
Specific Gravity: 0.854 @ 20° C	Halogen Content: 0%
Waste Number: P005	Hazard Code: H
Hazardous Organic Constituents: Allyl Alcohol	

Chemical Name: Aluminum Phosphide	
Synonyms: NA	
Physical State: Crystals, sol. in liquids	Formula: AlP
Viscosity: NA	Mol. Weight: 57.96
Specific Gravity: 2.85 @ 25° C	Halogen Content: 0%
Waste Number: P006	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: 5-(Aminomethyl)-3-isoxazolol	
Synonyms: (Muscimol) 3(2H)-Isoxazolone, 5-(aminomethyl)-	
Physical State: Liquid	Formula: C ₄ H ₆ N ₂ O ₂
Viscosity: NA	Mol. Weight: 114.10
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P007	Hazard Code: H
Hazardous Organic Constituents: 5-(Aminomethyl)-3-...	
Chemical Name: 4-a Aminopyridine	
Synonyms: (alpha-Aminopyridine) 4-Pyridinamine	
Physical State: Crystals	Formula: C ₅ H ₆ N ₂
Viscosity: NA	Mol. Weight: 94.11
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P008	Hazard Code: H
Hazardous Organic Constituents: 4-a Aminopyridine	
Chemical Name: Ammonium picrate	
Synonyms: Phenol, 2,4,6-trinitro-, ammonium salt	
Physical State: solid	Formula: (NO ₂) ₃ C ₆ H ₂ OH
Viscosity: NA	Mol. Weight: 229.1
Specific Gravity: 1.76	Halogen Content: 0%
Waste Number: P009	Hazard Code: H
Hazardous Organic Constituents: Ammonium...	
Chemical Name: Arsenic Acid	
Synonyms:	
Physical State: Solid, powder	Formula: H ₃ AsO ₄ .1/2H ₂ O
Viscosity: NA	Mol. Weight: 150.9
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P010	Hazard Code: H
Hazardous Organic Constituents: Arsenic Acid	
Chemical Name: Arsenic (V) Oxide	
Synonyms: (Arsenic Oxide) (Arsenic Pentoxide)	
Physical State: Solid	Formula: As ₂ O ₅
Viscosity: NA	Mol. Weight: 229.8
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P011	Hazard Code: H

Hazardous Organic Constituents: Arsenic (V) Oxide	
Chemical Name: Arsenic (III) Oxide	
Synonyms: (white arsenic)(arsenic trioxide)	
Physical State: Powder	Formula: As ₂ O ₃
Viscosity: NA	Mol. Weight: 197.8
Specific Gravity: 3.865 @ 25° C	Halogen Content: 0%
Waste Number: P012	Hazard Code: H
Hazardous Organic Constituents: Arsenic (III) Oxide	
Chemical Name: Barium Cyanide	
Synonyms: NA	
Physical State: NA	Formula: Ba(CN) ₂
Viscosity: NA	Mol. Weight: 189.38
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P013	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Benzenethiol	
Synonyms: (Phenyl mercaptan) (Thiophenol)	
Physical State: Liquid	Formula: C ₆ H ₅ SH
Viscosity: 1.239 cP	Mol. Weight: 110.2
Specific Gravity: 1.0728 @ 25° C	Halogen Content: 0%
Waste Number: P014	Hazard Code: H
Hazardous Organic Constituents: Benzenethiol	
Chemical Name: Beryllium dust	
Synonyms: NA	
Physical State: NA	Formula: Be
Viscosity: NA	Mol. Weight: 9.012
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P015	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Bis-(chloromethyl)-ether	
Synonyms: (Dichloromethyl ether) (Dichlorinated methyl oxide) (BCME)	
Physical State: Liquid	Formula: O(CH ₂ Cl) ₂
Viscosity: NA	Mol. Weight: 115
Specific Gravity: 1.315 @ 20° C	Halogen Content: Cl - 61.7%
Waste Number: P016	Hazard Code: H
Hazardous Organic Constituents: Bis-(chloromethyl)-Ether	

Chemical Name: Bromoacetone	
Synonyms: (2-Propanone, 1-bromo-)	
Physical State: Liquid	Formula: CH ₂ BrCOCH ₃
Viscosity: NA	Mol. Weight: 136.99
Specific Gravity: 1.631 @ 0° C	Halogen Content: Br - 58.4%
Waste Number: P017	Hazard Code: H
Hazardous Organic Constituents: Bromoacetone	
Chemical Name: Brucine	
Synonyms: (Monoclinic prisms) (Strychnidin-10-one, 2,3-dimethoxy-)	
Physical State: Solid	Formula: C ₂₃ H ₂₆ N ₂ O ₄
Viscosity: NA	Mol. Weight: 394.45
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P018	Hazard Code: H
Hazardous Organic Constituents: Brucine	
Chemical Name: Dinoseb	
Synonyms: (2-sec-Butyl-6,4-dinitrophenol) Phenol, 2-(1-methylpropyl)-4,6-dinitro-	
Physical State: Crystals	Formula: (C ₄ H ₉)(NO ₂) ₂ C ₆ H ₂ OH
Viscosity: NA	Mol. Weight: 240.2
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P020	Hazard Code: H
Hazardous Organic Constituents: Dinoseb	
Chemical Name: Calcium cyanide	
Synonyms: NA	
Physical State: NA	Formula: Ca(CN) ₂
Viscosity: NA	Mol. Weight: 92.12
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P021	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Carbon bisulfide	
Synonyms: Carbon disulfide	
Physical State: NA	Formula: CS ₂
Viscosity: NA	Mol. Weight: 76.14
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P022	Hazard Code: T
Hazardous Organic Constituents: NA	

Chemical Name: Chloroacetaldehyde	
Synonyms: (Chloroaldehyde)	
Physical State: Liquid	Formula: C ₂ H ₃ OCl
Viscosity: NA	Mol. Weight: 78.5
Specific Gravity: 1.19 @ 25° C	Halogen Content: Cl - 45.2%
Waste Number: P023	Hazard Code: H
Hazardous Organic Constituents: Chloroacetaldehyde	
Chemical Name: p-Chloroaniline	
Synonyms: (4-Chlorobenzenamine)	
Physical State: Solid	Formula: C ₆ H ₆ ClN
Viscosity: 3.35 cP @ 20° C	Mol. Weight: 127.6
Specific Gravity: 1.169 @ 77° C	Halogen Content: Cl - 27.8%
Waste Number: P024	Hazard Code: H
Hazardous Organic Constituents: p-Chloroaniline	
Chemical Name: 1-(o-Chlorophenyl) thiourea	
Synonyms: 1-(2-Chlorophenyl)-2-thiourea	
Physical State: Solid (needles or plates)	Formula: ClC ₆ H ₄ NHCSNH ₂
Viscosity: NA	Mol. Weight: 186.66
Specific Gravity: NA	Halogen Content: Cl - 19%
Waste Number: P026	Hazard Code: H
Hazardous Organic Constituents: 1-(o-Chlorophenyl),....	
Chemical Name: 3-Chloropropionitrile	
Synonyms: beta-Chloropropionitrile (Propanenitrile, 3-chloro-)	
Physical State: Liquid	Formula: ClCH ₂ CH ₂ CN
Viscosity: NA	Mol. Weight: 89.5
Specific Gravity: 1.144	Halogen Content: Cl - 39.6%
Waste Number: P027	Hazard Code: H
Hazardous Organic Constituents: 3-Chloropropionitrile	
Chemical Name: Benzyl Chloride	
Synonyms: (Benzene, (chloromethyl)-)	
Physical State: Liquid	Formula: C ₆ H ₅ CH ₂ Cl
Viscosity: 1.400 cP	Mol. Weight: 126.58
Specific Gravity: 1.1026 @ 18° C	Halogen Content: Cl - 28%
Waste Number: P028	Hazard Code: H
Hazardous Organic Constituents: Benzyl Chloride	

Chemical Name: Copper Cyanides	
Synonyms: NA	
Physical State: NA	Formula: CuCN
Viscosity: NA	Mol. Weight: 89.56
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P029	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Cyanides (soluble cyanide salts)	
Synonyms: 3(2H)-Isoxazolene, 5-(aminomethyl)-	
Physical State: NA	Formula: Variable
Viscosity: NA	Mol. Weight: NA
Specific Gravity: NA	Halogen Content: NA
Waste Number: P030	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Cyanogen	
Synonyms: Ethanedinitrile	
Physical State: gas/liquid	Formula: (CN) ₂
Viscosity: NA	Mol. Weight: 52.04
Specific Gravity: 2.335-.9577	Halogen Content: 54%
Waste Number: P031	Hazard Code: T
Hazardous Organic Constituents: Cyanogen	
Chemical Name: Chlorine Cyanide	
Synonyms: Cyanogen chloride	
Physical State: Gas	Formula: ClCN
Viscosity: NA	Mol. Weight: 61.47
Specific Gravity: 1.186	Halogen Content: 57.1
Waste Number: P033	Hazard Code: T
Hazardous Organic Constituents: Chlorine Cyanide	
Chemical Name: 4,6-Dinitro-o-cyclohexylphenol	
Synonyms: (2-Cyclohexyl-4,6-dinitrophenol)	
Physical State: Crystals	Formula: C ₆ H ₁₁ C ₆ H ₂ OH(NO ₂) ₂
Viscosity: NA	Mol. Weight: 266.23
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P034	Hazard Code: H
Hazardous Organic Constituents: 4,6-Dinitro-O-.....	

Chemical Name: Dichloro Phenylarsine	
Synonyms: Phenyl dichloroarsine (Arsonous dichloride, phenyl-)	
Physical State: Liquid	Formula: C ₆ H ₅ AsCl ₂
Viscosity: NA	Mol. Weight: 222.93
Specific Gravity: NA	Halogen Content: Cl - 31.85%
Waste Number: P036	Hazard Code: H
Hazardous Organic Constituents: Dichloro phenylarsine	
Chemical Name: 1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo,exo-1,4:5,8-dimethanonaphthalene	
Synonyms: (Dieldrin)	
Physical State: Crystalline, sol. in orig. solv.	Formula: C ₁₂ H ₁₀ OCl ₆
Viscosity: NA	Mol. Weight: 380.9
Specific Gravity: 1.75	Halogen Content: Cl - 55.9%
Waste Number: P037	Hazard Code: H
Hazardous Organic Constituents: 1,2,3,4,10,10-Hexachloro....	
Chemical Name: Diethylarsine	
Synonyms: NA	
Physical State: NA	Formula: (C ₂ H ₅) ₂ AsH
Viscosity: NA	Mol. Weight: 134.05
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P038	Hazard Code: H
Hazardous Organic Constituents: Diethylarsine	
Chemical Name: o,o-Diethyl-s-[2-(ethylthio)ethyl] phosphorodithioate	
Synonyms: (Disulfoton)	
Physical State: Liquid	Formula: (C ₂ H ₅ O) ₂ PSCH ₂ CH ₂ SCH ₂ CH ₃
Viscosity: NA	Mol. Weight: 174
Specific Gravity: 1.44 @ 20° C	Halogen Content: 0%
Waste Number: P039	Hazard Code: H
Hazardous Organic Constituents: o,o-Diethyl....	
Chemical Name: o,o-Diethyl-o-(2-pyrazinyl) phosphorothioate	
Synonyms: (Zinophos) (Thionazan)	
Physical State: Solid	Formula: C ₁₈ H ₂₀ O ₂
Viscosity: NA	Mol. Weight: 248.26
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P040	Hazard Code: H
Hazardous Organic Constituents: o,o-Diethyl	

Chemical Name: Diethyl-p-nitrophenyl phosphate	
Synonyms: (Para-oxon) (o,o-Diethyl phosphoric acid, o-p-nitro-phenylester)	
Physical State: Liquid	Formula: C ₁₀ H ₁₄ NO ₆ P
Viscosity: NA	Mol. Weight: 275.2
Specific Gravity: 1.2736 @ 20° C	Halogen Content: 0%
Waste Number: P041	Hazard Code: H
Hazardous Organic Constituents: Diethyl-p-nitrophenyl....	
Chemical Name: 1,2-Benzenediol,4-(1-hydroxy-2-(methyl(amino)ethyl)-	
Synonyms: (Epinephrine) (Adrenaline)	
Physical State: Crystals	Formula: C ₉ H ₁₃ NO ₃
Viscosity: NA	Mol. Weight: 183.20
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P042	Hazard Code: H
Hazardous Organic Constituents: 1,2-Benzenediol,....	
Chemical Name: Diisopropyl fluorophosphate	
Synonyms: (Phosphorofluoridic acid, bis(1-methylethyl) ester) (Isofluorophate)	
Physical State: Liquid	Formula: C ₆ H ₁₄ FPO ₃
Viscosity: NA	Mol. Weight: 184.15
Specific Gravity: 1.07 (approx.)	Halogen Content: 10.3%
Waste Number: P043	Hazard Code: H
Hazardous Organic Constituents: Diisopropyl...	
Chemical Name: Dimethoate	
Synonyms: (Phosphorodithioc acid, o,o-dimethyl ester)	
Physical State: Solid	Formula: (CH ₃ O) ₂ PSSCH ₂ CONHCH ₃
Viscosity: NA	Mol. Weight: 229.28
Specific Gravity: 1.277 @ 65° C	Halogen Content: 0%
Waste Number: P044	Hazard Code: 0%
Hazardous Organic Constituents: Dimethoate	
Chemical Name: 3,3-Dimethyl-1-(methylthio)-2-butanone, 0-[(methylamino) carbonyl] Oxime-	
Synonyms: (Thiofanox)	
Physical State: Liquid	Formula: C ₉ H ₁₈ N ₂ O ₂ S
Viscosity: NA	Mol. Weight: 218.3
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P045	Hazard Code: H
Hazardous Organic Constituents: 3,3-Dimethyl....	

Chemical Name: Benzeneethanamine, 1,1-dimethyl-2-phenyl-	
Synonyms: (alpha, alpha-Dimethyl phenethylamine)	
Physical State: Liquid	Formula: C ₁₀ H ₁₅ N
Viscosity: NA	Mol. Weight: 149.23
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P046	Hazard Code: H
Hazardous Organic Constituents: Ethanamine	
Chemical Name: 4,6-Dinitro-o-cresol and salts	
Synonyms: (2-methyl-4,6-dinitrophenol) (DNOC)	
Physical State: Crystals	Formula: (NO ₂) ₂ C ₆ H ₂ (CH ₃)OH
Viscosity: NA	Mol. Weight: 198.1
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P047	Hazard Code: H
Hazardous Organic Constituents: 4,6-Dinitro....	
Chemical Name: 2,4-Dinitrophenol	
Synonyms: NA	
Physical State: Crystal	Formula: (NO ₂) ₂ C ₆ H ₃ OH
Viscosity: NA	Mol. Weight: 184.11
Specific Gravity: 1.683 @ 24° C	Halogen Content: 0%
Waste Number: P048	Hazard Code: H
Hazardous Organic Constituents: 2,4-Dinitrophenol	
Chemical Name: 2,4-Dithiobiuret	
Synonyms: (Thiomidodicarbonic diamide)	
Physical State: Crystals	Formula: H ₂ NC(S)NHC(S)NH ₂
Viscosity: NA	Mol. Weight: 135.20
Specific Gravity: 1.522 @ 30° C	Halogen Content: 0%
Waste Number: P049	Hazard Code: H
Hazardous Organic Constituents: 2,4-Dithiobiuret	
Chemical Name: Endosulfan	
Synonyms: (Thiodan) 6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide	
Physical State: Crystals, sol. in org. sol.	Formula: C ₉ H ₆ Cl ₆ O ₃ S
Viscosity: NA	Mol. Weight: 407.0
Specific Gravity: 1.745 @ 20° C	Halogen Content: Cl - 52.3%
Waste Number: P050	Hazard Code: H
Hazardous Organic Constituents: Endosulfan	

Chemical Name: Endrin	
Synonyms: (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4,5,8-endo-dimethanonaphthalene)	
Physical State: Crystals	Formula: C ₁₂ H ₈ Cl ₆ O
Viscosity: NA	Mol. Weight: 380.93
Specific Gravity: NA	Halogen Content: Cl - 55.85%
Waste Number: P051	Hazard Code: H
Hazardous Organic Constituents: Endrin	
Chemical Name: Aziridine	
Synonyms: (Ethylenimine)	
Physical State: Liquid	Formula: NHCH ₂ CH ₂
Viscosity: NA	Mol. Weight: 43.07
Specific Gravity: 0.832 @ 20° C	Halogen Content: 0%
Waste Number: P054	Hazard Code: H
Hazardous Organic Constituents: Aziridine	
Chemical Name: Fluorine	
Synonyms: NA	
Physical State: Gas	Formula: F
Viscosity: NA	Mol. Weight: 19
Specific Gravity: 1.69	Halogen Content: 100%
Waste Number: P056	Hazard Code: T
Hazardous Organic Constituents: NA	
Chemical Name: Fluoroacetimide	
Synonyms: Acetamide, 2-fluoro	
Physical State: Liquid	Formula: H ₂ FCCONH ₂
Viscosity: NA	Mol. Weight: 77
Specific Gravity: NA	Halogen Content: F - 24.65%
Waste Number: P057	Hazard Code: H
Hazardous Organic Constituents: Fluoroacetimide	
Chemical Name: Fluoroacetic acid, sodium salt	
Synonyms: (fluoroethanic acid, fluoraeticacid)	
Physical State: Solid, water soluble	Formula: CH ₂ FCOOH
Viscosity: NA	Mol. Weight: 78.0
Specific Gravity: NA	Halogen Content: F - 24.4%
Waste Number: P058	Hazard Code: H
Hazardous Organic Constituents: Fluoroactic Acid,....	

Chemical Name: Heptachlor	
Synonyms: (1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene)	
Physical State: Crystals, sol. in org. solv.	Formula: C ₁₀ H ₇ Cl ₇
Viscosity: NA	Mol. Weight: 375.3
Specific Gravity: 1.57 @ 9° C	Halogen Content: Cl - 66.2%
Waste Number: P059	Hazard Code: H
Hazardous Organic Constituents: Heptachlor	
Chemical Name: 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, endo-dimethanonaphthalene	
Synonyms: (Isodrin)	
Physical State: Crystals	Formula: C ₁₂ H ₈ Cl ₆
Viscosity: NA	Mol. Weight: 364.9
Specific Gravity: NA	Halogen Content: Cl - 58.4%
Waste Number: P060	Hazard Code: H
Hazardous Organic Constituents: 1,2,3,4,10,10-Hexachloro....	
Chemical Name: Hexaethyl tetraphosphate	
Synonyms: (Ethyl tetraphosphate) (HETP) Tetraphosphoric Acid, hexaethyl ester	
Physical State: Liquid	Formula: (C ₂ H ₅ O) ₆ P ₄ O ₇
Viscosity: NA	Mol. Weight: 506.4
Specific Gravity: 1.2917 @ 27° C	Halogen Content: 0%
Waste Number: P062	Hazard Code: H
Hazardous Organic Constituents: Hexaethyl tetraphosphate	
Chemical Name: Hydrocyanic acid	
Synonyms: Hydrogen cyanide	
Physical State: liquid	Formula: HCN
Viscosity: NA	Mol. Weight: 27.0
Specific Gravity: 0.69 @ 25° C	Halogen Content: 0%
Waste Number: P063	Hazard Code: H
Hazardous Organic Constituents: Hydrocyanic acid	
Chemical Name: Methyl isocyanate	
Synonyms: (Isocyanic acid, methyl ester) Methane, isocyanato-	
Physical State: Liquid	Formula: CH ₃ NCO
Viscosity: NA	Mol. Weight: 57
Specific Gravity: .9599 @ 20° C	Halogen Content: 0%
Waste Number: P064	Hazard Code: H
Hazardous Organic Constituents: Methyl isocyanate	
Chemical Name: Fulminic Acid	
Synonyms: Mercury (II) salt, Mercury Fulminate	
Physical State: NA	Formula: Hg(CNO) ₂
Viscosity: NA	Mol. Weight: 284.62
Specific Gravity: 4.42	Halogen Content: 21%
Waste Number: P065	Hazard Code: R, T

Hazardous Organic Constituents: Mercury (II) salt	
Chemical Name: Methomyl	
Synonyms: (Lannate) (Acetimidic acid,N-[(methylcarbamoyl)oxy]thio-,methyl ester)	
Physical State: Solid, water soluble	Formula: C ₆ H ₁₀ O ₂ N ₂ S
Viscosity: NA	Mol. Weight: 162.1
Specific Gravity: 1.2946 @ 24° C	Halogen Content: 0%
Waste Number: P066	Hazard Code: H
Hazardous Organic Constituents: Methomyl	
Chemical Name: 2-Methylaziridine	
Synonyms: (1,2-Propylenimine)	
Physical State: Liquid	Formula: NHCH ₂ CHCH ₃
Viscosity: NA	Mol. Weight: 58.10
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P067	Hazard Code: H
Hazardous Organic Constituents: 2-Methylaziridine	
Chemical Name: Hydrazine, methyl	
Synonyms: Methyl hydrazine	
Physical State: Liquid	Formula: CH ₃ NHNH ₂
Viscosity: NA	Mol. Weight: 46
Specific Gravity: 0.874 @ 20° C	Halogen Content: 0%
Waste Number: P068	Hazard Code: H
Hazardous Organic Constituents: Hydrazine, methyl	
Chemical Name: 2-Methylactonitrile	
Synonyms: (Propanenitrile, 2-hydroxy-2-methyl-)	
Physical State: Liquid	Formula: C ₄ H ₇ NO
Viscosity: NA	Mol. Weight: 85.10
Specific Gravity: .932 @ 19° C	Halogen Content: 0%
Waste Number: P069	Hazard Code: 0%
Hazardous Organic Constituents: 2-Methylactonitrile	
Chemical Name: Aldicarb	
Synonyms: (2-methyl-2-(methylthio)propionaldehyde-o-(Temik)methyl carbonyl oxime)	
Physical State: Solid	Formula: C ₇ H ₁₄ O ₂ N ₂ S
Viscosity: NA	Mol. Weight: 190.25
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P070	Hazard Code: H
Hazardous Organic Constituents: Aldicarb	

Chemical Name: o,o-Dimethyl-o,p-nitrophenyl phosphorothioate	
Synonyms: Methyl parathion	
Physical State: Solid	Formula: C ₈ H ₁₀ NO ₅ PS
Viscosity: NA	Mol. Weight: 263.23
Specific Gravity: 1.235 @ 20° C	Halogen Content: 0%
Waste Number: P071	Hazard Code: H
Hazardous Organic Constituents: o,o-Dimethyl...	
Chemical Name: alpha-Naphthylthiourea	
Synonyms: (1-(1-Naphthyl)-2-Thiourea)	
Physical State: Solid	Formula: C ₁₁ H ₁₀ N ₂ S
Viscosity: NA	Mol. Weight: 202.3
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P072	Hazard Code: H
Hazardous Organic Constituents: alpha-Naphthylthiourea	
Chemical Name: Nickel Carbonyl	
Synonyms: Nickel Tetracarbonyl	
Physical State: Liquid	Formula: Ni(CO) ₄
Viscosity: NA	Mol. Weight: 170.69
Specific Gravity: 1.3185 @ 17° C	Halogen Content: 0%
Waste Number: P073	Hazard Code: 0%
Hazardous Organic Constituents: Nickel Carbonyl	
Chemical Name: Nickel Cyanide	
Synonyms: Nickel (II) Cyanide	
Physical State: NA	Formula: Ni(CN) ₂ 4H ₂ O
Viscosity: NA	Mol. Weight: 182.81
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P074	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Nicotine and salts	
Synonyms: (Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts)	
Physical State: Liquid	Formula: C ₁₀ H ₁₄ N ₂
Viscosity: NA	Mol. Weight: 162.23
Specific Gravity: 1.0092 @ 20° C	Halogen Content: 0%
Waste Number: P075	Hazard Code: H
Hazardous Organic Constituents: Nicotine and salts	

Chemical Name: Nitric Oxide	
Synonyms: Nitrogen (II) Oxide	
Physical State: Gas	Formula: NO
Viscosity: NA	Mol. Weight: 30
Specific Gravity: NA	Halogen Content: 100%
Waste Number: P076	Hazard Code: T
Hazardous Organic Constituents: Nitrogen Oxide	
Chemical Name: Benzenamine, 4-nitro-	
Synonyms: (p-Nitroaniline) (1-Amino-4-nitrobenzene)	
Physical State: Yellow crystals	Formula: C ₆ H ₆ N ₂ O ₂
Viscosity: NA	Mol. Weight: 138.1
Specific Gravity: 1.424	Halogen Content: 0%
Waste Number: P077	Hazard Code: H
Hazardous Organic Constituents: Benzenamine, 4-nitro-	
Chemical Name: Nitrogen dioxide	
Synonyms: Nitrogen (IV) oxide	
Physical State: Gas, liquid	Formula: NO ₂
Viscosity: NA	Mol. Weight: 46.01
Specific Gravity: 1.448 - 1.58	Halogen Content: 100%
Waste Number: P078	Hazard Code: T
Hazardous Organic Constituents: Nitrogen dioxide	
Chemical Name: Nitroglycerine	
Synonyms: 1,2,3-Propanetrio, Trinitrate	
Physical State: Solid/liquid	Formula: O ₂ NOCH ₂ CH(ONO ₂)CH ₂ ONO ₂
Viscosity: NA	Mol. Weight: 227.09
Specific Gravity: 1.5931	Halogen Content: 82%
Waste Number: P081	Hazard Code: R
Hazardous Organic Constituents: Nitroglycerine	
Chemical Name: Dimethylnitrosamine	
Synonyms: N-Nitrosodimethylamine	
Physical State: NA	Formula: (CH ₃) ₂ N•NO
Viscosity: NA	Mol. Weight: 74.08
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P082	Hazard Code: H
Hazardous Organic Constituents: Dimethylnitrosamine	

Chemical Name: N-Nitrosomethylvinylamine	
Synonyms: Vinylamine, N-methyl-N-nitroso-	
Physical State: NA	Formula: C ₃ H ₆ N ₂ O
Viscosity: NA	Mol. Weight: 86.11
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P084	Hazard Code: H
Hazardous Organic Constituents: N-Nitrosomethylvinylamine	
Chemical Name: Diphosphoromide, octamethyl-	
Synonyms: (Octamethyl pyrophosphoramide)	
Physical State: Liquid	Formula: C ₈ H ₂₄ N ₄ P ₂ O ₃
Viscosity: NA	Mol. Weight: 286.34
Specific Gravity: 1.137 @ 25° C	Halogen Content: 0%
Waste Number: P085	Hazard Code: H
Hazardous Organic Constituents: Diphosphoromide,...	
Chemical Name: Osmium tetroxide	
Synonyms: Osmic acid	
Physical State: Solid	Formula: O ₄ Os
Viscosity: NA	Mol. Weight: 254.20
Specific Gravity: 4.906 @ 22° C	Halogen Content: 0%
Waste Number: P087	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: 7-Oxabicyclo[2,2,1]heptane-2,3-dicarboxylic acid	
Synonyms: Endothall	
Physical State: Solid	Formula: C ₈ H ₈ Na ₂ O
Viscosity: NA	Mol. Weight: 230.1
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P088	Hazard Code: H
Hazardous Organic Constituents: 7-Oxabicyclo...	
Chemical Name: Phosphorothioic acid, 0,0-diethyl-0-(p-nitrophenyl)ester	
Synonyms: (Parathion) (Diethyl-p-nitrophenylmonothiophosphate)	
Physical State: Liquid	Formula: C ₁₀ H ₁₄ NO ₅ PS
Viscosity: NA	Mol. Weight: 291.27
Specific Gravity: 1.27 @ 25° C	Halogen Content: NA
Waste Number: P089	Hazard Code: H
Hazardous Organic Constituents: Phosphorothioic acid,...	

Chemical Name: Phenylmercuric acetate	
Synonyms: Mercury, (acetato-O)phenyl-	
Physical State: NA	Formula: C ₆ H ₅ HgO ₂ CCH ₃
Viscosity: NA	Mol. Weight: 336.74
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P092	Hazard Code: H
Hazardous Organic Constituents: Phenylmercuric acetate	
Chemical Name: N-Phenylthiourea	
Synonyms: Thiourea, phenyl-	
Physical State: Solid	Formula: C ₆ H ₅ NHCSNH ₂
Viscosity: NA	Mol. Weight: 152.23
Specific Gravity: 1.3	Halogen Content: 0%
Waste Number: P093	Hazard Code: H
Hazardous Organic Constituents: N-Phenylthiourea	
Chemical Name: Phosphorodithioic acid, o,o-diethyl-s-(ethylthio) methyl ester	
Synonyms: Phorate	
Physical State: Liquid	Formula: C ₇ H ₁₇ O ₂ PS ₃
Viscosity: NA	Mol. Weight: 260.40
Specific Gravity: 1.156	Halogen Content: 0%
Waste Number: P094	Hazard Code: H
Hazardous Organic Constituents: Phosphorodithioic acid,...	
Chemical Name: Carbonyl Chloride	
Synonyms: Phosgene	
Physical State: Gas	Formula: Cl ₂ CO
Viscosity: NA	Mol. Weight: 98.92
Specific Gravity: 1.381	Halogen Content: 71%
Waste Number: P095	Hazard Code: T
Hazardous Organic Constituents: Carbonyl Chloride	
Chemical Name: Phosphine	
Synonyms: Hydrogen phosphide	
Physical State: Gas	Formula: (F ₃ C) ₂ PH
Viscosity: NA	Mol. Weight: 169.99
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P096	Hazard Code: H
Hazardous Organic Constituents: NA	

Chemical Name: Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino)-sulfonyl)phenyl]ester	
Synonyms: Famphur	
Physical State: Solid	Formula: C ₁₀ H ₁₆ NO ₅ PS ₂
Viscosity: NA	Mol. Weight: 325.36
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P097	Hazard Code: H
Hazardous Organic Constituents: Phosphorothioic acid	
Chemical Name: Potassium Cyanide	
Synonyms: NA	
Physical State: NA	Formula: KCN
Viscosity: NA	Mol. Weight: 65.12
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P098	Hazard Code: NA
Hazardous Organic Constituents: NA	
Chemical Name: Potassium Silver Cyanide	
Synonyms: Argentate(1-), bis(vyano-C)-, potassium	
Physical State: NA	Formula: C ₂ AgN ₂ K
Viscosity: NA	Mol. Weight: 199.01
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P099	Hazard Code: NA
Hazardous Organic Constituents: NA	
Chemical Name: Propanenitrile	
Synonyms: Ethyl cyanide	
Physical State: Liquid	Formula: CH ₃ CH ₂ CN
Viscosity: 0.624 cP @ 15° C	Mol. Weight: 55.08
Specific Gravity: 0.783 @ 21° C	Halogen Content: 0%
Waste Number: P101	Hazard Code: H
Hazardous Organic Constituents: Propanenitrile	
Chemical Name: 2-Propyn-1-ol	
Synonyms: (Propargyl alcohol)	
Physical State: Liquid	Formula: HC≡CCH ₂ OH
Viscosity: NA	Mol. Weight: 56.1
Specific Gravity: 0.9715 @ 20° C	Halogen Content: 0%
Waste Number: P102	Hazard Code: H
Hazardous Organic Constituents: 2-Propyn-1-ol	

Chemical Name: Selenourea	
Synonyms: Carbamimidoseleonic acid	
Physical State: NA	Formula: NH ₂ CSeNH ₂
Viscosity: NA	Mol. Weight: 123.02
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P103	Hazard Code: H
Hazardous Organic Constituents: Selenourea	
Chemical Name: Silver Cyanide	
Synonyms: NA	
Physical State: NA	Formula: AgCN
Viscosity: NA	Mol. Weight: 133.90
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P104	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Sodium azide	
Synonyms: NA	
Physical State: NA	Formula: NaN ₃
Viscosity: NA	Mol. Weight: 65.01
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P105	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Sodium Cyanide	
Synonyms: NA	
Physical State: NA	Formula: NaCN
Viscosity: NA	Mol. Weight: 49.02
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P106	Hazard Code: H
Hazardous Organic Constituents: NA	

Chemical Name: Strychnidin-10-one, and salts	
Synonyms: Strychnine and salts	
Physical State: NA	Formula: C ₂₁ H ₂₂ N ₂ O ₂
Viscosity: NA	Mol. Weight: 334.45
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P108	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Tetraethyldithiopyrophosphate	
Synonyms: Dithiopyrophosphoric acid, tetraethyl ester	
Physical State: Liquid	Formula: (C ₂ H ₅ O ₄)P ₂ OS ₂
Viscosity: NA	Mol. Weight: 322.
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P109	Hazard Code: H
Hazardous Organic Constituents: Tetraethyldithio...	
Chemical Name: Plumbane, tetraethyl-	
Synonyms: Tetraethyl lead	
Physical State:	Formula: (C ₂ H ₅) ₄ Pb
Viscosity: NA	Mol. Weight: 323.44
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P110	Hazard Code: H
Hazardous Organic Constituents: Plumbane, tetraethyl-	
Chemical Name: Pyrophosphoric acid, tetraethyl ester	
Synonyms: Tetraethylphrophosphate	
Physical State: Liquid	Formula: (C ₂ H ₅ O) ₄ P ₂ O ₃
Viscosity: NA	Mol. Weight: 290.19
Specific Gravity: 1.18	Halogen Content: 0%
Waste Number: P111	Hazard Code: H
Hazardous Organic Constituents: Pyrophosphoric acid,...	
Chemical Name: Methane, Tetranitro	
Synonyms: Tetranitromethane	
Physical State: NA	Formula: C(NO ₂) ₄
Viscosity: NA	Mol. Weight: 196.03
Specific Gravity: 1.6380	Halogen Content: 80%
Waste Number: P112	Hazard Code: R
Hazardous Organic Constituents: Tetranitro methane	

Chemical Name: Thallic oxide	
Synonyms: Thallium (III) oxide	
Physical State: NA	Formula: Tl ₂ O ₃
Viscosity: NA	Mol. Weight: 456.78
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P113	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Thallium(I) selenite	
Synonyms: (Selenious acid, dithallium(1+) salt) Tetraethyldithiopyrophosphate	
Physical State: NA	Formula: NA
Viscosity: NA	Mol. Weight: NA
Specific Gravity: NA	Halogen Content: NA
Waste Number: P114	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Thallium(1) sulfate	
Synonyms: (Thiodiphosphoric acid, tetraethyl ester) Plumbane, tetraethyl-	
Physical State: NA	Formula: Tl ₂ SO ₄
Viscosity: NA	Mol. Weight: 504.85
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P115	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Hydrazinecarbothioamide	
Synonyms: Thiosemicarbazide (Tetraethyl lead)	
Physical State: Solid	Formula: NH ₂ CSNHNH ₂
Viscosity: NA	Mol. Weight: 91.14
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P116	Hazard Code: H
Hazardous Organic Constituents: Hydrazinecarbothioamide	
Chemical Name: Trichloromethanethiol	
Synonyms: Methanethio, trichloro-	
Physical State: NA	Formula: NA
Viscosity: NA	Mol. Weight: NA
Specific Gravity: NA	Halogen Content: NA
Waste Number: P118	Hazard Code: H
Hazardous Organic Constituents: Trichloromethanethiol	

Chemical Name: Vanadic acid, ammonium salt	
Synonyms: Ammonium vanadate	
Physical State: NA	Formula: O ₃ VH ₄ N
Viscosity: NA	Mol. Weight: 116.99
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P119	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Vanadium pentoxide	
Synonyms: Vanadium (V) oxide	
Physical State: NA	Formula: V ₂ O ₅
Viscosity: NA	Mol. Weight: 181.90
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P120	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Zinc Cyanide	
Synonyms: NA	
Physical State: NA	Formula: Zn(CN) ₂
Viscosity: NA	Mol. Weight: 117.42
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P121	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Zinc phosphide, when present in concentrations less than 10%	
Synonyms: NA	
Physical State: Solid	Formula: Zn ₃ P ₂
Viscosity: NA	Mol. Weight: 258.09
Specific Gravity: 4.55	Halogen Content: 0%
Waste Number: P122	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Toxaphene	
Synonyms: NA	
Physical State: Solid	Formula: C ₁₀ H ₁₀ Cl ₈
Viscosity: NA	Mol. Weight: unknown
Specific Gravity: 1.65	Halogen Content: unknown
Waste Number: P123	Hazard Code: H
Hazardous Organic Constituents: Toxaphene	

Chemical Name: Carbofuran	
Synonyms: 7-Benzofuranol, 2,3-dihydro-2, 2-dimethyl-, methylcarbamate	
Physical State: Crystalline Solid	Formula: C ₁₂ H ₁₅ NO ₃
Viscosity: NA	Mol. Weight: 221.28
Specific Gravity: 1.180 @ 20°/20°	Halogen Content: 0%
Waste Number: P127	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Mexacarbate	
Synonyms: Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	
Physical State: Crystals	Formula: C ₁₂ H ₁₈ N ₂ O ₂
Viscosity: NA	Mol. Weight: 222.32
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P128	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Tirpate	
Synonyms: 1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[methylamino)-carbonyl]oxime	
Physical State: NA	Formula: C ₈ H ₁₄ N ₂ O ₂ S ₂
Viscosity: NA	Mol. Weight: 234.3
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P185	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Physostigmine salicylate	
Synonyms: Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo [2,3-b] indol-5-yl methyl carbamate ester (1:1)	
Physical State: NA	Formula: C ₁₅ H ₂₁ N ₃ O ₂ •C ₇ H ₆ O ₃
Viscosity: NA	Mol. Weight: 413.52
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P188	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Carbosulfan	
Synonyms: Carbamic acid, [(dibutylamino)-thio]methyl-,2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester	
Physical State: NA	Formula: C ₂₀ H ₃₂ N ₂ O ₃ S
Viscosity: NA	Mol. Weight: 380.54
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P189	Hazard Code: H
Hazardous Organic Constituents:	

Chemical Name: Metolcarb	
Synonyms: Carbamic acid, methyl-, 3-methylphenyl ester	
Physical State: Solid	Formula: C ₉ H ₁₁ NO ₂
Viscosity: NA	Mol. Weight: 165.21
Specific Gravity: 1.1064 @ 30/4	Halogen Content: 0%
Waste Number: P190	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Dimetilan	
Synonyms: Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester	
Physical State: NA	Formula: C ₁₀ H ₁₆ N ₄ O ₃
Viscosity: NA	Mol. Weight: 240.26
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P191	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Isolan	
Synonyms: Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester	
Physical State: NA	Formula: C ₁₀ H ₁₇ N ₃ O ₂
Viscosity: NA	Mol. Weight: 211.30
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P192	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Oxamyl	
Synonyms: Ethanimidothioc acid, 2-(dimethylamino)-N•[[[(methylamino)carbonyl]oxy]-2-oxo-, methyl ester	
Physical State: Crystalline Solid	Formula: C ₇ H ₁₃ N ₃ O ₃ S
Viscosity: NA	Mol. Weight: 219.29
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P194	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Manganese dimethyldithiocarbamate	
Synonyms: Manganese, bis(dimethylcarbamodithioato-S,S ¹)-	
Physical State: NA	Formula: C ₆ H ₁₂ MnN ₂ S ₄
Viscosity: NA	Mol. Weight: 295.4
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P196	Hazard Code: H
Hazardous Organic Constituents:	

Chemical Name: Formparanate	
Synonyms: Methanimidamide, N,N-dimethyl-N ¹ -[2-methyl-4-[[methylamino)carbonyl]oxy] phenyl]-	
Physical State: NA	Formula: C ₁₂ H ₁₇ N ₃ O ₂
Viscosity: NA	Mol. Weight: 235.29
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P197	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Formetanate hydrochloride	
Synonyms: Methanimidamide, N,N-dimethyl-N ¹ -[3-[[[(methylamino)-carbonyl]oxy] phenyl]-, monohydrochloride	
Physical State: Solid	Formula: C ₁₁ H ₁₅ N ₃ O ₂ •ClH
Viscosity: NA	Mol. Weight: 257.75
Specific Gravity: NA	Halogen Content: Cl - 13.8%
Waste Number: P198	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Methiocarb	
Synonyms: Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate	
Physical State: Solid	Formula: C ₁₁ H ₁₅ NO ₂ S
Viscosity: NA	Mol. Weight: 225.33
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P199	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Promecarb	
Synonyms: Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	
Physical State: Solid	Formula: C ₁₂ H ₁₇ NO ₂
Viscosity: NA	Mol. Weight: 207.27
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P201	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: mm-Cumenyl methylcarbamate	
Synonyms: 3-Isopropylphenyl N-methylcarbamate; Phenol, (3,5-dimethyl-4-(methylthio)-methyl carbamate	
Physical State: Solid	Formula: C ₁₁ H ₁₅ NO ₂
Viscosity: NA	Mol. Weight: 193.25
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P202	Hazard Code: H
Hazardous Organic Constituents:	

Chemical Name: Aldicarb Sulfone	
Synonyms: Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[methylamino)carbonyl] oxime	
Physical State: Solid	Formula: C ₇ H ₁₄ N ₂ O ₄ S
Viscosity: NA	Mol. Weight: 222.26
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P203	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Physostigmine	
Synonyms: Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1, 3a, 8-trimethyl-, methyl carbamate (ester), (3aS-cis)-	
Physical State: Solid	Formula: C ₁₅ H ₂₃ N ₃ O ₂
Viscosity: NA	Mol. Weight: 275.39
Specific Gravity: NA	Halogen Content: 0%
Waste Number: P204	Hazard Code: H
Hazardous Organic Constituents:	
Chemical Name: Ziram	
Synonyms: Zinc, bis(dimethylcarbamo-dithioato-S,S ¹)-,	
Physical State: Solid	Formula: C ₆ H ₁₂ N ₂ S ₄ •Zn
Viscosity: NA	Mol. Weight: 305.81
Specific Gravity: 1.66	Halogen Content: 0%
Waste Number: P205	Hazard Code: H
Hazardous Organic Constituents:	

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Chemical Name: Acetaldehyde	
Synonyms: Ethanal	
Physical State: Liquid	Formula: CH ₃ CHO
Viscosity: 0.244 cP	Mol. Weight: 44.05
Specific Gravity: 0.7827 @ 20° C	Halogen Content: 0%
Waste Number: U001	Hazard Code: I
Hazardous Organic Constituents: Acetaldehyde	
Chemical Name: Acetone	
Synonyms: 2-Propanone	
Physical State: Liquid	Formula: CH ₃ COCH ₃
Viscosity: 0.337 cP @ 15° C	Mol. Weight: 58.08
Specific Gravity: 0.7972 @ 15° C	Halogen Content: 0%
Waste Number: U002	Hazard Code: I
Hazardous Organic Constituents: Acetone	
Chemical Name: Acetonitrile	
Synonyms: (Ethanenitrile) (Methyl cyanide)	
Physical State: Liquid	Formula: CH ₃ CN
Viscosity: 0.375 cP	Mol. Weight: 41.05
Specific Gravity: 0.79 @ 15° C	Halogen Content: 0%
Waste Number: U003	Hazard Code: I, T
Hazardous Organic Constituents: Acetonitrile	
Chemical Name: Acetophenone	
Synonyms: Ethanone, 1-phenyl-	
Physical State: Liquid	Formula: C ₆ H ₅ COCH ₃
Viscosity: 1.642 cP @ 25° C	Mol. Weight: 120.16
Specific Gravity: 1.03	Halogen Content: 0%
Waste Number: U004	Hazard Code: T
Hazardous Organic Constituents: Acetophenone	
Chemical Name: 2-Acetylaminofluorene	
Synonyms: (Acetamide, N-9H-fluoren-2-yl-) (2-Acetamido fluorene)	
Physical State: Powder	Formula: C ₁₅ H ₁₃ O
Viscosity: NA	Mol. Weight: 223.3
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U005	Hazard Code: T
Hazardous Organic Constituents: 2-Acetyl...	

Chemical Name: Acetyl Chloride	
Synonyms: Ethanoyl Chloride	
Physical State: NA	Formula: CH ₃ COCl
Viscosity: NA	Mol. Weight: 78.50
Specific Gravity: NA	Halogen Content: 45%
Waste Number: U006	Hazard Code: C, R, T
Hazardous Organic Constituents: Acetyl Chloride	
Chemical Name: Acrylamide	
Synonyms: 2-Propenamide	
Physical State: Solid	Formula: CH ₂ =CHCONH ₂
Viscosity: NA	Mol. Weight: 71.08
Specific Gravity: 1.122 @ 30° C	Halogen Content: 0%
Waste Number: U007	Hazard Code: T
Hazardous Organic Constituents: Acrylamide	
Chemical Name: Acrylic acid	
Synonyms: 2-Propenoic acid	
Physical State: Liquid	Formula: CH ₂ =CHCO ₂ H
Viscosity: NA	Mol. Weight: 72.06
Specific Gravity: 1.062	Halogen Content: 0%
Waste Number: U008	Hazard Code: I
Hazardous Organic Constituents: Acrylic acid	
Chemical Name: Acrylonitrile	
Synonyms: 2-Propenenitrile	
Physical State: Liquid	Formula: CH ₂ =CHCN
Viscosity: 0.35 cP	Mol. Weight: 53.06
Specific Gravity: 0.806 @ 20° C	Halogen Content: 0%
Waste Number: U009	Hazard Code: T
Hazardous Organic Constituents: Acrylonitrile	
Chemical Name: Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,7-dione,6-amino-8- [[(aminocarbonyl)oxy)methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-	
Synonyms: Mitomycin C	
Physical State: Solid	Formula: C ₁₅ H ₁₈ N ₄ O ₅
Viscosity: NA	Mol. Weight: 334.33
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U010	Hazard Code: T
Hazardous Organic Constituents: Azirino...	

Chemical Name: Amitrole	
Synonyms: 3-Amino-1H-1,2,4-triazole	
Physical State: Solid	Formula: C ₂ H ₄ N ₄
Viscosity: NA	Mol. Weight: 84.08
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U011	Hazard Code: T
Hazardous Organic Constituents: Amitrole	
Chemical Name: Aniline	
Synonyms: Benzenamine	
Physical State: Liquid	Formula: C ₆ H ₅ NH ₂
Viscosity: 4.40 cP	Mol. Weight: 93.13
Specific Gravity: 1.02 @ 20° C	Halogen Content: 0%
Waste Number: U012	Hazard Code: I, T
Hazardous Organic Constituents: Aniline	
Chemical Name: Auramine	
Synonyms: Benzenamine, 4,4'-(carbonimidoyl)bis(N,N-dimethyl)-	
Physical State: Solid	Formula: C ₁₇ H ₂₁ N ₃
Viscosity: NA	Mol. Weight: 267.4
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U014	Hazard Code: T
Hazardous Organic Constituents: Auramine	
Chemical Name: Azaserine	
Synonyms: L-Serine, diazoacetate (ester)	
Physical State: NA	Formula: C ₅ H ₇ N ₃ O ₄
Viscosity: NA	Mol. Weight: 173.15
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U015	Hazard Code: T
Hazardous Organic Constituents: Azaserine	
Chemical Name: 3,4-Benzacridine	
Synonyms: Benz[c]acridine	
Physical State: Solid	Formula: C ₁₇ H ₁₁ N
Viscosity: NA	Mol. Weight: 229.3
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U016	Hazard Code: T
Hazardous Organic Constituents: 3,4-Benzacridine	

Chemical Name: Benzal chloride	
Synonyms: Benzene, (dichloromethyl)-	
Physical State: NA	Formula: C ₆ H ₅ CHCl ₂
Viscosity: NA	Mol. Weight: 161.03
Specific Gravity: NA	Halogen Content: 44%
Waste Number: U017	Hazard Code: T
Hazardous Organic Constituents: Benzal chloride	
Chemical Name: Benz[a]anthracene	
Synonyms: 1,2-Benzathracene	
Physical State: Solid	Formula: C ₁₈ H ₁₂
Viscosity: NA	Mol. Weight: 228.30
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U018	Hazard Code: T
Hazardous Organic Constituents: Benz[a]anthracene	
Chemical Name: Benzene	
Synonyms: NA	
Physical State: Liquid	Formula: C ₆ H ₆
Viscosity: 0.60 cP @ 25° C	Mol. Weight: 78.12
Specific Gravity: 0.8794 @ 20° C	Halogen Content: 0%
Waste Number: U019	Hazard Code: I, T
Hazardous Organic Constituents: Benzene	
Chemical Name: Benzenesulfonic acid chloride	
Synonyms: Benzenesulfonyl chloride	
Physical State: NA	Formula: C ₆ H ₅ SO ₂ Cl
Viscosity: NA	Mol. Weight: 176.62
Specific Gravity: NA	Halogen Content: 20%
Waste Number: U020	Hazard Code: C, R
Hazardous Organic Constituents: Benzenesulfonic acid chloride	
Chemical Name: Benzidine	
Synonyms: (1,1'-Biphenyl)-4,4'-diamine	
Physical State: Solid	Formula: NH ₂ C ₆ H ₄ C ₆ H ₄ NH ₂
Viscosity: NA	Mol. Weight: 184.23
Specific Gravity: 1.250 @ 20° C	Halogen Content: 0%
Waste Number: U021	Hazard Code: T
Hazardous Organic Constituents: Benzidine	

Chemical Name: Benzo[a]pyrene	
Synonyms: 3,4-Benzopyrene	
Physical State: Solid	Formula: C ₂₀ H ₁₂
Viscosity: NA	Mol. Weight: 252.31
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U022	Hazard Code: T
Hazardous Organic Constituents: Benzo[a]pyrene	
Chemical Name: Benzene, (trichloromethyl)	
Synonyms: Benzotrichloride	
Physical State: NA	Formula: C ₆ H ₅ CCl ₃
Viscosity: NA	Mol. Weight: 195.48
Specific Gravity: NA	Halogen Content: 54.4%
Waste Number: U023	Hazard Code: C, R, T
Hazardous Organic Constituents: Benzene, (trichloromethyl)	
Chemical Name: dichloromethoxy ethane	
Synonyms: (Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro]-) (Dichloroethyl formal)	
Physical State: Liquid	Formula: CH ₂ (OCH ₂ CH ₂ Cl) ₂
Viscosity: NA	Mol. Weight: 173.05
Specific Gravity: 1.234 @ 20° C	Halogen Content: Cl - 40.98%
Waste Number: U024	Hazard Code: T
Hazardous Organic Constituents: Bis(2-chloroethoxy)...	
Chemical Name: Dichloroethyl ether	
Synonyms: (Ethane, 1-1'-oxybis[2-chloro]-)	
Physical State: Liquid	Formula: (ClCH ₂ CH ₂) ₂ O
Viscosity: NA	Mol. Weight: 143.02
Specific Gravity: 1.222 @ 20° C	Halogen Content: Cl - 49.6%
Waste Number: U025	Hazard Code: T
Hazardous Organic Constituents: Dichloroethyl ether	
Chemical Name: Chlornaphazine	
Synonyms: 2-Naphthylamine, N,N'-bis(2-chloroethyl)-	
Physical State: Solid	Formula: C ₁₄ H ₁₅ Cl ₂ N
Viscosity: NA	Mol. Weight: 268.20
Specific Gravity: NA	Halogen Content: Cl - 26.4%
Waste Number: U026	Hazard Code: T
Hazardous Organic Constituents: Chlornaphazine	

Chemical Name: Bis(2-chloroisopropyl) ether	
Synonyms: Propane, 2,2'oxybis[2-chloro]-	
Physical State: NA	Formula: C ₆ H ₂ Cl ₂ O
Viscosity: NA	Mol. Weight: 171.08
Specific Gravity: NA	Halogen Content: Cl - 41.4%
Waste Number: U027	Hazard Code: T
Hazardous Organic Constituents: Bis(2-chloroisopropyl)ether	
Chemical Name: Bis(2-ethylhexyl)phthalate	
Synonyms: 1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)]ester	
Physical State: NA	Formula: C ₂₄ H ₃₈ O ₄
Viscosity: NA	Mol. Weight: 390.54
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U028	Hazard Code: T
Hazardous Organic Constituents: Bis(2-ethyl...	
Chemical Name: Methane, bromo-	
Synonyms: Methyl bromide	
Physical State: Gas	Formula: CH ₃ Br
Viscosity: NA	Mol. Weight: 94.94
Specific Gravity: 1.732 @ 0° C	Halogen Content: Br - 84.2%
Waste Number: U029	Hazard Code: T
Hazardous Organic Constituents: Methane, bromo-	
Chemical Name: 4-Bromophenyl phenyl ether	
Synonyms: Benzene, 1-bromo-4-phenoxy-	
Physical State: NA	Formula: NA
Viscosity: NA	Mol. Weight: NA
Specific Gravity: NA	Halogen Content: NA
Waste Number: U030	Hazard Code: T
Hazardous Organic Constituents: 4-Bromophenyl phenyl ether	
Chemical Name: 1-Butanol	
Synonyms: (n-Butyl alcohol)	
Physical State: Liquid	Formula: CH ₃ (CH ₂) ₂ CH ₂ OH
Viscosity: 38 SSU; 3.379 cP @ 15° C	Mol. Weight: 74.12
Specific Gravity: 0.80978 @ 20° C	Halogen Content: 0%
Waste Number: U031	Hazard Code: I
Hazardous Organic Constituents: 1-Butanol	

Chemical Name: Chromic acid, calcium salt	
Synonyms: Calcium chromate	
Physical State: NA	Formula: CaCrO ₄ 2H ₂ O
Viscosity: NA	Mol. Weight: 192.09
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U032	Hazard Code: T
Hazardous Organic Constituents: NA	
Chemical Name: Carbon oxyfluoride	
Synonyms: Carbonic difluoride	
Physical State: NA	Formula: CF ₂ O
Viscosity: NA	Mol. Weight: 66.07
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U033	Hazard Code: R, T
Hazardous Organic Constituents: NA	
Chemical Name: Chloral	
Synonyms: Acetaldehyde, trichloro-	
Physical State: Liquid	Formula: Cl ₃ CCHO
Viscosity: NA	Mol. Weight: 147.39
Specific Gravity: 1.51 @ 20° C	Halogen Content: 72.1%
Waste Number: U034	Hazard Code: T
Hazardous Organic Constituents: Chloral	
Chemical Name: Chlorambucil	
Synonyms: Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]	
Physical State: Solid	Formula: C ₁₄ H ₁₉ Cl ₂ NO ₂
Viscosity: NA	Mol. Weight: 304.23
Specific Gravity: NA	Halogen Content: Cl - 23.31%
Waste Number: U035	Hazard Code: T
Hazardous Organic Constituents: Chlorambucil	
Chemical Name: Chlordane, technical	
Synonyms: 4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-	
Physical State: Liquid	Formula: C ₁₀ H ₆ Cl ₈
Viscosity: 69 poises @ 25° C	Mol. Weight: 409.80
Specific Gravity: 1.57-1.63 @ 15.5° C	Halogen Content: Cl - 69.22%
Waste Number: U036	Hazard Code: T
Hazardous Organic Constituents: Chlordane, technical	

Chemical Name: Chlorobenzene	
Synonyms: Benzene, chloro-	
Physical State: Liquid	Formula: C ₆ H ₅ Cl
Viscosity: 0.799 cP	Mol. Weight: 112.56
Specific Gravity: 1.113 @ 15° C	Halogen Content: Cl - 31.5%
Waste Number: U037	Hazard Code: T
Hazardous Organic Constituents: Chlorobenzene	
Chemical Name: Ethyl-4,4'-dichlorobenzilate-	
Synonyms: Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester	
Physical State: Liquid	Formula: (C ₆ H ₄ Cl) ₂ C(OH)COOC ₂ H ₅
Viscosity: NA	Mol. Weight: 325.2
Specific Gravity: NA	Halogen Content: Cl - 21.8%
Waste Number: U038	Hazard Code: T
Hazardous Organic Constituents: Ethyl-4,4'-...	
Chemical Name: 4-Chloro-m-cresol	
Synonyms: Phenol, 4-chloro-3-methyl-	
Physical State: Solid	Formula: C ₇ H ₇ ClO
Viscosity: NA	Mol. Weight: 142.58
Specific Gravity: NA	Halogen Content: Cl - 24.9%
Waste Number: U039	Hazard Code: T
Hazardous Organic Constituents: 4-Chloro-m-cresol	
Chemical Name: 1-Chloro-2,3-epoxypropane	
Synonyms: (Oxirane, 2-(chloromethyl)-) (Epichlorohydrin)	
Physical State: NA	Formula: C ₃ H ₅ OCl
Viscosity: NA	Mol. Weight: 92.52
Specific Gravity: 1.1761 @ 20° C	Halogen Content: Cl - 38.32%
Waste Number: U041	Hazard Code: T
Hazardous Organic Constituents: 1-Chloro-2,3-...	
Chemical Name: 2-Chloroethyl vinyl ether	
Synonyms: Ethene, (2-chloroethoxy)-	
Physical State: Liquid	Formula: ClCH ₂ CH ₂ OCH=CH ₂
Viscosity: NA	Mol. Weight: 106.55
Specific Gravity: 1.053	Halogen Content: Cl - 33.3%
Waste Number: U042	Hazard Code: T
Hazardous Organic Constituents: 2-Chloroethyl...	

Chemical Name: Ethene, chloro-	
Synonyms: Vinyl chloride	
Physical State: Gas	Formula: CH ₂ =CHCl
Viscosity: NA	Mol. Weight: 62.50
Specific Gravity: 0.9195 @ 15° C	Halogen Content: Cl - 56.7%
Waste Number: U043	Hazard Code: T
Hazardous Organic Constituents: Ethene, chloro-	
Chemical Name: Chloroform	
Synonyms: Methane, trichloro-	
Physical State: Liquid	Formula: CHCl ₃
Viscosity: 0.596 cP @ 15° C	Mol. Weight: 119.38
Specific Gravity: 1.498 @ 15° C	Halogen Content: 89.0%
Waste Number: U044	Hazard Code: T
Hazardous Organic Constituents: Chloroform	
Chemical Name: Methane, chloro-	
Synonyms: Methyl chloride	
Physical State: Gas	Formula: CH ₃ Cl
Viscosity: NA	Mol. Weight: 50.49
Specific Gravity: 0.918 @ 20° C	Halogen Content: Cl - 70.2%
Waste Number: U045	Hazard Code: I, T
Hazardous Organic Constituents: Methane, Chloro-	
Chemical Name: Chloromethyl methyl ether	
Synonyms: Methane, chloromethoxy-	
Physical State: Liquid	Formula: CH ₃ OCH ₂ Cl
Viscosity: NA	Mol. Weight: 80.51
Specific Gravity: 1.06	Halogen Content: Cl - 44.03%
Waste Number: U046	Hazard Code: T
Hazardous Organic Constituents: Chloromethyl	
Chemical Name: beta-Chloronaphthalene	
Synonyms: (Naphthalene, 2-chloro-)	
Physical State: Solid	Formula: ClC ₁₀ H ₇
Viscosity: NA	Mol. Weight: 162.62
Specific Gravity: 1.14 @ 71° C	Halogen Content: 21.8%
Waste Number: U047	Hazard Code: T
Hazardous Organic Constituents: beta-Chloronaphthalene	

Chemical Name: o-Chlorophenol	
Synonyms: (Phenol, 2-chloro-)	
Physical State: Liquid	Formula: ClC ₆ H ₄ OH
Viscosity: 2.25 cP @ 45° C	Mol. Weight: 128.56
Specific Gravity: 1.256 @ 25° C	Halogen Content: 27.8%
Waste Number: U048	Hazard Code: T
Hazardous Organic Constituents: o-Chlorophenol	
Chemical Name: 4-Chloro-o-toluidine, hydrochloride	
Synonyms: (Benzenamine, 4-chloro-2-methyl-) hydrochloride	
Physical State: Solid	Formula: CH ₃ C ₆ H ₃ (Cl)NH ₂ HCl
Viscosity: NA	Mol. Weight: 178.06
Specific Gravity: NA	Halogen Content: Cl - 39.8%
Waste Number: U049	Hazard Code: T
Hazardous Organic Constituents: 4-Chloro-...	
Chemical Name: Chrysene	
Synonyms: 1,2-Benzphenanthrene	
Physical State: Solid	Formula: C ₁₈ H ₁₂
Viscosity: NA	Mol. Weight: 228.30
Specific Gravity: 1.274 @ 20° C	Halogen Content: 0%
Waste Number: U050	Hazard Code: T
Hazardous Organic Constituents: Chrysene	
Chemical Name: Creosote	
Synonyms: NA	
Physical State: Liquid	Formula: A mixture of phenols
Viscosity: NA	Mol. Weight: NA
Specific Gravity: 1.07	Halogen Content: NA
Waste Number: U051	Hazard Code: T
Hazardous Organic Constituents: Creosote	
Chemical Name: Cresols	
Synonyms: Cresylic acid, Phenol, methyl-	
Physical State: Liquid	Formula: CH ₃ C ₆ H ₄ OH
Viscosity: o-Cresol 3.51 cP @ 46° C m-Cresol 24.67 cP @ 15° C p-Cresol 5.61 cP @ 46° C	Mol. Weight: 108.15
Specific Gravity: 1.030 - 1.038 @ 25 C	Halogen Content: 0%
Waste Number: U052	Hazard Code: T
Hazardous Organic Constituents: Cresols	

Chemical Name: Crotonaldehyde	
Synonyms: 2-Butenal	
Physical State: Liquid	Formula: CH ₃ CH=CHCHO
Viscosity: NA	Mol. Weight: 70.09
Specific Gravity: 0.853 @ 20° C	Halogen Content: 0%
Waste Number: U053	Hazard Code: T
Hazardous Organic Constituents: Crotonaldehyde	
Chemical Name: Cumene	
Synonyms: Benzene, (1-methylethyl)-	
Physical State: Liquid	Formula: (CH ₃) ₂ CHC ₆ H ₅
Viscosity: NA	Mol. Weight: 120.20
Specific Gravity: 0.864 @ 20° C	Halogen Content: 0%
Waste Number: U055	Hazard Code: I
Hazardous Organic Constituents: Cumene	
Chemical Name: Cyclohexane	
Synonyms: Benzene, hexahydro-	
Physical State: Liquid	Formula: C ₆ H ₁₂
Viscosity: 0.98 cP	Mol. Weight: 84.16
Specific Gravity: 0.7791 @ 20° C	Halogen Content: 0%
Waste Number: U056	Hazard Code: I
Hazardous Organic Constituents: Cyclohexane	
Chemical Name: Cyclohexanone	
Synonyms: NA	
Physical State: Liquid	Formula: CO(CH ₂) ₄ CH ₂
Viscosity: 2.45 cP @ 15° C	Mol. Weight: 98.15
Specific Gravity: 0.9478 @ 20° C	Halogen Content: 0%
Waste Number: U057	Hazard Code: I
Hazardous Organic Constituents: Cyclohexanone	
Chemical Name: Cyclophosphamide	
Synonyms: (2H-1,3,2-Oxazophosphorine 2-oxide, 2-[bis(2-chloroethyl)amino] tetrahydro-) (Endoxin)	
Physical State: Solid	Formula: C ₇ H ₁₅ Cl ₂ N ₂ O ₂ P
Viscosity: NA	Mol. Weight: 261.10
Specific Gravity: NA	Halogen Content: Cl - 27.16%
Waste Number: U058	Hazard Code: T
Hazardous Organic Constituents: Cyclophosphamide	

Chemical Name: Daunomycin	
Synonyms: 5,12-Naphthacenedione, (85-cis)-8-acetyl-10-[3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl)oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-	
Physical State: Solid	Formula: C ₂₇ H ₂₈ O ₁₀ N
Viscosity: NA	Mol. Weight: 526.6
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U059	Hazard Code: T
Hazardous Organic Constituents: Daunomycin	
Chemical Name: DDD	
Synonyms: Benzene, 1,1'-(2,2-dichloroethylidene)bis(4-chloro-)	
Physical State: Solid	Formula: (ClC ₆ H ₄) ₂ HCCHCl ₂
Viscosity: NA	Mol. Weight: 320.0
Specific Gravity: NA	Halogen Content: Cl - 44.3%
Waste Number: U060	Hazard Code: T
Hazardous Organic Constituents: DDD	
Chemical Name: DDT	
Synonyms: Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-chloro-)	
Physical State: Solid	Formula: (ClC ₆ H ₄) ₂ CHCCl ₃
Viscosity: NA	Mol. Weight: 354.50
Specific Gravity: NA	Halogen Content: Cl - 50.0%
Waste Number: U061	Hazard Code: T
Hazardous Organic Constituents: DDT	
Chemical Name: Diallate	
Synonyms: S-(2,3-Dichloroallyl) diisopropylthiocarbamate	
Physical State: Liquid	Formula: C ₁₀ H ₁₇ Cl ₂ NOS
Viscosity: NA	Mol. Weight: 270.24
Specific Gravity: NA	Halogen Content: Cl - 26.24%
Waste Number: U062	Hazard Code: T
Hazardous Organic Constituents: Diallate	
Chemical Name: Dibenz(a,h)anthracene	
Synonyms: (1,2:5,6-Dibenzanthracene)	
Physical State: Plates	Formula: C ₂₂ H ₁₄
Viscosity: NA	Mol. Weight: 278.33
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U063	Hazard Code: T
Hazardous Organic Constituents: Dibenz(a,h)anthracene	

Chemical Name: Benzo(rst)pentaphene	
Synonyms: (Dibenzo(a,i)pyrene)	
Physical State: Solid, (needles)	Formula: C ₂₄ H ₁₄
Viscosity: NA	Mol. Weight: 302.38
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U064	Hazard Code: T
Hazardous Organic Constituents: 1,2:7,8-Dibenzopyrene	
Chemical Name: 1,2-Dibromo-3-chloropropane	
Synonyms: Propane, 1,2-dibromo-3-chloro	
Physical State: Liquid	Formula: C ₃ H ₅ Br ₂ Cl
Viscosity: NA	Mol. Weight: 236.4
Specific Gravity: 2.09	Halogen Content: Br - 67.7% Cl - 15.0%
Waste Number: U066	Hazard Code: T
Hazardous Organic Constituents: 1,2-Dibromo-3-chloropropane	
Chemical Name: Ethane, 1,2-dibromo-	
Synonyms: (Ethylene dibromide) (Glycol dibromide) (1,2-Dibromoethane)	
Physical State: Liquid	Formula: CH ₂ BrCH ₂ Br
Viscosity: 1.490 cP @ 30° C	Mol. Weight: 187.88
Specific Gravity: 2.1707 @ 25° C	Halogen Content: Br - 85.16%
Waste Number: U067	Hazard Code: T
Hazardous Organic Constituents: Ethane, 1,2-dibromo-	
Chemical Name: Methane, dibromo-	
Synonyms: (Methylene bromide)	
Physical State: Liquid	Formula: CH ₂ Br ₂
Viscosity: NA	Mol. Weight: 173.9
Specific Gravity: 2.485 @ 25° C	Halogen Content: Br - 92%
Waste Number: U068	Hazard Code: T
Hazardous Organic Constituents: Methane, dibromo-	
Chemical Name: 1,2-Benzenedicarboxylic acid, dibutyl ester	
Synonyms: (Di-n-butyl phthalate) (Dibutyl-o-phthalate)	
Physical State: Liquid	Formula: C ₆ H ₄ (COOC ₄ H ₉) ₂
Viscosity: NA	Mol. Weight: 278.3
Specific Gravity: 1.047-1.049 @ 20° C	Halogen Content: 0%
Waste Number: U069	Hazard Code: T
Hazardous Organic Constituents: 1,2-Benzenedicarboxylic...	

Chemical Name: Benzene, 1,2-dichloro-	
Synonyms: (o-Dichlorobenzene)	
Physical State: Liquid	Formula: C ₆ H ₄ Cl ₂
Viscosity: 1.324 cP	Mol. Weight: 147.0
Specific Gravity: 1.307 @ 20° C	Halogen Content: Cl - 48.3%
Waste Number: U070	Hazard Code: T
Hazardous Organic Constituents: Benzene, 1,2-dichloro-	
Chemical Name: Benzene, 1,3-dichloro-	
Synonyms: (m-Dichlorobenzene)	
Physical State: Liquid	Formula: C ₆ H ₄ Cl ₂
Viscosity: 1.04 cP	Mol. Weight: 147.0
Specific Gravity: 1.288 @ 20° C	Halogen Content: Cl - 48.3%
Waste Number: U071	Hazard Code: T
Hazardous Organic Constituents: Benzene, 1,3-dichloro-	
Chemical Name: Benzene, 1,4-dichloro-	
Synonyms: (p-Dichlorobenzene)	
Physical State: Crystals	Formula: C ₆ H ₄ Cl ₂
Viscosity: 0.720 cP @ 70° C	Mol. Weight: 147.0
Specific Gravity: 1.4581 @ 20.5° C	Halogen Content: Cl - 48.3%
Waste Number: U072	Hazard Code: T
Hazardous Organic Constituents: Benzene, 1,4-dichloro-	
Chemical Name: (1,1'-Biphenyl)-4,4'-diamine,3,3'-dichloro-	
Synonyms: (3,3'-Dichlorobenzidine)	
Physical State: Crystals	Formula: C ₁₂ H ₁₀ Cl ₂ N ₂
Viscosity: NA	Mol. Weight: 253.1
Specific Gravity: NA	Halogen Content: Cl - 28.1%
Waste Number: U073	Hazard Code: T
Hazardous Organic Constituents: (1,1'-Biphenyl)...	
Chemical Name: 2-Butene, 1,4-dichloro-	
Synonyms: 1,4-Dichloro-2-butene	
Physical State: Liquid	Formula: CH ₂ ClCHCClCH ₃
Viscosity: NA	Mol. Weight: 125.01
Specific Gravity: 1.83 @ 25° C	Halogen Content: Cl - 56.8%
Waste Number: U074	Hazard Code: I, T
Hazardous Organic Constituents: 2-Butene, 1,4-dichloro-	

Chemical Name: Methane, dichlorofluoro	
Synonyms: Dichlorofluoromethane, Freon	
Physical State: NA	Formula: Cl ₂ CHF
Viscosity: NA	Mol. Weight: 102
Specific Gravity: 1.405	Halogen Content: 87%
Waste Number: U075	Hazard Code: T
Hazardous Organic Constituents: dichlorofluoromethane	
Chemical Name: Ethane, 1,1-dichloro-	
Synonyms: (Ethylidene dichloride) (1,1-Dichloroethane)	
Physical State: Liquid	Formula: CH ₃ CHCl ₂
Viscosity: 0.505 cP @ 25° C	Mol. Weight: 99.0
Specific Gravity: 1.174 @ 25° C	Halogen Content: Cl - 71.72%
Waste Number: U076	Hazard Code: T
Hazardous Organic Constituents: Ethane, 1-1-dichloro-	
Chemical Name: Ethane, 1-2-dichloro-	
Synonyms: (Ethylene dichloride) (1,2-Dichloroethane)	
Physical State: Liquid	Formula: CH ₂ ClCH ₂ Cl
Viscosity: 0.887 cP	Mol. Weight: 99.0
Specific Gravity: 1.257 @ 20° C	Halogen Content: Cl - 71.72%
Waste Number: U077	Hazard Code: T
Hazardous Organic Constituents: Ethane, 1-2-dichloro-	
Chemical Name: 1-1-Dichloroethylene	
Synonyms: (Vinylidene chloride) Ethene, 1,1-dichloro	
Physical State: Liquid	Formula: CH ₂ CCl ₂
Viscosity: NA	Mol. Weight: 97.0
Specific Gravity: 1.213 @ 20° C	Halogen Content: Cl - 73.2%
Waste Number: U078	Hazard Code: T
Hazardous Organic Constituents: 1,1-Dichloroethylene	
Chemical Name: 1,2-Dichloroethylene	
Synonyms: (cis- or trans-dichloroethylene) (Acetylene dichloride) Ethene, 1,2-dichloro	
Physical State: Liquid	Formula: ClCHCHCl
Viscosity: NA	Mol. Weight: 97.0
Specific Gravity: 1.2743 @ 25° C	Halogen Content: Cl - 73.2%
Waste Number: U079	Hazard Code: T
Hazardous Organic Constituents: 1,2-Dichloroethylene	

Chemical Name: Methane, dichloro-	
Synonyms: (Methylene chloride)	
Physical State: Liquid	Formula: CH ₂ Cl ₂
Viscosity: 0.449 cP	Mol. Weight: 84.94
Specific Gravity: 1.3266 @ 20° C	Halogen Content: Cl - 83.6%
Waste Number: U080	Hazard Code: T
Hazardous Organic Constituents: Methane, dichloro-	
Chemical Name: 2,4-Dichlorophenol	
Synonyms: Phenol, 2,4-dichloro-	
Physical State: Crystals	Formula: C ₆ H ₃ OHCl ₂
Viscosity: NA	Mol. Weight: 163.0
Specific Gravity: 1.383 @ 60° C	Halogen Content: Cl - 43.6%
Waste Number: U081	Hazard Code: T
Hazardous Organic Constituents: 2,4-Dichlorophenol	
Chemical Name: 2,6-Dichlorophenol	
Synonyms: Phenol, 2,6-dichloro-	
Physical State: Liquid	Formula: C ₆ H ₃ OHCl ₂
Viscosity: NA	Mol. Weight: 163.0
Specific Gravity: 1.383 @ 60° C	Halogen Content: Cl - 43.6%
Waste Number: U082	Hazard Code: T
Hazardous Organic Constituents: 2,6-Dichlorophenol	
Chemical Name: 1,2-Dichloropropane	
Synonyms: (Propylene dichloride) Propane, 1,2-dichloro-	
Physical State: Liquid	Formula: CH ₂ ClCHClCH ₃
Viscosity: NA	Mol. Weight: 113.0
Specific Gravity: 1.1593 @ 20° C	Halogen Content: Cl - 62.8%
Waste Number: U083	Hazard Code: T
Hazardous Organic Constituents: 1,2-Dichloropropane	
Chemical Name: 1,3-Dichloropropane	
Synonyms: (Trimethylene chloride) 1-Propene, 1,3-dichloro-	
Physical State: Liquid	Formula: CH ₂ ClCH ₂ CH ₂ Cl
Viscosity: NA	Mol. Weight: 113.0
Specific Gravity: 1.201 @ 15° C	Halogen Content: Cl - 62.8%
Waste Number: U084	Hazard Code: T
Hazardous Organic Constituents: 1,3-Dichloropropane	

Chemical Name: 2,2-Bioxirane	
Synonyms: (Diepoxy butane) (Erythritol Anhydride)	
Physical State: Liquid	Formula: C ₄ H ₆ O ₂
Viscosity: NA	Mol. Weight: 86.09
Specific Gravity: 1.113	Halogen Content: 0%
Waste Number: U085	Hazard Code: I, T
Hazardous Organic Constituents: 2,2-Bioxirane	
Chemical Name: N,N-Diethylhydrazine	
Synonyms: Hydrazine, 1,2-diethyl-	
Physical State: Liquid	Formula: C ₄ H ₁₂ N ₂
Viscosity: NA	Mol. Weight: 88.2
Specific Gravity: 0.797 @ 26° C	Halogen Content: 0%
Waste Number: U086	Hazard Code: T
Hazardous Organic Constituents: N,N-Diethylhydrazine	
Chemical Name: 0,0-Diethyl-S-methyl-dithiophosphate	
Synonyms: (Phosphorodithioic acid, 0,0-diethyl-, S-methyl ester)	
Physical State: Liquid	Formula: C ₅ H ₁₃ O ₂ PS ₂
Viscosity: NA	Mol. Weight: 200
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U087	Hazard Code: T
Hazardous Organic Constituents: 0,0-Diethyl-S-methyl...	
Chemical Name: 1,2-Benzendicarboxylic acid, diethyl ester	
Synonyms: (Diethyl-p-phthalate)	
Physical State: Liquid	Formula: C ₆ H ₄ (COOC ₂ H ₅) ₂
Viscosity: NA	Mol. Weight: 222.2
Specific Gravity: 1.117-1.121 @ 20° C	Halogen Content: 0%
Waste Number: U088	Hazard Code: T
Hazardous Organic Constituents: 1,2-Benzenedicarboxylic...	
Chemical Name: Diethylstilbestrol	
Synonyms: Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-	
Physical State: Crystals	Formula: C ₁₈ H ₂₀ O ₂
Viscosity: NA	Mol. Weight: 268.3
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U089	Hazard Code: T
Hazardous Organic Constituents: Diethylstilbestrol	

Chemical Name: 1,3-Benzodioxole, 5-propyl-	
Synonyms: (Dihydrosafrole)	
Physical State: Liquid	Formula: C ₁₀ H ₁₂ O ₂
Viscosity: NA	Mol. Weight: 164.2
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U090	Hazard Code: T
Hazardous Organic Constituents: Benzene,...	
Chemical Name: (1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	
Synonyms: (3,3'-Dimethoxybenzidine) (Dianisidine)	
Physical State: Crystals	Formula: [NH ₂ (OCH ₃)C ₆ H ₃] ₂
Viscosity: NA	Mol. Weight: 244.29
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U091	Hazard Code: T
Hazardous Organic Constituents: (1,1'-Biphenyl)-...	
Chemical Name: Methanamine, N-methyl-	
Synonyms: (Dimethylamine)	
Physical State: Gas	Formula: (CH ₃) ₂ NH
Viscosity: 0.207 cP	Mol. Weight: 45.08
Specific Gravity: 0.6804 @ 0° C	Halogen Content: 0%
Waste Number: U092	Hazard Code: I
Hazardous Organic Constituents: Methanamine, N-methyl-	
Chemical Name: Benzenamine, N,N-dimethyl-4-(phenylazo)-	
Synonyms: (p-Dimethylaminoazobenzene)	
Physical State: Crystalline	Formula: C ₁₄ H ₁₅ N ₃
Viscosity: NA	Mol. Weight: 225.28
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U093	Hazard Code: T
Hazardous Organic Constituents: Benzenamine,...	
Chemical Name: 1,2-Benzanthracene, 7,12-dimethyl-	
Synonyms: 7,12-Dimethylbenz[a]anthracene	
Physical State: Plates, leaflets	Formula: C ₂₀ H ₁₆
Viscosity: NA	Mol. Weight: 256.33
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U094	Hazard Code: T
Hazardous Organic Constituents: 1,2-Benzanthracene...	

Chemical Name: (1,1'-Biphenyl)-4,4'diamine, 3,3'-dimethyl-	
Synonyms: (3,3'-Dimethylbenzidine) (o-Tolidine)	
Physical State: Crystalline	Formula: C ₁₄ H ₁₆ N ₂
Viscosity: NA	Mol. Weight: 212.28
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U095	Hazard Code: T
Hazardous Organic Constituents: 1,1'-Biphenyl-...	
Chemical Name: alpha, alpha-Dimethylbenzylhydroperoxide	
Synonyms: Hydroperoxide, 1-methyl, 1-phenylethyl	
Physical State: NA	Formula: C ₉ H ₁₂ O ₂
Viscosity: NA	Mol. Weight: 152.21
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U096	Hazard Code: R
Hazardous Organic Constituents: NA	
Chemical Name: Carbamic chloride, dimethyl-	
Synonyms: (Dimethylcarbamoyl chloride)	
Physical State: Liquid	Formula: (CH ₃) ₂ NCOCI
Viscosity: NA	Mol. Weight: 107.5
Specific Gravity: 1.678 @ 20° C	Halogen Content: Cl - 33%
Waste Number: U097	Hazard Code: T
Hazardous Organic Constituents: Carbamoyl Chloride, dimethyl	
Chemical Name: 1,1-Dimethylhydrazine	
Synonyms: (Dimazine) (Hydrazine, 1,1-dimethyl-)	
Physical State: Liquid	Formula: (CH ₃) ₂ NNH ₂
Viscosity: NA	Mol. Weight: 60.1
Specific Gravity: 0.782 @ 25° C	Halogen Content: 0%
Waste Number: U098	Hazard Code: T
Hazardous Organic Constituents: 1,1-Dimethylhydrazine	
Chemical Name: 1,2-Dimethylhydrazine	
Synonyms: (Hydrazine, 1-2-dimethyl-)	
Physical State: Liquid	Formula: (CH ₃) ₂ NNH ₂
Viscosity: NA	Mol. Weight: 60.1
Specific Gravity: 0.8274 @ 20° C	Halogen Content: 0%
Waste Number: U099	Hazard Code: T
Hazardous Organic Constituents: 1,2-Dimethylhydrazine	

Chemical Name: 2,4-Dimethylphenol	
Synonyms: (Xylenol) (Phenol, 2,4-dimethyl-)	
Physical State: Liquid	Formula: (CH ₃) ₂ C ₆ H ₃ OH
Viscosity: NA	Mol. Weight: 122.16
Specific Gravity: 1.0362	Halogen Content: 0%
Waste Number: U101	Hazard Code: T
Hazardous Organic Constituents: 2,4-Dimethylphenol	
Chemical Name: 1,2-Benzenedicarboxylic acid, dimethyl ester	
Synonyms: (Dimethyl phthalate) (DMP)	
Physical State: Liquid	Formula: C ₆ H ₄ (COOCH ₃) ₂
Viscosity: NA	Mol. Weight: 194.18
Specific Gravity: 1.189 @ 25° C	Halogen Content: 0%
Waste Number: U102	Hazard Code: T
Hazardous Organic Constituents: 1,2-Benzenedicarboxylic...	
Chemical Name: Dimethyl sulfate	
Synonyms: Sulfuric acid, dimethyl ester	
Physical State: Liquid	Formula: (CH ₃) ₂ SO ₄
Viscosity: NA	Mol. Weight: 126.13
Specific Gravity: 1.3322 @ 20° C	Halogen Content: 0%
Waste Number: U103	Hazard Code: T
Hazardous Organic Constituents: Dimethyl sulfate	
Chemical Name: Benzene, 1-methyl-2,4-dinitro-	
Synonyms: (2,4-Dinitrotoluene)	
Physical State: Solid	Formula: (NO ₂) ₂ C ₆ H ₃ CH ₃
Viscosity: NA	Mol. Weight: 182.13
Specific Gravity: 1.521 @ 15° C	Halogen Content: 0%
Waste Number: U105	Hazard Code: T
Hazardous Organic Constituents: Benzene,...	
Chemical Name: Benzene, 2-methyl-1,3-dinitro-	
Synonyms: (2,6-Dinitrotoluene)	
Physical State: Liquid	Formula: (NO ₂) ₂ C ₆ H ₃ CH ₃
Viscosity: NA	Mol. Weight: 182.13
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U106	Hazard Code: T
Hazardous Organic Constituents: Benzene,...	

Chemical Name: 1,2-Benzenedicarboxylic acid, dioctyl ester	
Synonyms: (Di-n-octyl phthalate)	
Physical State: Liquid	Formula: C ₆ H ₄ [CO ₂ CH ₂ CH(C ₂ H ₅)C ₄ H ₉] ₂
Viscosity: NA	Mol. Weight: 390.6
Specific Gravity: 0.9861 @ 20° C	Halogen Content: 0%
Waste Number: U107	Hazard Code: T
Hazardous Organic Constituents: 1,2-Benzenedicarboxylic...	
Chemical Name: 1,4-Diethyleneoxide	
Synonyms: (1,4-Dioxane) (Diethylene oxide)	
Physical State: Liquid	Formula: C ₄ H ₈ O ₂
Viscosity: 0.0120 POISE @ 25° C	Mol. Weight: 88.10
Specific Gravity: 1.0353 @ 20° C	Halogen Content: 0%
Waste Number: U108	Hazard Code: T
Hazardous Organic Constituents: 1,4-Diethylene dioxide	
Chemical Name: 1,2-Diphenylhydrazine	
Synonyms: Hydrazine, 1,2-diphenyl	
Physical State: Crystals	Formula: C ₁₂ H ₁₂ N ₂
Viscosity: NA	Mol. Weight: 184.23
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U109	Hazard Code: T
Hazardous Organic Constituents: 1,2-Diphenylhydrazine	
Chemical Name: Dipropylamine	
Synonyms: 1-Propanamine, N-propyl	
Physical State: Liquid	Formula: (C ₃ H ₇) ₂ NH
Viscosity: 0.534 cP	Mol. Weight: 101.19
Specific Gravity: 0.741 @ 20° C	Halogen Content: 0%
Waste Number: U110	Hazard Code: I
Hazardous Organic Constituents: Dipropylamine	
Chemical Name: Di-n-propylnitrosamine	
Synonyms: (N-Nitroso-n-propylamine) 1-Propanamine, N-nitroso-N-propyl-	
Physical State: Liquid	Formula: (C ₃ H ₇) ₂ N-NO
Viscosity: NA	Mol. Weight: 130.19
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U111	Hazard Code: T
Hazardous Organic Constituents: Di-N-propylnitrosamine	

Chemical Name: Ethyl acetate	
Synonyms: (Acetic ether Ethyl ester) (Ethyl ethanoate)	
Physical State: Liquid	Formula: CH ₃ COOC ₂ H ₅
Viscosity: .49 ctsk @ 20° C; 0.426 cP	Mol. Weight: 88.10
Specific Gravity: 0.8946 @ 25° C	Halogen Content: 0%
Waste Number: U112	Hazard Code: I
Hazardous Organic Constituents: Ethyl acetate	
Chemical Name: Ethyl acrylate	
Synonyms: (Ethyl propenoate) (2-Propenoic acid, ethyl ester)	
Physical State: Liquid	Formula: CH ₂ CHCOOC ₂ H ₅
Viscosity: NA	Mol. Weight: 100.11
Specific Gravity: 0.941 @ 20° C	Halogen Content: 0%
Waste Number: U113	Hazard Code: I
Hazardous Organic Constituents: Ethyl acrylate	
Chemical Name: Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters	
Synonyms: Ethylenebis(dithiocarbamic acid), salts and esters	
Physical State: Liquid	Formula: C ₄ H ₈ O ₂ S ₂
Viscosity: NA	Mol. Weight: 152
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U114	Hazard Code: T
Hazardous Organic Constituents: 1,2-Ethanediylbiscarbamodithoid	
Chemical Name: Ethylene oxide	
Synonyms: (1,2-Expoxyethane) (Oxirane)	
Physical State: Gas	Formula: (CH ₂) ₂ O
Viscosity: NA	Mol. Weight: 44.05
Specific Gravity: 0.8711 @ 20° C	Halogen Content: 0%
Waste Number: U115	Hazard Code: I, T
Hazardous Organic Constituents: Ethylene oxide	
Chemical Name: Ethylenethiourea	
Synonyms: (2-Imidazolidinethione)	
Physical State: Needles	Formula: C ₃ H ₆ N ₂ S
Viscosity: NA	Mol. Weight: 102.17
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U116	Hazard Code: T
Hazardous Organic Constituents: Ethylene thiourea	

Chemical Name: Ethane, 1,1'-oxybis-	
Synonyms: (Ethyl ether) (Sulfuric ether)	
Physical State: Liquid	Formula: C ₂ H ₅ OC ₂ H ₅
Viscosity: NA	Mol. Weight: 74.12
Specific Gravity: 0.7135 @ 20° C	Halogen Content: 0%
Waste Number: U117	Hazard Code: I
Hazardous Organic Constituents: Ethane,1-1'-oxybis	
Chemical Name: Ethyl methacrylate	
Synonyms: (2-Propenoic acid, 2-methyl-, ethyl ester)	
Physical State: Liquid	Formula: H ₂ CCCH ₃ COOC ₂ H ₅
Viscosity: NA	Mol. Weight: 114.07
Specific Gravity: 0.911 @ 25° C	Halogen Content: 0%
Waste Number: U118	Hazard Code: T
Hazardous Organic Constituents: Ethyl methacrylate	
Chemical Name: Ethyl methanesulfonate	
Synonyms: (Methanesulfonic acid, ethyl ester)	
Physical State: Liquid	Formula: CH ₃ CH ₂ OSO ₂ CH ₃
Viscosity: NA	Mol. Weight: 124.15
Specific Gravity: 1.15	Halogen Content: 0%
Waste Number: U119	Hazard Code: T
Hazardous Organic Constituents: Ethyl methanesulfonate	
Chemical Name: Benzo(j,k)fluorene	
Synonyms: (Fluoranthene)	
Physical State: Solid	Formula: C ₁₆ H ₁₀
Viscosity: NA	Mol. Weight: 202.24
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U120	Hazard Code: T
Hazardous Organic Constituents: Benzo(j,k)fluorene	
Chemical Name: Methane, trichlorofluoro-	
Synonyms: (Trichloromonofluoromethane)	
Physical State: Liquid	Formula: CCL ₃ F
Viscosity: NA	Mol. Weight: 137.38
Specific Gravity: 1.494 @ 17.2° C	Halogen Content: F - 13.8% Cl - 77.5%
Waste Number: U121	Hazard Code: T
Hazardous Organic Constituents: Methane, trichlorofluoro-	

Chemical Name: Formaldehyde	
Synonyms: (Methanal) (Methyl aldehyde) (Formalin)	
Physical State: Liquid	Formula: HCHO
Viscosity: NA	Mol. Weight: 30.03
Specific Gravity: 1.067 (air), 0.815 (water) @ - 20° C	Halogen Content: 0%
Waste Number: U122	Hazard Code: T
Hazardous Organic Constituents: Formladehyde	
Chemical Name: Formic acid	
Synonyms: (Methanoic acid)	
Physical State: Liquid	Formula: HCOOH
Viscosity: 31.7 SSU @ 20° C; 1.966 cP	Mol. Weight: 46.03
Specific Gravity: 12.220 @ 20° C	Halogen Content: 0%
Waste Number: U123	Hazard Code: C, T
Hazardous Organic Constituents: Formic acid	
Chemical Name: Furan	
Synonyms: (Furfuran) (Oxole)	
Physical State: Liquid	Formula: C ₄ H ₄ O
Viscosity: 0.380 cP	Mol. Weight: 68.07
Specific Gravity: 0.937 @ 20° C	Halogen Content: 0%
Waste Number: U124	Hazard Code: I
Hazardous Organic Constituents: Furan	
Chemical Name: 2-Furancarboxaldehyde	
Synonyms: (Furfural)	
Physical State: Liquid	Formula: C ₄ H ₃ OCHO
Viscosity: NA	Mol. Weight: 96.1
Specific Gravity: 1.161 @ 20° C	Halogen Content: 0%
Waste Number: U125	Hazard Code: I
Hazardous Organic Constituents: 2-Furancarboxaldehyde	
Chemical Name: Glycidylaldehyde	
Synonyms: Oxiranecarboxyaldehyde	
Physical State: Liquid	Formula: OCH ₂ CHCH ₂ CHO
Viscosity: NA	Mol. Weight: 86.2
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U126	Hazard Code: T
Hazardous Organic Constituents: Glycidylaldehyde	

Chemical Name: 1-Propanol, 2,3-epoxy	
Synonyms: (Glycidol)	
Physical State: Liquid	Formula: OCH ₂ CHCH ₂ OH
Viscosity: NA	Mol. Weight: 74.08
Specific Gravity: 1.11	Halogen Content: 0%
Waste Number: U126	Hazard Code: T
Hazardous Organic Constituents: Glycidol	
Chemical Name: Benzene, hexachloro-	
Synonyms: (Perchlorobenzene) Hexachlorobenzene	
Physical State: Crystalline	Formula: C ₆ Cl ₆
Viscosity: NA	Mol. Weight: 284.80
Specific Gravity: 1.57	Halogen Content: Cl - 74.8%
Waste Number: U127	Hazard Code: T
Hazardous Organic Constituents: Benzene, hexachloro-	
Chemical Name: 1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	
Synonyms: (Hexachlorobutadiene)	
Physical State: Liquid	Formula: CCl ₂ =CCl-CCl=CCl ₂
Viscosity: NA	Mol. Weight: 260.76
Specific Gravity: NA	Halogen Content: Cl - 81.68%
Waste Number: U128	Hazard Code: T
Hazardous Organic Constituents: 1,3-Butadiene,...	
Chemical Name: Cyclohexane, 1,2,3,4,5,6-hexachloro-	
Synonyms: (Lindane) (gamma-Benzene hexachloride) (gamma-Hexane)	
Physical State: Crystalline powder	Formula: C ₆ H ₆ Cl ₆
Viscosity: NA	Mol. Weight: 290.84
Specific Gravity: NA	Halogen Content: Cl - 73.2%
Waste Number: U129	Hazard Code: T
Hazardous Organic Constituents: Hexachlorocyclohexane	
Chemical Name: 1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	
Synonyms: Hexachlorocyclopentadiene	
Physical State: Liquid	Formula: C ₅ Cl ₆
Viscosity: NA	Mol. Weight: 272.79
Specific Gravity: 1.715 @ 15.5° C	Halogen Content: Cl - 78.1%
Waste Number: U130	Hazard Code: T
Hazardous Organic Constituents: 1,3-Cyclopentadiene,...	

Chemical Name: Ethane, hexachloro-	
Synonyms: (Carbon trichloride) (Carbon hexachloride) (Hexachloroethane)	
Physical State: Crystals	Formula: CCl ₃ CCl ₃
Viscosity: NA	Mol. Weight: 236.76
Specific Gravity: 2.091	Halogen Content: Cl - 89.96%
Waste Number: U131	Hazard Code: T
Hazardous Organic Constituents: 1,1,1,2,2,2-Hexachloroethane	
Chemical Name: Hexachlorophene	
Synonyms: (2,2'-methylenebis(3,4,6-trichlorophenol))	
Physical State: Crystals	Formula: C ₁₃ H ₈ Cl ₆ O ₂
Viscosity: NA	Mol. Weight: 406.9
Specific Gravity: NA	Halogen Content: Cl - 52.35%
Waste Number: U132	Hazard Code: T
Hazardous Organic Constituents: Hexachlorophene	
Chemical Name: Diamine	
Synonyms: Hydrazine	
Physical State: NA	Formula: H ₄ N ₂
Viscosity: NA	Mol. Weight: 32.06
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U133	Hazard Code: R, T
Hazardous Organic Constituents: NA	
Chemical Name: Hydrofluoric acid	
Synonyms: (Hydrogen fluoride)	
Physical State: Liquid	Formula: HF
Viscosity: NA	Mol. Weight: 20.01
Specific Gravity: .987	Halogen Content: F-95%
Waste Number: U134	Hazard Code: C, T
Hazardous Organic Constituents: QHydrofluoric acid	
Chemical Name: Hydrogen Sulfide	
Synonyms: (Sulfuretted hydrogen)	
Physical State: Gas	Formula: H ₂ S
Viscosity: NA	Mol. Weight: 34.08
Specific Gravity: 1.539 @ 0° C	Halogen Content: 0%
Waste Number: U135	Hazard Code: T
Hazardous Organic Constituents: Hydrogen Sulfide	

Chemical Name: Cacodylic acid	
Synonyms: (Hydroxydimethyl arsine oxide) Arsinic acid, dimethyl-	
Physical State: Crystals, soluble in water	Formula: (CH ₃) ₂ AsOOH
Viscosity: NA	Mol. Weight: 138.0
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U136	Hazard Code: T
Hazardous Organic Constituents: Cacodylic acid	
Chemical Name: Indeno[1,2,3-cd]pyrene	
Synonyms: (1,10-(1,2-Phenylene)pyrene)	
Physical State: Liquid	Formula: C ₂₈ H ₁₈
Viscosity: NA	Mol. Weight: 354
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U137	Hazard Code: T
Hazardous Organic Constituents: Ideno (1,2,3-cd) pyrene	
Chemical Name: Methane, iodo-	
Synonyms: (Methyl iodide)	
Physical State: Liquid	Formula: CH ₃ I
Viscosity: 0.518 cP @ 15° C	Mol. Weight: 141.95
Specific Gravity: 2.279 @ 20° C	Halogen Content: I - 89.4%
Waste Number: U138	Hazard Code: T
Hazardous Organic Constituents: Methane, iodo-	
Chemical Name: Isobutyl alcohol	
Synonyms: (Isopropylcarbinol) (2-Methyl-1-propanol) (Isobutanol)	
Physical State: Liquid	Formula: (CH ₃) ₂ CHCH ₂ OH
Viscosity: NA	Mol. Weight: 74.12
Specific Gravity: 0.805 @ 20° C	Halogen Content: 0%
Waste Number: U140	Hazard Code: I, T
Hazardous Organic Constituents: Isobutyl alcohol	

Chemical Name: 1,3-Benzodioxole, 5-(1-propenyl)-	
Synonyms: (Isosafrole)	
Physical State: Liquid	Formula: C ₁₀ H ₁₀ O ₂
Viscosity: NA	Mol. Weight: 162.18
Specific Gravity: 1.1206 @ 20° C	Halogen Content: 0%
Waste Number: U141	Hazard Code: T
Hazardous Organic Constituents: Benzene,...	
Chemical Name: Kepone	
Synonyms: Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one	
Physical State: NA	Formula: C ₁₀ Cl ₁₀ O
Viscosity: NA	Mol. Weight: 490.7
Specific Gravity: NA	Halogen Content: Cl - 72.2%
Waste Number: U142	Hazard Code: T
Hazardous Organic Constituents: Kepone	
Chemical Name: Lasiocarpine	
Synonyms: (2-Butenoic acid, 2-methyl-7-((2,3-dihydroxy-2-(1-methoxyethyl)-3-1-oxobutoxy)methyl)-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester)	
Physical State: Leaflets	Formula: C ₂₁ H ₃₃ NO ₇
Viscosity: NA	Mol. Weight: 411.50
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U143	Hazard Code: T
Hazardous Organic Constituents: Lasiocarpine	
Chemical Name: Lead acetate	
Synonyms: Acetic acid, lead(2+) salt	
Physical State: Crystals	Formula: Pb(C ₂ H ₃ O) ₂ • 3H ₂ O
Viscosity: NA	Mol. Weight: 379.35
Specific Gravity: 2.55	Halogen Content: 0%
Waste Number: U144	Hazard Code: T
Hazardous Organic Constituents: Lead acetate	
Chemical Name: Lead phosphate	
Synonyms: Phosphoric acid, lead salt	
Physical State: Crystals	Formula: Pb(PO ₃) ₂
Viscosity: NA	Mol. Weight: 365.17
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U145	Hazard Code: T
Hazardous Organic Constituents: Lead phosphate	

Chemical Name: Lead subacetate	
Synonyms: (Monobasic lead acetate) Lead, bis(acetate-O)tetrahydroxytri-	
Physical State: Powder	Formula: C ₄ H ₁₀ O ₈ Pb ₃
Viscosity: NA	Mol. Weight: 807.75
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U146	Hazard Code: T
Hazardous Organic Constituents: Lead subacetate	
Chemical Name: 2,5-Furandione	
Synonyms: (Maleic anhydride) (Toxic anhydride)	
Physical State: Crystals	Formula: OCOCHCHCO
Viscosity: NA	Mol. Weight: 98.1
Specific Gravity: 1.48 @ 20° C	Halogen Content: 0%
Waste Number: U147	Hazard Code: T
Hazardous Organic Constituents: 2,5-Furandione	
Chemical Name: 1,2-Dihydro-3,6-pyridizinedione	
Synonyms: (Malononitrile) (Cyanoacetone) (Methylene dicyanide) Maleic hydrazide	
Physical State: Powder	Formula: CH ₂ (CN) ₂
Viscosity: NA	Mol. Weight: 66.1
Specific Gravity: 1.049 @ 34° C	Halogen Content: 0%
Waste Number: U148	Hazard Code: T
Hazardous Organic Constituents: 1,2-Dihydro...	
Chemical Name: Malononitrile	
Synonyms: (Cyanocetonitrile) (Methylene dicyanide) (Propanedinitrile)	
Physical State: Powder	Formula: CH ₂ (CN) ₂
Viscosity: NA	Mol. Weight: 66.1
Specific Gravity: 1.049 @ 34° C	Halogen Content: 0%
Waste Number: U149	Hazard Code: T
Hazardous Organic Constituents: Malononitrile	
Chemical Name: Melphalan	
Synonyms: (4-(bis(2-chloroethyl)amino)-L-phenylalanine)	
Physical State: Needles	Formula: C ₁₃ H ₁₈ Cl ₂ N ₂ O ₂
Viscosity: NA	Mol. Weight: 305.20
Specific Gravity: NA	Halogen Content: Cl - 23.2%
Waste Number: U150	Hazard Code: T
Hazardous Organic Constituents: Melphalan	

Chemical Name: Mercury	
Synonyms: NA	
Physical State: NA	Formula: Hg
Viscosity: NA	Mol. Weight: 200.59
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U151	Hazard Code: H
Hazardous Organic Constituents: NA	
Chemical Name: Methacrylonitrile	
Synonyms: (2-Methyl-2-propenenitrile)	
Physical State: Liquid	Formula: H ₂ C=C(CH ₃)C=N
Viscosity: NA	Mol. Weight: 67.09
Specific Gravity: 0.805	Halogen Content: 0%
Waste Number: U152	Hazard Code: I, T
Hazardous Organic Constituents: Methacrylonitrile	
Chemical Name: Methanethiol	
Synonyms: (Methyl mercaptan) Thiomethanol	
Physical State: Liquid or Gas	Formula: CH ₃ SH
Viscosity: NA	Mol. Weight: 48.10
Specific Gravity: 0.868 @ 20° C	Halogen Content: 0%
Waste Number: U153	Hazard Code: I, T
Hazardous Organic Constituents: Methanethiol	
Chemical Name: Methanol	
Synonyms: (Methyl alcohol)	
Physical State: Liquid	Formula: CH ₃ OH
Viscosity: 0.544 cP	Mol. Weight: 32.04
Specific Gravity: 0.7913 @ 20° C	Halogen Content: 0%
Waste Number: U154	Hazard Code: I
Hazardous Organic Constituents: Methanol	
Chemical Name: Methapyrilene	
Synonyms: (Pyridine, 2-((2-dimethylamino)ethyl)-2-phenylamino-	
Physical State: Liquid	Formula: C ₁₄ H ₁₉ N ₃ S
Viscosity: NA	Mol. Weight: 261.38
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U155	Hazard Code: T
Hazardous Organic Constituents: Methapyrilene	

Chemical Name: Carbonochloridic acid, methyl ester	
Synonyms: (Methyl chlorocarbonate) (Methyl chloroformate) (Methyl chloro-methanoate)	
Physical State: Liquid	Formula: ClCOOCH ₃
Viscosity: NA	Mol. Weight: 94.50
Specific Gravity: 1.223 @ 20° C	Halogen Content: Cl - 37.6%
Waste Number: U156	Hazard Code: I,T
Hazardous Organic Constituents: Carbonochloridic acid,...	
Chemical Name: 3-Methylcholanthrene	
Synonyms: (1,2-Dihydro-3-methyl-benz(j)aceanthrylene)	
Physical State: Crystals	Formula: C ₂₁ H ₁₆
Viscosity: NA	Mol. Weight: 268.3
Specific Gravity: 1.28 @ 20° C	Halogen Content: 0%
Waste Number: U157	Hazard Code: T
Hazardous Organic Constituents: 3-Methylcholanthrene	
Chemical Name: Benzenamine, 4,4'-methylenebis(2-chloro-)	
Synonyms: (4,4'-Methylene-bis-(2-chloroaniline)) (3,3'-dichloro-4,4'-diamino-diphenylmethane)	
Physical State: Solid	Formula: C ₁₃ H ₁₂ Cl ₂ N ₂
Viscosity: NA	Mol. Weight: 267.15
Specific Gravity: NA	Halogen Content: Cl - 26.54%
Waste Number: U158	Hazard Code: T
Hazardous Organic Constituents: Benzenamine	
Chemical Name: 2-Butanone	
Synonyms: (Methyl ethyl ketone)	
Physical State: Liquid	Formula: CH ₃ COCH ₂ CH ₃
Viscosity: 0.423 cP @ 15° C	Mol. Weight: 72.10
Specific Gravity: 0.80615 @ 20° C	Halogen Content: 0%
Waste Number: U159	Hazard Code: I, T
Hazardous Organic Constituents: 2-Butanone	
Chemical Name: 2-Butanone peroxide	
Synonyms: Methyl ethyl ketone peroxide	
Physical State: NA	Formula: C ₈ H ₁₆ O ₄
Viscosity: NA	Mol. Weight: 176.24
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U160	Hazard Code: R, T
Hazardous Organic Constituents: NA	

Chemical Name: Methyl isobutyl ketone	
Synonyms: (Hexone) (4-Methyl-2-pentanone) Pentanol, 4-methyl-	
Physical State: Liquid	Formula: (CH ₃) ₂ CHCH ₂ COCH ₃
Viscosity: NA	Mol. Weight: 100.2
Specific Gravity: 0.803	Halogen Content: 0%
Waste Number: U161	Hazard Code: I
Hazardous Organic Constituents: Methyl isobutyl ketone	
Chemical Name: Methyl methacrylate	
Synonyms: (2-propenoic acid, 2-methyl, methyl ester)	
Physical State: Liquid	Formula: CH ₂ C(CH ₃)COOCH ₃
Viscosity: 0.632 cP	Mol. Weight: 100.11
Specific Gravity: 0.936 @ 20° C	Halogen Content: 0%
Waste Number: U162	Hazard Code: I, T
Hazardous Organic Constituents: Methyl methacrylate	
Chemical Name: Guanidine, N-nitroso-N-methyl-N'nitro-	
Synonyms: MNNG	
Physical State: Liquid	Formula: C ₂ H ₅ N ₅ O ₃
Viscosity: NA	Mol. Weight: 147.1
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U163	Hazard Code: T
Hazardous Organic Constituents: Guanidine,...	
Chemical Name: Methylthiouracil	
Synonyms: (2,3-Dihydro-6-methyl-2-thioxo-4-(1H)-pyrimidione)(4(1A)-Pyrimidione,...	
Physical State: Crystals	Formula: C ₅ H ₆ N ₂ OS
Viscosity: NA	Mol. Weight: 142.18
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U164	Hazard Code: T
Hazardous Organic Constituents: Methylthiouracil	
Chemical Name: Naphthalene	
Synonyms: NA	
Physical State: Crystalline	Formula: C ₁₀ H ₈
Viscosity: 0.9 ctsk @ 80° C; 0.780 cP @ 100° C	Mol. Weight: 128.16
Specific Gravity: 1.162	Halogen Content: 0%
Waste Number: U165	Hazard Code: T
Hazardous Organic Constituents: Naphthalene	

Chemical Name: 1,4-Naphthalenediene	
Synonyms: (1,4-Naphthoquinone)	
Physical State: Powder	Formula: C ₁₀ H ₆ O ₂
Viscosity: NA	Mol. Weight: 158.2
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U166	Hazard Code: T
Hazardous Organic Constituents: 1,4-Naphthalenediene	
Chemical Name: 1-Naphthalenamine	
Synonyms: alpha-Naphthylamine	
Physical State: Crystals	Formula: C ₁₀ H ₇ NH ₂
Viscosity: NA	Mol. Weight: 143.18
Specific Gravity: 1.131	Halogen Content: 0%
Waste Number: U167	Hazard Code: T
Hazardous Organic Constituents: 1-Naphthylamine	
Chemical Name: 2-Naphthalenamine	
Synonyms: beta-Naphthylamine	
Physical State: Leaflets	Formula: C ₁₀ H ₇ NH ₂
Viscosity: NA	Mol. Weight: 143.18
Specific Gravity: 1.061 @ 98° C	Halogen Content: 0%
Waste Number: U168	Hazard Code: T
Hazardous Organic Constituents: 2-Naphthylamine	
Chemical Name: Benzene, nitro-	
Synonyms: (Nitrobenzene)	
Physical State: Liquid or Crystals	Formula: C ₆ H ₅ NO ₂
Viscosity: 1.634 cP	Mol. Weight: 123.11
Specific Gravity: 1.205 @ 25° C	Halogen Content: 0%
Waste Number: U169	Hazard Code: I, T
Hazardous Organic Constituents: Benzene, nitro-	
Chemical Name: p-Nitrophenol	
Synonyms: (4-Nitrophenol)	
Physical State: Crystals	Formula: C ₆ H ₅ NO ₃
Viscosity: NA	Mol. Weight: 139.1
Specific Gravity: 1.270 @ 120° C	Halogen Content: 0%
Waste Number: U170	Hazard Code: T
Hazardous Organic Constituents: p-Nitrophenol	

Chemical Name: 2-Nitropropane	
Synonyms: Propane, 2-nitro-	
Physical State: Liquid	Formula: (CH ₃) ₂ CHNO ₂
Viscosity: 0.798 cP	Mol. Weight: 89.09
Specific Gravity: 0.992 @ 20° C	Halogen Content: 0%
Waste Number: U171	Hazard Code: I, T
Hazardous Organic Constituents: 2-Nitropropane	
Chemical Name: 1-Butanamine, N-butyl-N-nitroso-	
Synonyms: (N-Nitrosodi-n-butylamine)	
Physical State: Liquid	Formula: C ₈ H ₁₈ N ₂ O
Viscosity: NA	Mol. Weight: 158.3
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U172	Hazard Code: T
Hazardous Organic Constituents: 1-Butanamine,...	
Chemical Name: Ethanol, 2,2'-(nitrosoimino)bis-	
Synonyms: (N-Nitrosodiethanolamine)	
Physical State: Liquid	Formula: C ₄ H ₁₀ N ₂ O ₃
Viscosity: NA	Mol. Weight: 134.13
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U173	Hazard Code: T
Hazardous Organic Constituents: Ethanol,...	
Chemical Name: Ethanamine, N-ethyl-N-nitroso-	
Synonyms: (N-Nitrosodiethylamine)	
Physical State: Liquid	Formula: C ₄ H ₁₀ N ₂ O
Viscosity: NA	Mol. Weight: 102.14
Specific Gravity: 0.9422 @ 20° C	Halogen Content: 0%
Waste Number: U174	Hazard Code: T
Hazardous Organic Constituents: Ethanamine,...	
Chemical Name: Carbamide, N-ethyl-N-nitroso- (Urea)	
Synonyms: (N-Nitroso-N-ethylurea)	
Physical State: Liquid	Formula: C ₃ H ₉ N ₃ O ₂
Viscosity: NA	Mol. Weight: 131
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U176	Hazard Code: T
Hazardous Organic Constituents: Carbamide,...	

Chemical Name: Carbamide, N-methyl-N-nitroso- (Urea)	
Synonyms: (N-nitroso-N-methylurea)	
Physical State: Powder	Formula: $\text{Cl}_3\text{NHCONHNO}$
Viscosity: NA	Mol. Weight: 89.1
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U177	Hazard Code: T
Hazardous Organic Constituents: Carbamide,...	
Chemical Name: Carbamic acid, methylnitroso-ethyl ester	
Synonyms: (N-Nitroso-N-methylurethane)	
Physical State: Liquid	Formula: $\text{CH}_3\text{NNOCOCOC}_2\text{H}_5$
Viscosity: NA	Mol. Weight: 132.2
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U178	Hazard Code: T
Hazardous Organic Constituents: Carbamic acid,...	
Chemical Name: N-Nitrosopiperidine	
Synonyms: Piperidine, 1-nitroso-	
Physical State: Liquid	Formula: $\text{N-ON}(\text{C}_5\text{H}_{10}\text{N})$
Viscosity: NA	Mol. Weight: 114.15
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U179	Hazard Code: T
Hazardous Organic Constituents: N-Nitrosopiperidine	
Chemical Name: N-Nitrosopyrrolidine	
Synonyms: (Pyrrole, tetrahydro-N-nitroso-)	
Physical State: Liquid	Formula: $\text{C}_4\text{H}_8\text{N}_2\text{O}$
Viscosity: NA	Mol. Weight: 100.1
Specific Gravity: 1.085	Halogen Content: 0%
Waste Number: U180	Hazard Code: T
Hazardous Organic Constituents: N-Nitrosopyrrolidine	
Chemical Name: Benzenamine, 2-methyl-5-nitro-	
Synonyms: (5-Nitro-o-toluidine)	
Physical State: Liquid	Formula: $\text{C}_7\text{H}_6\text{NH}_2\text{NO}_2$
Viscosity: NA	Mol. Weight: 168.15
Specific Gravity: 1.312	Halogen Content: 0%
Waste Number: U181	Hazard Code: T
Hazardous Organic Constituents: Benzenamine,...	

Chemical Name: Paraldehyde	
Synonyms: 1,3,5 trioxane, 2,4,6-trimethyl-	
Physical State: Liquid	Formula: OCH(CH ₃)OCHCH ₃ OCHCH ₃
Viscosity: NA	Mol. Weight: 132.16
Specific Gravity: .9943 @ 20° C	Halogen Content: 0%
Waste Number: U182	Hazard Code: T
Hazardous Organic Constituents: Paraldehyde	
Chemical Name: Benzene, pentachloro-	
Synonyms: Pentachlorobenzene	
Physical State: Liquid	Formula: C ₆ HCl ₅
Viscosity: NA	Mol. Weight: 250.5
Specific Gravity: NA	Halogen Content: Cl - 70.9%
Waste Number: U183	Hazard Code: T
Hazardous Organic Constituents: Benzene, pentachloro-	
Chemical Name: Ethane, pentachloro-	
Synonyms: (Pentalin) Pentachloroethane	
Physical State: Liquid	Formula: CHCl ₂ CCl ₃
Viscosity: 2.751 cP	Mol. Weight: 202.3
Specific Gravity: 1.6728 @ 25° C	Halogen Content: Cl - 87.74%
Waste Number: U184	Hazard Code: T
Hazardous Organic Constituents: Ethane, pentachloro-	
Chemical Name: Benzene, pentachloronitro-	
Synonyms: Pentachloronitrobenzene (PCNB)	
Physical State: Solid	Formula: C ₆ Cl ₅ NO ₂
Viscosity: NA	Mol. Weight: 295.4
Specific Gravity: NA	Halogen Content: Cl - 60.1%
Waste Number: U185	Hazard Code: T
Hazardous Organic Constituents: Benzene, pentachloro-nitro-	
Chemical Name: 1-Methylbutadiene	
Synonyms: (1,3-Pentadiene) (Piperylene)	
Physical State: Liquid	Formula: CH ₂ CHCHCHCH ₃
Viscosity: NA	Mol. Weight: 68.13
Specific Gravity: 0.68 @ 20° C	Halogen Content: 0%
Waste Number: U186	Hazard Code: I
Hazardous Organic Constituents: 1-Methylbutadiene	

Chemical Name: Phenacetin	
Synonyms: Acetamide, -(4-ethoxyphenyl)-	
Physical State: NA	Formula: CH ₃ CONHC ₆ H ₄ OC ₂ H ₅
Viscosity: NA	Mol. Weight: 179.22
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U187	Hazard Code: H
Hazardous Organic Constituents: Phenacetin	
Chemical Name: Benzene, hydroxy-	
Synonyms: (Phenol) (Carbolic acid)	
Physical State: Crystal	Formula: C ₆ H ₅ OH
Viscosity: 4.076 cP	Mol. Weight: 94.11
Specific Gravity: 1.072	Halogen Content: 0%
Waste Number: U188	Hazard Code: T
Hazardous Organic Constituents: Benzene, hydroxy-	
Chemical Name: Phosphorus sulfide	
Synonyms: Sulfur Phosphide	
Physical State: NA	Formula: P ₂ S ₅
Viscosity: NA	Mol. Weight: 222.24
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U189	Hazard Code: R
Hazardous Organic Constituents: NA	
Chemical Name: 1,3-Isobenzofurandione	
Synonyms: (Phthalic anhydride) (Phthalandione)	
Physical State: Crystalline	Formula: C ₈ H ₄ (CO) ₂ O
Viscosity: NA	Mol. Weight: 172.14
Specific Gravity: 1.527 @ 4° C	Halogen Content: 0%
Waste Number: U190	Hazard Code: T
Hazardous Organic Constituents: 1,3-Isobenzofurandione	
Chemical Name: 2-Picoline	
Synonyms: (Pyridine, 2-methyl-)	
Physical State: Liquid	Formula: C ₅ H ₄ NCH ₃
Viscosity: NA	Mol. Weight: 93.13
Specific Gravity: 0.95 @ 15° C	Halogen Content: 0%
Waste Number: U191	Hazard Code: T
Hazardous Organic Constituents: 2-Picoline	

Chemical Name: 3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide	
Synonyms: (Pronamide)	
Physical State: Liquid	Formula: C ₁₂ H ₁₁ OC ₂ N
Viscosity: NA	Mol. Weight: 256
Specific Gravity: NA	Halogen Content: Cl - 27.73%
Waste Number: U192	Hazard Code: T
Hazardous Organic Constituents: 3,5-Dichloro-....	
Chemical Name: 1,2-Oxathiolane-2,2-dioxide	
Synonyms: (1,3 Propane sultone)	
Physical State: Liquid	Formula: C ₃ H ₆ SO ₃
Viscosity: NA	Mol. Weight: 122.2
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U193	Hazard Code: T
Hazardous Organic Constituents: 1,2-Oxathiolane....	
Chemical Name: 1-Propanamine	
Synonyms: (n-Propylamine)	
Physical State: Liquid	Formula: CH ₃ CH ₂ CH ₂ NH ₂
Viscosity: NA	Mol. Weight: 59.11
Specific Gravity: 0.7191 @ 20° C	Halogen Content: 0%
Waste Number: U194	Hazard Code: I, T
Hazardous Organic Constituents: 1-Propanamine	
Chemical Name: Pyridine	
Synonyms: NA	
Physical State: Liquid	Formula: NCHCHCHCHCH
Viscosity: 0.952 cP	Mol. Weight: 79.10
Specific Gravity: 0.982	Halogen Content: 0%
Waste Number: U196	Hazard Code: T
Hazardous Organic Constituents: Pyridine	
Chemical Name: p-Benzoquinone	
Synonyms: (Quinone) (Chinone) 2,5-Cyclohexadiene-1,4-dione	
Physical State: Crystals	Formula: OC ₆ H ₄ O
Viscosity: NA	Mol. Weight: 108.09
Specific Gravity: 1.318 @ 20° C	Halogen Content: 0%
Waste Number: U197	Hazard Code: T
Hazardous Organic Constituents: p-Benzoquinone	

Chemical Name: Reserpine	
Synonyms: (Yohimban-16-carboxylic acid, 11, 17-dimethoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy]-,methyl ester) (Rivasin-Serparsine)	
Physical State: Powder	Formula: C ₃₃ H ₄₀ N ₂ O ₉
Viscosity: NA	Mol. Weight: 608.7
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U200	Hazard Code: T
Hazardous Organic Constituents: Reserpine	
Chemical Name: 1,3-Benzenediol	
Synonyms: (Resorcinol) (m-Dihydroxybenzene)	
Physical State: Crystals	Formula: C ₆ H ₄ (OH) ₂
Viscosity: NA	Mol. Weight: 110.11
Specific Gravity: 1.285 @ 15° C	Halogen Content: 0%
Waste Number: U201	Hazard Code: T
Hazardous Organic Constituents: 1,3-Benzenediol	
Chemical Name: 1,3-Benzodioxole, 5-(2-propenyl)-	
Synonyms: (Safrole)	
Physical State: Liquid	Formula: C ₃ H ₅ C ₆ H ₃ O ₂ CH ₂
Viscosity: NA	Mol. Weight: 162.18
Specific Gravity: 1.096 @ 20° C	Halogen Content: 0%
Waste Number: U203	Hazard Code: T
Hazardous Organic Constituents: Benzene,....	
Chemical Name: Selenious acid	
Synonyms: Selenium dioxide	
Physical State: Crystals	Formula: H ₂ SeO ₃
Viscosity: NA	Mol. Weight: 128.98
Specific Gravity: 3.004 @ 15° C	Halogen Content: 0%
Waste Number: U204	Hazard Code: T
Hazardous Organic Constituents: Selenious acid	

Chemical Name: Selenium sulfide	
Synonyms: Sulfur selenide	
Physical State: NA	Formula: S ₂ Se
Viscosity: NA	Mol. Weight: 143.08
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U205	Hazard Code: R, T
Hazardous Organic Constituents: NA	
Chemical Name: D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-	
Synonyms: (Streptozotocin)	
Physical State: Platelets	Formula: C ₈ H ₁₅ N ₃ O ₇
Viscosity: NA	Mol. Weight: 265.22
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U206	Hazard Code: T
Hazardous Organic Constituents: D-Glucopyranose,....	
Chemical Name: Benzene, 1,2,4,5-tetrachloro-	
Synonyms: (Benzene tetrachloride) 1,2,4,5-Tetrachlorobenzene	
Physical State: Liquid	Formula: C ₆ H ₂ Cl ₄
Viscosity: NA	Mol. Weight: 215.9
Specific Gravity: 1.734	Halogen Content: Cl - 65.8%
Waste Number: U207	Hazard Code: T
Hazardous Organic Constituents: Benzene, 1,2,4,5-tetrachloro-	
Chemical Name: Ethane, 1,1,1,2-tetrachloro-	
Synonyms: NA	
Physical State: Liquid	Formula: CHClCHCl ₃
Viscosity: NA	Mol. Weight: 167.86
Specific Gravity: 1.6 @ 20° C	Halogen Content: Cl - 84.6%
Waste Number: U208	Hazard Code: T
Hazardous Organic Constituents: Ethane,1,1,1,2-tetrachloro-	
Chemical Name: Ethane, 1,1,2,2-tetrachloro-	
Synonyms: (Acetylene tetrachloride) 1,1,2,2-Tetrachloroethane	
Physical State: Liquid	Formula: CHCl ₂ CHCl ₂
Viscosity: 1.844 cP	Mol. Weight: 167.86
Specific Gravity: 1.600 @ 20° C	Halogen Content: Cl - 84.6%
Waste Number: U209	Hazard Code: T
Hazardous Organic Constituents: Ethane, 1,1,2,2-tetrachloro-	

Chemical Name: Ethene, 1,1,2,2-tetrachloro-	
Synonyms: (Tetrachlorethylene) (Perchloroethylene) (Ethylene tetrachloride)	
Physical State: Liquid	Formula: Cl ₂ C=CCl ₂
Viscosity: 1.932 cP	Mol. Weight: 165.85
Specific Gravity: 1.631 @ 15° C	Halogen Content: Cl - 85.52%
Waste Number: U210	Hazard Code: T
Hazardous Organic Constituents: Ethene,....	
Chemical Name: Carbon tetrachloride	
Synonyms: (Tetrachloromethane)	
Physical State: Liquid	Formula: CCl ₄
Viscosity: 0.612 centistokes @ 20° C; 0.965 cP	Mol. Weight: 153.84
Specific Gravity: 1.597 @ 20° C	Halogen Content: Cl - 92.3%
Waste Number: U211	Hazard Code: T
Hazardous Organic Constituents: Carbon tetrachloride	
Chemical Name: Furan, tetrahydro-	
Synonyms: (Cyclotetramethylene oxide) Tetrahydrofuran	
Physical State: Liquid	Formula: OCH ₂ CH ₂ CH ₂ CH ₂
Viscosity: NA	Mol. Weight: 72.10
Specific Gravity: 0.888 @ 20° C	Halogen Content: 0%
Waste Number: U213	Hazard Code: I
Hazardous Organic Constituents: Furan, tetrahydro-	
Chemical Name: Thallium (I) Acetate	
Synonyms: Acetic acid, thallium (1+) salt	
Physical State: NA	Formula: TlC ₂ H ₃ O ₂
Viscosity: NA	Mol. Weight: 263.43
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U214	Hazard Code: T
Hazardous Organic Constituents: Thallium Acetate	
Chemical Name: Carboic acid, dithallium(I)	
Synonyms: (Thallium carbonate) salt	
Physical State: Crystals	Formula: Tl ₂ CO ₃
Viscosity: NA	Mol. Weight: 468.79
Specific Gravity: 7.11	Halogen Content: 0%
Waste Number: U215	Hazard Code: T
Hazardous Organic Constituents: Carbonic acid,...	

Chemical Name: Thallium (I) Chloride	
Synonyms: NA	
Physical State: NA	Formula: TlCl
Viscosity: 0-2400 cp	Mol. Weight: 239.85
Specific Gravity: NA	Halogen Content: 14.8%
Waste Number: U216	Hazard Code: T
Hazardous Organic Constituents: NA	
Chemical Name: Thallium (I) Nitrate	
Synonyms: Nitric acid, thallium (1+) salt	
Physical State: NA	Formula: TlNO ₃
Viscosity: 0-2400 cp	Mol. Weight: 266.40
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U217	Hazard Code: T
Hazardous Organic Constituents: NA	
Chemical Name: Ethanethioamide	
Synonyms: (Thioacetamide)	
Physical State: Colorless leaflets	Formula: CH ₃ CSNH ₂
Viscosity: NA	Mol. Weight: 75.20
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U218	Hazard Code: T
Hazardous Organic Constituents: Ethanethioamide	
Chemical Name: Carbamide, thio-	
Synonyms: (Thiourea)	
Physical State: Powder or Crystals	Formula: NH ₂ CSNH ₂
Viscosity: NA	Mol. Weight: 76.1
Specific Gravity: 1.405	Halogen Content: 0%
Waste Number: U219	Hazard Code: T
Hazardous Organic Constituents: Carbamide, thio-	
Chemical Name: Benzene, methyl-	
Synonyms: (Toluene) (Phenylmethane) (Toluol)	
Physical State: Liquid	Formula: C ₆ H ₅ CH ₃
Viscosity: 0.552 cP	Mol. Weight: 92.13
Specific Gravity: 0.866 @ 20° C	Halogen Content: 0%
Waste Number: U220	Hazard Code: T
Hazardous Organic Constituents: Benzene, methyl-	

Chemical Name: Diaminotoluene	
Synonyms: (Toluenediamine) Benzenediamine, ar-methyl-	
Physical State: Prisms	Formula: CH ₃ C ₆ H ₃ (NH ₂) ₂
Viscosity: NA	Mol. Weight: 122.17
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U221	Hazard Code: T
Hazardous Organic Constituents: Diaminotoluene	
Chemical Name: Benzenamine, 2-methyl-hydrochloride	
Synonyms: (o-Toluidine hydrochloride) (o-Chlorotoluidine) (4-Chloro-o-toluidine hydrochloride)	
Physical State: Solid	Formula: CH ₃ C ₆ H ₃ (Cl)NH ₂ HCl
Viscosity: NA	Mol. Weight: 178.06
Specific Gravity: NA	Halogen Content: Cl - 39.9%
Waste Number: U222	Hazard Code: T
Hazardous Organic Constituents: Benzenamine,...	
Chemical Name: Benzene, 1,3-diisocyanatomethyl	
Synonyms: Toluene diisocyanate	
Physical State: NA	Formula: C ₉ H ₆ N ₂ O ₂
Viscosity: NA	Mol. Weight: 174.17
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U223	Hazard Code: R, T
Hazardous Organic Constituents: NA	
Chemical Name: Bromoform	
Synonyms: (Tribromomethane)	
Physical State: Liquid	Formula: CH Br ₃
Viscosity: NA	Mol. Weight: 252.77
Specific Gravity: 2.89 @ 20° C	Halogen Content: Br - 94.9%
Waste Number: U225	Hazard Code: T
Hazardous Organic Constituents: Bromoform	
Chemical Name: Methyl chloroform	
Synonyms: (alpha-Trichloroethane) (1,1,1-Trichloroethane)	
Physical State: Liquid	Formula: CH ₃ CCl ₃
Viscosity: 0.903 cP @ 20° C	Mol. Weight: 133.42
Specific Gravity: 1.35 @ 20° C	Halogen Content: Cl - 79.7%
Waste Number: U226	Hazard Code: T
Hazardous Organic Constituents: Methyl chloroform	

Chemical Name: Ethane, 1,1,2-trichloro-	
Synonyms: (Vinyl trichloride) (beta-Trichloroethane) 1,1,2-Trichloroethane	
Physical State: Liquid	Formula: CH ₂ ClCHCl ₂
Viscosity: 0.119 cP	Mol. Weight: 133.4
Specific Gravity: 1.4416 @ 20° C	Halogen Content: Cl - 79.8%
Waste Number: U227	Hazard Code: T
Hazardous Organic Constituents: Ethane, 1,1,2-trichloro-	
Chemical Name: Trichloroethene	
Synonyms: (Trichloroethylene) Ethene, trichloro-	
Physical State: Liquid	Formula: CHClCCl ₂
Viscosity: 0.566 cP	Mol. Weight: 131.40
Specific Gravity: 1.46 @ 25° C	Halogen Content: Cl - 81.1%
Waste Number: U228	Hazard Code: T
Hazardous Organic Constituents: Trichloroethene	
Chemical Name: Benzene, 1,3,5-trinitro-(R,T)	
Synonyms: sym-Trinitrobenzene (R,T)	
Physical State: NA	Formula: NA
Viscosity: NA	Mol. Weight: NA
Specific Gravity: NA	Halogen Content: NA
Waste Number: U234	Hazard Code: T
Hazardous Organic Constituents: NA	
Chemical Name: 1-Propanol, 2,3-dibromo-, phosphate (3:1)	
Synonyms: Tris(2,3-dibromopropyl) phosphate	
Physical State: Liquid	Formula: C ₃ H ₆ O ₄ Br ₂ P
Viscosity: NA	Mol. Weight: 297
Specific Gravity: NA	Halogen Content: Br - 53.9%
Waste Number: U235	Hazard Code: T
Hazardous Organic Constituents: 1-Propanol, 2,3-dibromo-...	
Chemical Name: 2,7-Naphthalenedisulfonic acid, 3,3'-((3,3'-dimethyl-(1,1'-biphenyl)-4,4'diyl))bis (azo)bis(5-amino-4-hydroxy tetrasodium salt	
Synonyms: (Trypan blue)	
Physical State: Powder	Formula: C ₃₄ H ₂₄ N ₆ Na ₄ O ₁₄ S ₄
Viscosity: NA	Mol. Weight: 960.8
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U236	Hazard Code: T
Hazardous Organic Constituents: 7-Naphthalene...	

Chemical Name: Uracil, 2,4-(1H,3H)-Pyrimidinedione, 5(bis(2-chloromethyl)amino)-	
Synonyms: (Uracil mustard)	
Physical State: Liquid	Formula: C ₈ H ₁₁ Cl ₂ N ₃ O ₂
Viscosity: NA	Mol. Weight: 251.9
Specific Gravity: NA	Halogen Content: Cl - 28.13%
Waste Number: U237	Hazard Code: T
Hazardous Organic Constituents: Uracil,...	
Chemical Name: Carbamic acid, ethyl ester	
Synonyms: (Urethane) (Ethyl carbamate)	
Physical State: Crystals	Formula: CO(NH ₂)OC ₂ H ₅
Viscosity: NA	Mol. Weight: 89.1
Specific Gravity: 0.9862	Halogen Content: 0%
Waste Number: U238	Hazard Code: T
Hazardous Organic Constituents: Carbamic acid,...	
Chemical Name: Benzene, dimethyl-	
Synonyms: (Xylene) (Xylol)	
Physical State: Liquid	Formula: C ₆ H ₄ (CH ₃) ₂
Viscosity: 0.810 cP @ 20° C	Mol. Weight: 106.2
Specific Gravity: 0.864 @ 20° C	Halogen Content: 0%
Waste Number: U239	Hazard Code: I, T
Hazardous Organic Constituents: Benzene, dimethyl-	
Chemical Name: 2,4-Dichlorophenoxyacetic acid, salts and esters	
Synonyms: 2,4-D, salts and esters Acetic acid	
Physical State: Solid	Formula: C ₈ H ₆ Cl ₂ O ₃
Viscosity: NA	Mol. Weight: 221.04
Specific Gravity: NA	Halogen Content: Cl - 32.1%
Waste Number: U240	Hazard Code: T
Hazardous Organic Constituents: 2,4-D...	
Chemical Name: Hexachloropropene	
Synonyms: (1-Propene, 1,1,2,3,3,3-hexachloro-)	
Physical State: NA	Formula: C ₃ Cl ₆
Viscosity: NA	Mol. Weight: 248.8
Specific Gravity: NA	Halogen Content: Cl - 85.5%
Waste Number: U243	Hazard Code: T
Hazardous Organic Constituents: Hexachloropropene	

Chemical Name: Bis(dimethylthiocarbamoyl), disulfide-	
Synonyms: Thiram (Thioperoxydicarbonic diamide [(H ₂ N)C(S)] ₂ S ₂ , tetramethyl-)	
Physical State: Solid	Formula: C ₆ H ₁₂ N ₂ S ₄
Viscosity: NA	Mol. Weight: 240.44
Specific Gravity: 1.30	Halogen Content: 0%
Waste Number: U244	Hazard Code: T
Hazardous Organic Constituents: Bis(dimethyl...	
Chemical Name: Bromine cyanide	
Synonyms: Cyanogen Bromide	
Physical State: Gas	Formula: CNBr
Viscosity: NA	Mol. Weight: 106
Specific Gravity: 2.015	Halogen Content: 75%
Waste Number: U246	Hazard Code: T
Hazardous Organic Constituents: Cyanogen Bromide	
Chemical Name: Methoxychlor	
Synonyms: Benzene, 1,1'-(2,2,2-trichloroethylidene)bis(4-methoxy-)	
Physical State: Solid	Formula: C ₁₆ H ₁₅ Cl ₃ O ₂
Viscosity: NA	Mol. Weight: 345.65
Specific Gravity: NA	Halogen Content: Cl - 30.8%
Waste Number: U247	Hazard Code: T
Hazardous Organic Constituents: Methoxychlor	
Chemical Name: 3-(alpha-Acetylbenzyl)-4-hydroxycoumarin and salts, when present at concentrations of 0.3% or less	
Synonyms: (Warfarin) 2H-1-Benzopyran-2-one, 4-hydroxy-3-(oxo-1-phenyl-butyl)-	
Physical State: Solid	Formula: C ₁₉ H ₁₆ O ₄
Viscosity: NA	Mol. Weight: 308.32
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U248	Hazard Code: T
Hazardous Organic Constituents: 3-(alpha-Acetylbenzyl)-...	
Chemical Name: Zinc phosphide, when present at concentrations of 10% or less	
Synonyms: NA	
Physical State: Solid	Formula: Zn ₃ P ₂
Viscosity: NA	Mol. Weight: 258.09
Specific Gravity: 4.55 @ 13° C	Halogen Content: 0%
Waste Number: U249	Hazard Code: T
Hazardous Organic Constituents: NA	

Chemical Name: Benomyl	
Synonyms: Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl],-methyl ester	
Physical State: Crystalline solid	Formula: C ₁₄ H ₁₈ N ₄ O ₃
Viscosity: NA	Mol. Weight: 290.36
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U271	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Bendiocarb	
Synonyms: 1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methylcarbamate	
Physical State: Solid	Formula: C ₁₁ H ₁₃ NO ₄
Viscosity: NA	Mol. Weight: 223.25
Specific Gravity: 1.25	Halogen Content: 0%
Waste Number: U278	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Carbaryl	
Synonyms: 1-Naphthalenol, methylcarbamate	
Physical State: Crystalline solid	Formula: C ₁₂ H ₁₁ NO ₂
Viscosity: NA	Mol. Weight: 201.24
Specific Gravity: 1.232 @ 20°/20°	Halogen Content: 0%
Waste Number: U279	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Barban	
Synonyms: Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester	
Physical State: Solid	Formula: C ₁₁ H ₉ Cl ₂ NO ₂
Viscosity: NA	Mol. Weight: 258.1
Specific Gravity: 1.403 @ 25° / 25°	Halogen Content: Cl - 27.5%
Waste Number: U280	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Benzenamine, 2-methyl-	
Synonyms: o-Toluidine	
Physical State: liquid	Formula: CH ₃ C ₆ H ₄ NH ₂
Viscosity: NA	Mol. Weight: 107.2
Specific Gravity: 1.01 @ 25° / 25°	Halogen Content: 0%
Waste Number: U328	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Benzenamine, 4-methyl	
Synonyms: p-Toluidine	
Physical State: solid	Formula: CH ₃ C ₆ H ₄ NH ₂
Viscosity: NA	Mol. Weight: 107.2
Specific Gravity: 1.05 @ 25° / 25°	Halogen Content: 0%
Waste Number: U353	Hazard Code: T

Hazardous Organic Constituents:	
Chemical Name: Ethanol, 2-ethoxy-	
Synonyms: Ethylene glycol monoethyl ether	
Physical State: liquid	Formula: C ₂ H ₅ OCH ₂ CH ₂ OH
Viscosity: NA	Mol. Weight: 90.1
Specific Gravity: 0.93 @ 25° / 25°	Halogen Content: 0%
Waste Number: U359	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Bendiocarb phenol	
Synonyms: 1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	
Physical State: NA	Formula: C ₉ H ₁₀ O ₃
Viscosity: NA	Mol. Weight: 166.18
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U364	Hazard Code: T
Hazardous Organic Constituents:	

Chemical Name: Carbofuran phenol	
Synonyms: 7-Benzofuranol, 2,3-dihydro-2,2-dimethyl	
Physical State: NA	Formula: C ₁₀ H ₁₂ O ₂
Viscosity: NA	Mol. Weight: 164.20
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U367	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Carbendazim	
Synonyms: Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	
Physical State: Solid	Formula: C ₉ H ₉ N ₃ O ₂
Viscosity: NA	Mol. Weight: 191.21
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U372	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Propham	
Synonyms: Carbamic acid, phenyl-, 1-methylethyl ester	
Physical State: Crystalline solid	Formula: C ₁₀ H ₁₃ NO ₂
Viscosity: NA	Mol. Weight: 179.24
Specific Gravity: 1.09 @ 20°	Halogen Content: 0%
Waste Number: U373	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Prosulfocarb	
Synonyms: Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	
Physical State: NA	Formula: C ₁₄ H ₂₁ NO _s
Viscosity: NA	Mol. Weight: 251.4
Specific Gravity: NA	Halogen Content: 0%

Waste Number: U387	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Trillate	
Synonyms: Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester	
Physical State: NA	Formula: C ₁₀ H ₁₆ Cl ₃ NO _s
Viscosity: NA	Mol. Weight: 304.66
Specific Gravity: 1.237	Halogen Content: Cl – 34.9%
Waste Number: U389	Hazard Code: T
Hazardous Organic Constituents:	

Chemical Name: A2213	
Synonyms: Ethanimidiothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo, methyl ester	
Physical State: NA	Formula: C ₅ H ₁₀ N ₂ O ₂ S
Viscosity: NA	Mol. Weight: 162.18
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U394	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Diethylene glycol, dicarbamate	
Synonyms: Ethanol, 2,2 ¹ -oxybis-, dicarbamate	
Physical State: NA	Formula: C ₆ H ₁₂ N ₂ O ₅
Viscosity: NA	Mol. Weight: 192.17
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U395	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Triethylamine	
Synonyms: Ethanamine, N,N-diethyl-	
Physical State: Liquid	Formula: C ₆ H ₁₅ N
Viscosity: NA	Mol. Weight: 101.22
Specific Gravity: 0.7255 @ 25/4°	Halogen Content: 0%
Waste Number: U404	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Thiophanate-methyl	
Synonyms: Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester	
Physical State: Crystalline solid	Formula: C ₁₂ H ₁₄ N ₄ O ₄ S ₂
Viscosity: NA	Mol. Weight: 342.39
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U409	Hazard Code: T
Hazardous Organic Constituents:	

Chemical Name: Thiocarb	
Synonyms: Ethanimidothioic acid, N,N ¹ -[thiobis[methylimino)carbonyloxy]]bis-, dimethyl ester	
Physical State: NA	Formula: C ₁₀ H ₁₈ N ₄ O ₄ S ₃
Viscosity: NA	Mol. Weight: 354.5
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U410	Hazard Code: T
Hazardous Organic Constituents:	
Chemical Name: Propoxur	
Synonyms: Phenol, 2-(1-methylethoxy)-, methylcarbamate	
Physical State: Crystalline solid	Formula: C ₁₁ H ₁₅ NO ₃
Viscosity: NA	Mol. Weight: 209.27
Specific Gravity: NA	Halogen Content: 0%
Waste Number: U411	Hazard Code: T
Hazardous Organic Constituents:	

APPENDIX C-3
CHEMICAL COMPATABILITY GUIDELINES

INCOMPATIBILITY OF COMMON LABORATORY CHEMICALS

When certain hazardous chemicals are stored or mixed together, violent reactions may occur because the chemicals are unsuitable for mixing, or are incompatible. Classes of incompatible chemicals should be segregated from each other during storage, according to hazard class. Use the following general guidelines for hazard class storage:

- Flammable/Combustible Liquids and Organic Acids
- Flammable Solids
- Mineral Acids
- Caustics
- Oxidizers
- Perchloric Acid
- Compressed Gases

CHEMICAL	INCOMPATIBLE CHEMICAL(S)
Acetic acid	aldehyde, bases, carbonates, hydroxides, metals, oxidizers, peroxides, phosphates, xylene
Acetylene	halogens (chlorine, fluorine, etc.), mercury, potassium, oxidizers, silver
Acetone	acids, amines, oxidizers, plastics
Alkali and alkaline metals	acids, chromium, ethylene, halogens, hydrogen, mercury, earth nitrogen, oxidizers, plastics, sodium chloride, sulfur
Ammonia	acids, aldehydes, amides, halogens, heavy metals, oxidizers, plastics, sulfur
Ammonium nitrate	acids, alkalis, chloride salts, combustible materials, metals, organic materials, phosphorous, reducing agents, urea
Aniline	acids, aluminum, dibenzoyl peroxide, oxidizers, plastics
Azides	acids, heavy metals, oxidizers
Bromine	acetaldehyde, alcohols, alkalis, amines, combustible materials, ethylene, fluorine, hydrogen, ketones (acetone, carbonyls, etc.), metals, sulfur
Calcium oxide	acids, ethanol, fluorine, organic materials

CHEMICAL	INCOMPATIBLE CHEMICAL(S)
Carbon (activated)	alkali metals, calcium hypochlorite, halogens, oxidizers
Carbon tetrachloride	benzoyl peroxide, ethylene, fluorine, metals, oxygen, plastics, silanes
Chlorates	powdered metals, sulfur, finely divided organic or combustible materials
Chromic acid	acetone, alcohols, alkalis, ammonia, bases
Chromium trioxide	benzene, combustible materials, hydrocarbons, metals, organic materials, phosphorous, plastics
Chlorine	alcohol's, ammonia, benzene, combustible materials, flammable compounds (hydrazine), hydrocarbons (acetylene, ethylene, etc.), hydrogen peroxide, iodine, metals, nitrogen, oxygen, sodium hydroxide
Chlorine dioxide	hydrogen, mercury, organic materials, phosphorous, potassium hydroxide, sulfur
Copper	calcium, hydrocarbons, oxidizers
Hydroperoxide	reducing agents
Cyanides	acids, alkaloids, aluminum, iodine, oxidizers, strong bases
Flammable liquids	ammonium nitrate, chromic acid, hydrogen peroxide, nitric acid, sodium peroxide, halogens
Fluorine	alcohol's, aldehydes, ammonia, combustible materials, halocarbons, halogens, hydrocarbons, ketones, metals, organic acids
Hydrocarbons (Such as butane, propane benzene, turpentine, etc.)	acids, bases, oxidizers, plastics
Hydrofluoric acid	metals, organic materials, plastics, silica (glass), (anhydrous) sodium
Hydrogen peroxide	acetylaldehyde, acetic acid, acetone, alcohol's carboxylic acid, combustible materials, metals, nitric acid, organic compounds,

CHEMICAL	INCOMPATIBLE CHEMICAL(S)
	phosphorous, sulfuric acid, sodium, aniline
Hydrogen sulfide	acetaldehyde, metals, oxidizers, sodium
Hypochlorites	acids, activated carbon
Iodine	acetaldehyde, acetylene, ammonia, metals, sodium
Mercury	acetylene, aluminum, amines, ammonia, calcium, fulminic acid, lithium, oxidizers, sodium
Nitrates	acids, nitrites, metals, sulfur, sulfuric acid
Nitric acid	acetic acid, acetonitrile, alcohol's, amines, (concentrated) ammonia, aniline, bases, benzene, cumene, formic acid, ketones, metals, organic materials, plastics, sodium, toluene
Oxalic acid	oxidizers, silver, sodium chlorite
Oxygen	acetaldehyde, secondary alcohol's, alkalis and alkalines, ammonia, carbon monoxide, combustible materials, ethers, flammable materials, hydrocarbons, metals, phosphorous, polymers
Perchloric acid	acetic acid, alcohols, aniline, combustible materials, dehydrating agents, ethyl benzene, hydriotic acid, hydrochloric acid, iodides, ketones, organic material, oxidizers, pyridine
Peroxides, organic	acids (organic or mineral)
Phosphorus (white)	oxygen (pure and in air), alkalis
Potassium	acetylene, acids, alcohols, halogens, hydrazine, mercury, oxidizers, selenium, sulfur
Potassium chlorate	acids, ammonia, combustible materials, fluorine, hydrocarbons, metals, organic materials, sugars
Potassium perchlorate also see chlorates)	alcohols, combustible materials, fluorine, hydrazine, metals, organic matter, reducing agents, sulfuric acid
Potassium permanganate	benzaldehyde, ethylene glycol, glycerol, sulfuric acid

CHEMICAL	INCOMPATIBLE CHEMICAL(S)
Silver	acetylene, ammonia, oxidizers, ozonides, peroxyformic acid
Sodium	acids, hydrazine, metals, oxidizers, water
Sodium nitrate	acetic anhydride, acids, metals, organic matter, peroxyformic acid, reducing agents
Sodium peroxide	acetic acid, benzene, hydrogen sulfide metals, oxidizers, peroxyformic acid, phosphorous, reducers, sugars, water
Sulfides	acids
Sulfuric acid	potassium chlorates, potassium perchlorate, potassium permanganate

References:

Material Safety Data Sheets, various chemical companies.

SECTION D
PROCESS INFORMATION

The information provided in this section is submitted in accordance with the requirements of 40 CFR Parts 270.15 and 264.170-176, and the OAC 3745-50-44(c)(1), 3745-55-75 and 77. This section discusses specific process information related to the storage of hazardous waste containers at WPAFB.

D-1 Containers

As noted in Section B of this permit application WPAFB stores hazardous waste in containers in Building 479. Figure D-1 presents the site plan for Buildings 478/479. The container storage areas in Building 479 are designed, constructed, and managed as though all wastes stored in it contain free liquids.

The permitted units are as follows:

<u>Unit</u>	<u>Capacity</u> <u>(gal)</u>	<u>Secondary</u> <u>Containment (gal)</u>	<u>Waste Managed</u>
Building 479	17,820	14,392	All wastes listed on the Part A

D-1a Containers with Free Liquids

The container storage areas are used for the potential storage of all waste codes listed on the Part A.

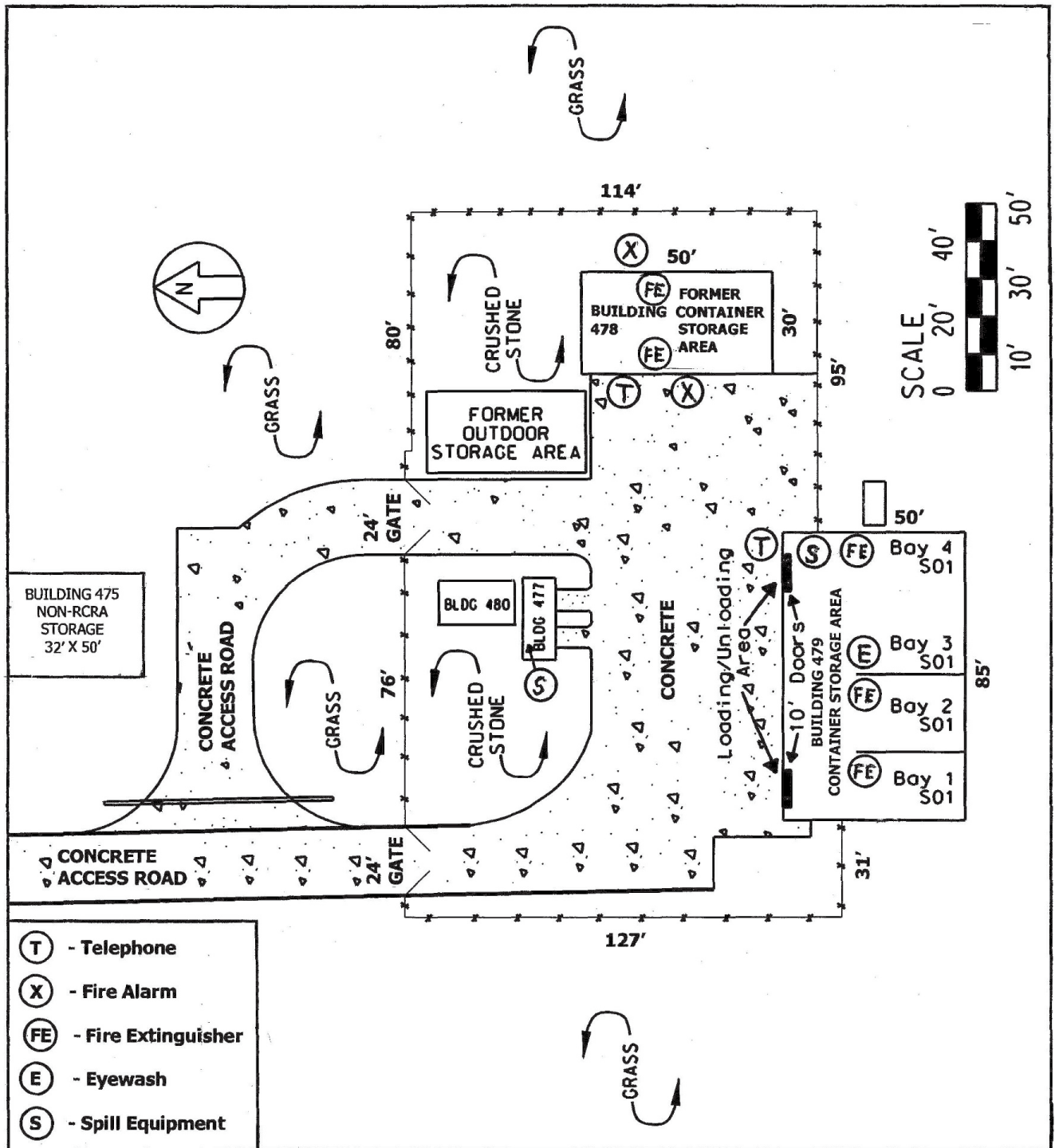


Figure D-1. Buildings 478/479 Site Plan

D-1a(1) Description of Containers—

WPAFB packages all waste for transportation and storage under the guidelines for package applications and exceptions under 49 CFR Part 173. Each package meets the testing requirements under 49 CFR Part 178 as they apply to each individual package. Each package used for storage and shipment of hazardous waste is designed, constructed, maintained, filled, its contents so limited, and closed, so that under normal conditions of transportation there will be no identifiable release of hazardous materials to the environment. Containers meet the performance standards outlined in 49 CFR Part 178. All containers used to store hazardous waste are also labeled with a hazardous waste label, an example of which is shown in Figure D-2.

Compressed gas cylinder storage areas are shown on Figure D-9. The following cylinder types will be stored: flammables, corrosives, pyrophorics, oxidizers, poisons and dangerous when wet. Per the DLA-DS waste disposal contract, cylinder sizes will range from small (defined as averaging 4 inches in diameter and/or 16 inches in length) to large (defined as averaging 20 inches in diameter and/or 72 inches in length). Gas cylinders that are dangerous when wet shall be stored inside the existing dangerous when wet storage cabinet within the flammables bay.

Container volumes for Building 479 will range from 40 ml through 95-gallon drums.

It should be noted that 49 CFR Section 173.7- U.S. Government Material describes packaging requirements for the Department of Defense; containers may be of strength and efficacy equal to or greater than DOT requirements.

Non-bulk containers of mixed waste shall be received from other DoD installations. These containers shall remain closed while in storage within Building 479. These containers will only be opened for the purpose of sampling or consolidation as specified in Section D-1A(2), Container Management Practices. These containers shall meet the requirements as outlined in 49 CFR 173.415.

HAZARDOUS WASTE	
[FILL IN THE FOLLOWING INFORMATION]	
1. Name of the generator of the waste	
2. Address of the generator of the waste	
3. Name of the transporter of the waste	
4. Address of the transporter of the waste	
5. Name of the receiver of the waste	
6. Address of the receiver of the waste	
7. Date of the transfer of the waste	
8. Signature of the generator of the waste	
9. Signature of the transporter of the waste	
10. Signature of the receiver of the waste	
11. Date of the receipt of the waste	
12. Date of the disposal of the waste	
13. Date of the closure of the waste	
14. Date of the completion of the waste	
15. Date of the termination of the waste	
16. Date of the expiration of the waste	
17. Date of the annulment of the waste	
18. Date of the cancellation of the waste	
19. Date of the deletion of the waste	
20. Date of the destruction of the waste	
21. Date of the erasure of the waste	
22. Date of the obliteration of the waste	
23. Date of the annihilation of the waste	
24. Date of the extermination of the waste	
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100. Date of the extermination of the waste	

Figure D-1. Example Waste Label

The exact number of each type of container in storage at any one time is highly variable and is tracked daily according to the inspections (see Section F). The total volume of liquid hazardous waste in containerized storage will not exceed 17,820 gallons.

D-1a(2) Container Management Practices –

Small containers will be stored in their original container by similar waste type on shelves or in a flammable storage cabinet (for water reactives). Containers larger than one gallon will only be stacked 1 high. The container will display the original manufacturer label or a similar handwritten label if the original is not available. Storage boxes containing more than one container may be used. If storage boxes are used, labels reflecting the content will be prominently displayed. The shelving units will be constructed of heavy metal and will consist of 2 to 3 individual shelves.

If additional storage space is needed, containers will be placed on the floor directly under the shelf unit. The flammable storage cabinet has 3 shelves measuring 54" x 16" each and has been constructed in accordance with National Fire Protection Association (NFPA) flammable and combustible liquids code NFPA 30. Table D-1 provides a description of the waste type and quantity stored in Building 479.

As shown on Figure D-4 each of the racks will only store compatible waste. Specific wastes stored on any rack may change based on the type and volume of hazardous waste stored at any one time; however, individual racks will only store compatible waste. A minimum aisle space of 3 feet will be maintained for racks.

The gas cylinder storage areas shall be posted with the appropriate DOT hazard class or the name of the gases stored. When multiple DOT hazard classes apply, the primary hazard class will dictate a gas cylinder's storage area. Incompatible gas cylinder types will be segregated by a minimum of 20 feet within Building 479. To prevent falling or rolling, all gas cylinders shall be securely nested tightly together and restrained by metal chains/cages at appropriate levels of the cylinders. Cylinders may also be stored within Building 479 in outer containers (buckets, drums). No gas cylinders will be stored outside.

TABLE D-1. CONTAINER STORAGE WASTE INVENTORY

Waste Material	Quantity 55-Gallon Drums*	Quantity Total Gallons
Building 479		
A. Bay 1 Toxics		
- poisons/ORM-E	49	2,695
- gas cylinders	2	110
- F005 solvents/tritium	12	660
- empty spill drums	9 (maximum)	495
B. Bay 2 Corrosives		
- acids/bases	62	3,410
- gas cylinders	2	110
- empty spill drums	8 (maximum)	440
C. Bay 3 Ignitables (flammables)		
- non-halogenated	62	3,410
- gas cylinders	2	110
- empty drums	8 (maximum)	440
D. Bay 4 Ignitables (flammables)		
- halogenated	92	5,060
- gas cylinders	4	220
- empty drums	12 (maximum)	660
Subtotal	324	17,820
Total	324	17,820

*The estimated waste inventory stored in small containers is based on 55-gallon drum volume.

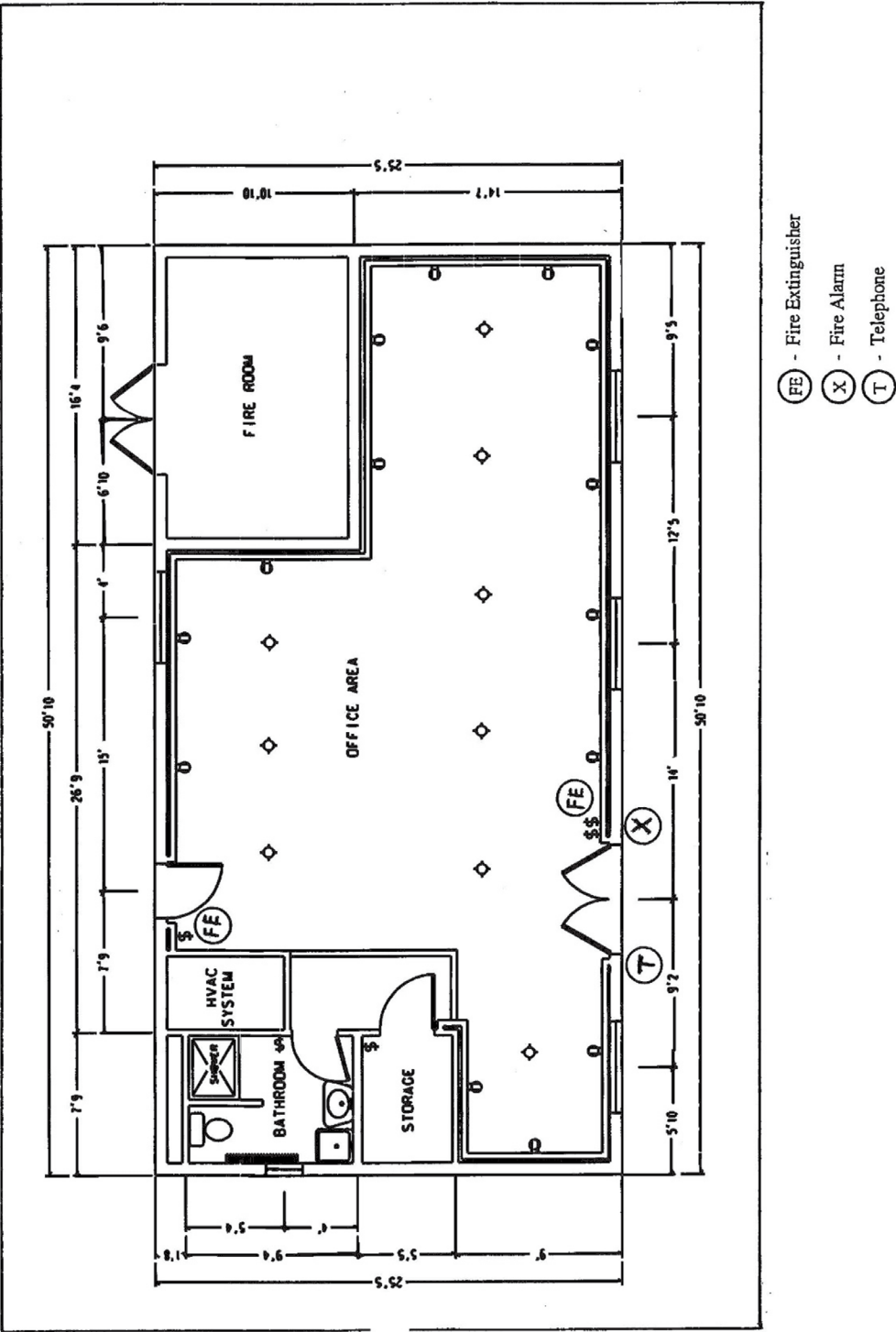


Figure D-3. Building 478 Floor Plan

Immediately prior to transportation offsite for disposal, hazardous waste in small containers will be moved from Building 479 to Building 477 to be lab-packed, bulked or consolidated to facilitate the contractors' own waste disposal operations. All packing, bulking and consolidating of small containers will occur inside Building 477 in order to prevent inadvertent release of material within Building 479. Corrosives will be bulked into 55-gallon or smaller polymer containers and flammables will be bulked into 55-gallon or smaller metal containers in the east bay of Building 477. Containers of mixed waste will be consolidated by AFRRAD personnel only in Building 477. Consolidation will be conducted approximately every six to nine months.

All loading and unloading of containers designated for storage in Building 479 will be completed within a concrete area pad. Should a spill occur, the material would be collected immediately. Section G, Contingency Plan, and Section F, Procedures to Prevent Hazards provide additional discussion of waste unloading and loading operations and of emergency response actions.

The layout of shelf units within Building 479 is shown on Figure D-4. The units will be grouped together by waste category. Because reactive wastes will be stored, contact with other wastes and items that may cause them to react with, will be restricted through physical separation of wastes.

A minimum of 4 feet of aisle space will be maintained between pallets and shelves containing flammable waste in accordance with NFPA standards for liquid warehouses. This minimum aisle space is based on National Fire Protection Association (NFPA), Flammable and Combustible Liquids Code NFPA 30.

All drums stored in Building 479 will be placed on pallets. Smaller containers (e.g., waste lab chemicals) will be stored on shelving units. Containers 55 gallons and larger will be stacked no higher than two high. An example of typical pallet arrangement is provided in Figure D-4. All drums accepted for storage meet DOT specifications. The building is segregated into four storage bays, which are designated for different waste categories: ignitables, toxics, reactives, and corrosives. Table D-1 provides a description of the waste type and quantities that are stored in each bay. Empty drums are available in each bay. The total capacity will be three hundred twenty-four, 55-gallon drums, or 17,820 gallons, including an adequate supply of empty spill response drums.

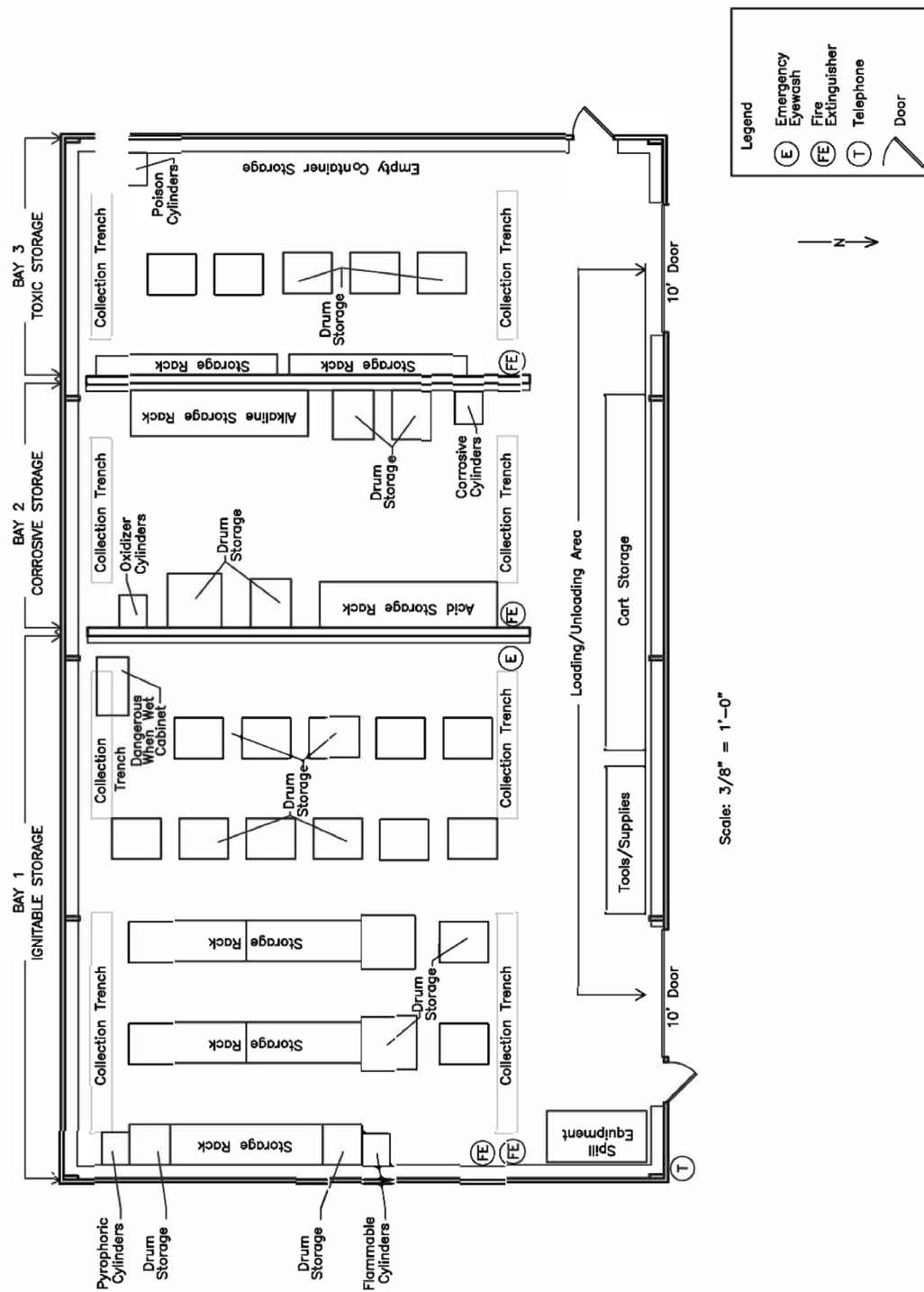


Figure D-4. Building 479 Storage Configuration

Each drum will have a label prominently displayed indicating the type of waste stored. The drums will be stored in the appropriate bay based on the waste type. The waste type will be determined from the Hazardous Waste Pickup Form information as well as the container label.

All loading and unloading of drums will be completed within a sloped concrete area near Bays 1 or 4 (Figure D-1). The unloading/loading area will also have a drain to collect any material spilled during waste movement. The drums will be moved to or from the transportation vehicle by either a drum cart, a pallet mover, or a forklift, as deemed appropriate. The drums will be moved to their appropriate waste storage areas based on waste type. Any spills or leaks during loading or unloading will drain to collection trenches. All released material collected will be removed and the unloading/loading area will be decontaminated.

A loading dock is designed to facilitate movement of 55-gallon drums to or from the storage building. The drums are unloaded manually by base personnel with the use of a pallet mover, forklift, or a drum cart. Once a drum is offloaded, the pallet mover, a drum cart, or a forklift would be used to position the drum(s) into the storage bay designated for that waste type. Small containers are designated for storage within Building 479. The waste containers would be unloaded by hand and carried into the building. Building 479 has a ramp that allows easy access to the storage area.

The handling of smaller containers, such as the preparation of lab packs, is done inside the existing buildings, where the concrete floors and walls provide a contained work area. When small containers arrive at the facility, they are packed in secondary containment trays according to waste type.

Building 479 incorporates a minimum of 3 feet of aisle space between rows of pallets containing 55-gallon drums of non-flammable waste. A minimum of 4 feet of aisle space will be maintained between pallets containing flammable waste in accordance with NFPA standards for liquid warehouses. This aisle space is sufficient to permit an inspector to walk the length of each bay. Aisle spaces are sufficient to allow unobstructed movement of personnel not only during loading and unloading, but also during facility inspections and emergency response actions.

D-1a(3) Secondary Containment System Design and Operation [40 CFR 270.15(a)(3) and 264.175(b)(3)] --

Secondary containment capacity for the flammable storage cabinet measures 29.5" x 57" x 10.75" for a total containment capacity of 78 gallons (10.5 ft³ x 7.48 gal/ft³). Therefore, the volume of waste stored in the flammable storage cabinet will be limited to 780 gallons so that the cabinet will provide 10 percent containment capacity.

Building 479 has eight separate collection trenches to drain any spilled material from a designated storage bay. The trenches are located at the north and south ends of each bay. Table D-2 provides a summary of the maximum gallons of waste to be stored in each bay. The trench and floor volume for each bay has been sized to provide storage capacity for 10 percent of the total volume of containers stored in the area draining to the collection trench. (This satisfies the regulatory requirement to provide containment capacity for either the total volume of the largest container--in this case, 55-gallons -- or for 10 percent of the total volume in storage, whichever is larger.) Table D-2 also identifies the capacity of secondary containment in relation to the number of drums stored in the area it serves. Secondary containment calculations are presented in Appendix D-1. The trenches and floor of Building 479 are designed so that there is a 1.25 percent floor slope to ensure that liquids will drain toward the trenches, away from the containers. The trenches are also sloped, having a depth of 18 inches at mid-length. The sloped floors and six inch curbs around the outside of each bay provide for additional secondary containment volume. The secondary containment of each bay is of adequate volume to contain a combination of 10 percent of the stored waste volume. The building is enclosed on all four sides to prevent run-on. Building 479 may also store smaller containers of waste in trays on racks within a given bay.

D-1a(3)(a) Requirement for the Base or Liner to Contain Liquids [40 CFR 264.175(b)(1)] --

The base of the collection trenches in Building 479 are free of cracks and gaps, and impervious to wastes and precipitation. The floor of Building 479 is covered with General Polymers 3579 epoxy primer and General Polymers Novoflo chemical resistant epoxy. Appendix D-2 contains manufactures specifications for this coating. Floor joints in Building 479 are sealed using ASTM Method D-1190, concrete joint sealer, hot poured elastic type.

TABLE D-2. SUMMARY OF BUILDING 479 STORAGE TRENCH AND FLOOR CONTAINMENT CAPACITY^a

Bay	Active Drum(s) ^b		Empty Drums ^c		Total Drums		Trench and Floor Containment Capacity (Gallons)
	(No.)	(Gallons)	(No.)	(Gallons)	(No.)	(Gallons)	
Bay 1	63	3,465	9	495	72	3,960	3,312= greater than 10% of 3,960 gallons
Bay 2	64	3,520	8	440	72	3,960	3,318 = greater than 10% of 3,960 gallons
Bay 3	64	3,520	8	440	72	3,960	3,435 = greater than 10% of 3,960 gallons
Bay 4	96	5,280	12	660	108	5,940	4,327 = greater than 10% of 5,940 gallons
Total	287	15,785	37	2,035	324	17,820	14,392 = greater than 10% of 17,820 gallons
Notes: (a) All drums are 55-gallon capacity; the largest container will not exceed 55-gallons.							
(b) "Active Drums" = Maximum used for waste storage.							
(c) "Empty Drums" = Empty drums are available in each area for use to store spill residue collected in trenches.							
(d) An extra "spill drum" is added to this bay to provide storage for spillage of wastes during unloading/loading.							

The floors, collection trenches, and portions of the walls of Building 479, are coated with a continuous impervious epoxy material selected for compatibility with the stored waste material. The seal is continuous from the floor to the top of the six inch curbing surrounding the bays in Building 479 to provide coverage of 10 percent design capacity of the storage facility. Appendix D-2 contain epoxy floor coating compatibility data. Inspection and repair procedures for epoxy coating are detailed in Section F.

Concrete specifications for the base of Building 479 are as follows:

- Concrete is air entrained with a minimum compressive strength of 4,000 psi at 28 days.
- Reinforcing bars are grade 60 formed steel.
- The floor slab has a minimum thickness of six inches.
- The trench bottoms and walls have a minimum thickness of six inches.
- The joints between the floor slab and trench walls have been sealed with neoprene water stops to insure an impervious seal.

Additional details are provided in Appendix D-3.

D-1a(4) Provisions for Preventing or Managing Run-on [40 CFR 270.15(a)(4) and 264.175(b)(4)] --

Building 479 is completely enclosed on all four sides, and covered with a roof. The floor of the facility is composed of concrete, a minimum of six inches thick. The building is not located in the 100-year floodplain. The entrances are raised to prevent run-on.

D-1a(5) Removal of Liquids from Containment System --

Small spills or leaks would be removed by placing absorbent on the affected area, sweeping it up, and placing it in another empty container for disposal offsite as a hazardous waste. If the spill is large enough, a hand-operated pump would be used to remove the spill. The removed material would be pumped directly to an available onsite empty 55-gallon drum stored in each bay.

The filled drum would be labeled as containing spilled residue according to the type of waste material identified from the leaking container. It would be disposed offsite as a hazardous waste. The hand-operated pump and any other equipment used in the cleanup would be rinsed with water before its reuse. The rinseate would also be containerized in a 55-gallon drum and disposed offsite as a hazardous waste.

Spills or leaks in Building 479 at loading area will be removed by absorbent material or a portable pump (for liquids removal from the trenches). The material will immediately be placed in an empty 55-gallon drum stored in the area. The drum will be labeled according to the label of the container from which the substance leaked or spilled. The filled drum will be disposed of offsite as a hazardous waste. All materials will be pumped from the containment system within 24 hours of discovery. Specifications for the trench system are contained in Appendix D-3.

D-1b Storage Areas for Containers Without Free Liquids [40 CFR 270.15(b)]

All containerized wastes stored in Building 479, regardless of whether or not they contain free liquids, will have adequate secondary containment.

D-1b(1) Test for Free Liquids [40 CFR 270.15(b)(1)]

Because all storage areas will be equipped with secondary containment devices, all containers will be handled as if they contain free liquids and, therefore, will not be tested for the presence of free liquids.

D-1b(2) Description of Storage Area Design and Operation to Drain and Remove Liquids or How Containers are Kept from Contact with Standing Liquids [40 CFR 270.15(b)(2), 264.175(c)(1) and (2)] --

Not applicable. Facility handles all containers as having free liquids.

*D-1c Requirements for Ignitable or Reactive Wastes and Incompatible Wastes
40 CFR 270.15(c)]*

Figure D-4 illustrates compliance with 40 CFR 264.176. Containers holding ignitable and reactive wastes will be stored in separate storage areas. Additionally, as shown on Map 2 Building 479 is located greater than 1,600 feet from the nearest boundary of WPAFB.

Containers holding hazardous wastes that are incompatible with any waste or other materials stored nearby in other containers will be separated and protected by means of walls or partitions [40 CFR 264.177(c)]. Where shelving units used to store small containers butt partition walls, which provide separation from an adjacent storage bay, the maximum height of the shelving units will be limited to prevent the top of any stored small containers from extending above the top of the partition wall. To prevent accidental reaction of incompatible corrosives stored within the same Bay 2, acids and bases will be stored apart from one another on separate shelving units or in separate drum storage areas as depicted in Figure D-4. All small containers of acids or bases stored within the same Bay 2 will be on containment trays. No small containers will be stored on the floor. Building 479 wastes are stored in four storage bays segregated by waste type as shown in Figure D-4.

The identity and characteristics of all hazardous wastes are determined at the time they are received (refer to Section C-2), allowing facility personnel to store the wastes compatibly. All storage will be according to compatibility of the waste which will serve as a precaution to prevent reactions that could generate extreme heat, pressure, fire, explosions or violent reactions; produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment; produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; damage the structural integrity of the device or facility; or threaten human health through other means [40 CFR 264.17(b) and (c)]. Appendix D-4 presents a summary of potentially incompatible waste materials/waste components and the adverse consequences that could result from mixing one group with another.

Hazardous wastes will not be placed in unwashed containers that previously held incompatible waste or material [40 CFR 264.177(a)]. Any leaking containers will be repackaged in accordance with DOT regulations.

Incompatible hazardous waste and nonhazardous materials will be fully isolated from each other. Individual containers will be provided for each type of waste or material.

Fire Suppression systems will be used throughout the facility.

National Electric Code, Class 1, Division 2 electrical systems and equivalent rated equipment will be used throughout the storage, staging, and loading/unloading area.

Ventilation will be provided for each individual storage area or closet and will be adequate for the type of material to be stored.

Appendix C-1 indicates the hazardous characteristics of wastes that may be submitted to WPAFB based upon material safety data sheets and OSHA data sheets. These lists are representative of hazardous materials and wastes that may be stored at Building 479.

D-1d Container Management [40 CFR 264.171-173]

No leaking or damaged containers will be accepted for storage at Building 479. If a container holding hazardous wastes should begin rusting or leaking during storage at this facility, the container will be overpacked, or its contents will be transferred to another container that will be compatible with the requirements of 40 CFR Subpart I: Use and Management of Containers. Containers holding waste will be kept closed during storage, except when sampling is being performed. A container will not be opened, handled, or stored in a manner that may cause it to be ruptured or otherwise damaged.

Small containers will be stored on shelves in Building 479. Drums in Building 479 will be stored on wooden pallets and will be placed in a module using a forklift or handcart. Aisle space will be provided to allow movement of a hand truck in the event a drum must be removed from the area. Space will also be maintained in order to inspect all containers for deterioration caused by corrosion or other factors. A maximum of four drums (55-gallon size) will be stored on each wooden pallet and will be stacked on specific pallets racks. A storage plan is shown in Figure D-4 for Building 479.

The Installation Management Division will provide packaging guidance to hazardous waste generators in accordance with 49 CFR, Subchapter C, Part 173.

D-1e Subpart CC Air Emission Standards [40 CFR 264.1086; 270.27]

All containers stored in Building 479 are Level 1 containers as described in 40 CFR 264.1086 (c) (i)-(ii). These containers shall have a tight-fitting cover such that, when closed, there are no visible holes, gaps, spaces or other openings, and the cover shall form a continuous barrier over the container openings.

Per 40 CFR 270.27 (a) (2), Figure D-4 identifies the container areas that are subject to the Subpart CC requirements. Section L provides the certification that the requirements of this subpart are met.

D-2 Tank [40 CFR 270.16]

No tanks will be used for hazardous waste storage.

D-3 Waste Piles [40 CFR 270.18]

No waste piles will be used at this facility.

D-4 Surface Impoundments [40 CFR 270.17]

No surface impoundments will be used at this facility.

D-5 Incinerators [40 CFR 270.19]

No incinerators will be used at this facility.

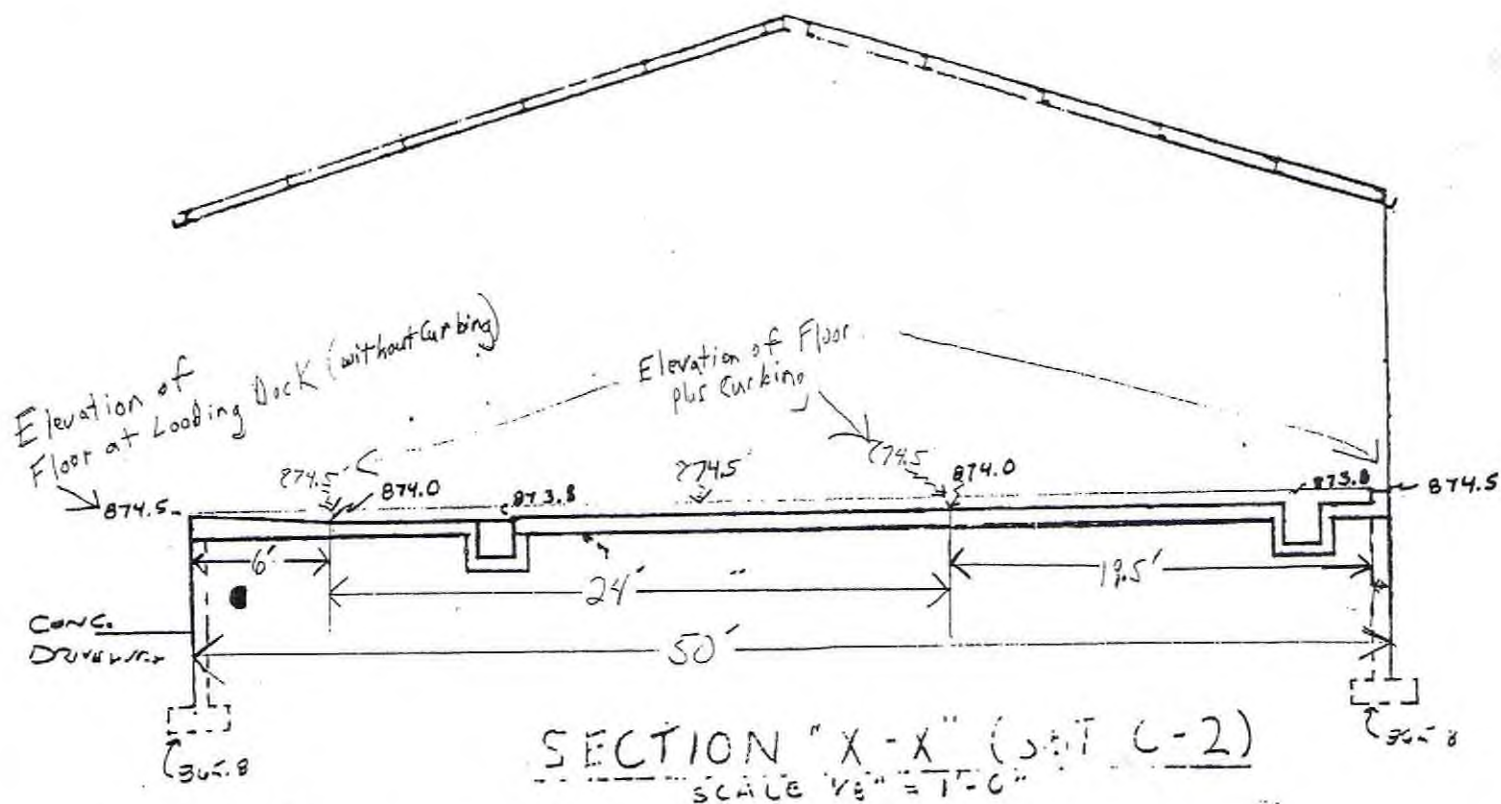
D-6 Landfills [40 CFR 270.21]

No hazardous waste will be landfilled. All wastes will be containerized and stored inside Building 479.

D-7 Land Treatment [40 CFR 270.20]

There will be no land treatment of hazardous wastes.

APPENDIX D-1
BUILDING 479
SECONDARY CONTAINMENT CALCULATIONS



Bay #2 [Permitted Storage Capacity = 3960 gal.]

Floor Containment: $(43.5' \times .5') (18.83') + \frac{1}{2} (.5') (18.83') (6') = 437.7 \text{ ft}^3 \times \frac{7.48 \text{ gal}}{1 \text{ ft}^3} = 3275 \text{ gal.}$

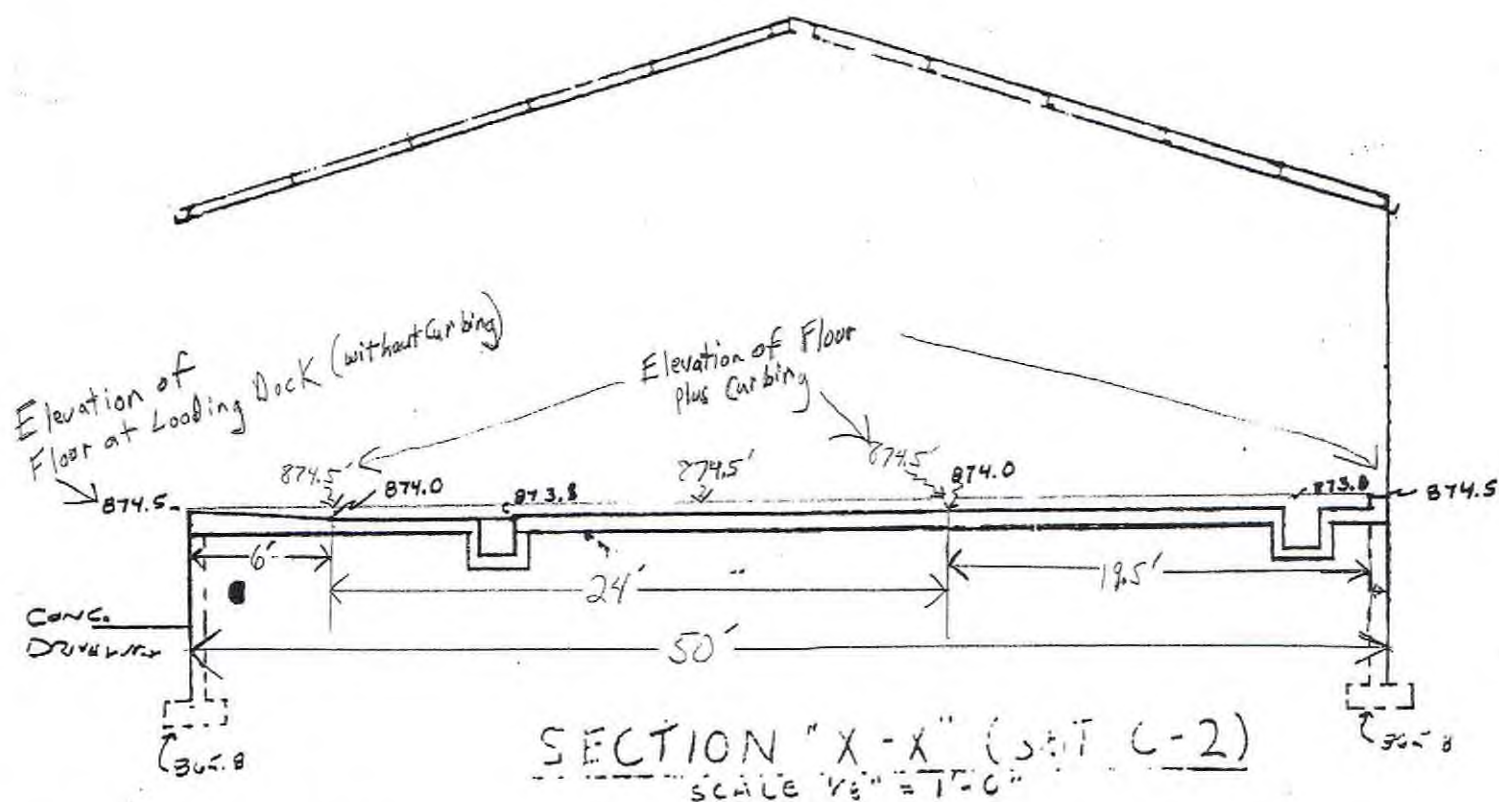
(Trench Containment): $(192.7 \text{ gal.}) (2) = 385.4 \text{ gal.}$

(Total Containment): $3275 \text{ gal.} + 385.4 \text{ gal.} = 3660 \text{ gal.}$

(Deduction of Corners): $3660 \text{ gal.} - [4 (1.6' \times .5' \times .5') \times \frac{7.48 \text{ gal.}}{1 \text{ ft}^3}] = 3648 \text{ gal.}$

(Deduction of Side Slopes): $3648 \text{ gal.} - 100 \text{ gal. (as estimated by OEPA)} = 3548 \text{ gal.}$

(Pallet and Drum Displacement): $3548 \text{ gal.} - [(14 \text{ pallets}) (\frac{10.5 \text{ gal.}}{\text{pallet}}) + (8 \text{ drums}) (\frac{10.33 \text{ gal.}}{\text{drum}})] = 3318 \text{ gal. of containment available in Bay #2}$



Bay #3 ^{Permitted} Storage Capacity = 3960 gal.

Floor Containment: $(43.5') (1.5') (19.5') + \frac{1}{2} (1.5') (19.5') (6') = 453.4 \text{ ft}^3 \times \frac{7.48 \text{ gal}}{1 \text{ ft}^3} = 3392 \text{ gal.}$

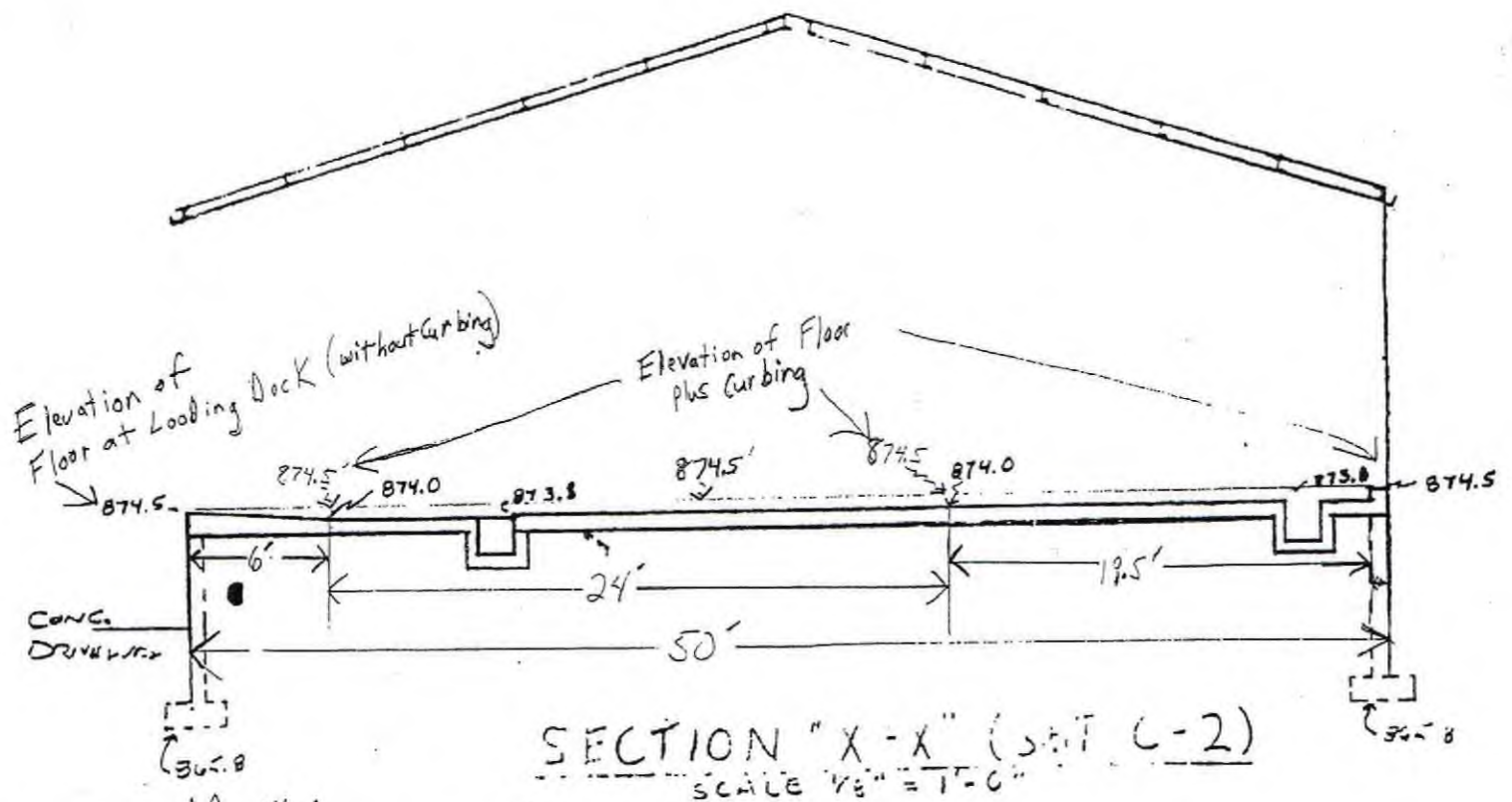
Trench Containment: $(192.7 \text{ gal.}) (2) = 385.4 \text{ gal.}$

Total Containment: $3392 \text{ gal.} + 385.4 \text{ gal.} = 3777 \text{ gal.}$

Deduction of Corners: $3777 \text{ gal.} - [4(1.6' \times 5' \times 5') \times \frac{7.48 \text{ gal}}{1 \text{ ft}^3}] = 3765 \text{ gal.}$

Deduction of Side Slopes: $3765 \text{ gal.} - 100 \text{ gal. (as estimated by OEPA)} = 3665 \text{ gal.}$

Pallet and Drum Displacement: $3665 \text{ gal.} - [(14 \text{ pallets}) (\frac{10.5 \text{ gal}}{\text{pallet}}) + (8 \text{ drums}) (\frac{10.33 \text{ gal}}{\text{drum}})] = 3435 \text{ gal. of containment in Bay #3}$



L = 4 [Permitted Storage Capacity = 5940]

(Floor Containment): $(43.5')(5')(24.33') + \frac{1}{2}(5')(24.33')(6') = 565.7 \text{ ft}^3 \times \frac{7.481 \text{ gal}}{1 \text{ ft}^3} = 4232 \text{ gal.}$

Trench Containment: $(289 \text{ gal.})(2) = 578 \text{ gal.}$

(Total Containment): $4232 \text{ gal.} + 578 \text{ gal.} = 4810 \text{ gal.}$

(Deduction of Corners): $4810 \text{ gal.} - [2(2.67' \times 1.6' \times 5') \times \frac{7.481 \text{ gal.}}{1 \text{ ft}^3} + 2(1.6' \times 5' \times 5') \times \frac{7.481 \text{ gal.}}{1 \text{ ft}^3}] = 4772 \text{ gal.}$

(Deduction of Side Slopes): $4772 \text{ gal.} - 100 \text{ gal. (as estimated by OEPA)} = 4672 \text{ gal.}$

(Pallet and Drum Displacement): $4672 \text{ gal.} - [(6 \text{ pallets})(\frac{10.5 \text{ gal.}}{\text{pallet}}) + (12 \text{ drums})(\frac{10.33 \text{ gal.}}{\text{drum}})] = 4327 \text{ gal. of available containment in Bay #}$

CLIENT WPAFB
LOCATION Bldg. 479
SUBJECT 55-gal. Drum Displacement

EQ

PN 3103-2-1 Sheet No. _____
Checked By _____ Date _____
Computed By JK Date 12-16-92

Drum Diameter = 1.875' Maximum Spill Ht. = .5'

$$\text{Drum displacement volume} = \pi \left(\frac{1.875'}{2} \right)^2 (.5') \left(\frac{7.48 \text{ gal.}}{1 \text{ ft.}^3} \right) = \frac{10.33 \text{ gal}}{\text{drum}}$$

APPENDIX D-2
FLOOR COATING SPECIFICATION

SAFETY DATA SHEET

GP3579A50

Section 1. Identification

Product name : GENERAL POLYMERS® 3579 Standard Primer/Binder (Part A)
Gray

Product code : GP3579A50

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: 1-800-524-5979
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2

GHS label elements

Hazard pictograms



Signal word

: Warning

Hazard statements

: Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Suspected of causing cancer.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Avoid breathing vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Date of issue/Date of revision

: 10/13/2020

Date of previous issue

: 5/13/2020

Version : 15

1/13

GP3579A50

GENERAL POLYMERS® 3579 Standard Primer/Binder (Part A)
Gray

SHW-85-NA-GHS-US

Section 2. Hazards identification

- Response** : IF exposed or concerned: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
- Storage** : Store locked up.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.
- Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.
- CAS number/other identifiers**

Ingredient name	% by weight	CAS number
Epoxy Polymer	≥75 - ≤90	1675-54-3
Alkyl Glycidyl Ether	≤10	17557-23-2
Epoxy Polymer	≤10	25068-38-6
Titanium Dioxide	≤5	13463-67-7
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	≤5	68609-97-2
Alkyl Glycidyl Ether	≤3	68609-97-2
Carbon Black	≤0.3	1333-86-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Section 4. First aid measures

- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
bis-[4-(2,3-epoxipropoxy)phenyl]propane Alkyl Glycidyl Ether Epoxy Polymer Titanium Dioxide	1675-54-3 17557-23-2 25068-38-6 13463-67-7	None. None. None. ACGIH TLV (United States, 3/2020). TWA: 10 mg/m ³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 15 mg/m ³ 8 hours. Form: Total dust
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. Alkyl Glycidyl Ether Carbon Black	68609-97-2 68609-97-2 1333-86-4	None. None. ACGIH TLV (United States, 3/2020). TWA: 3 mg/m ³ 8 hours. Form: Inhalable fraction NIOSH REL (United States, 10/2016). TWA: 3.5 mg/m ³ 10 hours. TWA: 0.1 mg of PAHs/cm ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 3.5 mg/m ³ 8 hours.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Titanium dioxide	13463-67-7	CA British Columbia Provincial (Canada, 1/2020). TWA: 10 mg/m ³ 8 hours. Form: Total dust TWA: 3 mg/m ³ 8 hours. Form: respirable fraction CA Quebec Provincial (Canada, 7/2019). TWA _{EV} : 10 mg/m ³ 8 hours. Form: Total dust. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m ³ 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 10 mg/m ³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m ³ 15 minutes. TWA: 10 mg/m ³ 8 hours.
Carbon black	1333-86-4	CA British Columbia Provincial (Canada,

Section 8. Exposure controls/personal protection

1/2020).

TWA: 3 mg/m³ 8 hours. Form: Inhalable
CA Ontario Provincial (Canada, 6/2019).

TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction.

CA Alberta Provincial (Canada, 6/2018).

8 hrs OEL: 3.5 mg/m³ 8 hours.

CA Quebec Provincial (Canada, 7/2019).

TWAEV: 3.5 mg/m³ 8 hours.

CA Saskatchewan Provincial (Canada, 7/2013).

STEL: 7 mg/m³ 15 minutes.

TWA: 3.5 mg/m³ 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
None.		

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Not available.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not available.
Melting point/freezing point	: Not available.
Boiling point/boiling range	: Not available.
Flash point	: Closed cup: 116°C (240.8°F) [Pensky-Martens Closed Cup]
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not relevant/applicable due to nature of the product.
Vapor density	: Not available.
Relative density	: 1.18
Solubility	: Not available.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.205 cm ² /s (>20.5 cSt)
Molecular weight	: Not applicable.

Aerosol product

Heat of combustion	: 3.942 kJ/g
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Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
bis-[4-(2,3-epoxipropoxy)phenyl]propane	LD50 Dermal	Rabbit	20 g/kg	-
Alkyl Glycidyl Ether	LD50 Oral	Rat	4500 mg/kg	-
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	LD50 Oral	Rat	17100 mg/kg	-
Alkyl Glycidyl Ether	LD50 Oral	Rat	17100 mg/kg	-
Carbon Black	LD50 Oral	Rat	>15400 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
bis-[4-(2,3-epoxipropoxy)phenyl]propane	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
Epoxy Polymer	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 UI	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
Titanium Dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	Skin - Moderate irritant	Rabbit	-	24 hours 500 UI	-
Alkyl Glycidyl Ether	Skin - Moderate irritant	Rabbit	-	24 hours 500 UI	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
bis-[4-(2,3-epoxipropoxy)phenyl]propane	-	3	-
Titanium Dioxide	-	2B	-
Carbon Black	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
irritation
redness
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Route	ATE value
Oral	61054.07 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium Dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Epoxy Polymer	-	31	low
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	-	160 to 263	low
Alkyl Glycidyl Ether	-	160 to 263	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Not regulated.	Not regulated.	Not regulated.	UN3082	UN3082
UN proper shipping name	-	-	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Polymer)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Polymer). Marine pollutant (Epoxy Polymer)
Transport hazard class(es)	-	-	-	9  	9  
Packing group	-	-	-	III	III
Environmental hazards	No.	No.	No.	Yes.	Yes.
Additional information	-	-	-	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Emergency schedules F-A, S-F

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Section 14. Transport information

Proper shipping name : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists

: **Australia inventory (AICS)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		1
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method

History

Date of printing : 10/13/2020
Date of issue/Date of revision : 10/13/2020
Date of previous issue : 5/13/2020
Version : 15

Section 16. Other information

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

▣ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

GP3579B01

Section 1. Identification

Product name : GENERAL POLYMERS® 3579 Standard Primer/Binder (Part B)
Hardener

Product code : GP3579B01

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: 1-800-524-5979
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (800) 424-9300
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : ACUTE TOXICITY (oral) - Category 4
SKIN CORROSION/IRRITATION - Category 1B
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 5.6% (dermal), 12.7% (inhalation)

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May damage fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Date of issue/Date of revision : 10/13/2020 **Date of previous issue** : 5/24/2020

GP3579B01 GENERAL POLYMERS® 3579 Standard Primer/Binder (Part B)
Hardener

Version : 16

1/17

SHW-85-NA-GHS-US

Section 2. Hazards identification

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage

: Store locked up.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

This product contains a Significant New Use Rule (SNUR) Chemical. Do not allow this product to enter drains, sewers, wastewater treatment systems, groundwater, streams, lakes or ponds. See Environmental Data Sheet (EDS) for additional details.

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

Hazards not otherwise classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
4-Nonylphenol	≥25 - ≤50	84852-15-3
Diethylenetriamine	≤10	111-40-0
Phenylmethanol	≤9.8	100-51-6
4,4'-Isopropylidenediphenol	≤5	80-05-7
Methylenedicyclohexylamine	≤5	1761-71-3
Isophorone Diamine	≤3	2855-13-2
Phenol, 2-nonyl-, branched	≤3	91672-41-2
Paratertiarybutylphenol	≤3	98-54-4
1,3-Benzenedimethanamine	<1	1477-55-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Date of issue/Date of revision	: 10/13/2020	Date of previous issue	: 5/24/2020	Version	: 16	2/17
GP3579B01	GENERAL POLYMERS® 3579 Standard Primer/Binder (Part B) Hardener				SHW-85-NA-GHS-US	

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions : This product contains a Significant New Use Rule (SNUR) Chemical. Do not allow this product to enter drains, sewers, wastewater treatment systems, groundwater, streams, lakes or ponds. See Environmental Data Sheet (EDS) for additional details.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
4-Nonylphenol Diethylenetriamine	84852-15-3 111-40-0	None. ACGIH TLV (United States, 3/2020). Absorbed through skin. TWA: 1 ppm 8 hours. TWA: 4.2 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016). Absorbed through skin. TWA: 1 ppm 10 hours. TWA: 4 mg/m ³ 10 hours.
Phenylmethanol	100-51-6	AIHA WEEL (United States, 7/2018). TWA: 10 ppm 8 hours.
4,4'-Isopropylidenediphenol	80-05-7	None.
Methylenedicyclohexylamine	1761-71-3	None.
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	None.
Phenol, 2-nonyl-, branched	91672-41-2	None.
Paratertiarybutylphenol	98-54-4	None.
1,3-Benzenedimethanamine	1477-55-0	ACGIH TLV (United States, 3/2020). Absorbed through skin. C: 0.018 ppm NIOSH REL (United States, 10/2016). Absorbed through skin. CEIL: 0.1 mg/m ³

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Diethylenetriamine	111-40-0	CA Alberta Provincial (Canada, 6/2018). Absorbed through skin. 8 hrs OEL: 4.2 mg/m ³ 8 hours. 8 hrs OEL: 1 ppm 8 hours. CA British Columbia Provincial (Canada, 1/2020). Absorbed through skin. TWA: 1 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). Absorbed through skin. TWA: 1 ppm 8 hours. CA Quebec Provincial (Canada, 7/2019). Absorbed through skin. TWAEV: 1 ppm 8 hours. TWAEV: 4.2 mg/m ³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin. STEL: 2 ppm 15 minutes. TWA: 1 ppm 8 hours.
Benzyl alcohol	100-51-6	AIHA WEEL (United States, 7/2018). TWA: 10 ppm 8 hours.
m-Xylylenediamine	1477-55-0	CA Alberta Provincial (Canada, 6/2018). Absorbed through skin. C: 0.1 mg/m ³ CA British Columbia Provincial (Canada, 1/2020). Absorbed through skin. C: 0.1 mg/m ³ CA Ontario Provincial (Canada, 6/2019).

Section 8. Exposure controls/personal protection

		Absorbed through skin. C: 0.1 mg/m³ CA 9 uebec Provincial (Canada, 7/201Q). Absorbed through skin. STEV: 0.1 mg/m³ 15 minutes. CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin. CEIL: 0.1 mg/m³
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Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Diethylenetriamine	111-40-0	NOM-010-STPS-2014 (Mexico, 4/2016). Absorbed through skin. TWA: 1 ppm 8 hours.

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls

: **This product contains a Significant New Use Rule (SNUR) Chemical. Do not allow this product to enter drains, sewers, wastewater treatment systems, groundwater, streams, lakes or ponds. See Environmental Data Sheet (EDS) for additional details.**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section Q Physical and chemical properties

Appearance

Physical state : Liquid.
Color : Not available.
Odor : Not available.
Odor threshold : Not available.
pH : Not available.
Melting point/freezing point : Not available.
Boiling point/boiling range : 185°C (365°F)
Flash point : Closed cup: 104°C (219.2°F) [Pensky-Martens Closed Cup]
Evaporation rate : Not available.
Flammability (solid, gas) : Not available.
Lower and upper explosive (flammable) limits : Lower: 1.3%
Upper: 13%
Vapor pressure : 0.049 kPa (0.37 mm Hg) [at 20°C]
Vapor density : 3.48 [Air = 1]
Relative density : 0.98
Solubility : Not available.
Partition coefficient: n-octanol/water : Not available.
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
Viscosity : Kinematic (40°C (104°F)): >0.205 cm²/s (>20.5 cSt)
Molecular weight : Not applicable.

Aerosol product

Heat of combustion : 40.43 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
4-Nonylphenol	LD50 Oral	Rat	1300 mg/kg	-
Diethylenetriamine	LD50 Dermal	Rabbit	1090 mg/kg	-
	LD50 Oral	Rat	1080 mg/kg	-
Phenylmethanol	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1230 mg/kg	-
4,4'-Isopropylidenediphenol	LD50 Oral	Rat	1200 mg/kg	-
1,3-Benzenedimethanamine	LC50 Inhalation Gas.	Rat	700 ppm	1 hours
	LD50 Dermal	Rabbit	2 g/kg	-
	LD50 Oral	Rat	930 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
4-Nonylphenol	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 mg	-
Diethylenetriamine	Skin - Moderate irritant	Rabbit	-	500 mg	-
Phenylmethanol	Skin - Mild irritant	Man	-	48 hours 16 mg	-
	Skin - Moderate irritant	Pig	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 mg	-
4,4'-Isopropylidenediphenol	Eyes - Severe irritant	Rabbit	-	24 hours 250 ug	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	250 mg	-
Methylenedicyclohexylamine	Eyes - Severe irritant	Rabbit	-	24 hours 10 UI	-
Paratertiarybutylphenol	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Eyes - Severe irritant	Rabbit	-	10 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	4 hours 500 mg	-
1,3-Benzenedimethanamine	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Skin - Severe irritant	Rabbit	-	24 hours 750 ug	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Phenylmethanol	Category 3	-	Respiratory tract irritation
4,4'-Isopropylidenediphenol	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Phenylmethanol	Category 2	-	-
Methylenedicyclohexylamine	Category 2	oral	-

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes severe burns. May cause an allergic skin reaction.
Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Section 11. Toxicological information

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1863.39 mg/kg
Dermal	8201.97 mg/kg
Inhalation (vapors)	160.67 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
4-Nonylphenol	Acute EC50 0.03 mg/l Marine water	Algae - Skeletonema costatum	72 hours
	Acute EC50 0.027 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 137 µg/l Marine water	Crustaceans - Eohaustorius estuarius - Adult	48 hours
	Acute LC50 17 µg/l Marine water	Fish - Pleuronectes americanus - Larvae	96 hours
	Chronic EC10 0.012 mg/l Marine water	Algae - Skeletonema costatum	96 hours
	Chronic NOEC 5 µg/l Fresh water	Crustaceans - Gammarus fossarum - Adult	21 days
	Chronic NOEC 7.4 µg/l Fresh water	Fish - Pimephales promelas - Embryo	33 days
Diethylenetriamine	Acute EC50 345600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute LC50 53500 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
Phenylmethanol 4,4'-Isopropylidenediphenol	Acute LC50 1014000 µg/l Fresh water	Fish - Poecilia reticulata	96 hours
	Acute LC50 10000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute EC50 1800 µg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 1.506 mg/l Marine water	Algae - Prorocentrum minimum - Exponential growth phase	72 hours
	Acute EC50 7.75 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1.34 mg/l Marine water	Crustaceans - Americamysis bahia - Larvae	48 hours

Section 12. Ecological information

3-aminomethyl- 3,5,5-trimethylcyclohexylamine Paratertiarybutylphenol	Acute LC50 3.5 mg/l Marine water	Fish - Rivulus marmoratus - Embryo	96 hours
	Chronic NOEC 2 mg/l Fresh water	Algae - Chlorolobion braunii - Exponential growth phase	4 days
	Chronic NOEC 10 µg/l Marine water	Crustaceans - Tigriopus japonicus - Nauplii	21 days
	Chronic NOEC 30 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.2 µg/l Fresh water	Fish - Carassius auratus - Adult	90 days
	Acute EC50 17.4 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 11.08 mg/l Fresh water	Algae - Scenedesmus quadricauda - Exponential growth phase	72 hours
	Acute EC50 3.9 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5140 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 1 mg/l Fresh water	Algae - Scenedesmus quadricauda - Exponential growth phase	72 hours
	Chronic NOEC 0.45 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.5 mg/l Fresh water	Fish - Gobiocypris rarus - Embryo	28 days

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Phenylmethanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
4-Nonylphenol	-	740	high
Diethylenetriamine	-	2.8 to 6.3	low
4,4'-Isopropylidenediphenol	-	20 to 67	low
Paratertiarybutylphenol	-	44 to 48	low
1,3-Benzenedimethanamine	-	2.69	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : This product contains a Significant New Use Rule (SNUR) Chemical. Do not allow this product to enter drains, sewers, wastewater treatment systems, groundwater, streams, lakes or ponds. See Environmental Data Sheet (EDS) for additional details.

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a

Date of issue/Date of revision	: 10/13/2020	Date of previous issue	: 5/24/2020	Version	: 16	12/17
GP3579B01	GENERAL POLYMERS® 3579 Standard Primer/Binder (Part B) Hardener				SHW-85-NA-GHS-US	

Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN3066	UN3066	UN3066	UN3066	UN3066
UN proper shipping name	PAINT	PAINT	PAINT	PAINT	PAINT. Marine pollutant (4-Nonylphenol, Phenol, 2-nonyl-, branched)
Transport hazard class(es)	8 	8 	8 	8 	8  
Packing group	II	II	II	II	II
Environmental hazards	No.	No.	No.	Yes. The environmentally hazardous substance mark is not required.	Yes.
Additional information	- <u>ERG No.</u> 153	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8). <u>ERG No.</u> 153	- <u>ERG No.</u> 153	The environmentally hazardous substance mark may appear if required by other transportation regulations.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. <u>Emergency schedules</u> F-A, S-B

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Section 14. Transport information

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

U.S. Federal regulations : TSCA 5(a)2 final significant new use rules: 4-Nonylphenol; Phenol, 2-nonyl-, branched

This product contains a Significant New Use Rule (SNUR) Chemical. Do not allow this product to enter drains, sewers, wastewater treatment systems, groundwater, streams, lakes or ponds. See Environmental Data Sheet (EDS) for additional details.

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

International regulations

International lists

: Australia inventory (AICS): Not determined.
China inventory (IECSC): Not determined.
Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	3
Flammability		1
Physical hazards		0

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (oral) - Category 4	Calculation method
SKIN CORROSION/IRRITATION - Category 1B	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
TOXIC TO REPRODUCTION - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method

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16/17

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GENERAL POLYMERS® 3579 Standard Primer/Binder (Part B)
Hardener

SHW-85-NA-GHS-US

Section 16. Other information

History

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Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

📌 Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.



Protective & Marine Coatings

GENERAL POLYMERS® 3741 NOVO-FLO SOLVENT / ACID RESISTANT COATING

PART A
PART B

GP3741
GP3741B01

SERIES
STANDARD HARDENER

Revised July 21, 2015

PRODUCT INFORMATION

PRODUCT DESCRIPTION

GENERAL POLYMERS 3741 NOVO-FLO SOLVENT / ACID RESISTANT COATING is a pigmented, high-build, high solids Novolac epoxy which resists vapor, splash, spillage or immersion to certain aggressive acids, alkalies and solvents. This material bonds aggressively to properly prepared and primed substrates, protecting the substrate from damaging chemicals.

ADVANTAGES

- Protects against certain aggressive acids, alkalies and solvents. Refer to the Chemical Resistance Guide.
- High bond strength
- Rapid cure
- Initial high gloss
- Moisture tolerant

TYPICAL USES

GENERAL POLYMERS 3741 NOVO-FLO SOLVENT / ACID RESISTANT COATING protects surfaces in petroleum refineries, chemical processing, water treatment, waste water treatment, power utilities, pulp and paper, food and beverage and pharmaceutical facilities.

LIMITATIONS

- Slab on grade requires vapor/moisture barrier.
- Substrate must be structurally sound and free of bond inhibiting contaminants.
- During installation and initial cure cycle, substrate and ambient air temperature must be at a minimum of 50°F (10°C). Substrate temperature must be at least 5°F (3°C) above the dew point (for lower temperature installation contact the Technical Service Department).
- When required, adequate ventilation shall be provided and proper clothing and respirators worn.
- **Strictly adhere to published coverage rates.**

SURFACE PREPARATION

Proper inspection and preparation of the substrate to receive resinous material is critical. Read and follow the "Instructions for Concrete Surface Preparation" (Form G-1) for complete details.

PRODUCT CHARACTERISTICS

Color:	Steel Gray, Silver Gray, Classic Tile Red
Mix Ratio:	2:1
Volume Solids:	95% ± 2%, mixed
Weight Solids:	97% ± 2%, mixed
VOC (EPA Method 24):	<50 g/L mixed; 0.41 lb/gal
Viscosity, mixed:	1,000 cps

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns):	10 (250)	20 (500)
~Coverage sq ft/gal (m²/L):	80 (7.4)	160 (4.1)

Drying Schedule @ 8 mils (200 microns) wet:

@ 73°F (23°C)

To touch:	8 hours
To recoat:	16 hours
Light traffic:	24 hours minimum
Full Cure:	7 days

*If maximum recoat time is exceeded, abrade surface before recoating.
Drying time is temperature, humidity, and film thickness dependent.*

Pot Life: gallon mass 40 minutes @ 73°F (23°C)

Shelf Life: Part A: 36 months, unopened
Part B (Standard): 36 months, unopened
Store indoors at 50°F (10°C) to 90°F (32°C)

Flash Point: >213°F (>100°C), ASTM D 93, mixed

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1,000 cycles	100 mg loss
Adhesion	ACI 503R	300 psi concrete failure
Flammability		Self-extinguishing over concrete
Hardness, Shore D	ASTM D 2240	80
Resistance to Elevated Temperatures	MIL-D-3134J	No slip or flow at required temperature of 158°F (70°C)



Protective & Marine Coatings

GENERAL POLYMERS® 3741 NOVO-FLO SOLVENT / ACID RESISTANT COATING

PART A
PART B

GP3741
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Revised July 21, 2015

PRODUCT INFORMATION

APPLICATION

• APPLICATION INSTRUCTIONS

1. Premix 3741A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to whip air into the material.

2. Add 2 parts 3741A (resin) to 1 part 3741B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform.

3. Apply 3741 using a 1/4" nap roller at a spread rate of 80-160 sq. ft. per gallon evenly, with no puddles making sure of uniform coverage. **Take care not to puddle materials and insure even coverage.**

4. Allow to cure 24 hours before opening to light foot traffic and water exposure.

Note: Epoxy materials will appear to be cured and "dry to touch" prior to full chemical cross linking. Allow epoxy to cure 2-3 days prior to exposure to water or other chemicals for best performance.

CLEANUP

Clean up mixing and application equipment immediately after use. Use toluene or xylene. Observe all fire and health precautions when handling or storing solvents.

SAFETY

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

MAINTENANCE

Occasional inspection of the installed material and spot repair can prolong system life. For specific information, contact the Technical Service Department.

SHIPPING

• Destinations East of the Rocky Mountains are shipped F.O.B. Cincinnati, Ohio.

• Destinations West of the Rocky Mountains are shipped F.O.B. Victorville, California.

For specific information relating to international shipments, contact your local sales representative.

ORDERING INFORMATION

Packaging:

Part A: 1 gallon (3.8L) and
5 gallon (18.9L) containers
Part B: 1 gallon (3.8L) and
5 gallon (18.9L) containers

Weight: 11.7 ± 0.2 lb/gal; 1.40 Kg/L
mixed, may vary by color

CHEMICAL RESISTANCE

For comprehensive chemical resistance information, consult the Chemical Resistant Guide and contact the Technical Service Department.

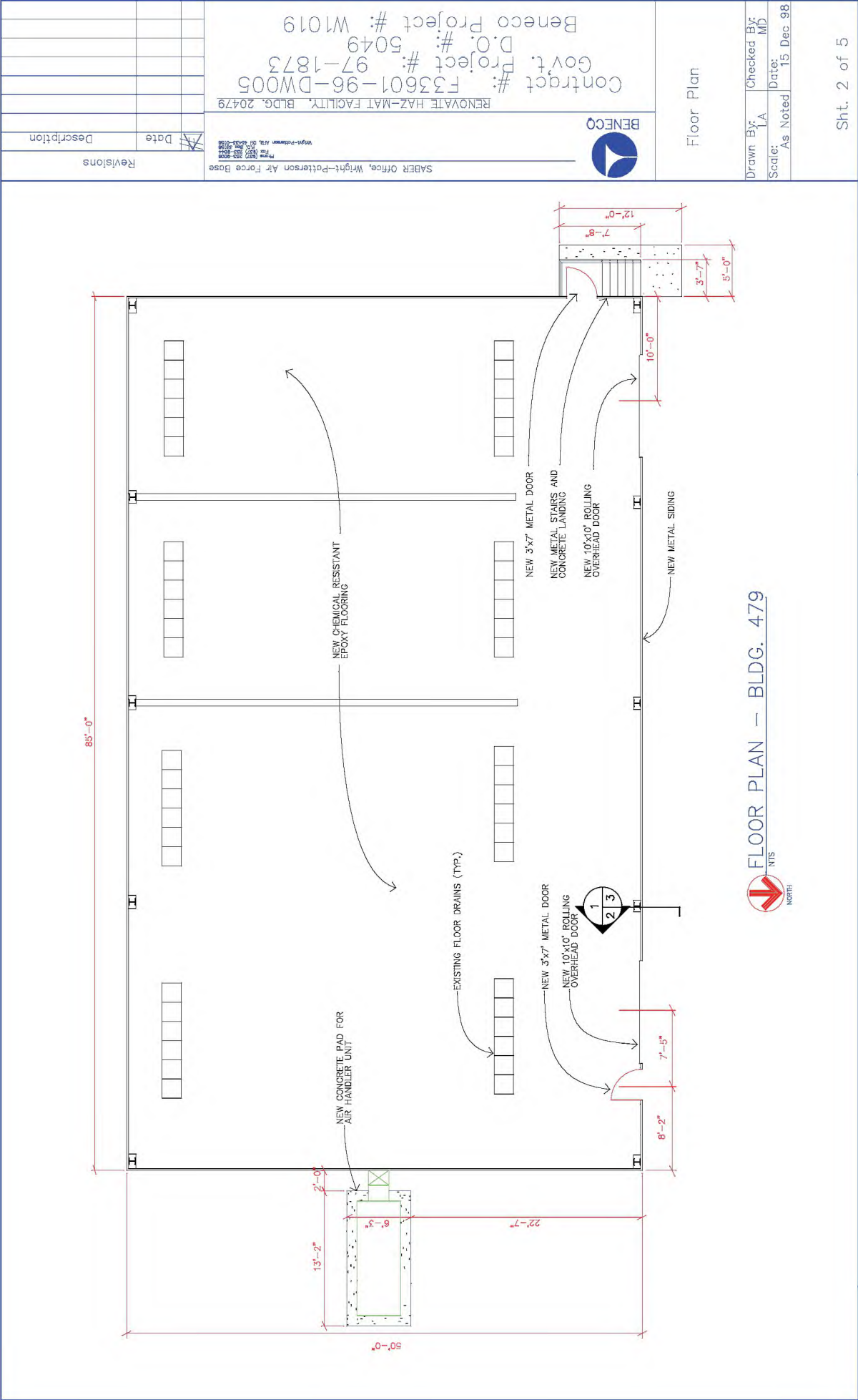
DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

WARRANTY

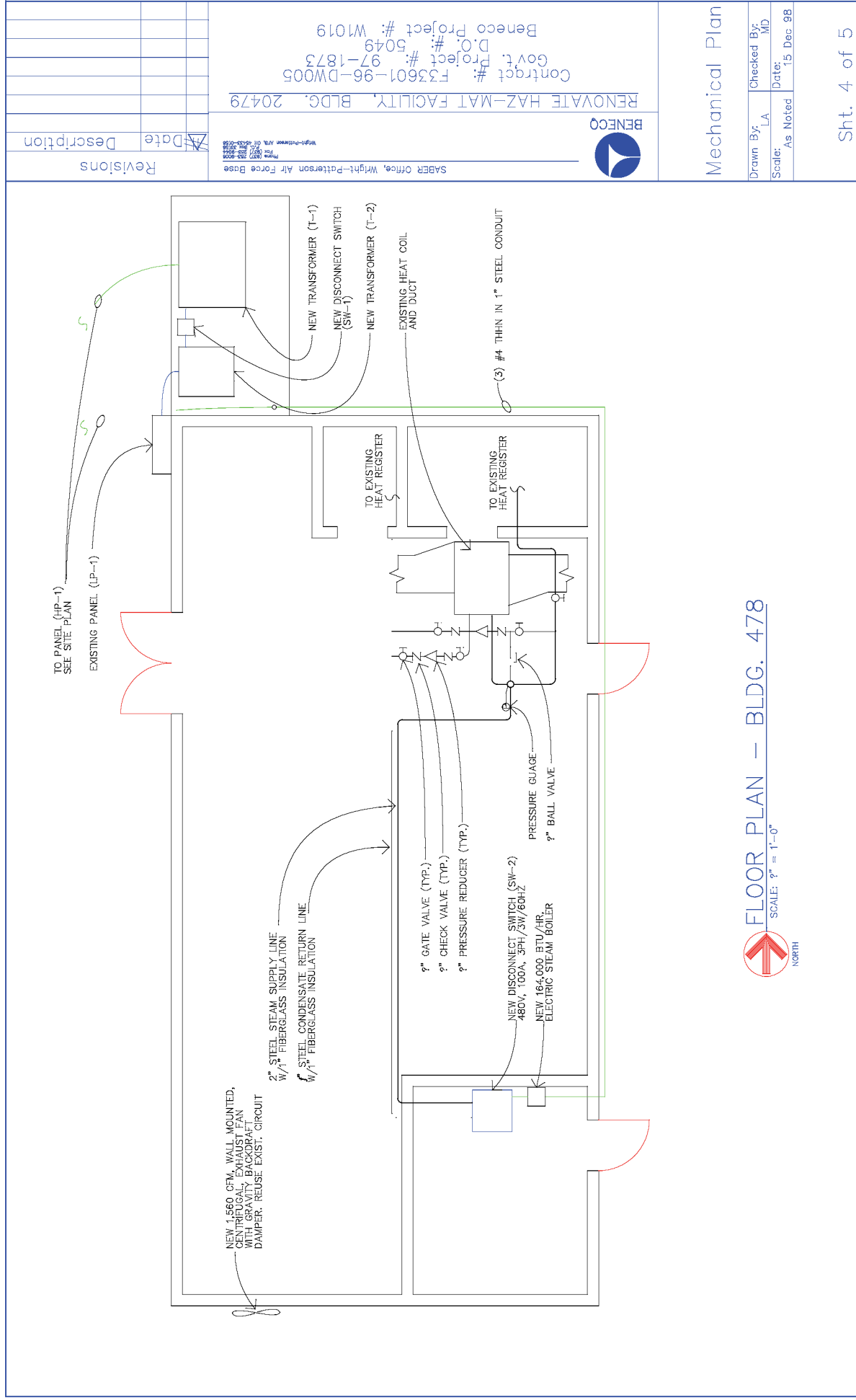
The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. **NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

APPENDIX D-3
BUILDINGS 479 SPECIFICATIONS



NTS
FLOOR PLAN — BLDG. 479
NORTH

Revisions		SABER Office, Wright-Patterson Air Force Base		BENECO		Floor Plan	
Description		Wright-Patterson AFB, 20479		Contract # F33601-96-DW005		Drawn By: LA	
Date		Project # 5049		Govt. Project # 97-1873		Checked By: MD	
		Beneco Project # W1019		D.O. # 5049		Date: 15 Dec 98	
						Scale: As Noted	



APPENDIX D-4
CHEMICAL COMPATABILITY GUIDELINES

INCOMPATIBILITY OF COMMON LABORATORY CHEMICALS

When certain hazardous chemicals are stored or mixed together, violent reactions may occur because the chemicals are unsuitable for mixing, or are incompatible. Classes of incompatible chemicals should be segregated from each other during storage, according to hazard class. Use the following general guidelines for hazard class storage:

- Flammable/Combustible Liquids and Organic Acids
- Flammable Solids
- Mineral Acids
- Caustics
- Oxidizers
- Perchloric Acid
- Compressed Gases

CHEMICAL	INCOMPATIBLE CHEMICAL(S)
Acetic acid	aldehyde, bases, carbonates, hydroxides, metals, oxidizers, peroxides, phosphates, xylene
Acetylene	halogens (chlorine, fluorine, etc.), mercury, potassium, oxidizers, silver
Acetone	acids, amines, oxidizers, plastics
Alkali and alkaline metals	acids, chromium, ethylene, halogens, hydrogen, mercury, earth nitrogen, oxidizers, plastics, sodium chloride, sulfur
Ammonia	acids, aldehydes, amides, halogens, heavy metals, oxidizers, plastics, sulfur
Ammonium nitrate	acids, alkalis, chloride salts, combustible materials, metals, organic materials, phosphorous, reducing agents, urea
Aniline	acids, aluminum, dibenzoyl peroxide, oxidizers, plastics
Azides	acids, heavy metals, oxidizers
Bromine	acetaldehyde, alcohols, alkalis, amines, combustible materials, ethylene, fluorine, hydrogen, ketones (acetone, carbonyls, etc.), metals, sulfur
Calcium oxide	acids, ethanol, fluorine, organic materials

CHEMICAL	INCOMPATIBLE CHEMICAL(S)
Carbon (activated)	alkali metals, calcium hypochlorite, halogens, oxidizers
Carbon tetrachloride	benzoyl peroxide, ethylene, fluorine, metals, oxygen, plastics, silanes
Chlorates	powdered metals, sulfur, finely divided organic or combustible materials
Chromic acid	acetone, alcohols, alkalis, ammonia, bases
Chromium trioxide	benzene, combustible materials, hydrocarbons, metals, organic materials, phosphorous, plastics
Chlorine	alcohol's, ammonia, benzene, combustible materials, flammable compounds (hydrazine), hydrocarbons (acetylene, ethylene, etc.), hydrogen peroxide, iodine, metals, nitrogen, oxygen, sodium hydroxide
Chlorine dioxide	hydrogen, mercury, organic materials, phosphorous, potassium hydroxide, sulfur
Copper	calcium, hydrocarbons, oxidizers
Hydroperoxide	reducing agents
Cyanides	acids, alkaloids, aluminum, iodine, oxidizers, strong bases
Flammable liquids	ammonium nitrate, chromic acid, hydrogen peroxide, nitric acid, sodium peroxide, halogens
Fluorine	alcohol's, aldehydes, ammonia, combustible materials, halocarbons, halogens, hydrocarbons, ketones, metals, organic acids
Hydrocarbons (Such as butane, propane benzene, turpentine, etc.)	acids, bases, oxidizers, plastics
Hydrofluoric acid	metals, organic materials, plastics, silica (glass), (anhydrous) sodium
Hydrogen peroxide	acetylaldehyde, acetic acid, acetone, alcohol's carboxylic acid, combustible materials, metals, nitric acid, organic compounds,

CHEMICAL	INCOMPATIBLE CHEMICAL(S)
	phosphorous, sulfuric acid, sodium, aniline
Hydrogen sulfide	acetaldehyde, metals, oxidizers, sodium
Hypochlorites	acids, activated carbon
Iodine	acetaldehyde, acetylene, ammonia, metals, sodium
Mercury	acetylene, aluminum, amines, ammonia, calcium, fulminic acid, lithium, oxidizers, sodium
Nitrates	acids, nitrites, metals, sulfur, sulfuric acid
Nitric acid	acetic acid, acetonitrile, alcohol's, amines, (concentrated) ammonia, aniline, bases, benzene, cumene, formic acid, ketones, metals, organic materials, plastics, sodium, toluene
Oxalic acid	oxidizers, silver, sodium chlorite
Oxygen	acetaldehyde, secondary alcohol's, alkalis and alkalines, ammonia, carbon monoxide, combustible materials, ethers, flammable materials, hydrocarbons, metals, phosphorous, polymers
Perchloric acid	acetic acid, alcohols, aniline, combustible materials, dehydrating agents, ethyl benzene, hydriotic acid, hydrochloric acid, iodides, ketones, organic material, oxidizers, pyridine
Peroxides, organic	acids (organic or mineral)
Phosphorus (white)	oxygen (pure and in air), alkalis
Potassium	acetylene, acids, alcohols, halogens, hydrazine, mercury, oxidizers, selenium, sulfur
Potassium chlorate	acids, ammonia, combustible materials, fluorine, hydrocarbons, metals, organic materials, sugars
Potassium perchlorate also see chlorates)	alcohols, combustible materials, fluorine, hydrazine, metals, organic matter, reducing agents, sulfuric acid
Potassium permanganate	benzaldehyde, ethylene glycol, glycerol, sulfuric acid

CHEMICAL	INCOMPATIBLE CHEMICAL(S)
Silver	acetylene, ammonia, oxidizers, ozonides, peroxyformic acid
Sodium	acids, hydrazine, metals, oxidizers, water
Sodium nitrate	acetic anhydride, acids, metals, organic matter, peroxyformic acid, reducing agents
Sodium peroxide	acetic acid, benzene, hydrogen sulfide metals, oxidizers, peroxyformic acid, phosphorous, reducers, sugars, water
Sulfides	acids
Sulfuric acid	potassium chlorates, potassium perchlorate, potassium permanganate

References:

Material Safety Data Sheets, various chemical companies.

EPA-600/2-80-076 April 1980
A METHOD FOR DETERMINING THE COMPATIBILITY OF CHEMICAL MIXTURES

[illegible]

SECTION E
GROUNDWATER MONITORING

The requirements of 40 CFR 264.90 and OAC 3745-54-90 for groundwater monitoring are not applicable to the hazardous waste management units covered in this application for WPAFB. All wastes will be containerized. No surface impoundments, landfills, or land treatment activities will exist at this facility.

SECTION F

PROCEDURES TO PREVENT HAZARDS

The information provided in this section is submitted in accordance with the requirements of 40 CFR 270.14 (b)(4), (5), (6), (8), and (9); 270.15 (c) and (d); and OAC 3745-54-32 to 37. Other regulations addressed to complete this section include 40 CFR 264.14, 264.15, 264.17, 264.32, 264.35, 264.73, 264.174, 264.176, 264.177, 264.195, 264.226, 264.254, 264.273, 264.303 and 264.347.

This section addresses general security provisions; inspection schedules; the spill prevention and containment plan; and the prevention of accidental ignition or reaction of ignitable, reactive, or incompatible wastes.

F-1 Security

Security procedures to be implemented in order to prevent hazards are described below.

F-1a Security Procedures and Equipment [40 CFR 270.14(b)(4) and 264.14]

A waiver of the security requirements is not requested.

F-1a(1) 24-Hour Surveillance System [40 CFR 264.14(b)(1)]

Building 479 is located within fenced and secured areas. Wright-Patterson AFB is responsible for onsite security to control entry, at all times, through the secured gates or other entrances to the active portion of the entire installation. The Security Forces Squadron will patrol Building 479 and will control entry onto the active portion of Building 479 during hours of non-operation. The patrol will be performed year-round, and will check the fence line and buildings. The procedures and personnel used will be determined by the Security Forces Squadron. Security Forces will notify the Facility Manager, who is an Installation Management Division employee, of anyone requesting access to Building 479 and the Facility Manager will determine if access is granted and accompany that person to the area.

F-1a(2) Barrier and Means to Control Entry [40 CFR 264.14(b)(2)(i)]

F-1a(2)(a) Barrier --

A 6-foot-high metal chain-link fence topped with three strands of barbed wire encircles the property of Building 479 as shown on Figure F-1.

F-1a(2)(b) Means to Control Entry [40 CFR 264.14(b)(2)(ii)] --

During duty hours anyone entering Building 479 will be required to sign in on the log sheet. Access to the Building 479 area is provided by two gates, with direct access to the inside of Building 479 provided by two overhead doors and one personal door on the northern side and a personal door on the western side. The gates to Building 479 will be locked during non-duty hours. All doors to Building 479 will be kept locked unless the building is occupied by personnel. The locks used for Buildings 478/479 can be opened by one key giving access to both buildings.

F-1a(3) Warning Signs [40 CFR Section 264.14(c)]

Warning signs with the legend, "Danger - Unauthorized Personnel Keep Out," are posted at the entrances to Building 479. These signs are visible from 25 feet and are printed in English.

F-1b Waiver [40 CFR 264.14(a)]

Wright-Patterson does not request a waiver.

F-2 Inspection Schedule [40 CFR 270.14(b)(5) and 264.15]

Table F-1 presents the General Inspection Schedule for inspecting safety and emergency equipment, security devices, operating and structural equipment, monitoring equipment, communication equipment, and mobile equipment at Building 479. Items listed in Table F-1 are important because of their role in preventing, detecting, or responding to environmental or human health hazards.

Figure F-1. Loading and Unloading Areas for Building 479

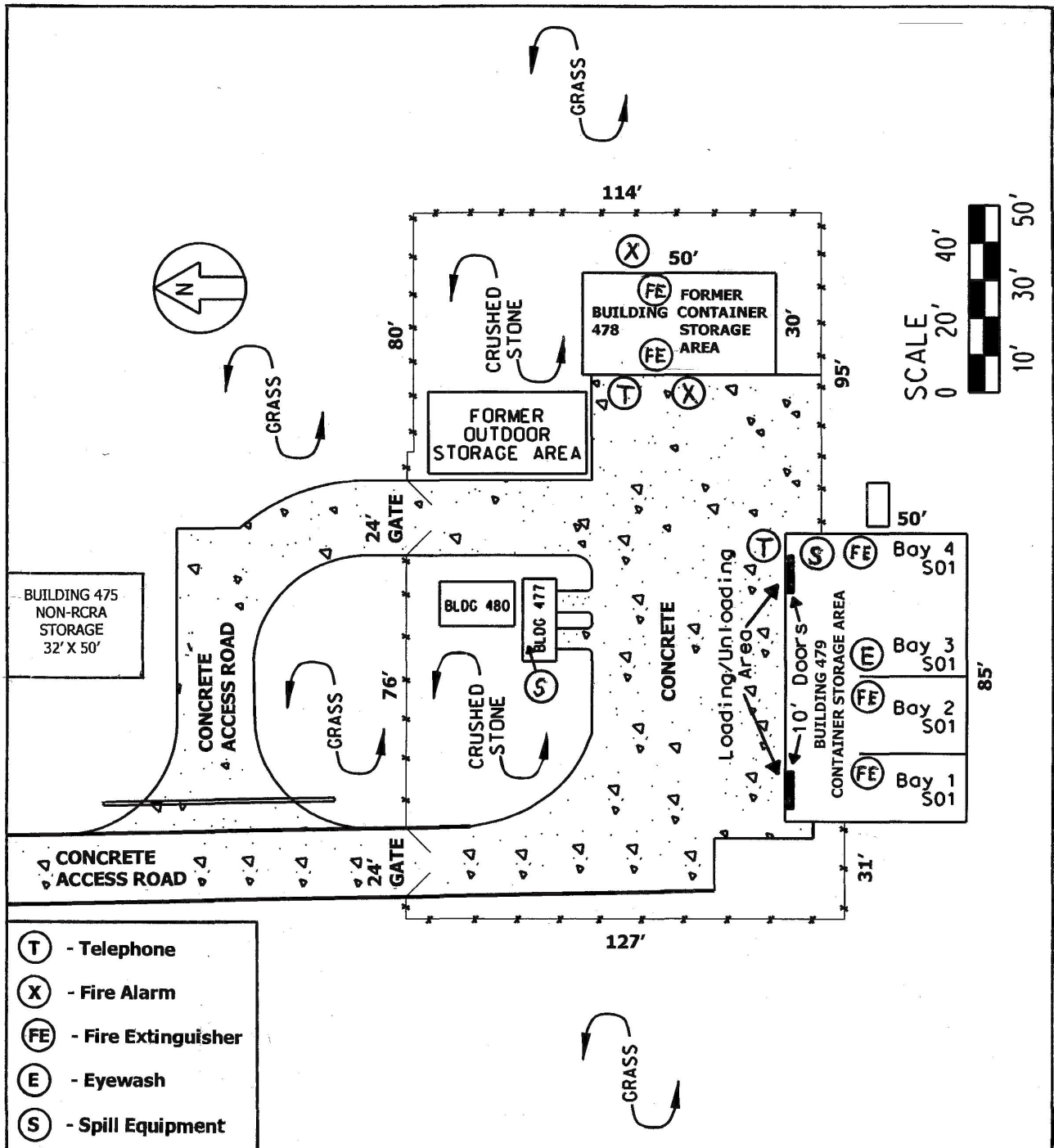


FIGURE F-1. LOADING AND UNLOADING AREAS FOR BUILDING 479

TABLE F-1. EXAMPLE GENERAL INSPECTION SCHEDULE

Area/Item	Types of Problems	Frequency of Inspection
Face Shields & Chemical Goggles	Broken, Damaged, or Missing	Weekly
Protective Clothing	Missing, Unserviceable	Weekly
Absorbents (e.g., Clay, Pads)	Present and Accessible	Weekly
Emergency Shower/Eyewash	Leaking, Flushed	Weekly
Ventilation System	Not Operating, Blocked	Weekly
Non-Sparking Shovel	Missing, Damaged	Weekly
Non-Sparking Bung Wrench	Missing, Damaged	Weekly
Fire Extinguishers	Not Mounted, Missing, Not Charged	Weekly
Fire Alarm System	Not Operating, In Alarm	Weekly
Telephone System	Not Operating	Weekly
Warning Signs	Missing, Illegible	Weekly
Security Lights	Not Operating	Weekly
Doors, Locks, Fence, and Gates	Locks Missing, Signs of Tampering	Weekly
General Debris & Refuse	General Housekeeping	Weekly
Containment Trenches, Roof, Walls	Evidence of Leakage, Unobstructed	Weekly
Containers	Structural Damage, Sealed, Leaking	Weekly
Labeling of Containers	Start Date, Date in EPA Waste Code	Weekly
Load/Unload Area	Evidence of Spills, Safe and Clean	Weekly
Aisle Space	3 ft, Clean, Unobstructed	Weekly
Container Segregation	Hazard Classes Separated	Weekly
General Lighting	Burned out, Not Operating	Weekly
Surrounding Area Cleanliness	Policing of Perimeter	Weekly

F-2a General Inspection Requirements [40 CFR 264.15(a) and (b) and 270.14(b)(5)]

Facility personnel will conduct regular inspections at its proposed facility and Building 479 for equipment malfunctions, structural deterioration, operator errors, the number of drums in each storage area or bay and discharges that could cause or lead to the release of hazardous waste constituents and adversely affect the environment or threaten human health. Inspection log sheets are shown in Appendix F-1. Current calendar year inspection log sheets are kept at the storage facilities.

F-2a(1) Types of Problems [40 CFR 264.15(b)(3)]

Table F-1 presents an example schedule for inspection of monitoring equipment, safety and emergency equipment, security devices, operating and structural equipment, and container storage areas. Items listed in the tables are considered important because of their role in preventing, detecting, or responding to environmental or human health hazards. Provided with each item is a list of problems normally encountered.

F-2a(2) Frequency of Inspection [40 CFR 264.15(b)(4)]

Also provided in Table F-1 is the suggested frequency of inspection for each item. The frequency depends upon equipment deterioration, environmental or human health incidences, or equipment malfunction between inspections. The frequency of inspection will increase when problems are discovered. The loading/unloading dock will be constantly observed by facility personnel when in use. As a minimum, a complete visual inspection of the hazardous property, facility storage areas, personal protection clothing and equipment will be made weekly. Container labels and material compatibility will be inspected upon receipt as well as weekly.

F-2b Specific Process Inspection Requirements [40 CFR 270.14(b)(5) and 264.15(b)(4)]

The only specific process inspection item to be discussed below is container inspection. Table F-2 lists the Specific Process Inspection Schedule for Building 479. Inspections of waste piles, surface impoundments, incinerators, landfills, and land treatment facilities are not applicable to this

TABLE F-2. SPECIFIC PROCESS INSPECTION SCHEDULE

Area/Equipment	Specific Item	Types of Problems	Frequency of Inspection
Container Storage Area	Container placement and stacking	Insufficient aisle space, height of stacks excessive	Weekly
	Sealing of containers	Open lids	Weekly*
	Labeling of containers	Improper identification, accumulation date, data missing, label missing, not intact, or not readable	Weekly*
	Containers	Corrosion, leakage, structural defects, number of containers per area/bag	Weekly*
	Trays/liners	Corrosion, leakage, structural defects	Weekly
	Racks	Stability, structural defects	Weekly
	Segregation of incompatible wastes	Storage of incompatible wastes in same area	Weekly*
	Pallets	Damaged (e.g., broken wood, warping nails missing)	Weekly
	Fence, gate and lock	Corrosion, damage to chain-link fence; sticking or corroding lock	Weekly*
	Base or foundation	Cracks, spalling, uneven settlement	Weekly*
	Debris and refuse	Aesthetics, possible reaction with leaks	Weekly
	Ramps	Cracks, spalling, uneven settlement, erosion	Weekly*
	Warning signs	Damaged, illegible	Weekly*

* Daily when loading/unloading

permit application because none of these exist at Building 479. Tanks will not be used to store hazardous waste at WPAFB.

F-2b(1) Container Inspection [40 CFR 264.174]

Inspections of the container storage area will be conducted weekly in accordance with Table F-2 by an employee trained in hazardous waste management procedures. (Refer to Section H of this document for details regarding personnel training.) Other information contained in Table F-2 includes a summary of the anticipated problems discovered during inspection of the containers and the frequency of inspection.

All results of the general (Section F-2a) and specific process (Section F-2b) inspections will be recorded on log sheets (Appendix F-1), which are stored at Building 479. Information on these log sheets includes the name of the inspector, date and time of inspection, item, problems observed, and the date and nature of repairs and remedial action(s). All inspection logs will be maintained at the facility for a minimum of three years.

F-2b(2) Tank Inspection [40 CFR 264.195]

This section is not applicable because this facility will not store hazardous wastes in tanks.

F-2b(3) Waste Pile Inspection [40 CFR 264.254, 270.14(b)(5), and 270.18(d)]

This section is not applicable because this facility will not maintain any waste piles.

F-2b(4) Surface Impoundment Inspection [40 CFR 270.14(b)(5) and 270.17(c) and 264.226(b)]

No surface impoundments will be maintained at this facility.

F-2b(5) Incinerator Inspection [40 CFR 264.347]

No incinerators will be maintained at this facility.

F-2b(6) Landfill Inspection [40 CFR 270.21 (c) and(d), 264.15 and 264.303]

No landfills will be used at this facility.

F-2b(7) Land Treatment Inspection [40 CFR 270.20(c)(5) and 264.273(g)]

No land treatment of wastes will occur at this facility.

F-2c Remedial Action [40 CFR 264.15(c)]

If inspections reveal that non-emergency maintenance is needed, the Installation Management Division will initiate immediate action(s) to preclude further damage and to reduce the need for emergency repairs. If a hazard is imminent, or has already occurred, remedial action(s) will immediately be taken. Appropriate authorities will be notified according to the Contingency Plan (see Section G). In the event of an emergency involving the release of hazardous substances to the environment, efforts will be directed towards containing the hazard, removing it, and subsequently decontaminating the affected area. These procedures are also outlined in the Contingency Plan (see Section G).

F-2d Inspection Log [40 CFR 264.15(d) and 264.73(b)(5)]

Inspection log notebooks kept onsite at Building 479 for at least 3 years. Appendix F-1 indicates that the inspection log requires the date and time of inspection, the name of the inspector, the items inspected, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

F-3 Waiver of Preparedness and Prevention Requirements [40 CFR 270.14(b)(6)]

This applicant does not request a waiver of the preparedness and prevention requirements under 40 CFR Part 264, Subpart C.

F-3a Equipment Requirements [40 CFR 264.32]

F-3a(1) Internal Communications

Near the entrance door to both Buildings 478 and 479, telephones provide internal communication capability with other base operations that may be called upon to assist in an emergency.

Immediate emergency instruction will be provided at Buildings 478/479 by voice. Telephones are located at both Buildings 478 and 479 that can be used to contact base emergency response organizations.

F-3a(2) External Communications

The Buildings 478/479 telephone system will also provide external communication capability for the purpose of calling for assistance, if and when needed. The telephone system complies with 40 CFR 264.32(b) and OAC 3745-54-32(B).

Should the telephones located at Buildings 478 and 479 be unreachable or unusable, nearby buildings (numbers 475, 470, or 471) can provide a phone for communication purposes. During all waste handling operations, a minimum of two people serve on the work crews.

Typically, WPAFB would not contact outside or off base agencies for assistance since the base can provide emergency response services, such as a fire department, hospital, ambulance service, and Security Forces Squadron to respond to an emergency at the storage facility. These services are described in the facility contingency plan provided in Section G. However, the base does have an internal radio network that can simultaneously notify local community police departments, county sheriff, and the Ohio State Patrol. They would be contacted by the base Security Forces Squadron to offer assistance in establishing roadblocks and off base evacuation.

Access to communications equipment is provided during normal operating hours by the base telephone system. During non-operating hours, surveillance and emergency communications are provided by the base Security Forces Squadron inter-city radio that can be used to simultaneously contact local police departments, the County sheriff, and Ohio State Patrol to assist in establishing off base roadblocks and in evacuating potentially affected communities, if necessary.

F-3a(3) Emergency Equipment

Fire, spill control, and decontamination equipment is discussed in Section G-5 for Building 479. Table F-3 presents the equipment list for Building 479.

TABLE F-3. FACILITY EMERGENCY EQUIPMENT LIST FOR BUILDING 479

	Item	Quantity	Purpose
1. Spill Control	Hazard pillows	10 pillows	For absorbing chemical leaks or spills
	Absorbent socks	15 socks	For absorbing and containing chemical leaks and spills
	Speedie Dry	5 50# bags	Absorbs oil, fuel, and some chemicals
	Laboratory Spill Kit	1	Testing caustic, acid & solvent spills
	Empty drums	5-55 gallons (minimum)	For the storage of material from leaking drums and spill situations
	Hand tools: shovel, bung wrench, etc.	1 each	For both routine operations and spill situations
	PCB Spill Kit	1	For cleaning up PCB oil spills
	Mercury Spill Kit	1	For cleaning up Mercury spills
2. Safety and Emergency Equipment	Eye wash and shower	1	To flush the eye or whole body with water in case of inadvertent contact with chemicals
	Telephone	1	Located outside the facility near the front door, it provides communication with other base facilities
	Fire extinguishers	3	Three ABC grade fire extinguishers and one Class D fire extinguisher are available for the purpose of all small fires
	Fire alarm	1	Activation of alarm notifies Fire Station No. 4 in Area B of the base
	Personnel Protective Equipment	(Required Minimum Quantities)	Necessary to protect the human body from exposure to hazardous chemicals
	Surgical gloves	20 pairs	
	Hard hat	1	
	Face shield	1	
	Hand gloves	3 pair	
	Goggles	2	
	Plastic apron	2	

F-3a(4) Water for Fire Control

As an operating practice, smoking is banned on the premises of the storage facilities. This practice, together with the availability of fire-fighting equipment at the facility and on the base, contributes to minimizing and controlling fires at the facility.

In Building 479, three ABC fire extinguishers and one Class D fire extinguisher are available. A planned inventory is shown in the contingency plan. Fire extinguishers are inspected at least weekly for ready condition in accordance with the Facility Inspection Plan in Table F-1. Any noted deficiencies are repaired.

Additionally, Buildings 478/479 have an automatic fire suppression system. The fire suppression system for Buildings 478 and 479 was designed per the requirements of NFPA 30, “Flammable and Combustible Liquids Code.” The fire suppression media will be a foam solution consisting of 3% AFFF and 97% water. The system has a supply density of 0.3 gpm per square foot with enough capacity to provide a 15 minute foam supply over a 2,000 square foot area.

The foam system is located in Building 478 in an equipment room with a 2-hour fire rated walls, with access to the room from the outside of the building only. The fire suppression system is an air pressurized, dry pipe system. When a sprinkler head opens, air pressure is released, causing the dry pipe valve to open and fill the sprinkler piping system. The foam solution is then dispersed through the open sprinkler head(s) to Buildings 478 and 479. Standard sprinkler heads are used and are located just below each building’s roof structure with a maximum spacing of 100 square foot per head. The sprinkler heads will activate at 165° F. Water flow will activate an audible alarm bell and send a signal to the building’s fire alarm panel.

A fire department connection to the sprinkler system is installed at the intersection of 13th Street and the Access Road to the building. Appendix B-1 provides specifications on the fire suppression system.

A fire alarm near the door of Building 478, when pulled, automatically informs the base Fire Department of an emergency and dispatches the nearest available response team with fire-fighting equipment to the facility. There are three fire stations on the base, with the nearest station, No. 3, approximately 1/4 mile from the facility.

This proximity means that emergency response at the facility can be very rapid. An additional description of this system is provided in the Contingency Plan. Water for fire control is available through use of the base's water supply lines and four fire hydrants located near the facility. One fire hydrant is located near Building 470, approximately 800 feet from the storage facility. A second fire hydrant is located at the entrance of the 478/479 compound, approximately 100 feet from the storage facility. A third and fourth fire hydrant is located near Building 491, approximately 550 feet from the storage facility. The water line and/or hydrants can be tapped by the base's fire department to provide adequate volume and pressure to supply a water hose stream if necessary. These hydrants are capable of producing pressure volume of 2,000 gallons/minute with an available residual pressure of 20 psi. Map 10 identifies the locations of these features closest to Building 479. The base water supply is obtained from onsite ground water wells. The locations of the base water supply wells are shown on Map 2.

F-3b Aisles Space Requirements [40 CFR 264.35]

In Building 479, all containers will be accessible to fire and spill control equipment. As shown in Figure 4-1, Building 479 is a four-sided structure, and is provided with 2 doors that provide access to emergency response equipment.

Building 479 incorporates a minimum of 3 feet of aisle space between each row of pallets containing 55-gallon drums or shelving units holding small containers of non-flammable waste. A minimum of 4 feet of aisle space will be maintained between pallets or shelving units holding small containers containing flammable waste in accordance with NFPA standards. This aisle space is sufficient to permit an inspector to walk the length of each bay. In Building 479, aisle spaces are sufficient to allow unobstructed movement of personnel not only during loading and unloading, but also during facility inspections and emergency response actions. Workmen are instructed to keep aisles clear of obstructions at all times.

F-4 Preventive Procedures, Structures, and Equipment [40 CFR 270.14(b)(8)]

See Section G-5.

F-4a Loading and Unloading Operations [40 CFR 270.14 (b)(8)(i)]

All containers when loaded or unloaded will be sealed; containers will be stored on wooden pallets approximately 4 feet by 4 feet in size. All containers in Building 479 may be stored on either pallets or shelving units. The pallets with wastes can easily be lifted onto or off trucks and storage racks using a forklift. The forklifts used for hazardous waste storage handling will be designed as EE, per 29 CFR 1910.178, and will have a 4,000 pound capacity with extended reach and drum grabbers if a forklift or drum dolly cannot be used. The forklifts allow personnel to stack at any height on the racks from floor level to the third tier with equal ease.

Wastes that are transported to the storage facility are delivered in small quantities, either in small containers, such as 5-gallon cans or pint jars, or in 55-gallon drums. A loading dock is designed to facilitate movement of 55-gallon drums to or from building 479. The drums are unloaded manually by base personnel with the use of a pallet mover or a drum cart. Once a drum is offloaded, the pallet mover, a drum cart, or forklift would be used to position the drum(s) into the storage bay designated for that waste type. Small containers, such as 5-gallon paint cans, are designated for storage within Building 479. The waste containers would be unloaded by hand and carried into the building. Building 479 has a ramp that allows easy access to the storage area. Figure F-1 shows loading and unloading areas for Building 479.

Movement will be minimized by having the wastes taken directly to their storage location after the inspection procedures, as described in Section C-3b, have been completed and the facility personnel have determined that the waste will be accepted. These procedures involve coordinating with the turn-in activity, checking documents (disposal turn-in document), and labeling/marketing of the containers. Through these methods, Installation Management Division personnel determine the waste category and assign a storage location. In the event of a spill, spill response materials and equipment are available as discussed in Section G.

F-4b Runoff [40 CFR 270.14(b)(8)(ii)]

Wastes stored on shelves, some with containment trays, in Building 479 are small container wastes, labeled with the original manufacturer's label or a handwritten label similar to the actual manufacturer's label when it is not available. The wastes are segregated and isolated from other incompatible wastes. Wastes are stored on shelves, some with metal containment trays (refer to Figure D-4).

Building 479 stores all containers according to waste type. All 55-gallon drums stored meet DOT specifications for storage. The building is enclosed on all four sides to prevent precipitation from entering the building. Building 479 utilizes concrete berms to separate drum storage thus assuring diversion of liquids to separate collection trenches located in each bay. The floor has approximately 1.25 percent grade slope to facilitate liquid runoff into trenches at the north and south end of each bay. The trenches are designed to contain at least 10 percent of the volume of the contained drums. Empty drums are located in each area to facilitate spill cleanup. The floors have a 6" concrete curb around exterior sides of the building to prevent run-on into storage areas. The floors and trenches are coated with an impervious epoxy substance. The epoxy is selected with respect to compatibility with the stored waste material. The building is not located within the 100 year flood plain or within 1,000 feet of groundwater withdrawal wells.

F-4c Water Supplies [40 CFR 270.14(b)(8)(iii)]

The water supply for WPAFB is taken from actively pumping groundwater wells in Areas A and B of the base. There are no surface or groundwater withdrawal wells within 1,000 feet of Buildings 478/479 (see Map 3).

The design of Buildings 479 eliminates the likelihood of surface water or groundwater contamination, since all wastes are stored indoors and handled within bermed areas.

F-4d Equipment and Power Failure [40 CFR 270.14(b)(8)(iv)]

Building 479 will only store containerized waste; no automatic waste feed systems will exist. In the event of a brief power interruption, all waste handling (e.g., loading, unloading, sampling) activities will cease until power can be restored.

Equipment used at the hazardous waste storage facilities that could fail or would be affected by a power failure includes the existing building's ventilation and lighting systems.

The ventilation system and lighting system, if out of operation, would be repaired by base maintenance personnel immediately. Both systems operate when personnel are inside the existing building performing inspections and receiving or preparing wastes for shipment. These operations occur from 8:00 am until 4:00 pm when the base maintenance department is available to respond to equipment failure.

Should a power failure occur during non-operating periods, the power failure would be noted in adjacent buildings and by an annunciator registering the power outage at the base's central electrical generating plant. The annunciator would inform the on-duty personnel, and an established procedure of notifying by phone the real property building manager (the base environmental engineer) would be followed and the manager informed of the power outage. This notification would result in an inspection of the hazardous waste storage area the following work day to inquire whether the building's power supply has failed. This inspection would be conducted by the base environmental engineer or his trained designee as identified in the facility contingency plan. Since the ventilation system is needed to assure safe operating conditions for personnel in the building, power would be restored the next working day, and no work would proceed without an operable system. Should the base environmental engineer or his designee request that power be restored immediately by use of backup electrical power generators, these generators can be delivered and set up by the base maintenance department on an emergency basis, 24 hours a day.

F-4e Personnel Protection Equipment [40 CFR 270.14(b)(8)(v)]

A description of available protective equipment at Building 479 is presented the Contingency Plan (Section G). The use of protective equipment is covered in the Personnel Training Program (Section H). The information in these two sections indicates that any operation such as bulking and consolidation of hazardous wastes will only be accomplished by personnel wearing the appropriate protective equipment. Equipment will include, but not be limited to, protective gloves, eye and face guards, overalls, and boots.

Prior to handling any hazardous wastes, the Hazardous Waste Pickup Form (Figure C-1), chemical analysis, Safety Data Sheet (SDS) and/or other reference will be reviewed for the particular waste stream in question, to determine which safety equipment will be used.

F-5 Prevention of Reaction of Ignitable, Reactive, and Incompatible Wastes

F-5a Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Wastes [40 CFR 270.14(b)(9) and 264.17(a) and (c)]

Hazardous wastes received at Building 479 will be in non-leaking containers, safe to handle, and will comply with DOT container regulations (49 CFR Parts 173, 178, and 179). This will minimize the potential for ignition and reaction of hazardous wastes.

Wastes will be separated at Building 479 and protected from sources of ignition or reaction, such as open flames, smoking, cutting and welding, hot surfaces, frictional heat, and sparks (static, electrical, or mechanical). Wastes will be classified as ignitables, reactives, corrosives, toxics, acids, and bases. These determinations will be based upon standard hazardous material reference data and/or lab analyses. (Refer to Section C-2 for more detail.) In order to prevent a possible source of external ignition, areas with drums containing ignitable and reactive wastes will prominently display a sign clearly marked with the legend “No Smoking.” Spark-proof tools (e.g., brass hammers, wrenches) will be used on all containers storing ignitable materials.

Compatible wastes will be moved from Building 479 to Building 477, consolidated (bulked) in the east bay, and then returned to Building 479 before close of business (see Figure D-4). Ignitables, acids and alkalines will be consolidated separately. Corrosives that are Department of Transportation (DOT) oxidizers will not be consolidated. Strong oxidizing acids and hydrofluoric

acid will not be consolidated. Organic peroxides will not be consolidated. The following procedures will be followed during consolidation activities:

- A. The containers will be bonded and grounded
- B. Both overhead doors will be open. All containers associated with consolidation activities will be closed during transit between buildings
- C. Non-intrinsically safe items will be placed out of service
- D. Proper personal protective equipment (ppe) will be used
- E. Compatible containers will be used
- F. A minimum of two personnel will be present
- G. A cart with spill containment features will be used to transport waste containers between buildings
- H. Incompatible wastes will not be transported together
- I. No waste containers will be staged or stored outside of Building 477 during consolidation activities
- J. A spill kit will be available at Building 477
- K. Incompatible waste streams will not be consolidated at the same time

F-5b General Precautions for Handling Ignitable or Reactive Wastes and Mixing of Incompatible Wastes [40 CFR 264.17(b) and (c) and 270.14(b)(9)]

General precautions for handling ignitable or reactive wastes were discussed in Section F-5a. Wastes are not mixed at this facility. Furthermore, incompatible wastes with the same hazardous waste characteristic will not be stored in the same storage area.

F-5c Management of Ignitable or Reactive Wastes in Containers [40 CFR 270.15(c) and 264.176]

Map 2 shows that Buildings 478/479 are located over 50 feet from the base property line.

F-5d Management of Incompatible Wastes in Containers [40 CFR 270.15(d) and 264.177]

Incompatible wastes or materials will not be mixed at Building 479. Containers will be segregated by waste types (Sections C-2 and F-5a) and stored in areas containing similar waste types. Containment in Building 479 is provided by sloped floors and collection trenches. Aisle space will

be maintained to allow access for a hand truck in the event removal is required at any time due to corrosion or leakage.

Any drums that previously held any waste will be washed and triple rinsed prior to being reused. To prevent accidental reaction of incompatible corrosives stored within the same Bay 2, acids and bases will be stored apart from one another on separate shelving units or in separate drum storage areas as depicted in Figure D-4. All small containers of acids or bases stored within the same Bay 2 will be on containment trays. No small containers will be stored on the floor.

F-5e Management of Ignitable, Reactive, or Incompatible Wastes

This section is not applicable because Building 479 will not store hazardous wastes in tanks, waste piles, surface impoundments, landfills, or land treatment areas.

APPENDIX F-1
INSPECTION LOGS

Date/Time 17-Dec-20 /		Inspection Log for 20479				
Item	Type of Problem	Sat	Un-Sat	NA	Problem Observed & Action Taken to Correct	
Face Shield & Chemical Goggles	Broken, Damaged, or Missing					
Protective Clothing	Missing, Unserviceable					
Absorbents (e.g. Clay, Pads)	Present and Accessible					
Emergency Shower/Eyewash	Leaking, Flushed					
Ventilation System	Not Operating, Blocked					
Non-Sparking Shovel	Missing, Damaged					
Non-Sparking Bung Wrench	Missing, Damaged					
Fire Extinguishers	Not Mounted, Missing, Not Charged					
Fire Alarm System	Not Operating, In Alarm					
Telephone System	Not Operating					
Warning Signs	Missing, Illegible					
Security Lights	Not Operating					
Doors, Locks, Fence and Gates	Locks Missing, Signs of Tampering					
General Debris & Refuse	General Housekeeping					
Containment Trenches, Roof Walls	Evidence of Leakage, Unobstructed					
Containers	Structural Damage, Sealed, Leaking					
Labeling of Containers	Start Date, Date In, EPA Waste Code					
Load/Unload Area	Evidence of Spills, Safe and Clean					
Aisle Space	3 ft, Clean, Unobstructed					
Container Segregation	Hazard Classes Separated					
General Lighting	Burned out, Not Operating					
Surrounding Area Cleanliness	Policing of Perimeter					
					Signature of Inspector	

Date:

Daily Inspection Log For 20479

Item	Type of Problem	Sat	Un-Sat	NA	Problem Observed & Action Taken To Correct
Container Placement and Stacking	Insufficient Aisle Space, Height of stacking excessive				
Sealing of Containers	Open Lids				
Labeling of Containers	Improper Identification, Accumulation Start Date, Data Missing, Label Missing, not Intact, or not Readable				
Containers	Corrosion, Leakage, Structural Defects, Number of Containers per Area/Bag				
Trays/Liners	Corrosion, Leakage, Structural Defects				
Racks	Stability, Structural Defects				
Segregation of Incompatible Wastes	Storage of Incompatible Wastes in same area				
Pallets	Damaged Broken Wood, Warping, Nails Missing				
Fence, Gate and Lock	Corrosion, Damage to Chain Link Fence, Sticking or Corroding Lock				
Base Or Foundation	Cracks, Spalling, Uneven Settlement				
Ramps	Cracks, Spalling, Uneven Settlement Erosion				
Warning Signs	Damaged, Illegible				
Facility not in Use					
Signature of Inspector					

SECTION G

CONTINGENCY PLAN – BUILDING 479

The information contained herein is submitted in accordance with the requirements for a Contingency Plan, as contained in 40 CFR 270.14(b)(7), 264 Subpart D, and 264.50 - 264.56 and OAC 3745-52-260 - 265.

G-1 General Information [40 CFR 264.52]

This Contingency Plan is for the hazardous waste storage Building 479 on Wright-Patterson Air Force Base (WPAFB). The facilities are owned by the United States Air Force and operated by the Installation Management Division.

Building 479 will store containerized waste in 55-gallon drums and smaller containers in four storage bays of an enclosed building. An estimated 17,820 gallons in 55-gallon drums and smaller containers will be the maximum storage capacity at Building 479. A description of the wastes to be stored is provided in Section C, and the containment system is described in Section D.

The Contingency Plan is subject for review and amendment by the emergency coordinator (EC) if:

- Deficiencies in the plan are noted during its implementation.
- The facility permit is revised.
- The facility changes in design, construction, operation, or other circumstances develop that change the potential for fires, explosions, or releases of hazardous materials.
- The list of emergency coordinators or alternates changes.
- The list of emergency equipment changes.

Any significant change in the Contingency Plan that impacts a base organization or agency will be reviewed and discussed with them. New Contingency Plan documents will be prepared and distributed to the designated local, State, and Federal agencies. Facility personnel will be informed of all changes in the plan, with copies available to all personnel and organizations responsible for its implementation.

Copies of the Contingency Plan for Building 479 storage facilities will be distributed to the following organizations prior to operation of the facility. Copies of any future changes or revisions to the plan will also be distributed to these organizations.

A. Base Organizations

<u>Organization</u>	<u>Office Symbol</u>	<u>Phone</u>
Base Civil Engineering (BCE) and Deputy BCE	88th CEG	937/257-6214
Installation Management Division	88th CEG/CEI	937/257-5627
Fire Emergency Services	788th CES/CEXF	937/257-3033
Operations Division	88th CES/CEOE	937/257-4157
Security Forces	88th ABW/SFS	937/257- 6516/6517
Emergency Management Division	788th CES/CEXX	937/257-3464
Consolidated Command Post	88th ABW/CP	937/257-6314
USAF Medical Center: Bioenvironmental Engineering Hospital (emergency services)	88th ABW/SGPB 88th ABW/SGOPE	937/255-6815 937/257-2274
Base Safety Officer	88th ABW/SE	937/904-0888
Explosive Ordnance Division	788th CES/CEXD	937/257-5290

<u>Organization</u>	<u>Office Symbol</u>	<u>Phone</u>
Weather Squadron	88th OSS/OSW	937/257-4270
Defense Logistics Agency	DLA	937/343-8575

B. Facility Personnel

Hazardous Waste Program Manager, WPAFB

Hazardous Waste Field Compliance Manager, WPAFB

DLA-DS Hazardous Waste Contractor, WPAFB

C. Off Base Emergency Response Organization

Ohio EPA, Southwest District Office

401 E. Fifth Street

Dayton, Ohio 45402

937/285-6357

1-800-282-9378 (Emergency Response Number)

Montgomery/Greene County Local Emergency
Response Council (MGCLERC)

One Dayton Center

One South Main St., Suite 260

Dayton, Ohio 45402

(937) 224-8934

Police Department

- City of Beavercreek 937/426-1225
- City of Fairborn 937/754-3000
- City of Riverside 937/233-1801

Sheriff's Office

- Montgomery County 937/225-4357
- Greene County 937/562-4800
- Clark County 937/521-2050

Ohio State Patrol

- Montgomery County (Post 57) 937/832-4794
- Greene County (Post 29) 937/372-7671

G-2 Emergency Coordinators [40 CFR 264.52(d) and 264.55]

The following individuals are currently designated as emergency coordinators for Building 479:

Primary:

Zachary Olds, Compliance Section Chief
Installation Management Division
Home Phone: _____
Office Phone: 937/257-9009
(0730-1600 M-F)

Alternate:

Jason Baldwin, HW Field Compliance Manager
Installation Management Division
Home Phone: _____
Office Phone: 937/257-5531
(0630-1500 M-F)

The emergency coordinator (EC) and their alternate are familiar with all aspects of this contingency plan, the operations and activities of the base, the location and characteristics of materials handled, the location of all pertinent records and the base layout. In addition, these coordinators have the authority to commit the resources necessary to carryout the contingency plan.

G-3 Implementation of the Contingency Plan [40 CFR 264.52(a) and 264.56(d)]

The decision to implement the Contingency Plan depends upon whether or not an imminent or actual incident could threaten human health or the environment. The purpose of this section is to provide guidance to the EC by providing decision-making criteria.

The Contingency Plan will be implemented in the following situations:

A. Fire and/or Explosion

- A fire causes the release of toxic vapors.
- The fire spreads and could possibly ignite materials at other locations on base or could cause heat-induced explosions.
- The fire could possibly spread to off base areas.
- Use of water or water and chemical fire suppressant could result in contaminated runoff.
- An imminent danger exists that an explosion could occur, causing a safety hazard because of flying fragments or shock waves.
- An imminent danger exists that an explosion could ignite other hazardous waste at the facility.
- An imminent danger exists that an explosion or fire could result in the release of toxic material.
- An explosion has occurred.

B. Spills or Material Release

- The spill could result in the release of flammable liquids or vapors thus causing a fire or gas explosion hazard.
- The spill could cause the release of toxic liquid or vapors.
- The spill can be contained on base, but the potential exists for groundwater contamination.
- The spill cannot be contained on base, resulting in off base soil contamination and/or ground or surface water pollution.

C. Floods

- The potential exists for surface water contamination.

Primary and secondary hazards of the waste classes stored at WPAFB are presented in Table

G-1.

**TABLE G-1. PRIMARY AND SECONDARY HAZARDS OF WASTE GROUPS
STORED AT WRIGHT-PATTERSON AFB**

Waste Group	Primary Hazard	Secondary Hazard
Volatile Organics	Flammability	Toxicity
Semi-volatile Organics	Flammability	Toxicity
Metals	Toxicity	Reactivity
Corrosives	Corrosivity	Toxicity
Reactives	Reactivity	Toxicity
Ignitables	Flammability	Toxicity
Cyanides	Toxicity	Reactivity
Sulfides	Toxicity	Reactivity
Pesticides	Toxicity	Reactivity
Toxic Organics	Toxicity	Flammability
Mixed Waste F005 Solvents and Tritium	Toxicity	Radioactivity

G-4 Emergency Response Procedures

In the event of an emergency that results in fire, explosion, or accidental materials release, response activities will be initiated accordingly, following observation of the event. In the case that the plan is to be activated, the EC will take the following steps:

- Initiate containment and control procedures;
- Account for all facility personnel/visitors by comparing a head count with a sign-in/sign-out sheet or other appropriate mechanisms;
- Implement internal and external notification and provide authorities with an assessment of the situation, requesting assistance as necessary;
- Coordinate first-aid activities if injuries are involved;
- Evacuate the facility, if required, by implementing the evacuation plan;
- Identify the character of the emergency, whether it be a fire, an explosion, a release, or a combination of these;
- Determine, if possible, the exact source of the incident;

- Determine, if possible, the amount of material if a hazardous waste is released; and
- Determine, if possible, the real extent of the released materials.

The EC may accomplish some of the above tasks by observing site conditions and may gain additional information by reviewing the facility's records, including inventories and manifests. The EC has direct knowledge of the types of wastes and their location in Building 479 as well as a thorough knowledge of facility operations.

During an emergency, the EC would consider the following items, depending on the exact emergency situation:

- The wind direction would be established before the emergency response personnel approach the facility. Emergency personnel would approach the facility from an up-wind direction.
- The Bioenvironmental Engineer from the USAF Medical Center may be requested by the EC to obtain air samples to determine if there are any airborne toxic emissions.
- If there is a fire, the water from the fire-fighting effort would be contained and analyzed to evaluate whether it contains hazardous waste constituents. Containment can be accomplished by having the base Operations Division construct earthen dikes across the drainage area.
- Efforts would be made to ensure that fires, explosions, and/or releases are controlled to minimize their recurrence, and/or to reduce their spread into other areas of the base or off base. Since this facility is a storage facility, primary concern would be to isolate the different hazard class storage areas to reduce the spread of fire, explosion, or release. Hazardous waste released during the episode would be temporarily contained by earthen dikes until the waste material could be removed and placed into suitable containers for off base disposal.

The EC will make an assessment of the possible hazards to human health and the environment that may result from a fire, explosion, or release. The assessment will address both the potential direct and indirect effects of a fire explosion, or release such as:

- An incident that may release toxic, irritating, and/or asphyxiating gases into the atmosphere;

- An incident that may release a hazardous contaminant either directly into a nearby surface water feature or drainage ditch or indirectly by contaminating the water with fire-fighting foam used to control fires or heat-induced explosions.

If the event is of a minor or controllable nature and presents no potential hazard to human health, to site operations, or to the environment, the EC will not implement the Contingency Plan but will ensure that control measures and post-emergency (cleanup) procedures are implemented and that the necessary reporting is completed. An example of not implementing the Contingency Plan would be the identification of a leaking drum within Building 479 where fluids have collected in a storage area. The drum would be appropriately repaired, overpacked, or the material would be transferred to a new drum and all spilled material would be cleaned up.

G-4a Notification [40 CFR 264.56(a)]

The Contingency Plan identified here is supplemented by Wright-Patterson's spill plan and Radiation Protection Manual, which identifies several organizations on the base that can respond to and/or provide assistance in an emergency. These organizations are:

Mission Support Group Commander (88th MSG/CC)

- The Mission Support Group Commander or his deputy will act as On-Scene Coordinator for WPAFB when personnel are involved in responding to spills and fires. They would work with the EC to assure that other base organizations are informed when their assistance is required.

Installation Management Division (88th CEG/CEI)

- This office will assist in the environmental assessment of any release and provide personnel to serve in the role of primary and alternate emergency coordinator.

Fire Emergency Services (788th CES/CEXF)

- This organization provides emergency response services such as fire control and prevention. The Fire Chief or senior fire official at the site will act as the On-Scene Coordinator's representative when a fire or explosion has occurred or is likely to occur at the facility. They will assist the EC in assessing a fire's hazards.

Operations Division (88th CES/CEOE)

- This organization provides support for spill control, if needed, including heavy equipment operation, barrier erection, spill cleanup, and proper disposal. This department mans a 24-hour-a-day, 7-day-a-week service desk and distributes calls throughout the base in case of emergencies.

Security Forces (88th ABW/SF)

- This organization provides security, crowd control, traffic control, and related activities in the event of an emergency that would require these services. The Security Forces would provide off base notification in the event of an emergency affecting nearby communities.

Emergency Management Division (788th CES/CEXX)

- This organization responds to all emergencies on base and is a fundamental link between all the different branches that respond to emergencies. This branch also provides a communication link to the base commander to keep him apprised of emergencies requiring his attention.

USAF Medical Center (88th MDG/SGP)

- This organization provides both medical and environmental support to the facility operations. The base hospital emergency section has complete emergency medical capabilities, including ambulance and paramedic services for the facility. The environmental health and safety branch (Bioenvironmental Engineering) provides support in assessing the potential health effects of a hazardous material/waste release on both humans and the environment by monitoring and offering the capability of sampling water, air, and soil, if needed.

Consolidated Command Post (88th ABW/CP)

- This organization provides any necessary communication link between the base commander and all other base organizations.

Other Base Support Organizations

Other base organizations that can provide support services are:

- Explosive Ordnance Division (788th CES/CEXD)
- Defense Logistics Agency Office (DLA)

- Weather Squadron (88th OSS/OSW)
- Base Security Office (88th ABW/SE)

Emergencies are immediately responded to at Building 479 by personnel at the facility. Should a phone be unreachable or unusable, nearby buildings (numbers 470 or 157) can provide a phone. Assistance is also available from the network of well qualified and knowledgeable base organizations that are equipped to fulfill their specified roles. Because certain base organizations are called to assist certain emergencies, they are notified only when necessary. Specific organizations referred to as the core response team (CRT) respond whenever the Contingency Plan is implemented. The core response team includes: Operations Division, Base Civil Engineering Office, Fire Emergency Services, Installation Management Division, and Bioenvironmental Engineering.

The internal notification procedures for enacting the Contingency Plan to respond to material releases and other emergencies are as follows:

- The person observing the problem notifies the Fire Department at 911. This initial notification is completed after all facility personnel on the premises have been notified in accordance with the facility evacuation plan.
- The person notifying the Fire Department will provide the following information:
 - Name and telephone number of caller
 - Time and location of emergency
 - Type of emergency (i.e., fire, spill)
 - Time of report
 - Access route (consider the wind direction)
- The Fire Department responds initially and calls in other organizations as necessary.
 - Operations Division (88th CES/CEOE)
 - Base Civil Engineering Office (88th CEG)
 - Fire Emergency Services (788th CES/CEXF)

Installation Management Division (88th CEG/CEI)

Bioenvironmental Engineering (88th MDG/SGPB)

- The EC, together with the assistance of available members of the above CRT, mobilizes spill response team personnel and any necessary equipment. Should the emergency be a fire, the base fire chief will be the On-Scene Coordinator before the EC arrives. Based on the assessment by the EC and other core response organizations, additional response organizations may be called.
- If an emergency is of sufficient magnitude to require additional assistance, the base Emergency Management Division (88th CES/CEXX) is contacted by the service call desk or the EC and they are requested to respond.
- If the emergency is a chemical spill, the EC, an Installation Management Division (88th CEG/CEI) representative, and the base Bioenvironmental Engineer (88th MDG/SGPB) will assess the environmental impact of a release. This assessment may include collecting samples and submitting them to a laboratory for analysis to determine if there are any hazardous constituents present.
- The base hospital (88th ABW/SGOPE) will be contacted to request an ambulance to transport injured personnel for treatment, if needed.
- In the event that the emergency is a fire identified by base facility personnel, the fire alarm can be pulled and the nearest available fire station would immediately dispatch the needed equipment and personnel to the facility.

G-4b Identification of Hazardous Materials [40 CFR 264.56(b)]

Personnel discovering a spill or leak will immediately identify the character, exact source, amount and area/extent of a release. This will be accomplished by visual observation and/or review of records.

Since containers will be stored in areas according to their hazardous characteristics and properly labeled, the contents of a drum can generally be determined through a check of the operating record. However, sampling and analysis may be conducted as necessary.

G-4c Hazard Assessment [40 CFR 264.56(c) and (d)]

The EC will assess the possible direct and indirect hazards to human health or to the environment that may result from a chemical release, fire, or explosion.

The following information will be obtained in order to assess the magnitude and potential seriousness of the spill or release:

- Time and type of incident,
- Name and quantity of material involved, to the extent known and the rate of release, (based on database inventory)
- Direction of the spill, vapor, or smoke release and fire and/or explosion possibility (e.g., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fires).
- Area and material involved and the intensity of the fire or explosion.
- Toxicological hazards, and
- The extent of injuries, if any.

G-4d Control Procedures [40 CFR 264.52(a)]

The initial response to any emergency will be to protect human health and safety and then the environment. Identification, containment, treatment, and disposal assessment will be the secondary response.

The individual initially discovering any spill will immediately initiate the following spill response actions:

- Activate available alarms to alert facility personnel.
- Notify the base Fire Department at 911

The individual discovering the spill will:

- Secure the spill site to prevent unauthorized entry.
- Respond, within their capability, with sufficient personnel and equipment to effect containment, cleanup and restoration of the landscape due to spills of hazardous substances.

- Request assistance from the base (call Police/Fire/Medical – 257-9111 on base) if spill exceeds personnel and/or equipment capability.
- Evacuate the area if appropriate.
- Support cleanup efforts as directed by the EC.

Fire and/or Explosion

Small isolated fires which are obviously controllable with a portable fire extinguisher would be handled by the employee discovering the fire. Once the fire has been extinguished, a fire check by the base fire department would be conducted to assure it was extinguished properly, and to assess the potential for recurrence. Control of other fires or explosions would be the responsibility of the base fire department with input provided by the EC.

Buildings 478/479 can easily be accessed by firefighting and other emergency vehicles and equipment via Thirteenth Street. The Wright-Patterson AFB Fire Department is available 24-hours-a-day to respond to any emergency. Until the Fire Department personnel arrive, the fire containment effort will be carried out by building personnel. The Fire Chief will determine when the fire has been controlled and consult with the CRT and EC to determine when activities in the area can resume.

Additionally, Buildings 478/479 have an automatic fire suppression system. The fire suppression system for Buildings 478 and 479 was designed per the requirements of NFPA 30, “Flammable and Combustible Liquids Code.” The fire suppression media will be a foam solution consisting of 3% alcohol foam concentrate and 97% water. The system has a supply density of 0.3 gpm per square foot with enough capacity to provide a 15 minute foam supply over a 2,000 square foot area.

The foam system is located in Building 478 in an equipment room with 2-hour fire rated walls, with access to the room from the outside of the building only. The fire suppression system is an air pressurized, dry pipe system. When a sprinkler head opens, air pressure is released, causing the dry pipe valve to open and fill the sprinkler piping system. The foam solution is then dispersed through the open sprinkler head(s) to Buildings 478 and 479. Standard sprinkler heads are used and are located just below each building’s roof structure with a maximum spacing of 100 square foot per

head. The sprinkler heads will activate at 165° F. Water flow will activate an audible alarm bell and send a signal to the building's fire alarm panel.

A fire department connection to the sprinkler system is installed at the intersection of 13th Street and the Access Road to the building. Appendix B-1 provides specifications on the fire suppression system.

A fire alarm near the door of Building 478, when pulled, automatically informs the base Fire Department of an emergency and dispatches the nearest available response team with fire-fighting equipment to the facility. There are three fire stations on the base, with the nearest station, No. 3, approximately 1/4 mile from the facility. This proximity means that emergency response to the facility can be very rapid. Initial response from fire station No. 3 would include two pumpers equipped with 1,000 feet of hose and 1,250-gallon-per-minute pumping capacity. These vehicles are known as P-22 fire trucks. Each engine carries a 500-gallon tank of water, and both engines carry 50 gallons of F-500 Foam. Initial response would be provided by two engines, and one hazmat vehicle with equipment and a command vehicle with an officer. If additional response is needed, the following equipment would respond from other base fire stations: one 102-foot aerial truck, two command vehicles, two pumpers, and one crash truck with 500 lbs of dry chemical and 3,300 gallons of water. The crash truck also carries 500 gallons of AFFF.

General containment and control procedures that will be followed during a fire or explosion emergency include:

- Evacuate immediate area and any potentially effected surrounding areas;
- Isolate affected area with temporary barricades and with signs to prevent entry of unauthorized personnel;
- Don appropriate personal protective equipment based on type of incident;
- Isolate the affected area from other wastes to reduce the spread or recurrence of fire, explosion, or release;
- Stop the release of any hazardous materials;

- Temporarily contain hazardous waste released with absorbents, earthen dike, or other equivalent containment materials and equipment (using compatible materials to the greatest extent possible), until removal and cleanup can be conducted;
- Contain water or fire-fighting agent to analyze for hazardous waste constituents;
- Obtain appropriate containers in good condition for storing or overpacking released or contaminated materials.

Release of Hazardous Waste to Air, Land, or Water

Small spills or unplanned releases, which are obviously controllable, will be handled by the personnel discovering the incident. The base Installation Management Division will be notified and the cleanup inspected.

The person reporting the spill should identify the location, material spilled, and amount. The notifier should then return to the scene and within their capability:

- Halt the discharge of the spilled substance, and
- Contain the spilled substance by placing dikes or temporary barrier around the spill.

All other spills or unplanned releases will be handled by the Installation Management Division and Operations Division as directed by the EC.

General containment and control procedures that will be followed during a spill or unplanned release emergency include:

- Evacuate immediate area and any potentially affected surrounding areas;
- Isolate affected area with temporary barricades and signs to prevent entry of unauthorized personnel;
- Make sure that area is properly vented, if possible;
- Don appropriate personal protective equipment based on type of incident;
- Isolate the affected area from other wastes to reduce the risk of fire, explosion, or other reaction;

- Stop release of hazardous material either through righting spilled containers, placing damaged containers in overpack drums, or contents of damaged drums in new containers (ensuring compatible materials are used);
- Temporarily contain released hazardous waste materials with hazard pillows, earthen dikes, or other equivalent containment equipment, until removal and cleanup can be conducted;
- Obtain appropriate containers in good condition for released materials.

Special attention will be paid to the prevention of mixing incompatible wastes during an emergency. Isolation of wastes from other incompatible wastes will be accomplished either through physical separation of the wastes or use of temporary containment measures (hazard pillows) between incompatible wastes. Temporary signs will be erected cautioning against improper handling. These measures will stay in place until cleanup is completed, and the facility is returned to normal operating status.

If the chemical spill is not contained within a bermed or spill containment area, then an area of isolation will be established around the spill. The size of this area will generally depend upon the size of the spill and the chemicals involved. If the spill results in the formation of a toxic vapor cloud (by reaction with surrounding materials or by outbreak of fire) and its release (due to high vapor pressures under ambient conditions), then further evacuation efforts will be enforced. An area at least 500 feet wide and 1,000 feet long will be evacuated downwind if volatile materials are spilled.

When any spill occurs, only those persons involved in overseeing or performing emergency operations will be allowed within the designated hazard area. If possible, the area will be roped or otherwise blocked off.

The EC or a designated Installation Management Spill Team representative is required to notify the following agencies if a reportable quantity of hazardous waste has been spilled or released outside a contained area, or if a fire or explosion has occurred that could threaten human health or the environment, or whenever the Contingency Plan is implemented:

- | | | |
|---|-----------------------------|--------------|
| ◦ | National Response Center | 800/424-8802 |
| ◦ | Ohio EPA Emergency Response | 800/282-9378 |

- Ohio EPA Southwest District Office 937/285-6357
- Montgomery/Greene County Local Emergency Response Council 937/224-8934 (day)
937/901-5112 (Denny Bristow) or
937/225-4357 (c/o Montgomery County Sheriff)

The following additional agencies must be notified of any release to a waterway:

- U.S. EPA Region V 312/353-2000
- U.S. Coast Guard 504/589-6225

For releases affected the Rohrer's Island-Dayton Ground Water Recharge Facility notify:

- Superintendent of the Division of Supply and Treatment (Keshia Kinney) 937/333-6030
- Well Field Supervisor II (Duncan Upp) 937/333-7350
or
937/333-4905 (24 hour number)
- Water Director (Michael Powell) 937/333-3725
- Emergency Service (after duty hours) 937/333-4905

Additional emergency response organizations would be contacted by WPAFB Security Forces if a release, spill, fire, or explosion has occurred that would affect off base personnel:

Police Department

- City of Beavercreek 937/426-1225
- City of Fairborn 937/754-3000
- City of Riverside 937/233-1801

Sheriff's Office

- Montgomery County 937/225-4357
- Greene County 937/562-4800
- Clark County 937/521-2050

Ohio State Patrol

- Montgomery County (Post 57) 937/832-4794
- Greene County (Post 29) 937/372-7671

Spill Response Assistance

- Montgomery/Greene County Local Emergency Response Council 937/224-8934

City of Dayton

- Wastewater Treatment Plant 937/333-1501

If the EC or a designated Installation Management Spill Team representative believes that evacuation of surrounding base facilities is required, they or their designee will immediately notify the appropriate building or property manager. Their designee may be a representative of the base Security Forces (88th ABW/SF) or of the base Emergency Management Division (788th CES/CEXX). Should a situation arise in which off base facilities need to be notified for evacuation purposes, the base Security Forces would notify off base agencies simultaneously by using their inter-city radio network.

If the EC believes that off base or outside emergency response capabilities are needed to respond adequately to an emergency (such as spills) at the facility, they or a designated Installation Management Spill Team representative will contact the Montgomery/Greene County Local Emergency Response Council for assistance (117 South Main Street, Suite 721, Dayton, Ohio 45402; 937/224-8934).

When the EC makes a determination that the Contingency Plan is to be implemented and initiates response actions including notifying the specified external (off base) organizations, they report the following information:

- Name and telephone number of the responder,
- Name and address of the storage facility,
- Time and type of incident (for example, fire, release)

- Common chemical name and quantities of each material, if known,
- Extent of injuries, if any, and
- Possible hazards to human health or the environment for both inside and outside the facility.

Most waste spills and leaks are easily contained within the depressed floor area and spill containment basin in Building 479, and can be collected with absorbent materials or pumped into a container. Spills in the containment trays in Building 479 can be collected with absorbent materials or pumped into a container. The contaminated area can then be flushed with water, or some other appropriate solvent. The rinseate and any contaminated absorbent will also be containerized for disposal.

G-4e Prevention of Recurrence or Spread of Fires, Explosions, or Releases [40 CFR 264.56(e)]

Procedures to be followed to prevent the spread of fires, explosions, or releases were discussed in Section G-4d, Control Procedures [40 CFR 264.52(a)].

Within 30 days after the conclusion of a spill removal action, the Installation Management Division will prepare a written completion report, which will assess the cause of the fire, explosion, or spill. This report will also indicate remedial actions that will be taken to prevent any recurrence of the hazardous situation.

G-4f Storage and Treatment of Released Material [40 CFR 264.56(f) and (g)]

Personnel responsible for the removal of the hazardous wastes (either base emergency response personnel or a contractor) shall wear the necessary protective equipment before proceeding to remove the released waste material. Work zones will be identified to prevent the spread of hazardous wastes and to maintain personnel safety.

The contaminated zone will encompass whatever surface area is contaminated by the hazardous waste release. Protective equipment and clothing will be worn by personnel when in this area.

Cleanup of released material will take place immediately after the release has been stopped or in the case of the fire, when the fire has been properly extinguished and the threat of recurrence is over. Cleanup procedures within 479 will include:

Small Liquid Spills

- Place absorbent on spill and sweep up and remove with brooms placing into 55-gallon drums
- Wash and brush affected area with water and appropriate detergent (based on contaminant)
- Rinse with water
- Drum all rinseate
- Decontaminate all equipment used in cleanup

Large Liquid Spills

- Pump released material with a diaphragm pump into 55-gallon drums
- At completion of pumping, place absorbent on any remaining spill residue and sweep up and remove with brooms and shovels and place in 55-gallon drum
- Wash and brush effected area with water and appropriate detergent (based on contaminant)
- Rinse with water
- Drum all rinseate
- Decontaminate all equipment used in cleanup

Solid Spills

- Sweep up and remove with brooms and shovels and place in clean, good-condition 55-gallon drums
- Wash and brush effected area with water and appropriate detergent (based on contaminant)
- Rinse with water

- Drum all rinseate
- Decontaminate all equipment used in cleanup

Cleanup activities will proceed as follows:

- Readily identifiable wastes will be cleaned up first. It may be necessary to take samples of released wastes to ensure that the cleanup effort does not mix incompatible wastes. A laboratory spill kit is available at the facility to identify characteristics of spilled material. Wastes will be placed in available empty 55-gallon drums at Building 479. Each of the drummed wastes will be analyzed for hazardous waste characteristics or specific waste components if the source is known. (Note: ensure drums are compatible with materials/wastes to be stored.)
- The drum(s) of contaminated material, along with equipment and protective clothing used during cleanup, will be isolated at a location within the facility or it will be immediately removed by the disposal contractor.
- Samples may be taken from surface waters, drainage ditch, and any soil that may have been exposed to the release. Samples will be analyzed for the characteristics that identify hazardous wastes (i.e., ignitability, corrosivity, reactivity, and TCLP). A sufficient number of representative samples will be taken to determine the extent of contamination. Samples will be taken repeatedly after each cleanup action until the samples indicate that all the contaminate is removed and the samples show background levels.
- Based upon the sampling results, contaminated materials would be removed and placed in drums. If the amount of soil removal becomes extensive, it may be removed by truck and taken directly to a licensed disposal facility.
- After cleanup operation, the facility's emergency equipment will be reactivated and resupplied. The fire alarm will be reactivated, fire extinguishers recharged, and the quantity of spill supplies and equipment will be renewed.

To prevent contamination of the entire facility, decontamination procedures will be employed. Decontamination will be completed for personnel and any contaminated equipment. Neither personnel nor equipment may exit from a contaminated area without going through decontamination.

Decontamination will proceed as follows:

- Personnel leaving a contaminated area must remove their protective clothing and safety equipment. A contaminated clothing drum will be established near the work area.
- Contaminated equipment, including tools and any other items used by personnel will be decontaminated or disposed of as a hazardous waste. Decontamination can be accomplished by washing the equipment used with a strong detergent wash or other recommended decontamination agent. Larger equipment, such as forklifts, will be cleaned either with a detergent wash or a portable jet steam cleaner. The effectiveness of the decontamination process will be evaluated by taking wipe samples from the equipment and analyzing them for hazardous constituents in which they may have come in contact. If the samples display hazardous constituents, the equipment will either be redecontaminated or disposed as a hazardous waste. Regardless, no equipment, unless completely decontaminated, will be returned to the facility inventory for use.
- The liquid fraction of the water or steam wash may be flushed to the base sanitary sewer, if discharge standards are met, and the solid residue from these operations will be analyzed and disposed in accordance with RCRA regulations. The solvent wash, if used, will be disposed of as a hazardous waste.
- If the decontamination process for a piece of equipment proves to be uneconomical, then the contaminated equipment will be disposed of as a hazardous waste.
- Any containers damaged during the emergency will either be decontaminated and disposed at an appropriate sanitary landfill or will be disposed as a hazardous waste. If the containers are salvageable, they will be repaired, decontaminated, and brought back into service.

G-4g Incompatible Waste [40 CFR 264.56(h)(1)]

The EC will ensure that no wastes in the affected area(s) that may be incompatible with the released material are treated, stored, or disposed of until cleanup procedures are completed. Containers stored at Building 479 are segregated by waste type and stored in areas containing similar waste types. Containment of spills in each area either by trenches or containment pans will ensure that incompatible wastes are not mixed.

G-4h Post-Emergency Equipment Maintenance [40 CFR 264.56(h)(2)]

After an emergency event, all emergency equipment listed in Section G-5 will be reactivated, resupplied, replaced, and/or decontaminated so that it will be fit for its intended use. The fire alarm will be reactivated, fire extinguishers recharged, and the quantity of spill supplies and equipment will be renewed. An inspection of all safety equipment will be conducted as discussed in Section F-2 before operations are resumed. The Regional U.S. EPA Administrator and State and local authorities will be notified that post-emergency maintenance has been performed and operations will resume.

G-4i Container Spills and Leakage [40 CFR 264.171]

Refer to Section G-4d for a discussion of emergency response procedures for container spills and leaks.

G-4j Tank Spills and Leakage [40 CFR 264.194(c)]

No tanks will be utilized at this facility.

G-4k Waste Piles Spills and Leakage [40 CFR 264.252 and 264.253]

No waste piles will be maintained at this facility.

G-4l Surface Impoundments, Spills, Leakage, and Sudden Drops [40 CFR 264.222 and 264.227]

No surface impoundments will be maintained at this facility.

G-4m Landfill Leakage [40 CFR 264.302 and 264.304]

This facility will not maintain a landfill for hazardous waste.

G-5 Emergency Equipment [40 CFR Section 264.52(e)]

In Building 479, three ABC fire extinguishers are available (Table G-2 presents the current emergency equipment list). Two fire hydrants are within 800 feet of Building 479. The water lines and/or hydrants can be tapped by the base's Fire Department to provide adequate volume and pressure to supply a water hose stream if necessary.

One emergency eyewash/shower is located at Building 479.

Equipment for containing and cleaning up spilled hazardous waste will be maintained at Building 479 at all times. In addition, each generating point and accumulation point will obtain and maintain appropriate fire control and spill control equipment. The equipment is sufficient for minor spills or fires. For a major spill or fire, the base spill plan would be activated.

Protective clothing and equipment are provided to protect employees during normal and emergency operations. Facility personnel are required to wear protective clothing and chemical gloves when receiving, moving, or shipping hazardous waste items.

First aid supplies are available in Building 479. Below is a partial listing of equipment that would be available through base organization support.

Civil Engineering Fire Emergency Services (788th CES/CEXF)

The following equipment is available for handling both fire and hazardous material spills incidents:

- Fire trucks with the necessary pumps, hoses, and ladders to apply water, dry chemical, and foam sprays;
- Fire extinguishers;
- Personal safety equipment, including fire-resistant clothing, self-contained breathing apparatus, boots, and gloves,
- Limited leak repair capability for drums and tanks,
- Absorbent material and non-sparking tools for cleanup of flammable materials, and
- Communication equipment, both telephone and radio.

TABLE G-2. FACILITY EMERGENCY EQUIPMENT LIST

Below is a current inventory of emergency equipment that is available at the hazardous waste storage facility 479. Equipment and supplies are reordered as necessary to maintain this minimum inventory.

	Item	Quantity	Purpose
1. Spill Control	Hazard pillows	10 pillows	For absorbing chemical leaks or spills
	Absorbent socks	15 socks	For absorbing and containing chemical leaks and spills
	Speedie Dry	5 50# bags	Absorbs oil, fuel, and some chemicals
	Laboratory Spill Kit	1	Testing caustic, acid & solvent spills
	Empty drums	5-55 gallons (minimum)	For the storage of material from leaking drums and spill situations
	Hand tools: shovel, bung wrench, etc.	1 each	For both routine operations and spill situations
	PCB Spill Kit	1	For cleaning up PCB oil spills
	Mercury Spill Kit	1	For cleaning up Mercury spills
2. Safety and Emergency Equipment	Eye wash and shower	1	To flush the eye or whole body with water in case of inadvertent contact with chemicals
	Telephone	1	Located outside the facility near the front door, it provides communication with other base facilities
	Fire extinguishers	3	Three ABC grade fire extinguishers and one Class D fire extinguisher are available for the purpose of all small fires
	Fire alarm	1	Activation of alarm notifies Fire Station No. 4 in Area B of the base
	Personnel Protective Equipment	(Required Minimum Quantities)	Necessary to protect the human body from exposure to hazardous chemicals
	Surgical gloves	20 pairs	
	Hard hat	1	
	Face shield	1	
	Hand gloves	3 pair	
	Goggles	2	

Civil Engineering Operations Division (88th CES/CEO)

The following equipment is controlled and supplied by this branch for the purposes of containment and removal of hazardous material.

- Heavy equipment such as backhoes, dump trucks, forklifts, bulldozers, and cranes for both the containment and removal of hazardous materials,
- Absorbent materials, sand, shovels, brooms, and containers for containment and removal of hazardous materials on land,
- Absorbent booms for the containment of floating hazardous materials (e.g., fuel oil) on surface waters,
- Communication equipment, both telephone and radio, and
- Personal safety equipment, including boots, gloves, disposable paper suits, and rain suits.

G-6 Support Agreements [40 CFR 264.52(c), 264.53(b), and 264.37(b)]

The Installation Management Division (88th CEG/CEI) has made contact with the base agencies and Ohio EPA that may be called in an emergency situation. Each of these agencies will always have a current copy of this Contingency Plan and relevant background information. Letters of notification of any changes to the Contingency Plan will be on file at WPAFB. The notification procedures and arrangement with off base emergency response organizations are described in Section G-1. Copies of the approved Contingency Plan will be provided to and reviewed with the organizations and facility personnel listed in Section G-1. No copies will be provided to off base hospitals or fire departments since the base furnishes these services for emergency assistance.

G-7 Evacuation Plan

If an evacuation from Building 479 is necessary, the following actions will be taken:

- Notify facility personnel of the emergency.

Since the facilities are small, it is possible to notify all the personnel by voice communication. If workers are isolated, they will have a cellular phone for

communication with the other worker(s) on the premises. All personnel should move to a location outside and upwind of the facilities. An accounting of all facility personnel should be made at this time.

- Notify the base Fire Department at 257-9111.

The emergency coordinator (or trained alternate) would notify the BCE service call desk, (937/257-4157) which is operational 24-hours-a-day, 7-days-a-week, using either the facility's phone or a phone in a nearby building. If the emergency situation does not permit notifying the service call desk, the fire alarm box near the entrance of Building 478 should be pulled. When pulled, the nearest available base fire station will be dispatched to the storage facility. Immediate information required by the service call desk is as follows:

Name and telephone number of caller
Time and location of emergency
Type of emergency; fire, spill, injury
Time of the report
Access route (i.e., consider wind direction for toxic emissions or fire)

The BCE service call desk will notify the core emergency response team for spills and fires. They will notify other base organizations for support as needed. The emergency coordinator will act as the primary contact for informing nearby facilities that may be affected by a release from the storage facility. If base Emergency Management Division (788th CES/CEXX) becomes involved in the incident, they would have the responsibility of notifying the potentially affected facilities. The BCE service call desk will act as the secondary contact for informing these nearby facilities. The contact for each of the surrounding facilities will be their property building managers, a current list of whom is kept at both the service call desk and in the Installation Management Division (88th CEG/CEI)

- Stop facility operations.

Facility personnel will make an attempt to shut off any electrical equipment and the ventilation system.

- Refer to Figure G-1 for designated evacuation routes. During an emergency event, the primary evacuation route from Building 479 storage facility will be to exit through the north gates.

G-28

The facility access road off of Thirteenth Street is the primary evacuation route. The terrain around the facility is primarily open grassy field so it would be possible to leave the facility (secondary route) from several directions.

- Evacuate affected base and off base areas.

The EC or a designated Installation Management Spill Team representative would contact the base Security Forces and request that the off base organizations be contacted as necessary. The off base police departments, county sheriff, and the Ohio State Patrol would establish necessary roadblocks and initiate any necessary evacuation of potentially affected communities. In addition the MGCLERC would be contacted.

The EC will ensure that the following conditions are satisfied prior to resumption of operations in the affected area(s) of Building 479. In addition, the EC will notify both the director of the Ohio EPA and any affected base facility that Building 479 will resume operations and that corrective actions have been completed. The corrective cleanup measures of identification, removal, storage, and arrangements for disposal of released materials must be complete in the affected areas prior to initiation of operations (such as receiving waste) that may be incompatible with the released material. Wastes moved during the cleanup effort will be relocated into their proper hazard class areas. The facility's utilities, emergency equipment, and spill supplies will be restored to the proper levels required for operation of the facility. The facility operating record will be revised to reflect the current volumes of wastes stored at the facility.

The EC will determine the need for evacuation of additional personnel in the vicinity of Building 479.

All personnel are trained in evacuation procedures and means of exit from their respective work areas.

G-8 Required Reports [40 CFR 264.56(j)]

Any emergency event (e.g., fire, explosion) that requires implementation of the Contingency Plan will be reported. The following incidents require that an Environmental Incident Report (Figure G-2) be filed:

- All fires
- Chemical spills of more than 5 gallons (or smaller volumes if highly toxic materials are involved),
- All injuries except minor cuts and bruises,
- All burns and chemical irritations,
- All equipment damage due to malfunction or operating error, and
- All "near misses" of the above that could have had serious consequences.

Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires that notification be made to the National Response Center (800/424-8802) whenever there is a release of hazardous substance into the environment in amounts equal to or greater than the reportable quantity. Notification of the Local Emergency Planning Committee is also required.

Any emergency event requiring implementation of the Contingency Plan will be reported in writing within 15 days to the Director of the Ohio EPA and Regional Administrator of U.S. EPA, Region V:

Reports will include the following:

- Name, address, and telephone number of the storage facility owner or operator,
- Name, address, and telephone number of the facility,
- Date, time, and type of incident (for example, fire, chemical release),
- Name and quantity of material(s) involved,
- The extent of injuries, if any,
- An assessment of actual or potential hazards to human health or the environment, where applicable,
- Estimated quantity and disposition of recovered material that resulted from incident, and
- Additional information that the Director of Ohio EPA or U.S. EPA Region V Administrator may require.

Figure G-2. Environmental Incident Report

REPORT #: _____

ENVIRONMENTAL INCIDENT REPORT

Subject: _____

1. 88 CEG/CEIE
1450 Littrell Rd, Fac 30022
Wright-Patterson AFB, OH 45433

Report Prepared By: _____

Responder: _____

2. Incident Report Type Initial Final
3. Incident Date: _____ Time: _____
4. Discovery Date: _____ Time: _____
5. Duration of Release: _____
6. Severity of Incident : Major (over the RQ): Minor
7. Released Contained: On-base: Off-base: _____
8. Material/Chemical Released (i.e. material name, CAS #): _____
9. Estimated Quantity Released (specify on-base/off-base): _____
10. Media Released to (i.e. soil, asphalt, creek, etc.): _____
11. Source Release: _____
12. Location of Incident (i.e. street, bldg.#): _____
13. Party responsible for incident: _____
14. Organization/Contractor Involved: _____

15. Cause of Incident/Observations:

16. Damage Impact on the Surrounding Environment, Including Fish and Wildlife Name of
Waterway/Type of Environment Medium or Media Impacted:

17. Corrective Action Taken to Contain, Mitigate, and Eliminate Pollutant:

18. Action to Prevent Re-occurrence:

19. Response Assistance Required (Organization Involved):

20. Estimated Completion Date of Remedial Actions: _____

21. Estimated Cost of Response and Remedial Actions (including labor, disposal and material
costs etc.):

22. News Media or Public Coverage: ____No_ _Yes-(Describe Below)

23. Injuries ____No_ Yes (Describe Medical Attention Provided):

24. Agencies Notified:

Agency	Time	Confirmation #
☐ MGCLERC		
☐ Ohio EPA		
☐ National Response Center		
☐ Other (City of Dayton)		
☐ AFOSI (Coordinate with EM1)		
☐ Not Reportable		

25. Spill Plan/Response Problems: No Yes-Describe below

26. Additional Comments from above (list number to be continued)/Notes:

SECTION H

PERSONNEL TRAINING

The information contained in this section outlines training programs for personnel who are involved with operation of WPAFB's hazardous waste permit at Building 479, in accordance with 40 CFR Sections 264.16 and 270.14(b)(12) and OAC 3745-54-16. Personnel training related to generator activities is not included in this permit application, however it is addressed in WPAFB's Hazardous Waste Management Plan.

H.1 Outline of Training Program [40 CFR 270.14(b)(12)]

Facility personnel who handle hazardous wastes must successfully complete a program of classroom instruction and/or on-the-job training in order to prepare them to operate and maintain the facility in a safe manner and ensure the facility's compliance with 40 CFR 264. Initial and annual refresher training will be provided by a variety of means, including outside specialized vendors, on-site training classes and an on-site computer based training class. An outline of the training program given both initially and annually to personnel who manage or handle hazardous waste at Building 479 is presented in Table H-1.

H.1a Job Titles and Duties [40 CFR 264.16(d)(1) and (2)]

The duties, responsibilities, and qualifications of the positions directly responsible for handling hazardous wastes are as follows:

Position Title: Hazardous Waste Program Manager/TSD Facility Manager

Responsibilities: Oversees the operation of the storage facility, including oversight of contractor waste management practices within the facility. Interprets regulations and develops necessary operating procedures as required. Determines need for modifications to existing facilities and initiates action to improve economy, efficiency, safety, and physical security of operation. Develops

appropriate requirements and initiates requests for work. Verifies the contractor-prepared manifest and shipping papers and dot markings packaging and labeling requirements. Monitors contractor compliance with the contract and all environmental and safety requirements during removal.

Ensures that RCRA recordkeeping requirements are complied with (e.g., facility operating records, training records, inspection schedule/log, contingency plan, hw management report, and unmanifested waste report). Ensures that local support agreements with host and/or surrounding communities are in existence. Prepares the hazardous waste facility permit applications. Ensures that an internal spill contingency plan is prepared and complied with for building 479.

Executes required actions if a spill occurs and ensures personnel are trained to act during their absence. Contains and cleans up spills for which the Installation Management Division has the capability. Decontaminates and replenishes spill equipment and supplies. Ensures spill incident reports are prepared in accordance with applicable regulations.

Position Title: Hazardous Waste Field Compliance Manager/Assistant TSD Facility Manager

Responsibilities: Provides technical support to the hazardous waste program. Ensure that hazardous waste is properly characterized and managed for transportation and disposal in accordance with established regulation, laws and the hazardous waste storage permit. Provides contractor oversight as required.

Responsible for hazardous waste training program for personnel who are involved with operation of WPAFB's hazardous waste permit. Assists program manager with verification of contractor-prepared manifest and shipping papers and DOT markings packaging and labeling requirements.

Contacts host personnel, customers, generating activities, facility personnel, and local environmental personnel to coordinate requirements of environmental policies and directives. Assists in the preparation of hazardous waste facility permit applications.

Position Title: DLA-DS Contracting Officer's Representative

Responsibilities: Monitors DLA-DS contractor compliance with the DLA-DS waste disposal contract. Identifies and implements corrective actions for contractor deficiencies. Coordinates all waste management operations with the Field Compliance Manager and the Hazardous Waste Program Manager.

Position Title: DLA-DS Contractor Site Manager

Responsibilities: Maintains compliance of Building 479 in accordance with all elements of the RCRA Part B Permit. Maintains data integrity within the Enterprise Environmental Safety Occupational and Health Management Information System (EESOH-MIS) and identifies data problems to the 88th CEG/CEI. Prepares and maintains waste profile sheets.

Prepares and manifests all waste shipments for treatment and disposal in accordance with 40 CFR, 49 CFR and the DLA-DS waste disposal contract. Provides technical assistance to the Field Compliance Manager and the Hazardous Waste Program Manager. Serves as on-site safety manager.

Position Title: DLA-DS Contractor Field Personnel

Responsibilities: Coordinates and picks up waste containers from initial generating activities and stores containers in the appropriate locations within Building 479. Confirms proper labeling and marking of containers prior to pick up. Enters waste inventory into the EESOH-MIS and ensures data integrity. Performs weekly inspections and conducts general housekeeping. Assists the DLA-DS Contractor Site Manager as required.

Position Title: AFRRAD Personnel

Responsibilities: Receives and properly stores only mixed waste from off-site generators. Consolidates only mixed waste containers in Building 477. Prepares shipping papers and other necessary documents and arranges shipment of the consolidated mixed waste containers for off-site disposal.

H.1b Training Content, Frequency, and Techniques [40 CFR 264.16(c) and 264.16(d)(3)]

Initial hazardous waste training for personnel who are involved with operations of WPAFB's hazardous waste permit at Building 479 is accomplished via a comprehensive training class. The class topics are identified in Table H-1. Annual refresher training is accomplished through either an outside vendor, an on-base class or a computer based training class. All topics in the initial class will be covered in the refresher class.

Hazardous waste training for personnel who are involved with operation of WPAFB's hazardous waste permit is managed by the Hazardous Waste Program Manager. Copies of training certificates are maintained within the 88th CEG/CEI for review and inspection. Training status is monitored using a database spreadsheet.

H.1c Relevance of Training to Job Position [40 CFR 264.16(a)(2)]

Training is required for all personnel who are involved with operation of WPAFB's hazardous waste permit at Building 479 as outlined in Section H-1.b. The courses discussed provide instruction in the safe storage of hazardous materials and wastes.

H.1d Training for Emergency Response [40 CFR 264.16(a)(3)]

The CEI training program ensures that its employees receive emergency response training for emergency response actions which may be necessary when operating WPAFB's hazardous waste permitted storage area (Building 479). Emergency response is also covered in classroom instruction with lectures and practical exercises. Training will include familiarizing personnel with response procedures for fire and spill, and will include familiarizing employees with the content of the contingency plan.

H.1d(1) Procedures for Using, Inspecting, Repairing, and Replacing Facility Emergency and Monitoring Equipment [40 CFR 264.16(a)(3)(i)]

Facility emergency and monitoring equipment is routinely inspected in accordance with the General Inspection Schedule (Table F-1). On-the-job training is provided as to the locations of

equipment how to inspect, maintain and use each item, as well as replacement of equipment (if necessary) after the emergency is over.

H.1d(2) Key Parameters for Automatic Waste Feed Cut-Off Systems [40 CFR 264.16(a)(3)(ii)]

No automatic waste feed cut-off system will exist at the storage facilities. All hazardous wastes stored in Building 479 will be containerized in accordance with DOT specifications. No specialized training for automatic waste feed cut-off system is required.

H.1d(3) Communications or Alarm Systems [40 CFR 264.16(a)(3)(iii)]

Areas of training with respect to communications or alarm systems include supervisor on-the-job training in types of equipment available at the site and how to use them, locations of equipment, emergency telephone numbers to be used to summon external assistance, alarm codes, and how to maintain the equipment and frequency of serviceability checks.

H.1d(4) Response to Fires or Explosions [40 CFR 264.16(a)(3)(iv)]

In addition to hazardous waste management personnel, the Fire Department on WPAFB is continuously prepared to respond to all fires involving hazardous wastes. Specific procedures that will be followed in the event of a fire or explosion are outlined in the Contingency Plan (Section G).

H.1d(5) Response to Groundwater Contamination Incidents [40 CFR 264.16(a)(3)(v)]

The potential for groundwater contamination will be low because all hazardous wastes/materials will be stored in DOT-approved, leakproof containers. The floors of the Building 479 are coated with a chemically-resistant sealant. Each storage area provides containment in the event of a leak or spill. In addition, a pre-established Contingency Plan (Section G-4) will provide for swift cleanup, thereby minimizing the risk of an outside spill or leak. Personnel will be trained in spill response and Contingency Plan implementation. At a minimum, one simulated emergency response exercise (spill, fire or other) will be conducted each year to test the effectiveness and response of the installation response team.

H.1d(6) Shutdown of Operations [40 CFR 264.16(a)(3)(vi)]

When operations must shut down, no special actions are required; therefore, no specific training is required.

H.2 Implementation of Training Program [40 CFR 264.16(d)(4) and 264.16(b)]

Any employee assigned to manage/handle hazardous materials and hazardous wastes at Building 479 will complete the training program discussed in Section H.1 within 6 months of their date of employment. At a minimum, these employees will receive on-the-job training and will attend a RCRA course. On-the-job training will include, but not be limited to:

- Chemical Compatibility
- Proper Container Storage Requirements
- Fire and Spill Prevention and Response
- Use of Personal Protective Equipment
- General Facility Security Requirements
- Emergency Equipment

No employee will work unsupervised with hazardous wastes until he/she successfully completes on-the-job training. New employees will not work in unsupervised positions until they have completed either on the job, initial or annual training.

All records documenting the job title for each position, job descriptions, employee names, date of training and completed training programs (both introductory and review) will be kept onsite in the Installation Management Division. These records will be kept until closure of the facility for current employees and for 3 years from the date of termination for former employees.

**TABLE H-1. WRIGHT-PATTERSON AFB
HAZARDOUS WASTE MANAGEMENT TRAINING PROGRAM**

COURSE OUTLINE

Unit I	Introduction to RCRA (40 CFR)
Unit II	Define Hazardous Waste
Unit III	Generator Requirements
Unit IV	Storage Requirements
Unit V	Transporter Requirements
Unit VI	Safety and Chemical Compatibility
Unit VII	Universal Waste and Used Oil Management
Unit VIII	Class Exercise
Unit IX	Emergency Response and Contingency Plan
Unit X	Exam

SECTION I
CLOSURE PLAN, POST-CLOSURE PLAN AND
FINANCIAL REQUIREMENTS
BUILDINGS 478/479

This section is submitted in accordance with the requirements of 40 CFR 270.14(b)(13), 270.14(b)(15-18), 264.110-264.115, and 264.178.

I-1 Closure Plan [40 CFR 270.14(b)(13)]

Building 478 – Partial Closure Activities

As of November 20, 2001 Building 478 is no longer utilized as a permitted hazardous waste storage unit. Instead Building 478 has been converted for use as office space.

In order to utilize Building 478 as office space it was necessary to implement some parts of the closure plan. Specifically, the inside of Building 478 was decontaminated, and soil sampling was conducted relative to a former outdoor storage pad adjacent to Building 478. The following documents detail the closure activity which has been conducted relative to Building 478.

- 1) WPAFB'S April 22, 2002 written "Decontamination Report" received by Ohio EPA on April 26, 2002.
- 2) WPAFB'S July 19, 2002 closure certification report entitled "RCRA Partial Closure Activities, Building 478".

Ohio EPA review of these documents concluded the following. The interior of Building 478 appeared to have been successfully decontaminated. Soil sampling data suggests that soils beneath a former outdoor storage pad adjacent to Building 478 are contaminated above regulatory limits. Therefore Ohio EPA cannot certify closure of Building 478.

It was agreed that remaining closure activities relative to contaminated soils at Building 478 may be postponed until WPAFB closes Building 479. At that juncture WPAFB will submit a complete closure certification for both Buildings 478 and 479. These conclusions are documented

within Ohio EPA letters dated September 27, 2002 and December 3, 2002. The specific areas of contamination and exceedances of regulatory limits are noted there also.

This plan identifies all steps that will be necessary to complete closure of Buildings 478/479 located at WPAFB, at the end of their operating lives. The design of these units is not conducive to partial closure, therefore, no partial closure of the units is intended.

The WPAFB Installation Management Division will maintain a copy onsite of the approved closure plan, and of all revisions to the plan. Revisions will be made whenever any modifications are made to the existing equipment, structures, instruments, or procedures related to the management of the facilities.

This closure plan is designed to ensure that the waste management areas will not require further maintenance and controls (i.e., the site will be "clean closed"); will eliminate the need for post-closure activity; and will minimize the release of hazardous waste, leachate, or contaminated rainfall to the air, groundwater, surface water, and surrounding land. It is WPAFB's intent to utilize best management practices to minimize spills and releases throughout the life of the facility. Good house-keeping will be continuously emphasized, and thus, closure activities are simplified to the extent possible.

Detailed descriptions of the steps needed to remove or decontaminate all hazardous waste residues and containment system components, equipment, and structures, during closure are included in this closure plan.

General Description

WPAFB is located in southwestern Ohio east of the city of Dayton. The Base occupies, 8,145 acres and is composed of two airfields (Wright and Patterson) separated by State Route 444 and the Consolidated Rail Corporation Tracks. Wright Field, designated as Area B, is situated in Montgomery and Greene counties. Patterson Field, composed of Area A, is located in Greene County, except for a 1.5 mile track adjacent to the Mad River which is located in Montgomery County. Clark County abuts the Base at the northeast property line. Buildings 478/479 are located in Area B. This introduction provides an overview of the units to be closed and the proposed closure procedures and related information. Map 1 identifies the physical location of each of these waste management areas.

The hazardous waste container storage facilities (Buildings 479) are as follows:

- Building 478 (Figure I-1) is a one-story concrete building on a concrete slab foundation. The building dimensions are approximately 30 by 50 feet. This unit handled wastes in containers with volumes ranging from 40 ml to 55-gallon drums.

This unit potentially handled all wastes listed in the Part A Permit. Appendix I-1 presents a list of wastes handled.

- Building 479 (Figure I-1) is a one-story 4-sided metal building on a concrete slab foundation. The buildings dimensions are approximately 50 by 85 feet. This unit primarily handles wastes in 55-gallon drums. This unit will potentially handle all of the wastes in the Part A permit (Appendix I-1).

Any employees and/or contractors directly involved in closure activities will have coveralls, safety glasses, hard hats, and gloves (Level D) available. Additional personal protective equipment may be necessary and will be used as described in the closure plan for each unit. Visitors to the site are required to wear safety glasses and safety shoes (when appropriate). Employee decontamination will take place when necessary. Employee decontamination consists of washing boots, disposing of any disposable clothing (gloves and dust masks), and hand washing. Air emissions resulting from closure activities will be minimized or eliminated by employing good management practices (e.g., taking into account wind direction and speed and proper waste handling during removal).

Due to the varying nature of the hazardous waste on site at any given time, an operational protocol will be developed just prior to closing any of the hazardous waste management areas. This protocol will delineate exactly which wastes are to be handled first, last, etc.; and any other appropriate waste specific directives such as method of treatment/disposal. In devising the operational protocol, the removal manager must: 1) identify the operational status of all equipment and arrange for necessary repairs; 2) identify the type and characteristics of the wastes and inventory; 3) develop an inventory reduction plan by specifying how, when, and where each waste will be managed; and 4) develop a staffing plan to ensure that the closure plan schedule is accomplished. This protocol cannot be established prior to closure because WPAFB cannot identify which wastes will be on site at the time of final closure, since there are several different wastes which could be present in varying quantities at any time.

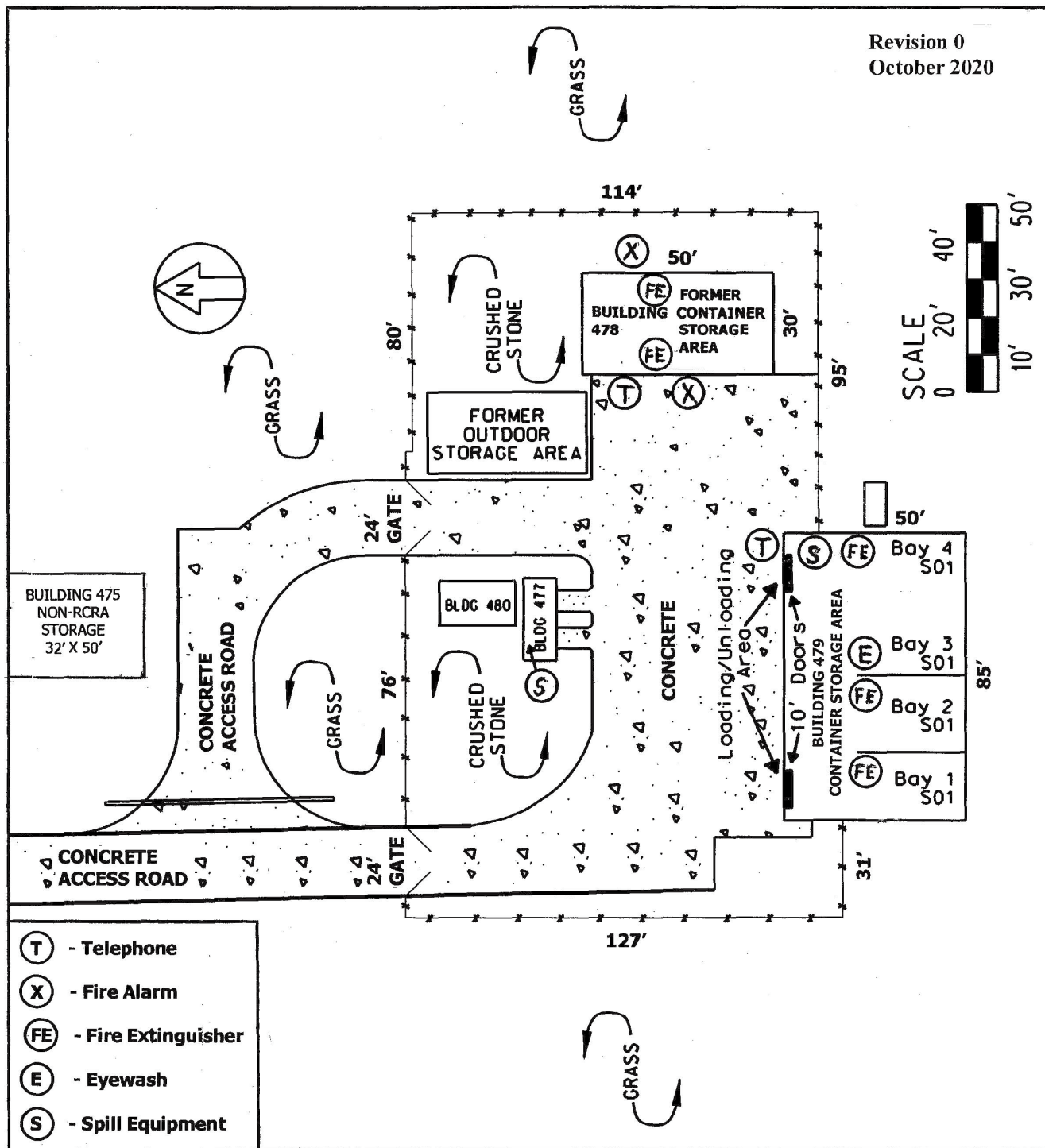


Figure I-1. 478/479 Site Plan

I-1a Closure Performance Standard [40 CFR 264.111]

Upon completion, this closure plan is designed to ensure that the RCRA-regulated waste management areas (i.e., the container storage areas) will not require further maintenance and controls, and that threatens to human health and the environment will be minimized or eliminated. All hazardous wastes onsite at the time of closure will be properly packaged, labeled, handled, and transported to permitted TSDF's for reclamation or disposal.

For Buildings 478/479 the following rinseate standards will be met before the surface of a hazardous waste management unit and its appurtenances or decontamination equipment are considered clean (per OEPA's Closure Plan Review Guidance Document, March 1999):

- 1) Fifteen times the public drinking water maximum contaminant level (MCL) for hazardous waste constituents as promulgated in 40 CFR 141.11 and OAC 3745-81-11 for inorganics and 40 CFR 141.12 and OAC 3745-81-12 for organics provided that fifteen times the MCL is less than or equal to 1 MG/L;
- 2) If the MCL is not available for a particular contaminant, then fifteen times the maximum contaminant level goal (MCLG) as promulgated in 40 CFR 141.50 should be used as the clean standard; that fifteen times the MCL is less than or equal to 1 MG/L. If the MCLG is zero, use fifteen times the contaminants practical quantitation limit (PQL) in groundwater provided that fifteen times the PQL is less than or equal to 1 MG/L; or
- 3) If the product of fifteen times the MCL or MCLG exceeds 1 mg/l or, if neither an MCL nor an MCLG is available for a particular contaminant, 1 mg/l shall be used as the clean standard.

I-1b Partial Closure and Final Closure Activities [40 CFR 264.112(b)(1) through 264.112(b)(7)]

WPAFB does not anticipate partial closure of any of the permitted waste management units. Although Buildings 478/479 are operated as one unit, partial closure may occur with one of the buildings being closed before the other. In this event, partial closure involving one of the buildings would follow the schedule and procedures outlined in Table I-1 and Section I-1e. The closure will be certified by a registered professional engineer. The schedule for closure is presented in Section I-1d.

I-1c Maximum Waste Inventory [40 CFR 264.112(b)(3)]

Building 478 stored the equivalent of a maximum of seventy-two 55-gallon drums or 3960 gallons, and Building 479 will store the equivalent of a maximum of 324 55-gallon drums or 17,820

gallons. Appendix I-1 presents a detailed list of hazardous wastes potentially stored at Buildings 478/479.

I-1d Schedule for Closure [40 CFR 264.112(b)(6)]

WPAFB is an integral part of the defense system of the United States; it is not anticipated that closure will occur. However, a closure date of 2039 can be estimated for Buildings 478/479.

Notification of intent to close will be sent to the Ohio EPA and the U.S. EPA, Region V, 180 days before beginning final closure of each facility. Final closure will be certified by a registered professional engineer.

Within 90 days after the receipt of the final volume of hazardous wastes, final closure activities will be initiated. Table I-1 presents an estimated schedule for closure, which gives an estimate of the total time required to close the facility and the time required for intervening closure activities.

I-1d(1) Extensions for Closure Time [40 CFR 264.113(a) and (b)]

No extension for closure time is anticipated. If, however, an extension would be necessary to properly close Buildings 478/479 then a petition will be sent to the Ohio EPA and the U.S. EPA, Region V, amending the closure schedule listed in Table I-1. This petition will demonstrate:

- The need for more than 180 days to close the facility;
- Reasonable likelihood that a person other than the owner/operator will recommence operation of the site;
- That all steps have and will be taken to prevent threats to human health and the environment from the unclosed but inactive facility.

TABLE I-1. ESTIMATED CLOSURE SCHEDULE FOR BUILDINGS 478/479

Activity	Days
1. Receipt of final volume of hazardous waste	0-10
2. Conduct final drum inventory, inspect and repack drums (if needed), prepare waste manifest, prepare drums for shipment	0-15
3. Removal/disposal of final waste inventory	15-45
4. Decontamination of drum storage areas and secondary containment trays	45-50
5. Removal, manifesting and disposal of solvent washing	50-85
6. Soil sampling and analysis	80-110
7. Removal, manifesting, and disposal of contaminated soil	110-140
8. Decontamination or disposal of equipment (storage racks, cabinets, pallets, tools, etc.)	140-160
9. Accounting of all waste shipment manifests	170
10. Completion of closure and certification submittal	180

I-1e Closure Procedures [40 CFR 264.112, 264.114]

This section of the closure plan addresses the specific, step-by-step procedures to be followed in closing the waste management units. Specifically, it addresses: inventory removal; disposal or decontamination of all related equipment, structures, and residuals; and the closure procedures for Buildings 478/479.

I-1e(1) Inventory Removal [40 CFR 264.112(b)(3)]

Upon formal notification to proceed with closure of either facility, no additional hazardous waste will be accepted. Furthermore, all hazardous waste/property remaining in inventory will be removed in accordance with a contractual agreement to a State- and/or EPA-Treatment, Storage or Disposal (TSD) facility or recycling site. The pallets with wastes will be lifted onto trucks using a forklift with extended reach and drum grabbers as necessary. Any repackaging of small containers into 55-gallon drums with absorbent materials will be conducted by the DLA-DS approved disposal contractor. If this process cannot be accomplished within the allotted time for closure an extension will be requested or, the hazardous property will be transferred to an operational DLA-DS with a valid TSD permit.

***I-1e(2) Disposal or Decontamination of Equipment, Structures, Residuals, and Soils
[40 CFR 264.112(b)(4), 264.114]***

No hazardous waste from the permitted units will remain onsite. All related structures, (e.g., secondary containment areas) will be decontaminated during closure. The specific procedures to be followed for dismantling the waste storage units, decontaminating all structures, and disposing of all related materials and residuals are described below by unit. All units and associated/ancillary structures will be washed and triple rinsed. The final rinseate will be analyzed for appropriate parameters to verify that the equipment and structures are clean. The specific analytical parameters to be determined will depend on the unit being closed and the associated waste(s) stored in the unit as discussed in Section I-1e(4).

The interior of Buildings 478/479 will be decontaminated by removing all residues from its interior surfaces. The bays, collection trenches, interior floors, walls, doors, and any waste handling equipment (such as forklifts or pallet movers) would be washed with a suitable cleaning agent.

Clean solutions will be used based on specific vendor recommendations; however, they generally will consist of a mild caustic solution for acid waste storage areas, water for alkali waste storage areas, and non-alkali detergents for other storage and handling areas.

The floors within Buildings 478/479 along with the collection trenches, berms, and separation walls between storage bays, will be scrubbed with stiff brooms and cleaning solutions to assure adequate cleaning. The cleaning solutions will be collected and removed manually by buckets or mops. Decontamination washwater will either be drummed or stored in a vacuum truck prior to disposal. If storage pads cannot be decontaminated after repeated washings, they will be disposed of as a hazardous waste.

The loading and unloading areas for Building 479 will also be decontaminated by using appropriate cleaning solutions and stiff brooms and brushes. Since these areas have sloped floors leading to collection trenches, the fluids and any residue removed will be collected manually by buckets and/or mops.

The containment trays and shelf units in Building 478 were moved to Building 479 to be used to store hazardous waste there and will be decontaminated and evaluated for decontamination effectiveness utilizing procedures described below for equipment. The loading/unloading area for 478 will also be decontaminated using clean solutions and stiff brooms and brushes. Washwater will be collected in a bermed area. The decontamination area will consist of a nylon reinforced polypropylene liner laid over grade. Hay bales will be placed under the perimeter of the liner and the liner will be folded over the bales creating a containment dike.

Contaminated equipment, including tools, and any other items used by personnel, will be decontaminated or disposed of as a hazardous waste. Contaminated protective clothing will be deposited in a contaminated clothing drum and disposed of offsite as a hazardous waste.

Decontamination of equipment will be accomplished by washing with a strong detergent wash. Larger equipment, such as forklifts, will be cleaned either with a detergent wash or a portable jet steam cleaner.

In addition to the proper removal and disposal or treatment of waste in inventory at closure, all contaminated equipment residues or wash waters generated and collected during the closure process will be evaluated for proper disposal. If the wash water fluids meet the discharge standards for the Base sanitary sewer, the fluids will be discharged to the sewer. If the fluids do not meet discharge

standards, they will be packaged as hazardous waste and shipped off base to an appropriate licensed disposal site or treatment facility.

Similarly, all residues and structures or equipment that will not be decontaminated will be packaged and shipped off base to an appropriate disposal site.

Sampling and testing methods to verify decontamination of equipment, structures, residuals and soils are discussed in Section I-1e(4).

I-1e(3) Closure of Disposal Units/Contingent Closures [40 CFR 270.14(b)(13), 270.17(f), 270.18(h), 270.21(e), 264.228(a)(2), 264.228(c)(1)(i), 264.258(c), 264.258(c)(1)(i), 264.310(a), 264.601]

Not applicable, WPAFB does not operate any disposal units.

I-1e(4) Closure of Containers [40 CFR 264.178, 264.112(b)(3)]

At closure, the containers from Buildings 478/479 will be sealed and labeled prior to shipment in accordance with 40 CFR Sections 261 and 262. Manifests for container removal will be maintained at the WPAFB Installation Management Division.

Following the removal of all wastes a Registered Professional Engineer will inspect the container storage area concrete floors, and containment trenches for any breaches in the secondary containment system. If any cracks are present that indicate waste may have contacted the soil beneath the concrete, one soil sample will be collected from beneath each cracked area and analyzed as described in Table I-2. All such areas will be sealed prior to the commencement of cleaning to prevent migration of residue out of the containment area. Additionally, soil sampling will be conducted for the area where waste was stored on the ground at Building 478. Building 478 loading/unloading area will be included in the sampling area. Grid sampling will be conducted based on Ohio EPA Closure Plan Review Guidance Document - March 1999. Samples would be analyzed as described in Table I-2. Sampling methods and equipment, as well as laboratory analytical methods will follow guidance in U.S. EPA's SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition. In addition to grid sampling, a sample will be taken from any area that is found, by visual inspection, to be discolored or otherwise impaired. If the soil sample analysis (for either the outdoor storage area or beneath cracks) exceeds the acceptable "risk- based clean" levels outlined

**TABLE I-2. PARAMETERS AND METHODS FOR ANALYTICAL TESTING FOR
CLOSURE OF HAZARDOUS WASTE MANAGEMENT UNITS**

Unit/Sample	No. of Samples	Analytical Parameters	Analytical* Methods
1. Building 478			
Finale Rinseate	33	(30 trays **, flammable storage cabinet loading/unloading area and the concrete floor of the building Appendix IX Metals Volatile Organics Semivolatile Organics	
Soil (if necessary)	TBD		
			6010/7000
			8240
			8270
2. Building 479			
Final Rinseate	20	(1 from each trench and 12 trays) Appendix IX Metals Volatile Organics Semivolatile Organics	
Soil (if necessary)	TBD		
			6010/7000
			8240
			8270

* Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods (SW-846), U.S. EPA, Nov. 1986, 3rd Edition.

** 30 trays moved to Building 479 and are being utilized to store hazardous waste there.

TBD - To be determined based on a size of area to be sampled and presence, if any, of structural cracks in the containment area.

in OEPA's Closure Plan Review Guidance Document (March 1999), then the soil will be excavated and disposed. Excavated soil will be disposed of at a properly permitted TSDF. Should it be determined that soil excavation and disposal is not possible, then WPAFB will either treat the soil in-situ or conduct a risk assessment resulting in the submittal of a revised closure plan.

Once the berms, walls, concrete floors and containment trenches have been washed they will be tripled rinsed with clean water. Wash waters and rinseate [from the decontamination efforts outlined in Section I-13(s)] will be sampled and analyzed for the compounds listed in Table I-2.

Upon completion of waste removal and decontamination, from any of the units, the units will be evaluated to determine that all waste and hazardous constituents have been removed. This evaluation will be made using the analytical results from rinseate samples described above. The following number of rinseate samples will be collected, analyzed, and evaluated:

- One sample from each collection trench in Building 479
- One sample from each storage tray, formerly used in Building 478 and now utilized in Building 479 (and any storage trays used in 479)
 - Building 478 loading/unloading area (loading/unloading area from 479 is within the contained areas of Bays 1 and 4)
 - Concrete floor of Building 478

The actual number may differ from those specified above to reflect actual conditions. In no circumstances would a number less than the above be evaluated.

The building, equipment, and structures will be designated as decontaminated if the final rinseate samples indicate that the type of wastes stored in this area meet the criteria presented in Section I-1a. The samples will be analyzed for the compounds in Table I-2.

Should the analyses confirm that additional decontamination is necessary, it would be completed as defined above. Following the completion of the above closure procedures and analytical confirmation that the waste storage and handling areas have been properly decontaminated, certification of closure will be completed. This will be accomplished by demonstrating that 40 CFR Part 261 Appendix VIII hazardous constituents (commonly referred to as the Appendix IX list) will not be present to impact any environmental media in excess of Agency established exposure levels, or pose a threat to human health and the environment.

I-1e(5) Closure of Tanks [40 CFR 264.178]

No tanks will be used to store wastes at this facility.

I-1e(6) Closure of Waste Piles [40 CFR 270.18(i) and 264.258]

No waste piles will be located at this facility.

I-1e(7) Closure of Surface Impoundments [40 CFR 270.17(g) and 264.228]

No surface impoundments will be located at this facility.

I-1e(8) Closure of Incinerators [40 CFR 264.351]

No incinerators will be located at this facility.

I-1e(9) Closure of Landfills [40 CFR 270.21(e) and 264.310(a)]

No landfills will be located at this facility.

I-1e(10) Closure of Land Treatment [40 CFR 270.20(d)(6), 264.280(a) and (b)]

No land treatment activities will occur at this facility.

I-1f Certification of Closure [40 CFR 264.115]

Certification that closure of the hazardous waste storage facility has been completed in accordance with the approved closure plan will be made by the owner and operator of the facility, as well as by registered professional engineer. Certification of closure will be submitted to the regional administrator.

I-2 Post Closure Plan [40 CFR 270.14(b)(13) and 264.118]

A Post-Closure plan will not be needed because this permit only addresses a storage facility. All wastes will be removed and the storage areas will be cleaned closed.

**I-3 Notice to Local Land Authority and Notice in Deed to Property
[40 CFR 264.119 and 264.120]**

WPAFB operates as a hazardous waste storage facility, not a disposal facility. Therefore, notice to the local land authority is not necessary. A notation is not necessary in the deed to inform potential purchasers of restrictions associated with a disposal site, as required by the regulations cited for this section.

I-4 Closure Cost Estimate [40 CFR 270.14(b)(15) and 264.142(a) and (b)]

The Federal Government is exempt from the financial requirements of hazardous waste regulation (40 CFR 264.140(c)). WPAFB is owned and operated by the Federal Government. Therefore, closure costs and insurance documentations are not required, and Sections I-4 through I-8 do not apply to this facility.

I-5 Financial Assurance Mechanism for Closure [40 CFR 264.143 and 264.150]

Not applicable.

1-6 Post-Closure Estimate [40 CFR 264.144]

Not applicable.

1.7 Financial Assurance Mechanism for Post-Closure [40 CFR 264.145]

Not applicable.

1.8 Liability Insurance [40 CFR 264.147]

Not applicable.

APPENDIX I-1
HAZARDOUS WASTES POTENTIALLY STORED
IN BUILDING 479

HAZARDOUS WASTE THAT WRIGHT-PATTERSON CURRENTLY STORES

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Ignitables	D001	Ignitable	30,000
Corrosives	D002	Corrosive	22,000
Reactives	D003	Reactive	10,000
Arsenic	D004	TCLP	1
Barium	D005	TCLP	1
Cadmium	D006	TCLP	1
Chromium	D007	TCLP	1
Lead	D008	TCLP	25,000
Mercury	D009	TCLP	1
Selenium	D010	TCLP	1
Silver	D011	TCLP	1
Endrin	D012	TCLP	1
Lindane	D013	TCLP	1
Methoxychlor	D014	TCLP	1
Toxaphene	D015	TCLP	1
2,4-D	D016	TCLP	1
2,4,5-TP Silvex	D017	TCLP	1
Benzene	D018	TCLP	1
Carbon tetrachloride	D019	TCLP	1
Chlordane	D020	TCLP	1
Chlorobenzene	D021	TCLP	1
Chloroform	D022	TCLP	1
O-Cresol	D023	TCLP	1
M-Cresol	D024	TCLP	1
P-Cresol	D025	TCLP	1
Cresol	D026	TCLP	1
1,4-Dichlorobenzene	D027	TCLP	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
1,2-Dichloroethane	D028	TCLP	1
1,1-Dichloroethylene	D029	TCLP	1
2,4-Dinitrotoluene	D030	TCLP	1
Heptachlor	D031	TCLP	1
Hexachlorobenzene	D032	TCLP	1
Hexachloro-1,3-Butadiene	D033	TCLP	1
Hexachloroethane	D034	TCLP	1
Methyl Ethyl Ketone	D035	TCLP	1
Nitrobenzene	D036	TCLP	1
Pentachlorophenol	D037	TCLP	1
Pyridine	D038	TCLP	1
Tetrachloroethylene	D039	TCLP	1
Trichloroethylene	D040	TCLP	1
2,4,5-Trichlorophenol	D041	TCLP	1
2,4,6-Trichlorophenol	D042	TCLP	1
Vinyl Chloride	D043	TCLP	1
Spent Halogenated Solvents	F001	Toxic	1,600
Spent Halogenated Solvents	F002	Toxic	9,000
Spent Non-Halogenated Solvents	F003	Ignitable, Toxic	16,000
Spent Non-Halogenated Solvents	F004	Toxic	90
Spent Non-Halogenated Solvents	F005	Ignitable, Toxic	16,000
Wastewater Treatment Sludges from Electroplating Operations	F006	Toxic	1
Spent Cyanides	F007	Reactive, Toxic	1,520
Spent Plating Bath Residues	F008	Reactive, Toxic	1,000
Spent Stripping and Bath Solutions	F009	Reactive, Toxic	4,000
Quenching Bath Sludge from Oil Baths from Metal Heat Treating Operations	F010	Reactive, Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Spent Cyanide Solutions	F011	Reactive, Toxic	1
Quenching Wastewater Treatment Sludges	F012	Toxic	1
Wastewater Treatment Sludges	F019	Toxic	1
Wastes from the Production and Manufacturing Use of tri-, or tetrachlorophenol	F020	Toxic	1
Wastes from the Production and Manufacturing Use of pentachlorophenol	F021	Toxic	1
Wastes from the Manufacturing Use of tetra, penta, or hexachloro-benzenes	F022	Toxic	1
Wastes from the Production of Materials on Equipment previously used for the Production and Manufacturing use of tri-, and tetrachlorophenols	F023	Toxic	1
Wastes from the Production of chlorinated aliphatic hydrocarbons	F024	Toxic	1
Wastes from the Production of Materials on Equipment previously used for the Production and Manufacturing of tetra-, penta-, or hexachlorobenzenes	F026	Toxic	1
Discarded Unused Formulations containing tri-, tetra, or pentachlorophenols	F027	Toxic	1
Residues Resulting from Incineration or Thermal Treatment of Soil Contaminated with EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026, and F027	F028	Toxic	1
Leachate	F039	Toxic	1
2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts	P001	Toxic	25
1- Acetyl-2-thiourea	P002	Toxic	1
Acrolein	P003	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Aldrin	P004	Toxic	1
Allyl Alcohol	P005	Toxic	1
Aluminum Phosphide	P006	Reactive, Toxic	1
5-(Aminomethyl)-3-isoxazoleol	P007	Toxic	1
4-a Aminopyridine	P008	Toxic	1
Ammonium Picrate	P009	Reactive	1
Arsenic Acid	P010	Toxic	1
Arsenic Pentoxide	P011	Toxic	1
Arsenic Trioxide	P012	Toxic	1
Barium Cyanide	P013	Toxic	1
Triphenol	P014	Toxic	1
Beryllium Powder	P015	Toxic	1
Dichloromethyl Ether	P016	Toxic	1
Bromoacetone	P017	Toxic	1
Brucine	P018	Toxic	1
Dinoseb	P020	Toxic	1
Calcium Cyanide	P021	Toxic	1
Carbon Disulfide	P022	Toxic	35
Chloroacetaldehyde	P023	Toxic	1
p-Chloroaniline	P024	Toxic	1
Thiourea, (2-chlorophenyl)-	P026	Toxic	1
3-Chloropropionitrile	P027	Toxic	3
Benzyl Chloride	P028	Toxic	1
Copper Cyanides	P029	Toxic	100
Cyanides	P030	Toxic	1,500
Cyanogen	P031	Toxic	1
Chlorine Cyanide	P033	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Phenol, 2-cyclohexyl-4,6-dinitro-	P034	Toxic	1
Dichlorophenylarsine	P036	Toxic	1
Dieldrin	P037	Toxic	1
Diethylarsine	P038	Toxic	1
Disulfoton	P039	Toxic	1
O,O-Diethyl O-pyrazinyl Phosphorothioate	P040	Toxic	1
Diethyl-p-nitrophenyl Phosphate	P041	Toxic	1
Epinephrine	P042	Toxic	1
Diisopropyl Fluorophosphate	P043	Toxic	1
Dimethoate	P044	Toxic	1
Thiofanox	P045	Toxic	1
alpha, alpha-Dimethylphethylamine	P046	Toxic	1
4,6-Dinitro-O-cresol and Salts	P047	Toxic	1
2,4-Dinitrophenol	P048	Toxic	1
2,4-Dithiobiuret	P049	Toxic	1
Endosulfan	P050	Toxic	1
Endrin	P051	Toxic	1
Aziridine	P054	Toxic	1
Fluorine	P056	Toxic	1
Fluoroacetamide	P057	Toxic	1
Acetic Acid, fluoro-, Sodium Salt	P058	Toxic	1
Heptachlor	P059	Toxic	1
Isodrin	P060	Toxic	1
Hexaethyl Tetraphosphate	P062	Toxic	1
Hydrocyanic Acid	P063	Toxic	1
Methyl Isocyanate	P064	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Mercury Fulminate	P065	Reactive, Toxic	1
Methomyl	P066	Toxic	1
2-Methylaziridine	P067	Toxic	1
Methyl Hydrazine	P068	Toxic	1
2-Methylacetonitrile	P069	Toxic	1
Aldicarb	P070	Toxic	1
Methyl Parathion	P071	Toxic	1
alpha-Naphthylthiourea	P072	Toxic	1
Nickel Carbonyl	P073	Toxic	1
Nickel Cyanide	P074	Toxic	1
Nicotine and Salts	P075	Toxic	1
Nitric Oxide	P076	Toxic	1
P-Nitroaniline	P077	Toxic	1
Nitrogen Dioxide	P078	Toxic	1
Nitroglycerine	P081	Reactive	1
Methanamine, N-methyl-N-nitroso	P082	Toxic	1
N-Nitrosomethylvinylamine	P084	Toxic	1
Diphosphoramidate, Octamethyl	P085	Toxic	1
Osmium Oxide	P087	Toxic	1
Endothall	P088	Toxic	1
Parathion	P089	Toxic	1
Mercury, (acetato-O) phenyl-	P092	Toxic	1
Phenylthiourea	P093	Toxic	1
Phorate	P094	Toxic	1
Phosgene	P095	Toxic	1
Phosphine	P096	Toxic	1
Famphur	P097	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Pottassium Cyanide	P098	Toxic	30
Pottassium Silver Cyanide	P099	Toxic	1
Ethyl Cyanide	P101	Toxic	1
Propargyl Alcohol	P102	Toxic	1
Selenourea	P103	Toxic	1
Silver Cyanide	P104	Toxic	1
Sodium Azide	P105	Toxic	5
Sodium Cyanide	P106	Toxic	500
Strychnine and Salts	P108	Toxic	1
Tetraethyldithiopyrophosphate	P109	Toxic	1
Tetraethyl Lead	P110	Toxic	1
Tetraethyl Pyrophosphate	P111	Toxic	1
Tetranitromethane	P112	Reactive	1
Thallic Oxide	P113	Toxic	1
Thallium (I) Selenite	P114	Toxic	1
Thallium (I) Sulfate	P115	Toxic	1
Thiosemicarbazide	P116	Toxic	1
Trichloromethanethiol	P118	Toxic	1
Ammonium Vanadate	P119	Toxic	1
Vanadium Pentoxide	P120	Toxic	1
Zinc Cyanide	P121	Toxic	1
Zinc phosphide Zn ₃ P ₂ , when present at concentrations greater than 10%	P122	Reactive, Toxic	1
Toxaphene	P123	Toxic	1
Carbofuran	P127	Toxic	1
Mexacarbate	P128	Toxic	1
Tirpate	P185	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Physostigmine Salicylate	P188	Toxic	1
Carbosulfan	P189	Toxic	1
Metolcarb	P190	Toxic	1
Dimetilan	P191	Toxic	1
Isolan	P192	Toxic	1
Oxamyl	P194	Toxic	1
Manganese dimethyldithiocarbamate	P196	Toxic	1
Formparanate	P197	Toxic	1
Formetanate hydrochloride	P198	Toxic	1
Methiocarb	P199	Toxic	1
Promecarb	P201	Toxic	1
m-Cymenyl methylcarbamate	P202	Toxic	1
Aldicarb Sulfone	P203	Toxic	1
Physostigmine	P204	Toxic	1
Ziram	P205	Toxic	1
Ethanal	U001	Ignitable	1
Acetone	U002	Ignitable	500
Acetonitrile	U003	Ignitable, Toxic	2
Acetophenone	U004	Toxic	2
2-Acetylaminofluorene	U005	Toxic	1
Acetyl Chloride	U006	Corrosive, Reactive, Toxic	3
Acrylamide	U007	Toxic	1
Acrylic Acid	U008	Ignitable	1
Acrylonitrile	U009	Toxic	22
Mitomycin C	U010	Toxic	1
Amitrole	U011	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Aniline	U012	Ignitable, Toxic	25
Auramine	U014	Toxic	1
Azaserine	U015	Toxic	1
Benz[c] Acridine	U016	Toxic	1
Benzal Chloride	U017	Toxic	1
Benz[a]anthracene	U018	Toxic	1
Benzene	U019	Ignitable, Toxic	260
Benzenesulfonyl Chloride	U020	Corrosive, Reactive	1
Benzidine	U021	Toxic	1
3,4-Benzopyrene	U022	Toxic	1
Benzene, (trichloromethyl)-	U023	Toxic	20
Dichloromethoxy ethane	U024	Toxic	1
Dichloroethyl Ether	U025	Toxic	1
Chlornaphazine	U026	Toxic	1
Dichloroisopropyl ether	U027	Toxic	1
Diethylhexyl phthalate	U028	Toxic	1
Methyl Bromide	U029	Toxic	1
4-Bromophenyl Phenyl Ether	U030	Toxic	1
1-Butanol	U031	Ignitable	70
Chromic Acid, Calcium Salt	U032	Toxic	35
Carbon Oxyfluoride	U033	Reactive, Toxic	1
Chloral	U034	Toxic	1
Chlorambucil	U035	Toxic	1
Chlordane, alpha & gamma isomers	U036	Toxic	15
Chlorobenzene	U037	Toxic	65
Chlorobenzilate	U038	Toxic	1
4-Chloro-m-cresol	U039	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Oxirane, (chloromethyl)	U041	Toxic	1
Ethene, (2-chloroethoxy)	U042	Toxic	1
Vinyl Chloride	U043	Toxic	1
Chloroform	U044	Toxic	1,100
Methyl Chloride	U045	Ignitable, Toxic	1
Methane, Chloromethoxy-	U046	Toxic	1
beta-Chloronaphthalene	U047	Toxic	4
o-Chlorophenol	U048	Toxic	1
Benzenamine, 4-chloro-2-methyl-, hydrochloride	U049	Toxic	1
Chrysene	U050	Toxic	1
Creosote	U051	Toxic	1
Cresol (Cresylic acid)	U052	Toxic	28
2-Butenal	U053	Toxic	1
Cumene	U055	Ignitable	1
Cyclohexane	U056	Ignitable	200
Cyclohexanone	U057	Ignitable	44
Cyclophosphamide	U058	Toxic	1
Daunomycin	U059	Toxic	1
DDD	U060	Toxic	1
DDT	U061	Toxic	1
Diallate	U062	Toxic	1
Dibenz[a,]anthracene	U063	Toxic	1
Dibenzo[a,i]pyrene	U064	Toxic	1
1,2-Dibromo-3-chloropropane	U066	Toxic	1
Ethylene Dibromide	U067	Toxic	2
Methylene Bromide	U068	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Dibutyl Phthalate	U069	Toxic	3
Benzene, 1,2-dichloro-	U070	Toxic	4
m-Dichlorobenzene	U071	Toxic	15
p-Dichlorobenzene	U072	Toxic	2
3,3'-Dichlorobenzidine	U073	Toxic	1
1,4-Dichloro-2-butene	U074	Ignitable, Toxic	1
Dichlorodifluoromethane	U075	Toxic	1
Ethane, 1,1-dichloro-	U076	Toxic	3,000
Ethylene Dichloride	U077	Toxic	1
1,1-Dichloroethylene	U078	Toxic	1
1,2-Dichloroethylene	U079	Toxic	1
Methane, dichloro-	U080	Toxic	815
2,4-Dichlorophenol	U081	Toxic	1
2,6-Dichlorophenol	U082	Toxic	1
Propylene Dichloride	U083	Toxic	1
1,3-Dichloropropene	U084	Toxic	1
2,2'-Bioxirane	U085	Ignitable, Toxic	1
N,N-Diethyldiazine	U086	Toxic	1
O,O-Diethyl-S-methyl-dithiophosphate	U087	Toxic	1
Diethyl Phthalate	U088	Toxic	2
Diethylstilbestrol	U089	Toxic	1
Dihydrosafrole	U090	Toxic	1
3,3'-Dimethoxybenzidine	U091	Toxic	1
Dimethylamine	U092	Ignitable	1
p-Dimethylaminoazobenzene	U093	Toxic	1
7,12-Dimethylbenz[a]anthracene	U094	Toxic	1
3,3'-Dimethylbenzidine	U095	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
alpha, alpha-Dimethylbenzyl-hydroperoxide	U096	Reactive	1,500
Dimethylcarbamoyl Chloride	U097	Toxic	1
1,1-Dimethylhydrazine	U098	Toxic	3
1,2-Dimethylhydrazine	U099	Toxic	1
2,4-Dimethylphenol	U101	Toxic	2
Dimethyl Phthalate	U102	Toxic	1
Dimethyl Sulfate	U103	Toxic	1
2,4-Dinitrotoluene	U105	Toxic	1
2,6-Dinitrotoluene	U106	Toxic	1
Din-n-octyl phthalate	U107	Toxic	1
1,4-Dioxane	U108	Toxic	15
1,2-Diphenylhydrazine	U109	Toxic	1
Dipropylamine	U110	Ignitable	1
Di-N-propylnitrosamine	U111	Toxic	1
Ethyl Acetate	U112	Ignitable	16,000
Ethyl Acrylate	U113	Ignitable	1
Ethylenebisdithiocarbamic acid, salts & esters	U114	Toxic	1
Oxirane	U115	Ignitable, Toxic	1
Ethylene Thiourea	U116	Toxic	1
Ethyl Ether	U117	Ignitable	485
Ethylmethacrylate	U118	Toxic	1
Ethyl Methanesulfonate	U119	Toxic	1
Fluoranthene	U120	Toxic	1
Trichloromonofluoromethane	U121	Toxic	1
Formaldehyde	U122	Toxic	200
Formic Acid	U123	Corrosive, Toxic	12

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Furan	U124	Ignitable	2
2-Furancarboxaldehyde	U125	Ignitable	200
Glycidylaldehyde	U126	Toxic	1
Hexachlorobenzene	U127	Toxic	2
Hexachlorobutadiene	U128	Toxic	1
Lindane	U129	Toxic	1
Hexachlorocyclopentadiene	U130	Toxic	1
Hexachloroethane	U131	Toxic	2
Hexachlorophene	U132	Toxic	1
Hydrazine	U133	Toxic/Reactive	6
Hydrogen Fluoride	U134	Corrosive, Toxic	260
Hydrogen Sulfide	U135	Toxic	1
Cacodylic Acid	U136	Toxic	1
Ideno[1,2,3-cd] pyrene	U137	Toxic	1
Methane, iodo-	U138	Toxic	2
Isobutyl Alcohol	U140	Ignitable, Toxic	3
Isosaffrole	U141	Toxic	1
Kepone	U142	Toxic	1
Lasiocarpine	U143	Toxic	1
Lead Acetate	U144	Toxic	4
Phosphoric Acid, Lead Salt	U145	Toxic	8
Lead Subacetate	U146	Toxic	1
Maleic Anhydride	U147	Toxic	2
Maleic Hydrazine	U148	Toxic	1
Malononitrile	U149	Toxic	1
Melphalon	U150	Toxic	4
Mercury	U151	Toxic	1,600

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Methacrylonitrile	U152	Ignitable, Toxic	1
Methanethiol	U153	Ignitable, Toxic	1
Methanol	U154	Ignitable	1,500
Methapyrilene	U155	Toxic	1
Methyl Chlorocarbonate	U156	Ignitable, Toxic	35
3-Methylcholanthrene	U157	Toxic	1
4,4'-Methylenebis (2-chloro-aniline)	U158	Toxic	1
Methyl Ethyl Ketone	U159	Ignitable, Toxic	1,100
2-Butanone Peroxide	U160	Reactive, Toxic	1
Methyl Isobutyl Ketone	U161	Ignitable	1
Methyl Methacrylate	U162	Ignitable, Toxic	1
Guanidine, -methyl-N'-nitro-N-nitroso	U163	Toxic	1
Methylthiouracil	U164	Toxic	1
Naphthalene	U165	Toxic	1
1,4-Naphthaquinone	U166	Toxic	1
1-Naphthalenamine	U167	Toxic	1
2-Naphthylamine	U168	Toxic	1
Nitrobenzene	U169	Ignitable, Toxic	1
p-Nitrophenol	U170	Toxic	1
2-Nitropropane	U171	Toxic	1
N-Nitrosodi-n-butylamine	U172	Toxic	1
N-Nitrosodiethanolamine	U173	Toxic	1
N-Nitrosodiethylamine	U174	Toxic	1
N-Nitroso-N-ethylurea	U176	Toxic	1
N-Nitroso-N-methylurea	U177	Toxic	1
N-Nitroso-N-methylurethane	U178	Toxic	1
N-Nitrosopiperidine	U179	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
N-Nitrosopyrrolidine	U180	Toxic	1
5-Nitro-o-toluidine	U181	Toxic	1
Paraldehyde	U182	Toxic	1,500
Pentachlorobenzene	U183	Toxic	2
Pentchloroethane	U184	Toxic	1
Pentachloronitrobenzene	U185	Toxic	1
1,3-Pentadiene	U186	Ignitable	1
Phenacetin	U187	Toxic	1
Phenol	U188	Toxic	4
Sulfur Phosphide	U189	Reactive	1
1,3-Isobenzofurandione	U190	Toxic	20
2-Picoline	U191	Toxic	1
Pronamide	U192	Toxic	1
1,3-Propane Sultone	U193	Toxic	1
1-Propanamine	U194	Ignitable, Toxic	1
Pyridine	U196	Toxic	175
p-Benzoquinone	U197	Toxic	1
Reserpine	U200	Toxic	1
Resorcinol	U201	Toxic	2
Safrole	U203	Toxic	1
Selenium Dioxide	U204	Toxic	2
Selenium Sulfide	U205	Reactive, Toxic	1
Streptozotocin	U206	Toxic	1
Benzene,1,2,4,5-tetrachloro-	U207	Toxic	1
1,1,1,2-Tetrachloroethane	U208	Toxic	1
1,1,2,2-Tetrachloroethane	U209	Toxic	20
Tetrachloroethylene	U210	Toxic	1,500

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Carbon Tetrachloride	U211	Toxic	140
Tetrahydrofuran	U213	Ignitable	1,200
Thallium (I) Acetate	U214	Toxic	1
Thallium (I) Carbonate	U215	Toxic	1
Thallium (I) Chloride	U216	Toxic	1
Thallium (I) Nitrate	U217	Toxic	1
Thioacetamide	U218	Toxic	1
Thiourea	U219	Toxic	1
Toluene	U220	Toxic	2,200
Toluenediamine	U221	Toxic	2
O-Toluidine Hydrochloride	U222	Toxic	1
Toluene Diisocyanate	U223	Reactive, Toxic	1
Bromoform	U225	Toxic	1
1,1,1-Trichloroethane	U226	Toxic	4,500
1,1,2-Trichloroethane	U227	Toxic	40
Trichloroethylene	U228	Toxic	1,530
1,3,5-Trinitrobenzene	U234	Reactive, Ignitable	1
Tris(2,3-dibromopropyl) Phosphate	U235	Toxic	1
Typan Blue	U236	Toxic	1
Uracil Mustard	U237	Toxic	1
Ethyl Carbamate (urethane)	U238	Toxic	1
Xylene	U239	Ignitable	1,155
2,4-D, Salts and Esters	U240	Toxic	1
Hexachloropropene	U243	Toxic	1
Thiram	U244	Toxic	1
Cyanogen Bromide	U246	Toxic	1
Methoxychlor	U247	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Warfarin, & salts, when present at concentrations of 0.3% or less	U248	Toxic	1
Zinc phosphide, when present at concentrations of 10% or less	U249	Toxic	1
Benomyl	U271	Toxic	1
Bendiocarb	U278	Toxic	1
Carbaryl	U279	Toxic	1
Barban	U280	Toxic	1
o-Toluidine	U328	Toxic	1
p-Toluidine	U353	Toxic	1
Ethylene glycol monoethyl ether	U359	Toxic	1
Bendiocarb phenol	U364	Toxic	1
Carbofuran phenol	U367	Toxic	1
Carbendazim	U372	Toxic	1
Propham	U373	Toxic	1
Prosulfocarb	U387	Toxic	1
Triallate	U389	Toxic	1
A2213	U394	Toxic	1
Diethylene glycol, dicarbamate	U395	Toxic	1
Triethylamine	U404	Toxic	1
Thiophanate-methyl	U409	Toxic	1
Thiodicarb	U410	Toxic	1
Propoxur	U411	Toxic	1
Acetic acid, (2,4,5-trichlorophenoxy)-	F027	Toxic	1
Pentachlorophenol	F027	Toxic	1
Phenol, pentachloro-	F027	Toxic	1
Phenol, 2,3,4,6-tetrachloro-	F027	Toxic	1
Phenol, 2,4,5-trichloro-	F027	Toxic	1

(continued)

HAZARDOUS WASTE TABLE (continued)

Chemical Name	EPA Hazardous Waste Number	Hazard	Estimated Annual Quantity (in pounds)
Phenol, 2,4,6-trichloro-	F027	Toxic	1
Propanoic acid, 2-(2,4,5-trichlorophenoxy)	F027	Toxic	1
Silvex (2,4,5-TP)	F027	Toxic	1
2,4,5-T	F027	Toxic	1
2,3,4,6-Tetrachlorophenol	F027	Toxic	1
2,4,5-Trichlorophenol	F027	Toxic	1
2,4,6-Trichlorophenol	F027	Toxic	1

(continued)

SECTION J

SOLID WASTE MANAGEMENT UNITS

J-1 Introduction

This section addresses the information on the WPAFB solid waste management units (SWMUs). The initial phase of the RCRA corrective action program [the RCRA Facility Assessment (RFA)] was prepared in September 1988. The objective of the RFA was to identify all SWMUs operated at WPAFB, and to evaluate all available information pertaining to each SWMU, and to assess the possibility of releases of hazardous waste or constituents from each SWMU.

J-2 SWMU Descriptions

The RFA (September 1988) identified a comprehensive list of potential SWMUs. Since that time a number of the potential SWMUs (e.g., underground storage tanks) have been removed or closed under other existing regulations. On May 24, 1991, WPAFB entered in an agreement with Region 5 to integrate the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) response obligations and RCRA corrective action obligations. A copy of the relevant portion of this agreement is included as Appendix J-1. Appendix J-2 presents a current list of potential SWMUs at WPAFB.

APPENDIX J-1
CONSENT AGREEMENT

21. STATUTORY COMPLIANCE / RCRA-CERCLA INTEGRATION

21.1 - The Parties intend to integrate the Air Force's CERCLA response obligations and RCRA corrective action obligations which relate to the release(s) of hazardous substances, hazardous wastes, pollutants or contaminants covered by this Agreement into this comprehensive Agreement. Therefore, the Parties intend that activities covered by this Agreement will achieve compliance with CERCLA, 42 U.S.C. §9601 et seq.; satisfy the corrective action requirements of Sections 3004(u) and (v) of RCRA, 42 U.S.C. §6924(u) and (v), for a RCRA permit, and RCRA Section 3008(h), 42 U.S.C. §6928(h), for interim status facilities; and meet or exceed all applicable or relevant and appropriate Federal and State laws and regulations, to the extent required by Section 121 of CERCLA, 42 U.S.C. §9621.

21.2 - Based upon the foregoing, the Parties intend that any remedial action selected, implemented and completed under this Agreement will be protective of human health and the environment such that remediation of releases covered by this Agreement shall obviate the need for further corrective action under RCRA (i.e., no further corrective action shall be required). The Parties agree that with respect to releases of hazardous waste covered by this Agreement, RCRA shall be considered an applicable or relevant and appropriate requirement pursuant to Section 121 of CERCLA, 42 U.S.C. §9621.

APPENDIX J-2
CURRENT POTENTIAL SWMUs

OIL SEPARATOR DATA

AREA A SEPARATORS					
SEPARATOR	LOCATION	SIZE (gal)	TYPE	REMARKS	OWNERSHIP
3-154A	POL Tank Farm - AREA A	550	Sanitary		CE
3-154B	POL Tank Farm - AREA A	15,000	Storm		American Water
3-34044	Bldg 4044 - AREA A	1,200	Sanitary		American Water
3-34026	Bldg 4026 - AREA A	2,700	Sanitary		American Water
3-4020A	Bldg 4020 - AREA A	500	Sanitary	It has an oil storage tank	American Water
3-4020B	Bldg 4020 - AREA A	150	Sanitary	It has an oil storage tank	American Water
3-13A	Bldg 13 - AREA A	1,100	Sanitary	It contains sewage	American Water
3-13B	Bldg 13 - AREA A	1,000	Sanitary	It contains grit from vehicle wash station	American Water
3-13C	Bldg 13 - AREA A	1,000	Sanitary	It contains grit from vehicle wash station	American Water
1-879	Bldg 879 - AREA A	1,200	Sanitary		American Water
3-30060	Bldg 60 - AREA A	2,500	Sanitary		American Water
3-34024	Bldg 4024 - AREA A	4,500	Sanitary		American Water
3-1244C	Bldg 1244 - AREA A	50	Sanitary		American Water
3-1244D	Bldg 1244 - AREA A	1,000	Sanitary	It has an oil storage tank	American Water
3-901	Bldg 901 - AREA A	600	Sanitary		American Water
3-30055	Bldg 55 - AREA A	5,000	Sanitary	It has an oil storage tank	American Water
3-143	Bldg 143 - AREA A	800	Sanitary		American Water
3-151	Bldg 151 - AREA A	1,000	Sanitary	It has an oil storage tank	American Water

SEPARATOR	LOCATION	SIZE (gal)	TYPE	REMARKS	OWNERSHIP
3-30093	Bldg 93 - AREA A	1,000	Sanitary		American Water
3-34021	Bldg 4021 - AREA A	1,000	Sanitary		American Water
3-148	Bldg 148 - AREA A	1,000	Sanitary		American Water
3-256	Adjacent to Bldg 256 - AREA A	2,000	Sanitary		American Water
1-880	Bldg 880 - AREA A	550	Storm	It is inside the Bldg	CE
3-34015	Bldg 4015 - AREA A	5,000	Sanitary		American Water
3-34016	Bldg 4016 - AREA A	5,000	Sanitary		American Water
3-1253	Bldg 1253 - AREA A	285	Sanitary	It is inside Precision Auto Tune	American Water
1-295	Bldg 295 - AREA A	100	Sanitary		American Water
3-1227	Bldg 1227 - AREA A	2,000	Sanitary		American Water
3-West Ramp	Taxiway, West Ramp - AREA A	6 ea., 2,400 - 14,000	Storm	These continuously run	
3-34023	Bldg 4023 - AREA A	1,000	Sanitary		American Water
AREA B SEPARATORS					
SEPARATOR	LOCATION	SIZE (gal)	TYPE	REMARKS	OWNERSHIP
2-20A 71B -A	Bldg 71B - AREA B	5,000	Sanitary		CE
2-20A 71B -B	Bldg 71B - AREA B	1,000	Sanitary		American Water
2-18C	Bldg 18 - AREA B	6,000	Sanitary	It has an oil storage tank	CE
2-18D	Bldg 18 - AREA B	2,000	Sanitary	It has an oil storage tank	American Water
2-20038	Bldg 38 - AREA B	1,200	Sanitary		American Water
2-B & F	Bldg 21 - AREA B	3,600	Storm	It has an oil storage tank	CE
2-20094	Bldg 94, Gun Range - AREA B	600	Sanitary		American Water

SEPARATOR	LOCATION	SIZE (gal)	TYPE	REMARKS	OWNERSHIP
2-31A	Bldg 31A - AREA B	15,000	Storm		CE
2-490A	Bldg 490 - AREA B	60	Sanitary	It has an oil storage tank	American Water
2-490B	Bldg 490 - AREA B	1,800	Sanitary	It has Bentonite Sealer and an oil storage tank	American Water
2-92/352	Bldg 92 - AREA B	6,000	Storm	It has an oil storage tank	CE
2-201	Bldg 201 - AREA B	2,000	Sanitary	It has an oil storage tank	American Water
2-86G	Bldg 86G - AREA B	30,000	Storm		CE
2-71A	Bldg 71A - AREA B	100	Sanitary	It is inside the Bldg	CE
2-1604	Bldg 1604 - AREA B	1,000	Sanitary	It has an oil storage tank	AFRL
2-496	Bldg 496 - AREA B	550	Sanitary		American Water
2-20A	Bldg 20 - AREA B	3,000	Sanitary		American Water
Gas Station	Bldg 159 - AREA B	500	Sanitary		American Water

SETTLING BASIN DATA

AREA A Basins					
LOCATION	SIZE (gal)	SLUDGE/MATERIAL	TYPE	REMARKS	OWNERSHIP
Bldg 60 - AREA A - Basin 3-60	150	Grit from vehicle wash rack	Sanitary	It is inside the building	CE
Bldg 91 - AREA A - Basin 3-91	150	Grit and sludge	Sanitary		American Water
Bldg 93 - AREA A - Basin 3-93	150	Grit and sludge	Sanitary		American Water
Bldg 152 - AREA A - Basin 3-152	500	Grit from vehicle wash rack	Sanitary		American Water
Bldg 1244 - AREA A - Basin 3-1244A	50	Grit from vehicle wash rack	Sanitary		American Water
Bldg 1244 - AREA A - Basin 3-1244B	50	Grit from vehicle wash rack	Sanitary		American Water
Bldg 4016 - AREA A - Basin 3-4016	40,000	Grit from vehicle wash rack	Sanitary		American Water
Bldg 1227 - AREA A - Basin 3-1227A	50	Grit from vehicle wash rack	Sanitary		American Water
Bldg 1227 - AREA A - Basin 3-1227B	50	Grit from vehicle wash rack	Sanitary		American Water
AREA B Basins					
LOCATION	SIZE (gal)	SLUDGE/MATERIAL	TYPE	REMARKS	OWNERSHIP
Bldg 38 - AREA B - Basin 2-38	750	Grit from vehicle wash rack	Sanitary	It is inside the building	CE
Bldg 20A - AREA B - Basin 2-20A	3,000		No discharge	It is inside the building	CE

ELEMENTARY NEUTRALIZATION UNITS

Neutralization Pits - All Area B		
LOCATION	SIZE	REMARKS
Bldg 20651	550	In Use
Bldg 20652	550	In Use
Bldg 20654	550	In Use
Bldg 20655	550	In Use
Bldg 20620	5	In Use
Bldg 20840	450	In Use
Bldg 20071D	522	Under Construction
Bldg 20056	7,000	Out of Service

Underground Storage Tanks - WPAFB

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Underground Storage Tanks (USTs)					Content
Tank No.	Fac No.	Capacity (gal)	Material	Organization	
95	10840	25,000	Fiber Reinforced Plastic	88 MDSS/SGSL	Diesel (Emergency Generator)
96	10840	25,000	Fiber Reinforced Plastic	88 MDSS/SGSL	Diesel (Emergency Generator)
97	10830	25,000	Fiber Reinforced Plastic	88 MDSS/SGSL	Diesel (Emergency Generator)
118	20100	2,500	Fiber Reinforced Plastic	704 TG/OL-ACS	Heating Oil
148	20018C	2,500	Fiber Reinforced Plastic	AFRL/RQ (G-Farm)	Used Oil
155	20071B	6,000	Fiber Reinforced Plastic	AFRL/RQ (G-Bay)	Used Oil
156	20018D	15,000	Fiber Reinforced Plastic	AFRL/RQ (D Farm)	JP-7
157	20018D	15,000	Fiber Reinforced Plastic	AFRL/RQ (D Farm)	F24
158	20018D	6,000	Fiber Reinforced Plastic	AFRL/RQ (D Farm)	JP-10
159	20018D	6,000	Fiber Reinforced Plastic	AFRL/RQ (D Farm)	Used Oil
175	20021	12,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	ATJ
176	20021	12,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	IPK
177	20021	12,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	Used Oil
178	20021	12,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	JET A
179	20021	20,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	HRJ-8
180	20021	20,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	RP-2
181	20021	20,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	IPK
182	20021	20,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	RP-2
183	20021	20,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	RP-2
184	20021	20,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	HRJ-8
185	20021	20,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	JP-7
186	20021	4,000	Fiber Reinforced Plastic	AFRL/RQ (B&F Farm)	Used Oil
187	30149	2,000	Fiber Reinforced Plastic	88 CES/CEOFF	Diesel (Emergency Generator)
188	30151	6,000	Fiber Reinforced Plastic	88 LRS/LGRVCM	Used Oil
222	20557	1,000	Fiber Reinforced Plastic	88 CES/CEOFF	Diesel (Emergency Generator)
243	34052	1,000	Fiber Reinforced Plastic	88 CES/CEOFF	Diesel (Emergency Generator)
254	20201	20,000	Fiber Reinforced Plastic	88 CEG/CEIE	Used Oil
259	20490	6,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	Used Oil
260	30256	15,000	Fiber Reinforced Plastic	88 CEG/CEIE	Used Oil
283	34032	50,000	Steel	88 LRS/LGRFCQ	JET A
284	34032	50,000	Steel	88 LRS/LGRFCQ	JET A
285	34032	50,000	Steel	88 LRS/LGRFCQ	JET A

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Underground Storage Tanks (USTs)					
Tank No.	Fac No.	Capacity (gal)	Material	Organization	Content
286	34032	50,000	Steel	88 LRS/LGRFCQ	JET A
325	30061	20,000	Fiber Reinforced Plastic	88 LRS/LGRFCQ	Diesel
326	30061	20,000	Fiber Reinforced Plastic	88 LRS/LGRFCQ	Gasoline
337	20490	10,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	Used Oil
338	20490	1,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	Solvent
339	20490	1,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	JET A
340	20490	1,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	JET A
341	20490	25,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	JET A
342	20490	25,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	Empty
343	20490	25,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	JP-8
344	20490	25,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	JET A
345	20490	1,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	JET A
346	20490	1,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	JP-8
347	20490	1,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	Used Oil
348	20490	6,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	JP-8
349	20490	6,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	JET A
350	20490	6,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	Empty
351	20490	6,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	JET A
352	20490	6,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	JET A
353	20490	1,000	Fiber Reinforced Plastic	AFRL/RQ (S Farm)	Used Oil
356	10277	6,000	Fiber Reinforced Plastic	88 CES/CEOPF	Diesel (Emergency Generator)
357	34066	4,000	Fiber Reinforced Plastic	445 MXS/ MXMW	Heating Oil
358	34067	6,000	Fiber Reinforced Plastic	88 OSS/OSK	Heating Oil
364	10266	4,000	Fiber Reinforced Plastic	88 CES/CEOPF	Diesel (Emergency Generator)
371	34021	1,000	Fiber Reinforced Plastic	445 MXS/ MGMG	JET A
372	34021	1,000	Fiber Reinforced Plastic	445 MXS/ MGMG	JET A
373	34021	1,000	Fiber Reinforced Plastic	445 MXS/ MGMG	JET A
374	34021	500	Fiber Reinforced Plastic	445 MXS/ MGMG	Used Oil
375	30117	1,000	Fiber Reinforced Plastic	American Water	Diesel (Emergency Generator)
376	30093	2,500	Fiber Reinforced Plastic	88 LRS/LGRMCG	JET A
377	30093	2,500	Fiber Reinforced Plastic	88 LRS/LGRMCG	JET A
378	30093	1,000	Fiber Reinforced Plastic	88 LRS/LGRMCG	Diesel

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Underground Storage Tanks (USTs)					
Tank No.	Fac No.	Capacity (gal)	Material	Organization	Content
380	10271	25,000	Steel	88 CES/CEOFP	Diesel (Emergency Generator)
381	10271	25,000	Steel	88 CES/CEOFP	Diesel (Emergency Generator)
384	20070	1,000	Fiber Reinforced Plastic	635 SCOW/ AFPET/PTPLA	Used Oil
385	20015	2,500	Fiber Reinforced Plastic	88 CES/CEOFP	Diesel (Emergency Generator)
388	34010	550	Fiber Reinforced Plastic	88 CES/CEOFP	Diesel (Emergency Generator)
443	20652	610	Fiber Reinforced Plastic	AFRL/RXOE	Used Oil
447	20655	610	Fiber Reinforced Plastic	AFRL/RXOE	Used Oil
448	20654	610	Fiber Reinforced Plastic	AFRL/RXOE	Used Oil
450	30950	1,000	Fiber Reinforced Plastic	88 CES/CEOFP	Diesel (Emergency Generator)
452	31253	15,000	Fiber Reinforced Plastic	AAFES	Gasoline
453	31253	20,000	Fiber Reinforced Plastic	AAFES	Gasoline
454	30154	500	Steel	88 LRS/LGRFCQ	Used Oil
458	20159	12,000	Fiber Reinforced Plastic	AAFES	Gasoline
459	20159	7,000	Fiber Reinforced Plastic	AAFES	Gasoline
460	20159	8,000	Fiber Reinforced Plastic	AAFES	Gasoline

Aboveground Storage Tanks - WPAFB

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Aboveground Storage Tanks (ASTs)					
Tank No.	Facility No.	Capacity (gals)	Material	Organization	Contents
034	30149	300	Steel	88 CES/CEOFF	Diesel
035	30110	100	Steel	88 CES/CEOFF	Diesel
040	10840	650	Steel	88 MDG	Diesel
041	10840	650	Steel	88 MDG	Diesel
046	10266	200	Steel	88 CES/CEOFF	Diesel
047	10271	350	Steel	88 CES/CEOFF	Diesel
048	10271	350	Steel	88 CES/CEOFF	Diesel
051	30117	200	Steel	American Water	Diesel
053	30018	56	Steel	88 CES/CEOFF	Diesel
055	34010	50	Steel	88 CES/CEOFF	Diesel
058	34052	150	Steel	88 CES/CEOFF	Diesel
077	27000	250	Steel	American Water	Diesel
102	30029	5000	Steel	88 CES/CEOHP	Diesel
109	20020A	2500	Steel	AFRL/RQ	Empty
110	20020A	5000	Steel	AFRL/RQ	Lubricant
112	20020A	400	Steel	AFRL/RQ	Hydraulic Fluid
161	20015	100 Daytank	Steel	88 CES/CEOFF	Diesel
164	20891	150	Steel	Dayton Power & Light (High Voltage)	Diesel
171	20620	25	Steel	88 CES/CEOFF	Diesel
176	34024	100	Steel	American Water	Diesel
177	20837	1600	Steel	711th HPW/OMZ	Diesel
178	20837	2750	Steel	711th HPW/OMZ	Diesel
192	00841	500	Steel	88 CS/SCOSLP	Empty
198	20094	1175	Steel	704 TG/OL-ACS	Jet A
199	20094	1175	Steel	704 TG/OL-ACS	Jet A
204	20020A	115	Steel	AFRL/RQ	Hydraulic Fluid
230	20094	1175	Steel	704 TG/OL-ACS	Empty
249	30154	420000	Steel	88 LRS/LGRFCQ	Jet A
250	30154	420000	Steel	88 LRS/LGRFCQ	Empty
251	30154	420000	Steel	88 LRS/LGRFCQ	Jet A
252	30154	420000	Steel	88 LRS/LGRFC	Jet A
253	30154	420000	Steel	88 LRS/LGRFC	Jet A

Aboveground Storage Tanks (ASTs)					
Tank No.	Facility No.	Capacity (gals)	Material	Organization	Contents
254	30154	420000	Steel	88 LRS/LGRFC	Jet A
255	30154	420000	Steel	88 LRS/LGRFC	Jet A
256	30154	420000	Steel	88 LRS/LGRFC	Empty
257	30154	420000	Steel	88 LRS/LGRFC	Empty
258	30154	420000	Steel	88 LRS/LGRFC	Empty
269	20065	2000	Steel	AFRL/RQVV	Hydraulic Fluid
270	20065	2000	Steel	AFRL/RQVV	Hydraulic Fluid
271	30154	840000	Steel	88 LRS/LGRFC	Empty
272	30154	210000	Steel	88 LRS/LGRFC	Diesel
278	30172	500	Steel	American Water	Diesel
283	30172	2000	Steel	American Water	Diesel
288	20824	900	Steel	711th HPW/OMZ	Hydraulic Fluid
292	20071B	1000	Steel	AFRL/RQ	Diesel
298	20824	400	Steel	711th HPW/OMZ	Hydraulic Fluid
299	20824	400	Steel	711th HPW/OMZ	Hydraulic Fluid
304	20020A	200	Steel	AFRL/RQ	Lubricant
310	30154	15000	Steel	88 LRS/LGRFCQ	Empty
318	20645	700	Steel	88 CES/CEOFF	Diesel
321	20837	20*		711th HPW/OMZ	Hydraulic Fluid
323	11457	650	Steel	AT&T	Diesel
325	20481	150	Steel	88 CES/CEOFF	Diesel
326	20494	275	Steel	88 CES/CEOFF	Diesel
327	30060	10000	Steel	88 LRS/LGRFCQ	E-85
328	20553	200	Steel	88 CES/CEOFF	Diesel
331	34008	140	Steel	88 CES/CEOFF	Diesel
333	30103	2000	Steel	88 CES/CEOFF	Diesel
433	10829	500	Steel	88 CES/CEOID	Diesel
454	31253	250	Steel	Precision Auto Tune (Balcrank)	Used Oil
471	20490	275	Steel	AFRL/RQ	Diesel
473	20031	150	Steel	46 TG/OL-ACL	Solvent
477	20020A	4200		AFRL/RQ	Used Oil
571	20304	10000	Steel	88 LRS/LGRFCQ	E-85

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Aboveground Storage Tanks (ASTs)					
Tank No.	Facility No.	Capacity (gals)	Material	Organization	Contents
573	10293	1500	Steel	88 FSS/FSRR	Used Oil
575	20094	4018	Steel	704 TG/OL-ACS	Jet A
580	10061	500	Steel	88 FSS/FSCG	Gasoline
584	20838	2000	Steel	711th HPW/OMZ	Diesel
585	00841	500	Steel	88 CES/CEOFF	Diesel
589	10293	500	Steel	88 FSS/FSRR	Diesel
593	30964	500	Steel	88 CES/CEOFF	Diesel
594	30967	500	Steel	88 CES/CEOFF	Diesel
595	30971	500	Steel	88 CES/CEOFF	Diesel
596	10855	1000	Steel	American Water	Empty
597	20304	10000	Steel	88 LRS/LGRFCQ	Gasoline
598	20304	10000	Steel	88 LRS/LGRFCQ	Diesel
599	20201	2000	Steel	88 CEG/CEIE	Used Oil
601	31240	8000	Steel	88 CES/CEOFF	Diesel
602	11456	500	Steel	88 CES/CEOFF	Diesel
603	30143	5000	Steel	88 CES/CEOFF	Diesel
604	30894	500	Steel	88 FSS/FSCG	Heating Oil
605	30151	500	Steel	88 LRS/GRVCM	Used Oil
606	30029	500	Steel	88 MSG/SVBA	Empty
608	30110	500	Steel	88 CES/CEOFF	Diesel
609	10293	750	Steel	88 FSS/FSRR	Diesel
610	10891	500	Steel	88FSS/FSCU	Heating Oil
611	10892	500	Steel	88FSS/FSCU	Heating Oil
612	34019	500	Steel	88 CES/CEOFF	Used Oil
613	30013	500	Steel	88LRS/LGRVCM	Used Oil
614	30017	500	Steel	88 CES/CEOFF	E-85
615	30029	500	Steel	88 CES/CEOH	Used Oil
616	34024	500	Steel	American Water	Diesel
618	30060	500	Steel	88 LRS/LGRVCM	Used Oil
620	20770	5000	Steel	88 CES/CEOFF	Diesel
622	30256	2000	Steel	88 CEG/CEIE	Used Oil
623	30950	15	Steel	88 CES/CEOFF	Diesel

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Aboveground Storage Tanks (ASTs)					
Tank No.	Facility No.	Capacity (gals)	Material	Organization	Contents
624	30971	25	Steel	88 CES/CEOFF	Diesel
625	11456	50	Steel	88 CES/CEOFF	Diesel
627	10277	100	Steel	88 CES/CEOFF	Diesel
629	30143	336	Steel	88 CES/CEOFF	Diesel
634	30967	25	Steel	88 CES/CEOFF	Diesel
644	20085A	2000	Steel	American Water	Diesel
645	20557	100	Steel	88 CES/CEOFF	Diesel
646	30031	650	Steel	88 CES/CEOFF	Diesel
657	20094	500	Steel	704 TG/OL-ACS	Empty
660	20080	1000	Steel	88 CES/CEOFF	Diesel
661	34012	550	Steel	88 CES/CEOFF	Diesel
662	30851	560	Steel	American Water	Diesel
664	20558	497	Steel	88 CES/CEOFF	Diesel
665	20770	200	Steel	88 CES/CEOFF	Diesel
666	30259	200	Steel	88 CES/CEOFF	Diesel
668	10293	4000	Steel	88 FSS/FSRR	Used Oil
669	10280	35	Steel	88 CES/CEOFF	Diesel
675	20016	200 Belly	Steel	88 CES/CEOFF	Diesel
677	20620	300	Steel	AFRL/RYOI	Diesel
686	10880	500	Steel	88 FSS/FSCG	Used Oil
690	20004A	400	Steel	AFTC/DO	Hydraulic Fluid
691	30152	600	Steel	595 AMXS/OL-A	Jet A
692	20094	6000	Steel	704 TG/OL-ACS	Used Oil
695	10855	1000	Steel	American Water	Diesel
697	10829	25000	Steel	88 CES/CEOFF	Diesel
698	30146	2118	Steel	88 CES/CEOFF	Diesel
699	30001	150	Steel	88 CES/CEOFF	Diesel
700	20676	2555	Steel	88 CES/CEOFF	Diesel
701	20838	425	Steel	711th HPW/OMZ	Diesel
702	30209	396	Steel	88 CES/CEOFF	Diesel
703	34032	400	Steel	88 LRS/LGRFCQ	Used Oil
704	30154	400	Steel	88 LRS/LGRFCQ	Used Oil

Aboveground Storage Tanks (ASTs)					
Tank No.	Facility No.	Capacity (gals)	Material	Organization	Contents
705	30896	550	Steel	88 FSS/FSCG	Diesel
706	30896	550	Steel	88 FSS/FSCG	Gasoline
707	10901	1000	Steel	88 CES/CEOFF	Diesel
708	10900	1000	Steel	88 CES/CEOFF	Diesel
709	20021	500	Steel	AFRL/RQ	Empty
710	30154	400	Steel	88 LRS/LGRFCQ	Jet A
711	30154	400	Steel	88 LRS/LGRFCQ	Jet A
712	30029	1000	Steel	None Identified	Empty
713	30029	1000	Steel	None Identified	Empty
714	30029	1000	Steel	None Identified	Empty
716	30029	500	Steel	None Identified	Empty
717	30029	500	Steel	None Identified	Empty
719	34026	45	Steel	445 AMXS/MCXMP	Solvent
720	34026	80	Steel	445 AMXS/MXMCMP	Solvent
723	20094	1000	Steel	704 TG/OL-ACS	Used Oil
725	20029	396	Steel	88 CES/CEOFF	Diesel
726	31249	396	Steel	88 CES/CEOFF	Diesel
728	20838	200	Steel	711th HPW/OMZ	Diesel
731	30093	200	Steel	88LRS/LGRMCG	Used Oil
732	30093	200	Steel	88LRS/LGRMCG	Used Oil
733	34032	400	Steel	445 MXS/MGMG	Jet A
734	34032	400	Steel	445 MXS/MGMG	Jet A
735	34007	600	Steel	445 MXS/MGMG	Jet A
737	34007	600	Steel	445 MXS/MGMG	Jet A
738	20652	451	Steel	AFRL/RXO	Diesel
741	30210	250	Steel	88 CES/CEOFF	Diesel
743	10880	500	Steel	88 FSS/FSCG	Gasoline
744	10880	1000	Steel	88 FSS/FSCG	Diesel
745	20640	140	Steel	88 CES/CEOFF	Diesel
746	20850	7750	Steel	711th HPW	Diesel
747	20840	3800	Steel	711th HPW	Diesel
748	20073	425	Steel	711th HPW	Diesel

Aboveground Storage Tanks (ASTs)					
Tank No.	Facility No.	Capacity (gals)	Material	Organization	Contents
750	10830	110	Steel	88 MDG	Diesel
751	10830	110	Steel	88 MDG	Diesel
753	20838	2700	Steel	711th HPW/OMZ	Diesel
754	20840	3800	Steel	711th HPW	Diesel
755	20601	2400	Steel	AFRL/RYOI	Diesel
756	20496	200	Steel	AFRL/RQ	Diesel
760	30206	600	Steel	88 CES/CEOFF	Diesel
762	10295	2701	Steel	88 CES/CEOFF	Diesel
763	20025	300	Steel	AFRL/RQVX	Diesel
764	30206	100	Steel	88LRS/LGRMCG	Jet A
765	20642	270	Steel	88 CES/CEOFF	Diesel
766	20840A	500	Steel	711th HPW	Diesel
767	20045	980	Steel	88 CES/CEOFF	Diesel
768	31253	275	Steel	Precision Auto Tune (Balcrank)	Lubricant
769	30018	500	Steel	88 CES/CEOFF	Diesel
770	31214	404		88 CES/CEOFF	Diesel
771	20802	15000	Steel	AFRL/RCM	Diesel
772	20802	500	Steel	AFRL/RCM	Diesel
773	31227	520		88 FSS/FSCT (Auto Hobby)	Used Oil
774	20802	15000	Steel	AFRL/RCM	Diesel
775	20802	500	Steel	AFRL/RCM	Diesel
776	20004A	300	Steel	AFTC/DO	Hydraulic Fluid
777	10293	120	Steel	88 FSS/FSRR	Used Oil
779	30962	300	Steel	88 CES/CEOFF	Diesel
780	20802	15000	Steel	AFRL/RCM	Diesel
781	20802	500	Steel	AFRL/RCM	Diesel
782	20802	15000	Steel	AFRL/RCM	Diesel
783	20802	500	Steel	AFRL/RCM	Diesel
784	30093	400	Steel	88LRS/LGRMCG	Used Oil
785	20071A	250 (Empty)		AFRL/RXAP	Used Oil
786	20071A	250		AFRL/RXAP	Used Oil
787	20497	3100	Steel	88 CES/CEOFF	Diesel

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Aboveground Storage Tanks (ASTs)					
Tank No.	Facility No.	Capacity (gals)	Material	Organization	Contents
788	20038	240	Steel	88 LRS/LGRVCM	Used Oil
789	10829	25000	Steel	88 CES/CEOFF	Diesel
790	10902	1000	Steel	88 CES/CEOFF	Diesel
791	10903	1000	Steel	88 CES/CEOFF	Diesel
792	10904	829	Steel	88 CES/CEOFF	Diesel
794	31206	2644	Steel	88 CES/CEOFF	Diesel
795	34025	7964	Steel	88 CES/CEOFF	Diesel
796	20094	1000	Steel	704 TG/OL-ACS	Jet A
797	20094	1000	Steel	704 TG/OL-ACS	Jet A
798	31250	400	Steel	Commissary	Diesel
799	20321	5000	Steel	88 CS/SCIOS	Diesel
800	31240	1000	Steel	88 CES/CEOID	Diesel
801	20626	190	Steel	88 CES/CEOFF	Diesel
802	30015	401	Steel	88 CES/CEOFF	Diesel
OFOE	20891	3000	Steel	Dayton Power & Light	Hydraulic Fluid

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Site ID	Current Phase	Actual Start Date	Estimated End Date	Actual End Date
AL100	RIP			09/30/2003
AL100	RC			09/30/2003
AL100	SC			09/30/2003
Bldg 25	RIP		08/31/2026	
Bldg 25	RC		08/31/2026	
Bldg 25	SC		08/31/2026	
OWS-OS40(R) NW of Bdg 224	RIP		08/30/2020	
OWS-OS40(R) NW of Bdg 224	RC		08/30/2020	
OWS-OS40(R) NW of Bdg 224	SC		08/30/2020	
Burial Site 1	ROD/DD	08/31/1995		09/30/1996
Burial Site 1	RIP			09/30/1993
Burial Site 1	RC			09/30/1996
Burial Site 1	SC		09/30/2049	
Burial Site 2	ROD/DD	08/31/1997	09/30/1998	09/30/1998
Burial Site 2	RIP		09/30/1998	09/30/1998
Burial Site 2	RC		09/30/1998	09/30/1998
Burial Site 2	SC		09/30/2049	
Burial Site 3	ROD/DD	03/30/1992		09/30/1998
Burial Site 3	RIP			09/29/1992
Burial Site 3	RC			09/30/1998
Burial Site 3	SC		09/30/2049	
Burial Site 4	ROD/DD	08/04/1995		09/30/1996
Burial Site 4	RIP			09/29/1991
Burial Site 4	RC			09/30/1996
Burial Site 4	SC		09/30/2049	
Burial Site 5	RIP		08/30/1999	06/08/1999
Burial Site 5	RC		08/30/1999	06/08/1999
Burial Site 5	SC		09/30/2049	
Burial Site 6	RIP		09/30/1998	09/30/1998
Burial Site 6	RC		09/30/1998	09/30/1998
Burial Site 6	SC		09/30/2049	
Bldg 20059	RIP		09/30/2023	
Bldg 20059	RC		09/30/2023	
Bldg 20059	SC		09/02/2049	

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Bldg 79/95 Complex	RIP		09/12/2023	
Bldg 79/95 Complex	RC		09/12/2023	
Bldg 79/95 Complex	SC		09/01/2049	
FTA 1	ROD/DD	08/04/1995		09/30/1996
FTA 1	RIP			09/24/1994
FTA 1	RC			09/30/1996
FTA 1	SC		09/30/2049	
FTA 2	ROD/DD	07/31/1995		09/30/1996
FTA 2	RIP			09/29/1994
FTA 2	RC			09/30/1996
FTA 2	SC		09/30/2049	
FTA 3	ROD/DD	07/31/1995		09/30/1996
FTA 3	RIP			09/01/1995
FTA 3	RC			09/30/1996
FTA 3	SC		09/30/2049	
FTA 4	ROD/DD	07/31/1995		09/30/1996
FTA 4	RIP			09/24/1994
FTA 4	RC			09/30/1996
FTA 4	SC		09/30/2049	
FTA 5	ROD/DD	07/31/1995		09/30/1996
FTA 5	RIP			09/01/1995
FTA 5	RC			09/30/1996
FTA 5	SC		09/30/2049	
LF 1	ROD/DD	12/31/1995		09/30/1998
LF 1	RIP		09/30/1998	09/30/1998
LF 1	RC		09/30/2028	09/30/1998
LF 1	SC		09/30/2051	
LF 2	ROD/DD	12/01/1995	09/30/1998	09/30/1998
LF 2	RIP		09/16/1998	09/30/1998
LF 2	RC		09/30/2028	06/06/2017
LF 2	SC		09/30/2051	
LF 3	ROD/DD	04/30/1995	09/30/1998	09/30/1998
LF 3	RIP		09/30/1998	09/30/1998
LF 3	RC		09/30/1998	09/30/1998

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LF 3	SC		09/30/2049	
LF 4	ROD/DD	04/30/1995	09/30/1998	09/30/1998
LF 4	RIP		09/30/1998	09/30/1998
LF 4	RC		09/30/1998	09/30/1998
LF 4	SC		09/30/2049	
LF 5	ROD/DD	08/04/1995	12/15/2014	09/30/1998
LF 5	RIP			09/28/1998
LF 5	RC		09/30/2028	06/21/2005
LF 5	SC		09/30/2051	
LF 6	ROD/DD	04/30/1995	09/30/1998	09/30/1998
LF 6	RIP			09/30/1998
LF 6	RC		12/15/2014	03/02/2015
LF 6	SC		09/30/2051	
LF 7	ROD/DD	04/30/1995		09/30/1998
LF 7	RIP			09/30/1998
LF 7	RC		12/31/2008	08/30/2008
LF 7	SC		09/30/2051	
LF 8	ROD/DD	08/28/1992		06/30/1994
LF 8	RIP			06/30/1997
LF 8	RC		09/30/2049	
LF 8	SC		09/30/2079	
LF 9	ROD/DD	11/08/1996	09/30/1998	09/30/1998
LF 9	RIP		05/30/1998	09/30/1998
LF 9	RC		09/30/2045	06/21/2005
LF 9	SC		09/30/2051	
LF 10	ROD/DD	08/28/1992		06/30/1994
LF 10	RIP		07/24/1997	06/30/1997
LF 10	RC		09/30/2049	
LF 10	SC		09/30/2079	
LF 11	ROD/DD	07/31/1995	09/30/1998	09/30/1998
LF 11	RIP		09/30/1998	09/30/1998
LF 11	RC		09/30/2028	06/21/2005
LF 11	SC		09/30/2051	
LF 12	ROD/DD	07/31/1995	09/30/1998	09/30/1998

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Site ID	Current Phase	Actual Start Date	Estimated End Date	Actual End Date
LF 12	RIP		09/30/1998	09/30/1998
LF 12	RC		09/30/1998	09/30/1998
LF 12	SC		09/30/2049	
LF 13	ROD/DD	12/31/1995		09/30/1996
LF 13	RIP			09/30/1996
LF 13	RC		09/30/1999	09/30/1998
LF 13	SC		09/30/2049	
EFDZ 1	ROD/DD	12/31/1995		09/30/1996
EFDZ 1	RIP			09/08/1992
EFDZ 1	RC			09/30/1996
EFDZ 1	SC		09/30/2049	
EFDZ 2	ROD/DD	08/14/1992		09/30/1998
EFDZ 2	RIP			09/30/1998
EFDZ 2	RC			09/30/1998
EFDZ 2	SC		09/30/2049	
EFDZ 3	ROD/DD	08/14/1992		09/30/1998
EFDZ 3	RIP			09/30/1998
EFDZ 3	RC			09/30/1998
EFDZ 3	SC		09/30/2049	
EFDZ 4	ROD/DD	09/10/1997	09/30/1998	09/30/1998
EFDZ 4	RIP		09/30/1998	09/30/1998
EFDZ 4	RC		09/30/1998	09/30/1998
EFDZ 4	SC		09/30/2049	
EFDZ 5	ROD/DD	08/14/1992		09/30/1998
EFDZ 5	RIP			09/30/1998
EFDZ 5	RC			09/30/1998
EFDZ 5	SC		09/30/2049	
EFDZ 6	ROD/DD	08/14/1992		09/30/1998
EFDZ 6	RIP			09/30/1998
EFDZ 6	RC			09/30/1998
EFDZ 6	SC		09/30/2049	
EFDZ 7	ROD/DD	08/14/1992		09/30/1998
EFDZ 7	RIP			09/30/1998
EFDZ 7	RC			09/30/1998

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EFDZ 7	SC		09/30/2049	
EFDZ 8	ROD/DD	08/14/1992		09/30/1998
EFDZ 8	RIP			09/30/1998
EFDZ 8	RC			09/30/1998
EFDZ 8	SC		09/30/2049	
EFDZ 9	ROD/DD	09/10/1997	09/30/1998	09/30/1998
EFDZ 9	RIP		09/30/1998	09/30/1998
EFDZ 9	RC		09/30/1998	09/30/1998
EFDZ 9	SC		09/30/2049	
EFDZ 10	ROD/DD	03/30/1993		09/30/1998
EFDZ 10	RIP			09/30/1998
EFDZ 10	RC			09/30/1998
EFDZ 10	SC		09/30/2049	
EFDZ 11	ROD/DD	03/30/1993		09/30/1996
EFDZ 11	RIP			09/29/1992
EFDZ 11	RC			09/30/1996
EFDZ 11	SC		09/30/2049	
EFDZ 12	ROD/DD	03/30/1996		09/30/1996
EFDZ 12	RIP			09/29/1992
EFDZ 12	RC			09/30/1996
EFDZ 12	SC		09/30/2049	
LF 14	ROD/DD	07/31/1995		09/30/1996
LF 14	RIP			09/29/1994
LF 14	RC			09/30/1996
LF 14	SC		09/30/2049	
Bldg 30013 Sump Pit Area	RIP		10/03/2020	
Bldg 30013 Sump Pit Area	RC		10/03/2020	
Bldg 30013 Sump Pit Area	SC		09/29/2049	
Armament Lab and Associated Ranges	RIP		07/31/2015	09/04/2013
Armament Lab and Associated Ranges	RC		12/31/2016	09/04/2013
Armament Lab and Associated Ranges	SC		09/30/2099	09/04/2013
Bomb Target and Pistol Range	RIP		12/01/2024	
Bomb Target and Pistol Range	RC		12/01/2024	
Bomb Target and Pistol Range	SC		09/30/2049	

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CHP 5	ROD/DD	07/02/1989		09/30/1998
CHP 5	RIP			09/06/1991
CHP 5	RC			09/30/1998
CHP 5	SC		09/30/2049	
CHP 2	ROD/DD	07/02/1989		09/30/1998
CHP 2	RIP			09/06/1991
CHP 2	RC			09/30/1998
CHP 2	SC		09/30/2049	
CHP 3	ROD/DD	12/31/1995		09/30/1996
CHP 3	RIP			09/22/1995
CHP 3	RC			09/30/1996
CHP 3	SC		09/30/2049	
CHP 4	ROD/DD	07/01/1989		09/30/1998
CHP 4	RIP			08/01/1996
CHP 4	RC			09/30/1998
CHP 4	SC		09/30/2049	
CHP 5	ROD/DD	09/10/1997		09/30/1998
CHP 5	RIP		12/30/1998	10/30/1998
CHP 5	RC		12/30/1998	10/30/1998
CHP 5	SC		09/30/2049	
Long-Term Coal Storgae Area	ROD/DD	08/31/1995		09/30/1996
Long-Term Coal Storgae Area	RIP			09/28/1993
Long-Term Coal Storgae Area	RC			09/30/1996
Long-Term Coal Storgae Area	SC		09/30/2049	
Temporary Coal Storage Area	ROD/DD	08/31/1995		09/30/1996
Temporary Coal Storage Area	RIP			08/31/1995
Temporary Coal Storage Area	RC			09/30/1996
Temporary Coal Storage Area	SC		09/30/2049	
Coal Storage Area Bldg 89	ROD/DD	08/31/1995		09/30/1996
Coal Storage Area Bldg 89	RIP			09/29/1992
Coal Storage Area Bldg 89	RC			09/30/1996
Coal Storage Area Bldg 89	SC		09/30/2049	
Coal and Chemical Storage Area	ROD/DD	08/31/1995		09/30/1996
Coal and Chemical Storage Area	RIP			09/29/1992

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Site ID	Current Phase	Actual Start Date	Estimated End Date	Actual End Date
Coal and Chemical Storage Area	RC			09/30/1996
Coal and Chemical Storage Area	SC		09/30/2049	
GWTS	ROD/DD	06/11/1992		06/11/1992
GWTS	RIP			06/11/1992
GWTS	RC		09/30/2030	
GWTS	SC		09/30/2030	
Area A Groundwater	ROD/DD	04/01/1999		09/30/1999
Area A Groundwater	RIP			11/29/1999
Area A Groundwater	RC		09/30/2060	
Area A Groundwater	SC		09/30/2060	
Area B Groundwater	ROD/DD	10/01/1998		09/30/1999
Area B Groundwater	RIP		04/30/2002	02/14/2002
Area B Groundwater	RC		09/30/2060	
Area B Groundwater	SC		09/30/2060	
Bldg 20056 Acid Neutralization Basin	RIP		08/01/2022	
Bldg 20056 Acid Neutralization Basin	RC		08/01/2022	
Bldg 20056 Acid Neutralization Basin	SC		08/01/2022	
Bldg 30151 Maintenance Facility	RIP		12/31/2014	10/15/2014
Bldg 30151 Maintenance Facility	RC		12/31/2015	10/15/2014
Bldg 30151 Maintenance Facility	SC		03/29/2021	
Radioactive Waste Burial Site	ROD/DD	10/01/1991		09/30/1998
Radioactive Waste Burial Site	RIP			02/24/1992
Radioactive Waste Burial Site	RC			09/30/1998
Radioactive Waste Burial Site	SC		09/30/2049	
Deactivated Nuclear Reactor	ROD/DD	08/15/1987		09/30/1998
Deactivated Nuclear Reactor	RIP			08/01/1996
Deactivated Nuclear Reactor	RC			09/30/1998
Deactivated Nuclear Reactor	SC		09/30/2049	
Chemical Disposal Area	ROD/DD	03/30/1993		09/30/1998
Chemical Disposal Area	RIP			03/30/1993
Chemical Disposal Area	RC			09/30/1998
Chemical Disposal Area	SC		09/30/2049	
Rifle/1,000-Inch Radius Range	RIP		10/28/2015	01/08/2015
Rifle/1,000-Inch Radius Range	RC		03/31/2016	11/24/2015

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Site ID	Current Phase	Actual Start Date	Estimated End Date	Actual End Date
Rifle/1,000-Inch Radius Range	SC		02/28/2017	11/24/2015
Spill Site 1	ROD/DD	07/31/1995		09/30/1996
Spill Site 1	RIP			09/29/1994
Spill Site 1	RC			09/30/1996
Spill Site 1	SC		09/30/2049	
Spill Site 2	ROD/DD	08/30/1996		09/30/1997
Spill Site 2	RIP			09/30/1996
Spill Site 2	RC			09/30/1997
Spill Site 2	SC		11/11/2019	04/03/2019
Spill Site 3	ROD/DD	09/01/1996		09/30/1997
Spill Site 3	RIP			09/30/1996
Spill Site 3	RC			09/30/1997
Spill Site 3	SC		11/11/2019	04/03/2019
Spill Site 4	ROD/DD	01/31/1991		09/30/1996
Spill Site 4	RIP			09/05/1991
Spill Site 4	RC			09/30/1996
Spill Site 4	SC		09/30/2049	
Spill Site 5	ROD/DD	01/23/1997	09/30/1998	09/30/1998
Spill Site 5	RIP			09/30/1998
Spill Site 5	RC			09/30/1998
Spill Site 5	SC		09/30/2049	
Spill Site 6	ROD/DD	09/01/1990		09/30/1998
Spill Site 6	RIP			09/29/1992
Spill Site 6	RC			09/30/1998
Spill Site 6	SC		09/30/2049	
Spill Site 7	ROD/DD	04/01/1993		09/30/1998
Spill Site 7	RIP			09/17/1993
Spill Site 7	RC			09/30/1998
Spill Site 7	SC		09/30/2049	
Spill Site 8	ROD/DD	10/01/1990		09/30/1998
Spill Site 8	RIP			05/31/1991
Spill Site 8	RC			09/30/1998
Spill Site 8	SC		09/30/2049	
Spill Site 9	ROD/DD	06/30/1993		09/30/1998

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Site ID	Current Phase	Actual Start Date	Estimated End Date	Actual End Date
Spill Site 9	RIP			09/30/1993
Spill Site 9	RC			09/30/1998
Spill Site 9	SC		09/30/2049	
Spill Site 10	ROD/DD	08/30/1996		09/30/1997
Spill Site 10	RIP			09/30/1997
Spill Site 10	RC			09/30/1997
Spill Site 10	SC		11/11/2019	04/03/2019
Spill Site 11	ROD/DD	01/23/1997	09/30/1998	09/30/1998
Spill Site 11	RIP		09/30/1998	09/30/1998
Spill Site 11	RC		09/30/2028	06/22/2005
Spill Site 11	SC		09/30/2051	
Bldg 20055	RIP		04/23/2032	
Bldg 20055	RC		04/23/2032	
Bldg 20055	SC		04/23/2049	
Bldg 4020 UST	ROD/DD	08/31/1997	09/30/1998	09/30/1998
Bldg 4020 UST	RIP		09/30/1998	09/30/1998
Bldg 4020 UST	RC		09/30/1999	09/30/1998
Bldg 4020 UST	SC		09/30/2049	
UST, Bldg 71A	ROD/DD	01/23/1997	09/30/1998	09/30/1998
UST, Bldg 71A	RIP		09/30/1998	09/30/1998
UST, Bldg 71A	RC		09/30/1999	09/30/1998
UST, Bldg 71A	SC		09/30/2049	
Tank Farm 49A	ROD/DD	10/01/1994		09/30/1996
Tank Farm 49A	RIP			09/22/1995
Tank Farm 49A	RC			09/30/1996
Tank Farm 49A	SC		09/30/2049	
East Ramp UST	ROD/DD	02/02/1989		09/30/1998
East Ramp UST	RIP			09/05/1991
East Ramp UST	RC			09/30/1998
East Ramp UST	SC		09/30/2049	
Gravel Lake Tanks	ROD/DD	08/05/1995		08/05/1995
Gravel Lake Tanks	RIP			08/05/1995
Gravel Lake Tanks	RC			08/05/1995
Gravel Lake Tanks	SC		09/30/2049	

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Site ID	Current Phase	Actual Start Date	Estimated End Date	Actual End Date
UST at Bldg 30119	ROD/DD	09/01/1996		09/30/1996
UST at Bldg 30119	RIP			09/30/1996
UST at Bldg 30119	RC		09/30/2047	09/30/1996
UST at Bldg 30119	SC		09/30/2049	
Abandoned Ordnance and Skeet Range	RIP		07/31/2015	09/04/2013
Abandoned Ordnance and Skeet Range	RC		09/30/2099	09/04/2013
Abandoned Ordnance and Skeet Range	SC		09/30/2099	09/04/2013
Former Skeet and Trap Range	RIP		12/01/2024	
Former Skeet and Trap Range	RC		12/01/2024	
Former Skeet and Trap Range	SC		09/30/2049	
UST at Bldg 30154	RIP		01/16/2018	01/11/2018
UST at Bldg 30154	RC		01/16/2018	01/11/2018
UST at Bldg 30154	SC		07/31/2019	04/18/2019
UST 59 at Bldg 30119	RIP		01/16/2018	07/02/2014
UST 59 at Bldg 30119	RC		07/02/2014	07/02/2014
UST 59 at Bldg 30119	SC		08/31/2017	10/22/2015
Bldg 34020 USTs 333 and 334	RIP		01/16/2018	07/02/2014
Bldg 34020 USTs 333 and 334	RC		01/16/2018	07/02/2014
Bldg 34020 USTs 333 and 334	SC		07/23/2019	01/28/2016
Bldg S-841 USTs 100 and 111	RIP		01/16/2018	07/02/2014
Bldg S-841 USTs 100 and 111	RC		07/02/2014	07/02/2014
Bldg S-841 USTs 100 and 111	SC		09/25/2018	01/28/2016
Bldg 26933 UST 78 Page Manor	RIP		01/16/2018	09/18/2014
Bldg 26933 UST 78 Page Manor	RC		09/18/2014	09/18/2014
Bldg 26933 UST 78 Page Manor	SC		05/30/2016	04/12/2016
Bldg 30159 UST 85	RIP		12/31/2014	07/02/2014
Bldg 30159 UST 85	RC		12/31/2014	07/02/2014
Bldg 30159 UST 85	SC		09/26/2018	01/28/2016
Bldg 20062 USTs	RIP		01/16/2018	07/02/2014
Bldg 20062 USTs	RC		01/16/2018	07/02/2014
Bldg 20062 USTs	SC		09/25/2018	01/28/2016

SECTION K

OTHER FEDERAL LAWS

In accordance with 40 CFR 270.3, the following laws have been reviewed for applicability with respect to the hazardous waste container storage facility at WPAFB:

- The Wild and Scenic Rivers Act, 16 USC 1273 et seq.
- The National Historic Preservation Act of 1966, 16 USC 470 et seq.
- The Endangered Species Act, 16 USC 1531 et seq.
- The Coastal Zone Management Act, 16 USC 1451 et seq.
- The Fish and Wildlife Coordination Act, 16 USC 661 et seq.

K-1 The National Historic Preservation Act

The following four locations on WPAFB are listed on the National Register of Historic Places, and one additional location pending approval. In no case will these places or uses of these places be impacted by construction or operation of the proposed hazardous waste container storage area.

1. Wright Brothers Memorial Mound Group
Registration No. PH0060305, February 12, 1974

The Wright Brothers Memorial Mound Group is located in Area B of the base and is open to the public (see Map 2). It consists of six mounds, which have been dated from 500 B.C. to 300 A.D. and which were established by either the Adena or the Hopewell Indians. The mounds are relatively small and gently sloping. They are maintained by the base as improved ground areas.

2. Wright-Patterson Air Force Base Mound
Registration No. PH0060330, February 23, 1972

The Wright-Patterson Air Force Base Mound is located in Area B of the base (see Map 2), but unlike the mound group, it is not open to the public. The mound is kept clear of brush, although large trees have been allowed to remain on it. It is dated 500 B.C. to 400 A.D. and was also established by either the Adena or Hopewell Indians.

3. Huffman Field/Prairie Flying Field
Registration No. PH0060267, May 6, 1971

Huffman Prairie Flying Field is located in Area A of the base (see Map 2). This field has a concrete pylon marking the start of the oval flight path that the Wright brothers used. On this field Wilbur and Orville Wright tested and perfected the airplane following the first flight at Kitty Hawk, North Carolina. The field, used from 1904 until 1916, was the world's first airport and was a training site for early pilots including the first military pilots.

4. Wright Brother Hill/Memorial
Registration No. 160000460, July 19, 2016

Wright Brothers Hill, constructed from 1938 to 1940, commemorates the exceptional achievements of the Wright brothers. The site overlooks the Huffman Prairie Flying Field, a National Historic Landmark where the Wright brothers mastered their flying skills and developed the first practical airplane, the Wright Flyer III.¹¹ Wright Brothers Hill was designed by the acclaimed Olmsted Brothers landscape architecture firm. The memorial was made possible through the efforts of two civic-minded Dayton business leaders, John H. Patterson and Colonel Edward A. Deeds. With the help of the Olmsted firm, Patterson and Deeds brought healthy, pleasant, outdoor environments to the Dayton area. Wright Brothers Hill has attained local and national significance because of its history of public access, its proximity to other historical locations of aviation innovations, and its status as the work of a design firm that has profoundly influenced American landscape architecture.

5. Brick Quarters Historic District
Application No. SG100003071, still pending

Located in the northeast side of Area A of Wright Patterson Air Force Base (WPAFB), Ohio, the Brick Quarters Historic District contains 122 buildings constructed between 1934 and 1937. The District, constructed as Army officers' housing by the Quartermaster General, contains detached and semi-detached residential structures, garages, an Officers' Club, and related service facilities. Designed in the Tudor Revival style, the houses are one-and-a-half and two-and-a-half-story brick residential dwellings with stucco and half-timber detailing. Other detailing on the individual structures includes quoining, pointed-arch stone lintels, steeply pitched gables, and chimney pots. Resembling a typical early twentieth-century suburban development, the brick housing structures sit astride and set back from wooded streets laid in a straight grid bounded to the northwest by a curvilinear loop with recreational facilities. The houses have large, open, common rear yards. A strong boulevard axis cuts through the center of the planned community with a green space and central axial reflecting pool, referred

to as the Turtle Pond. The Turtle Pond consists of four semicircular bays arranged around a shallow rectangular concrete pool. Three cast concrete turtles are centered in each of the bays. The entire complex of houses is encircled by the fairways of a golf course. Originally opened in 1922, the golf course has been modified and altered throughout its history, including the relocation of several holes to accommodate the Brick Quarters construction.

Each of these locations is situated far enough from the hazardous waste container storage areas to be isolated from potential impact. Surface water runoff would not affect the historic sites because it is not carried through or near the sites. Similarly, traffic carrying wastes to and from the facility would not create impacts because the established traffic routes do not pass the sites.

K-2 The Endangered Species Act

There are no federally endangered or threatened endangered species within one-quarter mile of Buildings 478/479. Both the Ohio Department of Natural Resources and the Department of Interior, U.S. Fish and Wildlife Service were contacted and responses were received (Attachment K-1). Neither indicated the known presence of federally listed species in the vicinity of the site. The base has been surveyed for federally listed species, including those referred to in Attachment K-1. The site itself does not have suitable habitat for any species listed in Attachment K-1.

K-3 Wild and Scenic River Act: Section 1510.16 (Wild and Scenic Rivers - Under DNR)

There are no wild or scenic rivers within one mile of Buildings 478/479. This information was verified by the Ohio Department of Natural Resources (Attachment K-1).

K-4 The Fish Wildlife Coordination Act

There are no waters of any stream or other body of water that will be proposed or authorized to be impounded, diverted, controlled, or modified in the area of Buildings 478/479.

K-5 The Coastal Zone Management Act

WPAFB is not located within a designated coastal zone.

APPENDIX K-1

**OHIO DEPARTMENT OF NATURAL RESOURCES
U.S. DEPARTMENT OF THE INTERIOR**

From: [Ohio, FW3](#)
To: [WARNER, DARRYN M CIV USAF AFMC 88 CEG/CEIEA](#)
Cc: [Seymour, Megan](#)
Subject: [Non-DoD Source] WPAFB Renewal of Part B RCRA Permit for Storage Facility Bldg. 20479
Date: Friday, July 10, 2020 2:24:24 PM
Attachments: [Outlook-j3ofqbgd.png](#)
[Outlook-s3kmmt5t.png](#)



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994



TAILS #03E15000-2020-TA-1826

Dear Mr. Warner,

We have received your recent correspondence requesting information about the subject proposal. There are no Federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area.

FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES COMMENTS: Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, proposed, or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the U.S. Fish and Wildlife Service should be initiated to assess any potential impacts.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Patrice M. Ashfield
Field Office Supervisor



Ohio Department of Natural Resources

MIKE DeWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate
John Kessler, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6621
Fax: (614) 267-4764

September 4, 2020

Darryn M. Warner
Department of the Air Force
88 CEG/CEIEA
1450 Littrell Rd. Bldg. 22
WPAFB, OH 45433

Re: 20-705; RCRA Permit Renewal Area B, Wright-Patterson Air Force Base

Project: The proposed project involves renewing Part B RCRA permit for storage of permitted wastes. All work is performed on the interior of the facility or within the developed footprint of the facility. Chain-link fence surrounding the facility will also provide adequate security.

Location: The proposed project is located in Fairborn, Greene County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has no records at or within a one-mile radius of the project area.

A review of the Ohio Natural Heritage Database indicates there are no other records of state endangered or threatened plants or animals within the project area. There are also no records of state potentially threatened plants, special interest or species of concern animals, or any federally listed species. In addition, we are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas within the project area. The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation.

The project is within the vicinity of records for the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, and the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species. Presence of listed bats has been established in the area, and therefore additional summer surveys would not constitute presence/absence in the area. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible. However, limited summer tree cutting may be acceptable after further consultation with the DOW (contact Sarah Stankavich, sarah.stankavich@dnr.state.oh.us).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees.

The DOW also recommends that a desktop or field-based habitat assessment is conducted to determine if there are potential hibernaculum(a) present within the project area. Habitat assessments should be conducted in accordance with the current USFWS “Range-wide Indiana Bat Survey Guidelines” and submitted to Sarah Stankavich, sarah.stankavich@dnr.state.oh.us if potential hibernacula are present within .25 miles of the project area. If a potential hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the following listed mussel species:

Federally Endangered

clubshell (*Pleurobema clava*)

rayed bean (*Villosa fabalis*)

snuffbox (*Epioblasma triquetra*)

State Threatened

black sandshell (*Ligumia recta*)

fawnsfoot (*Truncilla donaciformis*)

Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size, this project is not likely to impact these species.

The project is within the range of the tongue-tied minnow (*Exoglossum laurae*), a state threatened fish. The DOW recommends no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact this or other aquatic species.

The project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as adjacent drier upland habitat. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet fields and meadows. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the spotted turtle (*Clemmys guttata*), a state threatened species. This species prefers fens, bogs and marshes, but also is known to inhabit wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. In the Oak Openings area west of Toledo, lark sparrows occupy open grass and shrubby fields along sandy beach ridges. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf

ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at (614) 265-6397 or Sarah.Tebbe@dnr.state.oh.us if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator (Acting)

Mike Pettegrew

SECTION L
CERTIFICATION
[40 CFR 270.11]

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operator and Owner

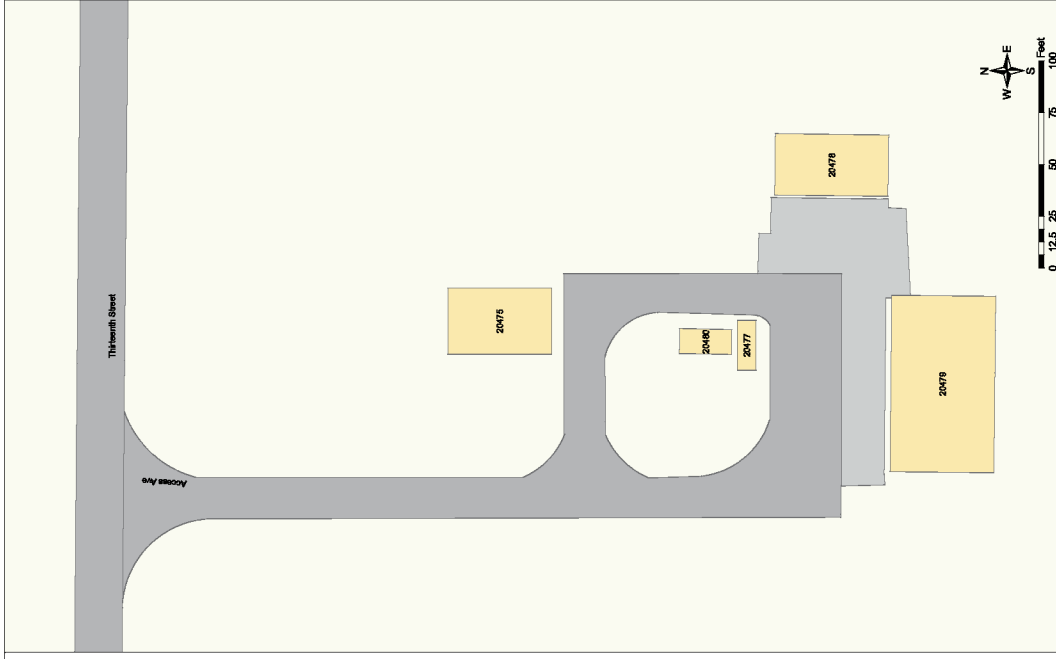
Date: 17-Dec-20

Signature:

MILLER.PATRIC
K.G.1039670280

Digitally signed by
MILLER.PATRICK.G.1039670280
Date: 2020.12.17 16:19:58 -05'00'

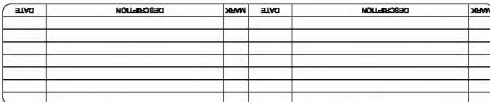
PATRICK G. MILLER, Colonel, USAF
Commander, 88th Air Base Wing



Legend

	Buildings
	Roads
	Parking Lots





DESIGNED BY:	DATE:	COORDINATOR:	ENGINEERING CHIEF:	NAME:	PROJECT NO.:	DATE:	FILE NAME:
15/10/19					13050	15/10/19	FILE MAY 15-2019 - Coder.dwg

WPAFB

WRIGHT-PATTERSON AIR FORCE BASE

60TH CIVIL ENGINEERING GROUP

8161 WRIGHT AVE.

WPAFB OH 45433

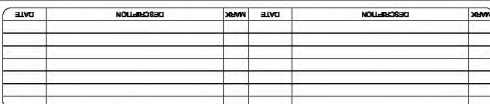
WPAFB

Wright Patterson
Air Force Base
Area A

**SHEET
IDENTIFICATION
CG-1
SHEET 1 OF 1**



For Official Use Only



WPAFB
WRIGHT-PATTERSON AIR FORCE BASE
88TH CIVIL ENGINEERING GROUP
5151 WRIGHT AVE.
WPAFB OH 45433

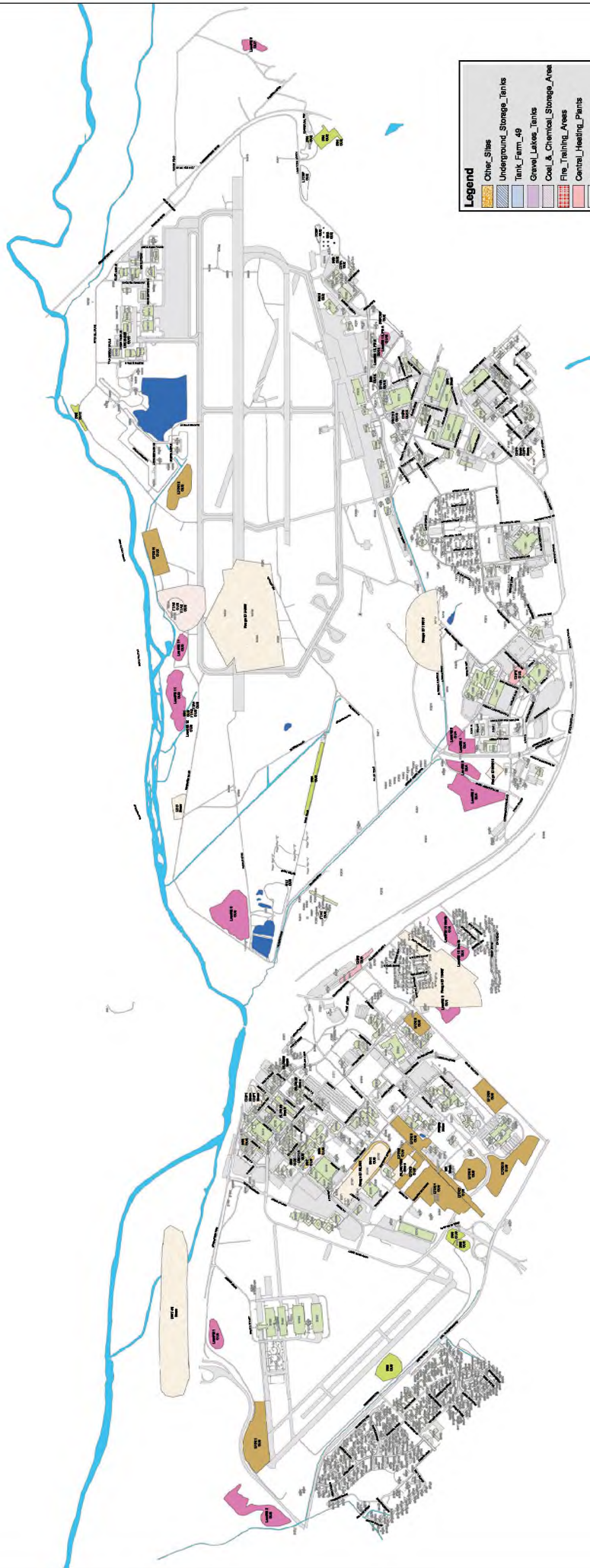
Wright Patterson
Air Force Base
Area B

**SHEET
IDENTIFICATION**
CG-1
SHEET 1 OF 1



For Official Use Only





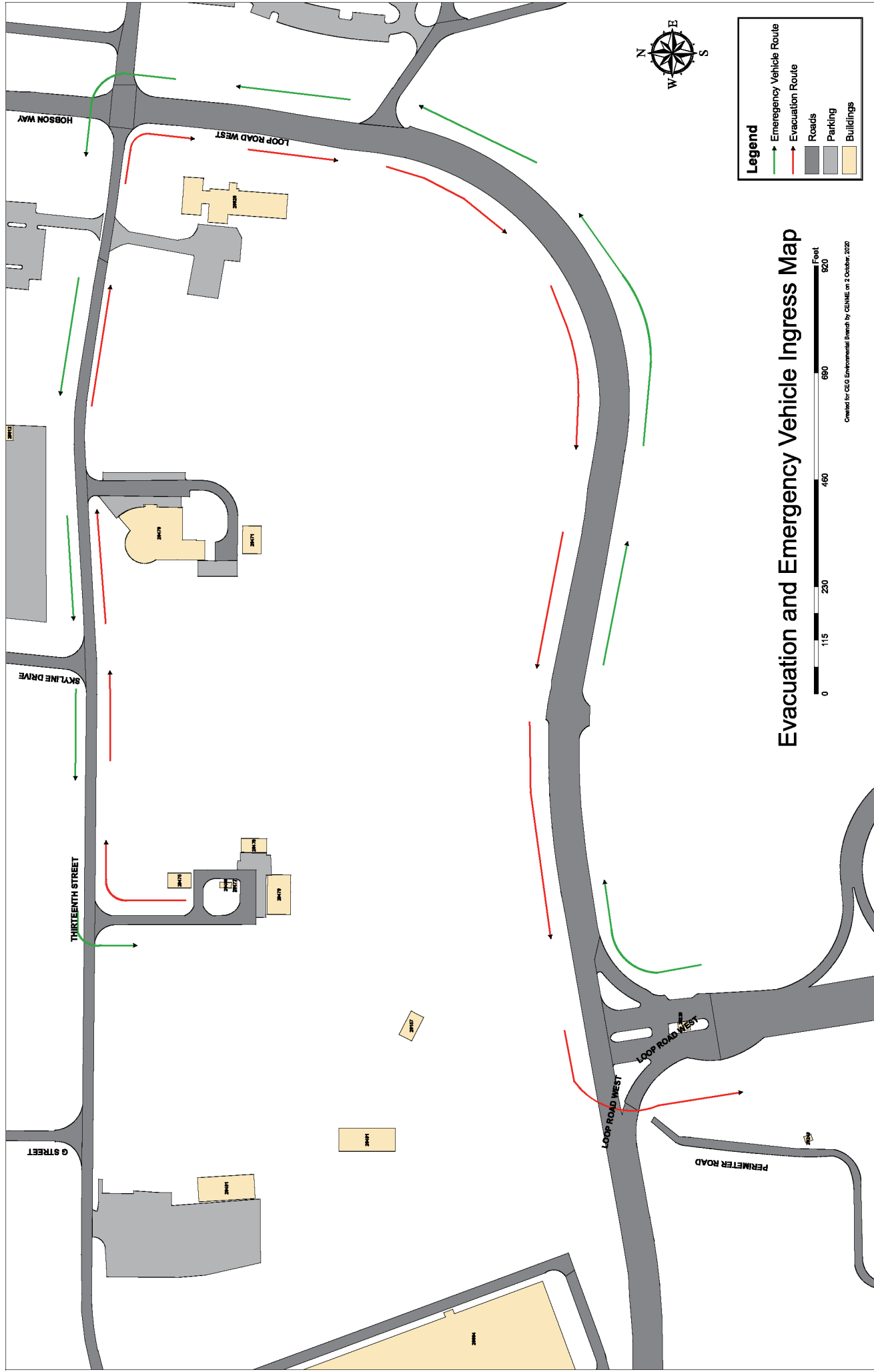
Wright-Patterson AFB Landfill Locations



Created for all CDE Environmental Branch on 01 October 2020









Legend

- Water Line
- Fire Hydrant
- Control Valve
- Manhole
- Contour Lines
- 1/4 Mile Radius Around 20479
- Buildings
- Roads
- Parking Lots

Domestic and Fire Prevention Water System
1/4 Mile Radius
Around Bldg: 20479
Created by CENME on: 10/7/2020

1 inch = 200 feet
Feet
0 165 330 660 990 1,320