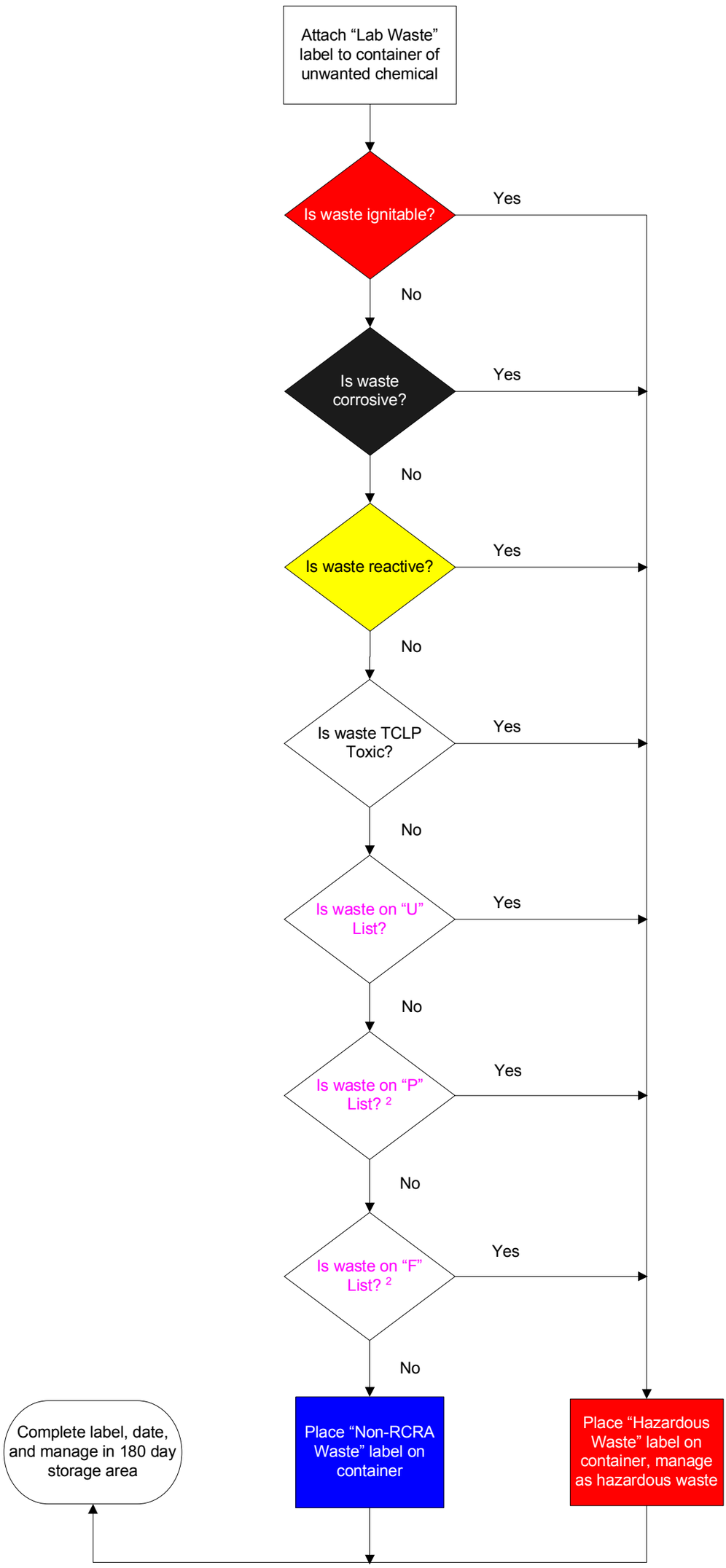
Waste Determination Process for Unused Chemicals[1]



[1] This process is typically performed by department hazardous waste coordinator.
[2] Notify EH&S of acutely hazardous waste generation immediately.

08/22/2013

Characteristics of a Hazardous Waste

Is it Ignitable?

A waste exhibits the characteristic of ignitability and is assigned the Hazardous Waste Code D001 if it meets any of the following criteria:

(a) It is a liquid, other than an aqueous solution containing less than 24% alcohol by volume, and has a flash point less than 60°C (140°F), as determined by methods approved by the Tennessee Department of Environment and Conservation (TDEC);
(b) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through spontaneous chemical changes and, once ignited, burns so vigorously and persistently that it creates a hazard;
(c) It is an ignitable compressed gas as defined in federal regulations or as determined by approved test methods;
(d) It is an oxidizer as defined in federal regulations.

Is it Corrosive?

A waste exhibits the characteristic of corrosivity, and has a Hazardous Waste Code of D002, if it meets any of the following criteria:

(a) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using a test method approved by TDEC;
(b) It is a liquid and corrodes steel at a rate greater than 6.35 mm per year at a temperature of 55°C (130°F) as determined by approved methods.

Is it Reactive?

A waste exhibits the characteristic of reactivity, and has a Hazardous Waste Code of D003, if it meets any of the following criteria:

(a) It is normally unstable and readily undergoes violent change without detonating;
(b) Reacts violently with water;
(c) Forms potentially explosive mixtures with water;
(d) When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to public health or the environment;
(e) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, or fumes in a quantity sufficient to present a danger to public health or the environment;
(f) It is capable of detonation or explosive reaction if subjected to a strong initiating source or is heated under confinement;
(g) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure;
(h) It is a forbidden explosive, Class A explosive, or Class B explosive (Explosives 1.1, 1.2, or 1.3) as defined by U.S. Department of Transportation (DOT) regulations found in Title 49 of the Code of Federal Regulations.

Is it on the TCLP List?

A waste exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure (TCLP) or other approved procedure, the extract from a representative sample contains any of the contaminants listed below in concentrations equal to or greater than the noted levels. [The TCLP characteristic replaced the Extraction Procedure (EP) Toxicity test.] Hazardous waste codes assigned to these wastes are also listed below:

HW CODE	CONTAMINANT	CAS NUMBER	LEVEL (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	Cresol, o-	95-48-7	200.0
D024	Cresol, m-	108-39-4	200.0
D025	Cresol, p-	106-44-5	200.0
D026	Cresol		200.0
D016	2,4-D	94-75-7	10.0
D027	Dichlorobenzene, 1,4-	106-46-7	7.5
D028	Dichloroethane, 1,2-	107-06-2	0.5
D029	Dichloroethylene, 1,1-	75-35-4	0.7
D030	Dinitrotoluene, 2,4-	121-14-2	0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone (MEK)	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	5.0
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	Trichlorophenol, 2,4,5-	95-95-4	400.0
D042	Trichlorophenol, 2,4,6-	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2