

GENERATORS NOTIFICATION OF TREATMENT REQUIREMENTS FOR WASTES RESTRICTED FROM LAND DISPOSAL UNDER 40 CFR 268 SUBPART D

MANIFEST NUMBER: _____

EPA ID NUMBER: _____

EPA WASTE CODE: _____

PROFILE NUMBER: _____

WASTE CATEGORY [Check appropriate line(s)]

Unrestricted Waste Notification

The disposal of this waste is not restricted as specified in 40 CFR 268, subpart D and all prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d).

Restricted Waste Notification

- A This is a restricted waste which meets the treatment standards as specified in 40 CFR 268, Subpart D.
- B This waste does not meet the treatment standards specified in 40 CFR 268, Subpart D. Waste must be treated to the appropriate standard and in such a manner which renders it non-liquid by chemical fixation or solidification prior to land disposal. [See treatment standard below or see attached Part II section(s).]
- C This shipment includes RCRA Section 3004(d) California list wastes. Circle or otherwise indicate individual constituents likely to be present in the waste.

EPA CODES	SUBCATEGORY or WASTE DESCRIPTION	CONSTITUENT CONCERN	NON-WASTEWATER		WASTEWATER
			TOTAL COMPOSITION (mg/kg)	TCLP (mg/L)	TOTAL COMPOSITION (mg/L)
CALIFORNIA LISTED WASTE LAND DISPOSAL PROHIBITION LEVELS					
<input type="checkbox"/>	Arsenic bearing liquid wastes	Arsenic (As)	500		
<input type="checkbox"/>	Cadmium bearing liquid wastes	Cadmium (Cd)	100		
<input type="checkbox"/>	Chromium bearing liquid waste	Chromium (Cr)	500		
<input type="checkbox"/>	Lead bearing liquid wastes	Lead (Pb)	500		
<input type="checkbox"/>	Nickel bearing liquid wastes	Nickel (Ni)	100		
<input type="checkbox"/>	Mercury bearing liquid wastes	Mercury (Hg)	20		
<input type="checkbox"/>	Selenium bearing liquid wastes	Selenium (Se)	100		
<input type="checkbox"/>	Thallium bearing liquid wastes	Thallium (Th)	130		
<input type="checkbox"/>	PCB bearing liquid wastes	Polychlorinated Biphenyls	50		
<input type="checkbox"/>	Cyanide bearing liquid wastes	Cyanide (Total)	1000		
<input type="checkbox"/>	Liquid wastes with a pH ≤ 2.0		pH ≤ 2.0		
<input type="checkbox"/>	HOC bearing liquid wastes	HOCs listed below	1000		

D This shipment includes hazardous debris. (Check certification B or C)

As required by 40 CFR 268.7(a)(2), the following certification is made for these restricted wastes: (Check One)

- A I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.
- B I notify that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste is subject to the treatment standards, specified in 40 CFR 268 subpart D. Waste must be treated to the appropriate regulatory treatment standard, by the appropriate regulatory treatment method.
- C This hazardous debris is subject to the alternate treatment standards of 40 CFR 268.45. The waste contains the following contaminants subject to treatment. (Check all that apply).
 - ___ 268.45 (b) (1) - Toxicity characteristic debris
 - ___ 268.45 (b) (2) - Debris contaminated with listed waste
 - ___ 268.45 (b) (3) - Cyanide reactive debris

SIGNATURE _____ TITLE _____

GENERATOR NAME/LOCATION: _____

NOTE: PLEASE ATTACH WASTE ANALYSIS DATA. (OPTIONAL) DATE: _____

THIS IS A NON-WASTEWATER UNLESS THIS BOX IS CHECKED INDICATING WASTEWATER.

PROFILE NUMBER

EPA CODES	SUBCATEGORY or WATE DESCRIPTION	CONSTITUENT CONCERN	NON-WASTEWATER		WASTEWATER		EPA CODES	SUBCATEGORY or WATE DESCRIPTION	CONSTITUENT CONCERN	NON-WASTEWATER		WASTEWATER	
			TOTAL COMPOSITION (mg/kg) (Method) ¹	TCLP (mg/L) ¹	TOTAL COMPOSITION (mg/L) (method)	TOTAL COMPOSITION (mg/kg) (Method) ¹				TCLP (mg/L) ¹	TOTAL COMPOSITION (mg/L) (method) ¹		
A. TREATMENT STANDARDS FOR CHARACTERISTIC WASTES													
<input type="checkbox"/> D001	Ignitable liquids, high-TOC non-wastewater subcategory		RORG;or COMBST	-	-								
<input type="checkbox"/> D001	Ignitable liquids, low-TOC non-wastewater subcat (TOC<10%)		DEACT & UHC STANDARDS	-	DEACT (8) & UHC STANDARDS								
<input type="checkbox"/> D001	Ignitable liquids, wastewater subcat (TOC <1% & TSS<1%)		DEACT (8)	-	DEACT (8)								
<input type="checkbox"/> D002	Acid subcategory	pH<2.0	DEACT (8) & UHC STANDARDS *	-	DEACT(8) & UHC*								
<input type="checkbox"/> D002	Alkaline subcategory	pH>12.5	DEACT (8) & UHC STANDARDS *	-	DEACT(8) & UHC*								
<input type="checkbox"/> D002	Other subcategory		DEACT & UHC STANDARDS *	-	DEACT & UHC*								
<input type="checkbox"/> D004	Arsenic	Arsenic	-	5.0 ^d	5.0								
<input type="checkbox"/> D005	Barium	Barium	-	100	100								
<input type="checkbox"/> D006	Cadmium	Cadmium	-	1.0	1.0								
<input type="checkbox"/> D006	Cadmium batteries subcategory	Cadmium	RTHRM (24)	-	-								
<input type="checkbox"/> D007	Chromium	Chromium (Total)	-	5.0	5.0								
<input type="checkbox"/> D008	Lead	Lead	-	5.0 ^d	5.0								
<input type="checkbox"/> D008	Lead acid batteries ⁸		RLEAD (13)	-	-								
<input type="checkbox"/> D009	Low-mercury subcategory (<260 mg/kg total mercury)	Mercury	-	0.2	-								
<input type="checkbox"/> D009	High-mercury subcategory (>260 mg/kg total mercury)	Mercury	RMERC or IMERC(6)	-	-								
<input type="checkbox"/> D010	Selenium	Selenium	-	5.7	1.0								
<input type="checkbox"/> D011	Silver	Silver	-	5.0	5.0								
<input type="checkbox"/> D012	Endrin	Hexachloroepoxy-octo-hydro-dimethano-naphthalene isomer of	0.13 ⁶	-	BIODG;INCIN(19)								
<input type="checkbox"/> D013	Lindane	Hexachlorobenzene	0.066 ⁶	-	CARBN;INCIN(26)								
<input type="checkbox"/> D014	Methoxychlor	MethoxyDDT	0.18 ⁶	-	WETOX;INCIN(27)								
<input type="checkbox"/> D015	Toxaphene	Toxaphene	2.8 ⁶	-	BIODG;INCIN(19)								
<input type="checkbox"/> D016	2,4D	2,4Dichlorophenoxyacetic Acid	10.0 ⁶	-	CHOXD;(26)								
<input type="checkbox"/> D017	2,4,5-TP (Silvex)	2,4,5-Trichlorophenoxy-propionic acid	7.9 ⁶	-	BIODG;INCIN CHOXD;INCIN(1)								
<input type="checkbox"/> D018	Benzene	Benzene	-	10	14								
<input type="checkbox"/> D019	Carbon tetrachloride	Carbon tetrachloride	-	6.0	.057								
<input type="checkbox"/> D020	Chlordane	Octochloromethano-tetrahydroindane	-	.26	.0033								
<input type="checkbox"/> D021	Chlorobenzene	Chlorobenzene	-	6.0	.057								
<input type="checkbox"/> D022	Chloroform	Chloroform	-	6.0	.046								
<input type="checkbox"/> D023	o-Cresol	o-Cresol	-	5.6	.11								
<input type="checkbox"/> D024	m-Cresol	m-Cresol	-	5.6	.77								
<input type="checkbox"/> D025	p-Cresol	p-Cresol	-	5.6	.77								
<input type="checkbox"/> D026	Cresol	Total Cresols	-	11.2	.88								
<input type="checkbox"/> D027	1,4-Dichlorobenzene	1,4-Dichlorobenzene	-	6.0	.090								
<input type="checkbox"/> D028	1,2-Dichloroethane	1,2-Dichloroethane	-	6.0	.21								
<input type="checkbox"/> D029	1,1-Dichloroethylene	1,2-Dichloroethylene	-	6.0	.025								
<input type="checkbox"/> D030	2,4-Dinitrotoluene	2,4-Dinitrotoluene	-	140	.32								
<input type="checkbox"/> D031	Heptachlor	Heptachlor	-	.068	.0012								
<input type="checkbox"/> D031	Heptachlor Epoxide	Heptachlor Epoxide	-	.068	.018								
<input type="checkbox"/> D032	Hexachlorobenzene	Hexachlorobenzene	-	10	.055								
<input type="checkbox"/> D033	Hexachlorobutadiene	Hexachlorobutadien	-	5.6	.055								
<input type="checkbox"/> D034	Hexachloroethane	Hexachloroethane	-	30	.055								
A. TREATMENT STANDARDS FOR CHARACTERISTIC WASTES (continued)													
<input type="checkbox"/> D035	Methyl ethyl ketone	Methyl ethyl ketone	-	36	.28								
<input type="checkbox"/> D036	Nitrobenzene	Nitrobenzene	-	14	.068								
<input type="checkbox"/> D037	Pentachlorophenol	Pentachlorophenol	-	7.4	.089								
<input type="checkbox"/> D038	Pyridine	Pyridine	-	16	.014								
<input type="checkbox"/> D039	Tetrachloroethylene	Perchloroethylene	-	6.0	.056								
<input type="checkbox"/> D040	Trichloroethylene	Trichloroethylene	-	6.0	.054								
<input type="checkbox"/> D041	2,4,5-TP	2,4,5-Trichlorophenol	-	7.4	.18								
<input type="checkbox"/> D042	2,4,6-Trichlorophenol	2,4,6-Trichlorophenol	-	7.4	.035								
<input type="checkbox"/> D043	Vinyl chloride	Vinyl chloride	-	6.0	.27								
B. TREATMENT STANDARDS FOR "F"-LISTED WASTES													
F001 — Spent halogenated solvents used in degreasing ⁵													
<input type="checkbox"/>	Carbon tetrachloride	Carbon tetrachloride	6	-	0.057								
<input type="checkbox"/>	Methylene chloride	Methylene chloride	30	-	0.089								
<input type="checkbox"/>	Tetrachloroethylene	Tetrachloroethylene	6	-	0.056								
<input type="checkbox"/>	1,1,1-Trichloroethane	1,1,1-Trichloroethane	6	-	0.054								
<input type="checkbox"/>	Trichloroethylene	Trichloroethylene	6	-	0.054								
<input type="checkbox"/>	1,1,2-Trichloro-1,2,2-trifluoroethane ⁷	1,1,2-Trichloro-1,2,2-trifluoroethane ⁷	30	-	0.057								
<input type="checkbox"/>	Trichloromonofluoromethane	Trichloromonofluoromethane	30	-	0.02								
F002 — Spent halogenated solvents ⁵													
<input type="checkbox"/>	Chlorobenzene	Chlorobenzene	6	-	0.057								
<input type="checkbox"/>	o-Dichlorobenzene	o-Dichlorobenzene	6	-	0.088								
<input type="checkbox"/>	Methylene chloride	Methylene chloride	30	-	0.089								
<input type="checkbox"/>	Methylene chloride (wastewater from the pharmaceutical industry)	Methylene chloride (wastewater from the pharmaceutical industry)	-	-	0.44								
<input type="checkbox"/>	Tetrachloroethylene	Tetrachloroethylene	6	-	0.056								
<input type="checkbox"/>	1,1,1-Trichloroethane	1,1,1-Trichloroethane	6	-	0.054								
<input type="checkbox"/>	1,1,2-Trichloroethane	1,1,2-Trichloroethane	6	-	0.054								
<input type="checkbox"/>	Trichloroethylene	Trichloroethylene	6	-	0.054								
<input type="checkbox"/>	1,1,2-Trichloro-1,2,2-trifluoroethane ⁷	1,1,2-Trichloro-1,2,2-trifluoroethane ⁷	30	-	0.057								
<input type="checkbox"/>	Trichloromonofluoromethane	Trichloromonofluoromethane	33	-	0.02								
F003 — Spent non-halogenated solvents ⁵													
<input type="checkbox"/>	Acetone	Acetone	160	-	0.28								
<input type="checkbox"/>	n-Butyl alcohol	n-Butyl alcohol	5.8	-	2.6								
<input type="checkbox"/>	Cyclohexanone ³	Cyclohexanone ³	-	-	0.36 ³								
<input type="checkbox"/>	Ethyl acetate	Ethyl acetate	33	-	0.34								
<input type="checkbox"/>	Ethyl benzene	Ethyl benzene	10	-	0.057								
<input type="checkbox"/>	Ethyl ether	Ethyl ether	160	-	0.12								
<input type="checkbox"/>	Methanol ³	Methanol ³	-	-	5.6 ³								
<input type="checkbox"/>	Methyl isobutyl ketone	Methyl isobutyl ketone	33	-	0.14								
<input type="checkbox"/>	Xylenes (total)	Xylenes (total)	30	-	0.32								
F005 — Spent non-halogenated solvents ⁵													
<input type="checkbox"/>	Benzene	Benzene	10	-	.14								
<input type="checkbox"/>	Carbon disulfide ³	Carbon disulfide ³	-	-	3.8								
<input type="checkbox"/>	2-Ethoxyethanol	2-Ethoxyethanol	INCIN(2)	-	BIODG;INCIN(19)								
<input type="checkbox"/>	Isobutyl alcohol	Isobutyl alcohol	170	-	5.6								
<input type="checkbox"/>	Methyl ethyl ketone	Methyl ethyl ketone	36	-	0.28								
<input type="checkbox"/>	2-Nitropropane	2-Nitropropane	INCIN(2)	-	WETOX; or CHOYD to CARBN or INCIN								
<input type="checkbox"/>	Pyridine	Pyridine	16	-	0.014								
<input type="checkbox"/>	Toluene	Toluene	10	-	0.08								

* Attech D001-D002 Underlying Hazardous Constituent Form and Check Box for each Constituent present.

TECHNOLOGY CODES AND DESCRIPTION OF TECHNOLOGY-BASED STANDARDS

Technology code	Description of technology-based standards
BIODG:	Biodegradation of organics or non-metallic inorganics (i.e., degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues).
CARBN:	Carbon Adsorption (granulated or powdered) of non-metallic inorganics, organo-metallics, and/or organic constituents, operated such that a surrogate compound or indicator parameter has not undergone breakthrough (e.g., Total Organic Carbon can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues). Breakthrough occurs when the carbon has become saturated with the constituent (or indicator parameter) and substantial change in adsorption rate associated with that constituent occurs.
CHOXD:	Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combinations of reagents: (1) Hypochlorite (e.g. bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permangantes; and/or (9) other oxidizing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g. Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues). Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination.
DEACT:	Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, and/or reactivity.
FSUBS:	Fuel substitution in units operated in accordance with applicable technical operating requirements.
IMERC:	Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of 40 CFR Part 264 Subpart O and Part 265 Subpart O. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories).
INCIN:	Incineration in units operated in accordance with the technical operating requirements of 40 CFR Part 264 Subpart O and Part 265 Subpart O.
RLEAD:	Thermal recovery of lead in secondary lead smelters.
RMERC:	Retorting or roasting in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery. The retorting or roasting unit (or facility) must be subject to one or more of the following: (a) A National Emissions Standard for Hazardous Air Pollutants (NESHAP) for mercury; (b) a Best Available Control Technology (BACT) or a Lowest Achievable Emission Rate (LAER) standard for mercury imposed pursuant to a Prevention of Significant Deterioration (PSD) permit; or (c) a state permit that establishes emission limitations (within meaning of section 302 of the Clean Air Act) for mercury. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories).
RORGS:	Recovery of organics utilizing one or more of the following technologies: (1) Distillation; (2) thin film evaporation; (3) steam stripping; (4) carbon adsorption; (5) critical fluid extraction; (6) liquid-liquid extraction; (7) precipitation/crystallization (including freeze crystallization); or (8) chemical phase separation techniques (i.e., addition of acids, bases, demulsifiers, or similar chemicals); - Note: this does not preclude the use of other physical phase separation techniques such as a decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RTHRM:	Thermal recovery of metals or inorganics from nonwastewaters in units identified as industrial furnaces according to 40 CFR 260.10 (1), (6), (7), (11), and (12) under the definition of "industrial furnaces".
WETOX:	Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues).

MASTER TABLE OF TREATMENT STANDARDS FOR CHARACTERISTIC AND LISTED WASTES

- Method 1 = Incineration or chemical oxidation as methods of treatment for nonwastewater forms. CHOXD; or INCIN
- Method 2 = Incineration as a method of treatment. INCIN
- Method 6 = Mercury-containing nonwastewaters are subject to two specified treatment methods if they are in the high-mercury subcategory (i.e., ≥ 260 mg/kg total mercury). If the nonwastewaters are inorganic, they must be roasted or retorted (RMERC). If they contain organics, one additional option of incineration is allowed (IMERC); the incinerator residues would have to be roasted/retorted if they contain ≥ 260 mg/kg total mercury (RMERC). P065 nonwastewaters must be incinerated; if the incinerator residues contain ≥ 260 mg/kg total mercury, they must be roasted or retorted. P092 nonwastewaters may be incinerated (if they contain organics) or roasted/retorted; residues from either process must be roasted/retorted if they contain ≥ 260 mg/kg total mercury. Incinerator residues (not retorting/roasting residues) containing < 260 mg/kg total mercury must meet a TCLP mercury standard of 0.025 mg/L. Roasting/retorting residues containing < 260 mg/kg total mercury must meet a TCLP mercury standard of 0.20 mg/L. RMERC; or IMERC
- Method 8 = Deactivation as a method of treatment. (For characteristic D-wastes, refer to Table 7.3 for recommended deactivation technologies. DFACT (Note that D003 reactive sulfides cannot be diluted as a substitute for adequate treatment.)
- Method 13 = Thermal recovery of a lead in secondary lead smelters. RLEAD
- Method 19 = Incineration or biodegradation. BIODG; or INCIN
- Method 22 = Fuel substitution; recovery of organics; or incineration as methods of treatment for nonwastewater forms; FSUBS; RORGS; or INCIN
- Method 24 = Thermal recovery of metals in an industrial furnace. RTHRM
- Method 26 = Carbon adsorption or incineration as methods of treatment for wastewater forms. CARBN; or INCIN
- Method 27 = Wet-air oxidation or incineration as methods of treatment for wastewater forms. WETOX; or INCIN
- Method 28 = Chemical oxidation, biodegradation, or incineration as methods of treatment for wastewater forms. CHOXD; BIODG; or INCIN

¹All concentrations are maximums for any single grab sample, unless otherwise noted. Where methods are specified, the five-letter codes following each description apply; these codes are needed on certain notification/certification forms. For more detailed description of methods, look up five-letter codes on reverse page 2.

²This table gives standards having an effective date of November 9, 1992. If no date appears in this column, all treatment standards are in effect. Only those effective date extensions that have not expired are listed (i.e., extensions are available after November 9, 1992). SD = surface disposal, UI = underground injection.

³The treatment standards for carbon disulfide, cyclohexanone, and methanol nonwastewaters are based on the TCLP and apply only to spent solvents containing only one, two, or all three of these constituents. If a waste contains any of these three constituents along with any of the other constituents found in F001-F005, then only the treatment standards for the other constituents apply (i.e., the standards for carbon disulfide, cyclohexanone, and methanol do not apply when other constituents are present). It appears that EPA made a technical error when it modified Tables CCW and CCWE in the August 18, 1992 final rule, because wastewater standards for these three constituents do not appear in either table. In the preamble to that rule, EPA indicates that the wastewater standards are 0.014 mg/L for carbon disulfide, 0.36 mg/L for cyclohexanone, and 5.6 mg/L for methanol (57 FR 37205).

⁴Extraction values given for nonwastewaters are based on results from EP toxicity test, not the TCLP; however, the TCLP can be used to demonstrate compliance with the treatment standard: [268.40(a)]

⁵"Wastewater" contains either $< 1\%$ by weight total organic carbon or $< 1\%$ by weight total F001-F005 solvents listed in this table. "Nonwastewaters" are all other spent solvent wastes. [F001-F005]

⁶For organic constituents where BDAT is incineration in accordance with Part 264 Subpart O or Part 265 Subpart O, or fuel substitution, and where the waste has been treated by that method, the treatment facility may certify compliance with the organic constituent standard if a good faith effort has been made to analytically demonstrate compliance with this standard and a detection limit within an order of magnitude of the organic constituent standard has been achieved. See 268.7 (b) (5) (iii).

⁷The constituent of concern given here is believed to be correct. Although the August 18, 1992 final rule identifies the constituent as 1,1,2-trichloro-1,2,2-trifluoromethane, historically the constituent has always been identified as 1,1,2-trichloro-1,2,2-trifluoroethane.

⁸The D008 lead acid battery standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of 40 CFR 268 or exempted under other EPA regulations (see 40 CFR 266.80). The effective date extension for D008 lead materials stored before secondary smelting is conditional. The conditions are discussed in §268.35(k).