The Texas Natural Resource Conservation Commission (commission) proposes an amendment to §335.1 concerning industrial solid waste and municipal hazardous waste.

EXPLANATION OF PROPOSED RULES

The primary purpose of the proposed amendment is to revise the state rule definition of hazardous waste to clarify that the state definition matches the federal definition of hazardous waste as adopted in the Code of Federal Regulations (CFR) through a date certain, and to notify the public that the commission is changing the way in which the state rule definition of hazardous waste is updated. In the past, the commission has regarded any waste added to the definition of hazardous waste under the federal regulations as a hazardous waste under Texas statutes and rules on the same day it is effective in the *Federal Register*. In order to be more consistent with the way in which the commission adopts other federal waste regulations, the commission has decided to conduct a rulemaking to specify the most recent effective date for the definition of hazardous waste. The commission also believes that updating the definition periodically through rulemaking is a better procedure because it allows more public participation and is a better avenue to make clear that the definition of hazardous waste is identical to the wastes identified in federal regulations. Because the commission is changing the definition of hazardous waste to specifically describe which wastes fall within the definition, the definitions of "hazardous industrial waste" and "municipal hazardous waste" are proposed to be deleted, and subsequent definitions renumbered to account for these deletions. The commission believes that the new definition of "hazardous waste" provides sufficient clarity as to what the term hazardous waste encompasses.

Under proposed §335.1(56) the definition of hazardous waste would incorporate the meaning of the term "hazardous waste" under the United States Environmental Protection Agency (EPA) regulations at 40 CFR Part 261, by adding the phrase "pursuant to Title 40 Code of Federal Regulations §§261.3, 261.4(b), 261.4(g), 261.10, 261.11, 261.20 - 261.24, 261.30 - 261.33, and §261.35, as amended through May 11, 1999 at 64 FedReg 25408" to the current rule, so that the definition of hazardous waste would be "Any solid waste identified or listed as a hazardous waste by the administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 United States Code 6901 et seq., as amended, pursuant to Title 40 Code of Federal Regulations §§261.3, 261.4(b), 261.4(g), 261.10, 261.11, 261.20 - 261.24, 261.30 - 261.33, and §261.35, as amended through May 11, 1999 at 64 FedReg 25408."

The proposed definition under §335.1(56) would incorporate Title 40 CFR §261.3, relating to the definition of hazardous waste; §261.4(b), relating to solid wastes which are not hazardous wastes; §261.4(g), relating to dredged material that is not a hazardous waste; §261.10, relating to criteria for identifying the characteristics of hazardous waste; §261.11, relating to criteria for listing hazardous waste; §261.20, relating to the characteristics of hazardous waste, general provisions; §261.21, relating to the characteristic of ignitability; §261.22, relating to the characteristic of corrosivity; §261.23, relating to the characteristic of reactivity; §261.24, relating to the toxicity characteristic; §261.30, relating to the lists of hazardous wastes, general provisions; §261.31, relating to hazardous wastes from nonspecific sources; §261.32, relating to hazardous wastes from specific sources; §261.33, relating to discarded commercial chemical products, off-specification species, container residues, and spill residues

thereof; and §261.35, relating to deletion of certain hazardous waste codes following equipment cleaning and replacement, as amended through May 11, 1999 at 64 FedReg 25408.

Under 40 CFR §261.3(a)(2)(i), a solid waste is a hazardous waste if it is not excluded under 40 CFR §261.4(b) and it exhibits any of the characteristics of hazardous waste identified in 40 CFR Part 261, Subpart C. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under 40 CFR §261.4(b)(7) and any other solid waste exhibiting a characteristic is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred, or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the toxicity characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in Table I to 40 CFR §261.24 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.

Under 40 CFR §261.3(a)(2)(ii), a solid waste is a hazardous waste if it is not excluded under 40 CFR §261.4(b) and it is listed in 40 CFR Part 261, Subpart D and has not been excluded under 40 CFR §§260.20 and 260.22.

Under 40 CFR §261.3(a)(2)(iii), a solid waste is a hazardous waste if it is not excluded under 40 CFR §261.4(b) and it is a mixture of a solid waste and a hazardous waste listed solely because it exhibits one

or more of the characteristics of hazardous waste, unless the resultant mixture no longer exhibits any characteristic, or unless the solid waste is excluded from regulation under 40 CFR §261.4(b)(7) and the resultant mixture no longer exhibits any characteristic for which the hazardous waste was listed. However, nonwastewater mixtures are still subject to the requirements of 40 CFR Part 268, even if they no longer exhibit a characteristic at the point of land disposal.

Under 40 CFR §261.3(a)(2)(iv), a solid waste is a hazardous waste if it is not excluded under 40 CFR §261.4(b) and it is a mixture of solid waste and one or more listed hazardous wastes and has not been excluded under 40 CFR §§260.20 and 260.22. However, such mixtures are not hazardous wastes (except by application of 40 CFR §261.3(a)(2)(i) or (ii)) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under the Clean Water Act, §307(b) or §402 (including wastewater at facilities which have eliminated the discharge of wastewater) and (a) one or more of the following solvents listed in 40 CFR §261.31 -- carbon tetrachloride, tetrachloroethylene, trichloroethylene, provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed one part per million (ppm); or (b) one or more of the following spent solvents listed in 40 CFR §261.31 -- methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the

facility's wastewater treatment or pretreatment system does not exceed 25 ppm; or (c) one of the following wastes listed in 40 CFR §261.32, provided that the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation -- heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050), crude oil storage tank sediment from petroleum refining operations (EPA Hazardous Waste No. K169), clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations (EPA Hazardous Waste No. K170), spent hydrotreating catalyst (EPA Hazardous Waste No. K171), and spent hydrorefining catalyst (EPA Hazardous Waste No. K172); or (d) a discarded commercial chemical product, or chemical intermediate listed in 40 CFR §261.33, arising from de minimis losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process (for these purposes, “de minimis” losses include those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinstate from empty containers or from containers that are rendered empty by that rinsing); or (e) wastewater resulting from laboratory operations containing toxic (T) wastes listed in 40 CFR Part 261, Subpart D, provided that the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pretreatment system or provided the wastes, combined annualized average concentration does not exceed one ppm in the headworks of the facility's wastewater treatment or pretreatment facility (toxic (T) wastes used in laboratories that are demonstrated not to be discharged to

wastewater are not to be included in this calculation); or (f) one or more of the following wastes listed in 40 CFR §261.32 – wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K157), provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine (including all amounts that can not be demonstrated to be reacted in the process, destroyed through treatment, or is recovered, i.e., what is discharged or volatilized) divided by the average weekly flow of process wastewater prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of five ppm by weight; or (g) wastewaters derived from the treatment of one or more of the following wastes listed in 40 CFR §261.32 -- organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K156), provided that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of five milligrams per liter.

Under 40 CFR §261.3(a)(2)(v), a solid waste is presumed to be a hazardous waste mixed with halogenated hazardous waste listed in 40 CFR Part 261, Subpart D if it is not excluded under 40 CFR §261.4(b) and it is used oil containing more than 1000 ppm total halogens. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from EPA Publication SW-846, Third Edition, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of 40 CFR Part 261). EPA Publication SW-846, Third Edition, is available for the cost of $110.00 from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA

15250-7954, 202-512-1800 (document number 955-001-00000-1). The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed. The rebuttable presumption also does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

Under 40 CFR §261.3(b), a solid waste which is not excluded under 40 CFR §261.3(a)(1) becomes a hazardous waste when any of the following events occur: (a) in the case of a listed hazardous waste, when the waste first meets the listing description set forth in 40 CFR Part 261, Subpart D; or (b) in the case of a mixture of solid waste and one or more listed hazardous wastes, when a listed hazardous waste is first added to the solid waste; or (c) in the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in 40 CFR Part 261, Subpart C.

Under 40 CFR §261.3(c)(1), unless and until it meets the criteria of 40 CFR §261.3(d), a hazardous waste will remain a hazardous waste.

Under 40 CFR §261.3(c)(2)(i), except as otherwise provided in 40 CFR §261.3(c)(2)(ii), any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off) is a

hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and, hence, are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

Under 40 CFR §261.3(c)(2)(ii)(A), waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry Standard Industrial Classification (SIC) Codes 331 and 332) is not hazardous waste even though it is generated from the treatment, storage, or disposal of a hazardous waste, unless it exhibits one or more of the characteristics of hazardous waste.

Under 40 CFR §261.3(c)(2)(ii)(B), waste from burning any of the materials exempted from regulation by §335.24(c)(3) and (4) is not hazardous waste even though it is generated from the treatment, storage, or disposal of a hazardous waste, unless it exhibits one or more of the characteristics of hazardous waste.

Under 40 CFR §261.3(c)(2)(ii)(C)(*1*), the following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste: nonwastewater residues, such as slag, resulting from high temperature metals recovery (HTMR) processing of K061, K062 or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces as defined in §335.1(65)(F), (G), and (M), that are disposed in subtitle D units, provided that these residues meet the generic exclusion levels identified in Figure 1: 30 TAC Chapter 335 - Preamble, Table 1 to §261.3(c)(2)(ii)(C)(*1*): Generic

Exclusion Levels for K061 and K062 Nonwastewater High Temperature Metals Recovery Residues and Figure 2: 30 TAC Chapter 335 - Preamble, Table 2 to §261.3(c)(2)(ii)(C)(*1*): Generic Exclusion Levels for F006 Nonwastewater High Temperature Metals Recovery Residues, for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements must be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues must be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

Figure 1: 30 TAC Chapter 335 - Preamble

Figure 2: 30 TAC Chapter 335 - Preamble

Figure 1: 30 TAC Chapter 335 - Preamble

Table 1 to §261.3(c)(2)(ii)(C)(*1*): Generic Exclusion Levels for K061 and K062 Nonwastewater High Temperature Metals Recovery Residues

Constituent	Maximum for any single composite sample--TCLP (mg/l)
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

Figure 2: 30 TAC Chapter 335 - Preamble

Table 2 to §261.3(c)(2)(ii)(C)(*1*): Generic Exclusion Levels for F006 Nonwastewater High Temperature Metals Recovery Residues

Constituent	Maximum for any single composite sample--TCLP (mg/l)
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

Under 40 CFR §261.3(c)(2)(ii)(C)(*2*), a one-time notification and certification must be placed in the facility's files and sent to the executive director for K061, K062 or F006 HTMR residues that meet the aforementioned generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to subtitle D units. The notification and certification that is placed in the generators or treaters files must be updated if the process or operation generating the waste changes and/or if the subtitle D unit receiving the waste changes. However, the generator or treater need only notify the executive director on an annual basis if such changes occur. Such notification and certification should be sent to the executive director by the end of the calendar year, but no later than December 31. The notification must include the following information: The name and address of the subtitle D unit receiving the waste shipments; the EPA Hazardous Waste Number(s) and treatability group(s) at the initial point of generation; and the treatment standards applicable to the waste at the initial point of generation. The certification must be signed by an authorized representative and must state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

Under 40 CFR §261.3(c)(2)(ii)(D), biological treatment sludge from the treatment of one of the following wastes listed in 40 CFR §261.32--organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K156), and wastewaters from the production of carbamates and carbamoyl oximes (EPA Hazardous Waste No. K157) is not hazardous waste even though it is generated from the

treatment, storage, or disposal of a hazardous waste, unless it exhibits one or more of the characteristics of hazardous waste.

Under 40 CFR §261.3(c)(2)(ii)(E), catalyst inert support media separated from one of the following wastes listed in 40 CFR §261.32--Spent hydrotreating catalyst (EPA Hazardous Waste No. K171) and Spent hydrorefining catalyst (EPA Hazardous Waste No. K172) is not hazardous waste even though it is generated from the treatment, storage, or disposal of a hazardous waste, unless it exhibits one or more of the characteristics of hazardous waste.

Under 40 CFR §261.3(d)(1), any solid waste described in 40 CFR §261.3(c) is not a hazardous waste if it meets the following criteria: in the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in 40 CFR Part 261, Subpart C. (However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of Part 268, even if they no longer exhibit a characteristic at the point of land disposal.)

Under 40 CFR §261.3(d)(2), any solid waste described in 40 CFR §261.3(c) is not a hazardous waste if it meets the following criteria: in the case of a waste which is a listed waste, contains a listed waste, or is derived from a listed waste, it also has been excluded from 40 CFR §261.3(c) under 40 CFR §§260.20 and 260.22.

Under 40 CFR §261.3(f), notwithstanding 40 CFR §261.3(a) through (d) and provided the debris as defined in 40 CFR Part 268 does not exhibit a hazardous waste characteristic, the following materials

are not subject to regulation under 40 CFR Parts 260, 261 to 266, 268, or 270 or the corresponding commission rules under 30 TAC Chapters 305 and 335: (a) hazardous debris as defined in 40 CFR Part 268 that has been treated using one of the required extraction or destruction technologies specified in Table 1 of 40 CFR §268.45; persons claiming this exclusion in an enforcement action will have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or (b) debris as defined in 40 CFR Part 268 that the executive director, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

Under 40 CFR §261.4(b)(1), household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused, is not hazardous waste. "Household waste" means any material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas). A resource recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if such facility receives and burns only household waste (from single and multiple dwellings, hotels, motels, and other residential sources) and solid waste from commercial or industrial sources that does not contain hazardous waste; and such facility does not accept hazardous wastes and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

Under 40 CFR §261.4(b)(2), solid wastes which are generated by the growing and harvesting of agricultural crops or the raising of animals, including animal manures, and which are returned to the soils as fertilizers, are not hazardous wastes.

Under 40 CFR §261.4(b)(3), mining overburden solid waste returned to the mine site is not hazardous waste.

Under 40 CFR §261.4(b)(4), the following solid wastes are not hazardous wastes: fly ash waste; bottom ash waste; slag waste; and flue gas emission control waste, generated primarily from the combusion of coal or other fossil fuels, except as provided by 40 CFR §266.112 of this chapter for facilities that burn or process hazardous waste.

Under 40 CFR §261.4(b)(5), drilling fluids, produced waters, and other solid wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy, are not hazardous wastes.

Under 40 CFR §261.4(b)(6)(i), the following solid wastes are not hazardous wastes: wastes which fail the test for the Toxicity Characteristic because chromium is present or are listed due to the presence of chromium, which do not fail the test for the Toxicity Characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that (a) the chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; (b) the waste is generated from an

industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and (c) the waste is typically and frequently managed in nonoxidizing environments.

Under 40 CFR §261.4(b)(6)(ii), specific wastes which meet the standard in 40 CFR §261.4(b)(6)(i) (so long as they do not fail the test for the toxicity characteristic for any other constituent, and do not exhibit any other characteristic) are: (a) chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling; (b) chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling; (c) buffing dust generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; (d) sewer screenings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/crome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling; (e) wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling; (f) wastewater treatment sludes generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrometan/retan/wet finish; and through-the-blue; (g) waste scrap leather from the leather tanning industry, the shoe manufacturing

industry, and other leather product manufacturing industries; and (h) wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process.

Under 40 CFR §261.4(b)(7), solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock, and overburden from the mining of uranium ore), except as provided by 40 CFR §266.112 of this chapter for facilities that burn or process hazardous waste, is not hazardous waste. For the purposes of this exclusion, beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water and/or carbon dioxide; roasting, autoclaving, and/or chlorination in preparation for leaching (except where the roasting (and/or autoclaving and/or chlorination)/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in situ leaching. Also for the purposes of this exclusion, solid waste from the processing of ores and minerals includes only the following wastes as generated: slag from primary copper processing; slag from primary lead processing; red and brown muds from bauxite refining; phosphogypsum from phosphoric acid production; slag from elemental phosphorus production; gasifier ash from coal gasification; process wastewater from coal gasification; calcium sulfate wastewater treatment plant sludge from primary copper processing; slag tailings from primary copper processing; fluorogypsum from hydrofluoric acid production; process wastewater from hydrofluoric acid production; air pollution control dust/sludge from iron blast furnaces; iron blast furnace slag; treated residue from roasting/leaching of chrome ore; process wastewater from primary

magnesium processing by the anhydrous process; process wastewater from phosphoric acid production; basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production; basic oxygen furnace and open hearth furnace slag from carbon steel production; chloride process waste solids from titanium tetrachloride production; and slag from primary zinc processing. Finally, a residue derived from coprocessing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under 40 CFR §261.4(b) if the owner or operator processes at least 50% by weight normal beneficiation raw materials or normal mineral processing raw materials and legitimately reclaims the secondary mineral processing materials.

Under 40 CFR §261.4(b)(8), cement kiln dust waste, except as provided by 40 CFR §266.112 of this chapter for facilities that burn or process hazardous waste, is not hazardous waste.

Under 40 CFR §261.4(b)(9), the following solid waste is not hazardous waste: solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

Under 40 CFR §261.4(b)(10), petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of 40 CFR §261.24 (Hazardous Waste Codes D018 through D043 only) and are subject to the corrective action regulations under Part 280 of this chapter are not hazardous wastes.

Under 40 CFR §261.4(b)(11), the following solid waste is not hazardous waste: injected groundwater that is hazardous only because it exhibits the Toxicity Characteristic (Hazardous Waste Codes D018 through D043 only) that is reinjected through an underground injection well pursuant to free phase hydrocarbon recovery operations undertaken at petroleum refineries, petroleum marketing terminals, petroleum bulk plants, petroleum pipelines, and petroleum transportation spill sites until January 25, 1993. This extension applies to recovery operations in existence or for which contracts have been issued on or before March 25, 1991. For groundwater returned through infiltration galleries from such operations at petroleum refineries, marketing terminals, and bulk plants, until six months after publication. New operations involving injection wells (beginning after March 25, 1991) will qualify for this compliance date extension (until January 25, 1993) only if operations are performed pursuant to a written state agreement that includes a provision to assess the groundwater and the need for further remediation once the free phase recovery is completed and a copy of the written agreement has been submitted to the Characteristics Section (OS-333), United States Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460.

Under 40 CFR §261.4(b)(12), used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use, are not hazardous wastes.

Under 40 CFR §261.4(b)(13), the following solid wastes are not hazardous wastes: non-terne plated used oil filters that are not mixed with listed wastes if these oil filters have been gravity hot-drained using one of the following methods: puncturing the filter anti-drain back valve or the filter dome end and hot-draining; hot-draining and crushing; dismantling and hot-draining; or any other equivalent hot-draining method that will remove used oil.

Under 40 CFR §261.4(b)(14), used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are not hazardous wastes.

Under 40 CFR §261.4(b)(15), leachate or gas condensate collected from landfills where certain solid wastes have been disposed is not hazardous waste provided that: the solid wastes disposed would meet one or more of the listing descriptions for Hazardous Waste Codes K169, K170, K171, and K172 if these wastes had been generated after the effective date of the listing (February 8, 1999); the solid wastes described in 40 CFR §261.4(b)(15)(i) were disposed of prior to the effective date of the listing; the leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste; and the discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a publicly-owned treatment works by truck, rail, or dedicated pipe, is subject to regulation under the Clean Water Act, §307(b) or §402. Under 40 CFR §261.4(b)(15)(v), after February 13, 2001, leachate or gas condensate will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge, with one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation (e.g., shutdown of wastewater treatment system), provided the impoundment has a double

liner, and provided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of 40 CFR §261.4(b)(15) after the emergency ends.

Under 40 CFR §261.4(g), dredged material that is subject to the requirements of a permit that has been issued under the Federal Water Pollution Control Act (33 U.S.C.1344) §404 or the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413) §103 is not a hazardous waste. For the purposes of this exclusion, the term "dredged material" has the same meaning as defined in 40 CFR §232.2 and the term "permit" means: a permit issued by the U.S. Army Corps of Engineers (Corps) or an approved State under the Federal Water Pollution Control Act (33 U.S.C. 1344) §404; a permit issued by the Corps under the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413) §103; or in the case of Corps civil works projects, the administrative equivalent of the permits referred to in 40 CFR §261.4(g)(2)(i) and (ii), as provided for in Corps regulations (for example, see 33 CFR §§336.1, 336.2, and 337.6).

Title 40 CFR §261.10 relates to criteria for identifying the characteristics of hazardous waste. Under 40 CFR §261.10(a), the EPA Administrator shall identify and define a characteristic of hazardous waste in 40 CFR Part 261, Subpart C only upon determining that a solid waste that exhibits the characteristic may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and only upon determining that the characteristic can be measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector

laboratories that are available to serve generators of solid waste; or reasonably detected by generators of solid waste through their knowledge of their waste.

Title 40 CFR §261.11 relates to criteria for listing hazardous waste. Under 40 CFR §261.11(a), the EPA Administrator shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria: it exhibits any of the characteristics of hazardous waste identified in 40 CFR Part 261, Subpart C; it has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness (waste listed in accordance with these criteria will be designated Acute Hazardous Waste); or it contains any of the toxic constituents listed in 40 CFR Part 261, Appendix VIII and, after considering the following factors, the Administrator concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed: (a) the nature of the toxicity presented by the constituent; (b) the concentration of the constituent in the waste; (c) the potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in 40 CFR §261.11(a)(3)(vii); (d) the persistence of the constituent or any toxic degradation product of the constituent; (e) the potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation; (f) the degree to which the constituent or any degradation product of the constituent

bioaccumulates in ecosystems; (g) The plausible types of improper management to which the waste could be subjected; (h) the quantities of the waste generated at individual generation sites or on a regional or national basis; (i) the nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent; (j) action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent; and (k) such other factors as may be appropriate. Substances will be listed on Appendix VIII only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms (wastes listed in accordance with these criteria will be designated Toxic wastes).

Under 40 CFR §261.11(b), the EPA Administrator may list classes or types of solid waste as hazardous waste if he has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in the Resource Conservation and Recovery Act (RCRA) §1004(5).

Under 40 CFR §261.11(c), the EPA Administrator will use the criteria for listing specified in 40 CFR §261.11 to establish the exclusion limits referred to in 30 TAC §335.78(c).

Subpart C of 40 CFR Part 261 relates to the characteristics of hazardous waste. Under 40 CFR §261.20(a), a solid waste, as defined in 30 TAC §335.1(119), which is not excluded under 40 CFR §261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in this 40 CFR Part 261, Subpart C. It should be noted that 40 CFR §262.11 sets forth the generator's responsibility to

determine whether his waste exhibits one or more of hazardous waste characteristics. Under 40 CFR §261.20(b), it is stated that a hazardous waste which is identified by a characteristic is assigned every EPA Hazardous Waste Number that is applicable. This number must be used in complying with the notification requirements of the RCRA §3010 and 30 TAC Chapter 335 and all applicable recordkeeping and reporting requirements under 40 CFR Parts 262 through 265, 268, and 270, and 30 TAC Chapter 335.

Under 40 CFR §261.20(c), for purposes of 40 CFR Part 261, Subpart C, the EPA Administrator will consider a sample obtained using any of the applicable sampling methods specified in 40 CFR Part 261, Appendix I to be a representative sample within the meaning of Part 260 of this chapter. It should be noted that since the Appendix I sampling methods are not being formally adopted by the Administrator, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of his method under the procedures set forth in 40 CFR §§260.20 and 260.21.

Under 40 CFR §261.21, a solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties: (a) it is a liquid, other than an aqueous solution containing less than 24% alcohol by volume and has flash point less than 60 degrees Centigrade (C) or 140 degrees Fahrenheit (F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in American Standard Testing Method (ASTM) Standard D-93-79 or D-93-80 (incorporated by reference, see 40 CFR §260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see 40 CFR §260.11); or

as determined by an equivalent test method approved by the EPA Administrator under procedures set forth in 40 CFR §§260.20 and 260.21; (b) it is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard; (c) it is an ignitable compressed gas as defined in 49 CFR §173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by the EPA Administrator under 40 CFR §§260.20 and 260.21; or (d) it is an oxidizer as defined in 49 CFR §173.151. A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

Under 40 CFR §261.22, a solid waste exhibits the characteristic of corrosivity if a representative sample of the waste is aqueous and has a pH less than or equal to two or greater than or equal to 12.5, as determined by a pH meter using Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR §260.11; or if a representative sample of the waste is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 degrees C (130 degrees F) as determined by the test method specified in the National Association of Corrosion Engineers (NACE) Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR §260.11. A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

Under 40 CFR §261.23, a solid waste exhibits the characteristic of reactivity if a representative sample of the waste is normally unstable and readily undergoes violent change without detonating; it reacts

violently with water; it forms potentially explosive mixtures with water; when mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment; it is a cyanide or sulfide bearing waste which, when exposed to pH conditions between two and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment; it is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement; it is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; it is a forbidden explosive as defined in 49 CFR §173.51; it is a Class A explosive as defined in 49 CFR §173.53; or it is a Class B explosive as defined in 49 CFR §173.88. A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

Under 40 CFR §261.24, a solid waste exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, Test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR §260.11, the extract from a representative sample of the waste contains any of the contaminants listed in Figure 3: 30 TAC Chapter 335 - Preamble, Table 1 to §261.24 - Maximum Concentration of Contaminants for the Toxicity Characteristic at the concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5% filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of 40 CFR §261.24. A solid waste that exhibits the characteristic of toxicity has the EPA Hazardous Waste Number specified in Table I which corresponds to the toxic contaminant causing it to be hazardous.

Figure 3: 30 TAC Chapter 335 - Preamble

Figure 3: 30 TAC Chapter 335 - Preamble

Table 1 to §261.24 - Maximum Concentration of Contaminants for the Toxicity Characteristic

EPA HW- No.\1\	Contaminant	CAS No.\2\	Regulatory 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	o-Cresol	95-48-7 \4\	200.0
D024	m-Cresol	108-39-4 \4\	200.0
D025	p-Cresol	106-44-5 \4\	200.0
D026	Cresol\4\		200.0
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2 \3\	0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxied)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1 \3\	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	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0

EPA HW- No.\1\	Contaminant	CAS No.\2\	Regulatory Level (mg/L)
D037	Pentrachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1 \3\	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	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

\1\ Hazardous waste number.
\2\ Chemical abstracts service number.
\3\ Quantitation limit is greater than the calculated regulatory level. The quantitation limit, therefore, becomes the regulatory level.
\4\ If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

Subpart D of 40 CFR Part 261 relates to lists of hazardous wastes. Under 40 CFR §261.30(a), a solid waste is a hazardous waste if it is listed in this 40 CFR Part 261, Subpart D, unless it has been excluded from this list under 40 CFR §§260.20 and 260.22. Under 40 CFR §261.30(b), it is stated that the EPA Administrator will indicate his basis for listing the classes or types of wastes by employing one or more of the following Hazard Codes: Ignitable Waste (I); Corrosive Waste (C); Reactive Waste (R); Toxicity Characteristic Waste (E); Acute Hazardous Waste (H); and/or Toxic Waste (T). 40 CFR Part 261, Appendix VII identifies the constituent which caused the Administrator to list the waste as a Toxicity Characteristic Waste (E) or Toxic Waste (T) in 40 CFR §§261.31 and 261.32. Under 40 CFR §261.30(c), it is stated that each listed hazardous waste is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of the RCRA §3010 and 30 TAC Chapter 335, and certain recordkeeping and reporting requirements under 40 CFR Parts 262 through 265, 268, and part 270 and 30 TAC Chapter 335. Under 40 CFR §261.30(d), the following hazardous wastes listed in 40 CFR §261.31 or §261.32 are subject to the exclusion limits for acutely hazardous wastes established in 30 TAC §335.78: EPA Hazardous Wastes Nos. FO20, FO21, FO22, FO23, FO26, and FO27.

Under 40 CFR §261.31(a), the solid wastes shown in Figure 4: 30 TAC Chapter 335 - Preamble, Table 1 to §261.31 - Hazardous Wastes From Non-Specific Sources, are listed hazardous wastes from nonspecific sources unless they are excluded under 40 CFR §§260.20 and 260.22 and listed in 40 CFR Part 261 Appendix IX.

Figure 4: 30 TAC Chapter 335 - Preamble

Figure 4: 30 TAC Chapter 335 - Preamble

Table 1 to §261.31 - Hazardous Wastes From Non-Specific Sources

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F001.....	The following spent halogenated solvents used in decreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002.....	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloromethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho- dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003.....	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I)*
F004.....	The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F005.....	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I, T)
F006.....	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F007.....	Spent cyanide plating bath solutions from electroplating operations.	(R, T)
F008.....	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	(R, T)
F009.....	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	(R, T)
F010.....	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	(R, T)
F011.....	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(R, T)
F012.....	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.	(T)
F019.....	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	(T)
F020.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F021.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F024.....	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in 40 CFR §261.31 or 40 CFR §261.32.).	(T)
F025.....	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated liphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	(T)
F026.....	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F027.....	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)	(H)
F028.....	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.	(T)
F032.....	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with 40 CFR §261.35 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
F034.....	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
F035.....	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Generic:		
F037.....	Petroleum refinery primary oil/water/solids separation sludge--Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow, sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in 40 CFR §261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under 40 CFR §261.4(a)(12)(i), if those residuals are to be disposed of.	(T)
F038.....	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge--Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in 40 CFR §261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing.	(T)
F039.....	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under 40 CFR Part 261, Subpart D. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.)	(T)

Under 40 CFR §261.31(b), for the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and/or solids. Also for the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following four treatment methods: activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and the units employ a minimum of six hp per million gallons of treatment volume, and either the hydraulic retention time of the unit is no longer than five days, or the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is hazardous waste by the Toxicity Characteristic. Further, generators and storage, processing, and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage and disposal facilities must maintain, in their operating or other on-site records, documents and data, documents and data sufficient to prove that the unit is an aggressive biological treatment unit as defined in 40 CFR §261.31(b)(2)(i), and that the sludges sought to be exempted from the definitions of F037 and/or F038 were actually generated in the aggressive biological treatment unit. For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement. For the purposes of the F038 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement and floats are considered to be generated at the moment they are formed in the top of the unit.

Under 40 CFR §261.32, the solid wastes shown in Figure 5: 30 TAC Chapter 335 - Preamble, Table 1 to §261.32 - Hazardous Wastes From Specific Sources, are listed hazardous wastes from specific sources unless they are excluded under 40 CFR §§260.20 and 260.22 and listed in 40 CFR Part 261, Appendix IX.

Figure 5: 30 TAC Chapter 335 - Preamble

Figure 5: 30 TAC Chapter 335 - Preamble

Table 1 to §261.32 - Hazardous Wastes From Specific Sources

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
Wood preservation:		
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
Inorganic pigments:		
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments.	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments.	(T)
K008	Oven residue from the production of chrome oxide green pigments.	(T)
Organic chemicals:		
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)

K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	(R, T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	(T)
K015	Still bottoms from the distillation of benzyl chloride.	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production.	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)
K022	Distillation bottom tars from the production of phenol/ acetone from cumene.	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)
K026	Stripping still tails from the production of methy ethyl	(T)

	pyridines.	
K027.....	Centrifuge and distillation residues from toluene diisocyanate production.	(R, T)
K028.....	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029.....	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	(T)
K030.....	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083.....	Distillation bottoms from aniline production.	(T)
K085.....	Distillation or fractionation column bottoms from the production of chlorobenzenes.	(T)
K093.....	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T)
K094.....	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)
K095.....	Distillation bottoms from the production of 1,1,1-trichloroethane.	(T)
K096.....	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)
K103.....	Process residues from aniline extraction from the production of aniline.	(T)
K104.....	Combined wastewater streams generated from nitrobenzene/ aniline production.	(T)
K105.....	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K107.....	Column bottoms from product separation from the production of 1,1-dimethyl-hydrazine (UDMH) from carboxylic acid hydrazines.	(C,T)

K108.....	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(I,T)
K109.....	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K110.....	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K111.....	Product washwaters from the production of dinitrotoluene via nitration of toluene.	(C,T)
K112.....	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113.....	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114.....	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115.....	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K116.....	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)
K117.....	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118.....	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136.....	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)

K140.....	Floor sweepings, off-specification product and spent filter media from the production of 2,4,6-tribromophenol.	(T)
K149.....	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillation of benzyl chloride.)	(T)
K150.....	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K151.....	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K156.....	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K157.....	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oxides. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K158.....	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oxides. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K159.....	Organics from the treatment of thiocarbamate wastes.	(T)

K161.....	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.)	(R,T)

Inorganic chemicals:

K071.....	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)
K073.....	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(T)
K106.....	Wastewater treatment sludge from the mercury cell process in chlorine production.	(T)

Pesticides:

K031.....	By-product salts generated in the production of MSMA and cacodylic acid.	(T)
K032.....	Wastewater treatment sludge from the production of chlordane.	(T)
K033.....	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034.....	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(T)
K035.....	Wastewater treatment sludges generated in the production of creosote.	(T)
K036.....	Still bottoms from toluene reclamation distillation in the production of disulfoton.	(T)
K037.....	Wastewater treatment sludges from the production of disulfoton.	(T)
K038.....	Wastewater from the washing and stripping of phorate production.	(T)

K039.....	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(T)
K040.....	Wastewater treatment sludge from the production of phorate.	(T)
K041.....	Wastewater treatment sludge from the production of toxaphene.	(T)
K042.....	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043.....	2,6-Dichlorophenol waste from the production of 2,4-D.	(T)
K097.....	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K098.....	Untreated process wastewater from the production of toxaphene.	(T)
K099.....	Untreated wastewater from the production of 2,4-D.	(T)
K123.....	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt.	(T)
K124.....	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	(C, T)
K125.....	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K126.....	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	(T)
K131.....	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	(C, T)
K132.....	Spent absorbent and wastewater separator solids from the production of methyl bromide.	(T)

Explosives:

K044.....	Wastewater treatment sludges from the manufacturing and processing of explosives.	(R)
K045.....	Spent carbon from the treatment of wastewater containing explosives.	(R)
K046.....	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047.....	Pink/red water from TNT operations.	(R)

Petroleum refining:

K048.....	Dissolved air flotation (DAF) float from the petroleum refining industry.	(T)
K049.....	Slop oil emulsion solids from the petroleum refining industry.	(T)
K050.....	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	(T)
K051.....	API separator sludge from the petroleum refining industry.	(T)
K052.....	Tank bottoms (leaded) from the petroleum refining industry.	(T)
K169.....	Crude oil storage tank sediment from petroleum refining operations.	(T)
K170.....	Clarified slurry oil tank sediment and/or in-line filter/ separation solids from petroleum refining operations.	(T)
K171.....	Spent Hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I,T)
K172.....	Spent Hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I,T)

Iron and steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	(C,T)
Primary copper:		
K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.	(T)
Primary lead:		
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.	(T)
Primary zinc:		
K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.	(T)
Primary aluminum:		
K088	Spent potliners from primary aluminum reduction.	(T)
Ferroalloys:		
K090	Emission control dust or sludge from ferrochromiumsilicon production.	(T)
K091	Emission control dust or sludge from ferrochromium production.	(T)

Secondary lead:

K069.....	Emission control dust/sludge from secondary lead smelting. (Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the *Federal Register*.	(T)
K100.....	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)

Veterinary pharmaceuticals:

K084.....	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101.....	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K102.....	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)

Ink formulation:

K086.....	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	(T)

Coking:

K060.....	Ammonia still lime sludge from coking operations.	(T)
K087.....	Decanter tank tar sludge from coking operations.	(T)

K141.....	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations).	(T)
K142.....	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	(T)
K143.....	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.	(T)
K144.....	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.	(T)
K145.....	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	(T)
K147.....	Tar storage tank residues from coal tar refining.	(T)
K148.....	Residues from coal tar distillation, including but not limited to, still bottoms.	(T)

Under 40 CFR §261.33(a) and (b), the following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in 30 TAC §335.1(119)(B)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel: any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in the tables under 40 CFR §261.33(e) or (f), or any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in 40 CFR §261.33(e) or (f), as shown in Figure 6: 30 TAC Chapter 335 - Preamble, Table 1 to §261.33 - Commercial Chemical Products, Manufacturing Chemical Intermediates or Off-Specification Commercial Chemical Products or Manufacturing Chemical Intermediates that are Acute Hazardous Wastes; and Figure 7: 30 TAC Chapter 335 - Preamble, Table 1 to §261.33 - Commercial Chemical Products, Manufacturing Chemical Intermediates or Off-Specification Commercial Chemical Products or Manufacturing Chemical Intermediates that are Toxic Wastes Unless Otherwise Noted, respectively.

Under 40 CFR §261.33(c), the following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in 30 TAC §335.1(119)(B)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or

when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel: any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in 40 CFR §261.33(e) or (f), as shown in the aforementioned Figures 6 and 7, unless the container is empty as defined in 40 CFR §261.7(b) of this chapter. (Comment: unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed, or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, the residue is considered to be intended for discard, and thus, a hazardous waste. An example of a legitimate reuse of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.)

Under 40 CFR §261.33(d), the following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in 30 TAC §335.1(119)(B)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel: any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in 40 CFR §261.33(e)

or (f), as shown in the aforementioned Figures 6 and 7, or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in 40 CFR §261.33(e) or (f), as shown in the aforementioned Figures 6 and 7 (i.e., "listed substances"). (Comment: the phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in …" refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the listed substances listed. Where a manufacturing process waste is deemed to be a hazardous waste because it contains a listed substance, such waste will be listed in either 40 CFR §261.31 or 40 CFR §261.32 or will be identified as a hazardous waste by the characteristics set forth in 40 CFR Part 261, Subpart C.)

Under 40 CFR §261.33(e), it is stated that the commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in 40 CFR §261.33(a) through (d), are identified as acute hazardous wastes (H) and are subject to be the small quantity exclusion defined in 30 TAC §335.78(e). (Comment: for the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.) These wastes and their corresponding EPA Hazardous Waste Numbers are listed in Figure 6: 30 TAC Chapter 335 - Preamble, Table 1 to

§261.33 - Commercial Chemical Products, Manufacturing Chemical Intermediates or Off-Specification Commercial Chemical Products or Manufacturing Chemical Intermediates that are Acute Hazardous Wastes.

Figure 6: 30 TAC Chapter 335 - Preamble

Figure 6: 30 TAC Chapter 335 - Preamble

Table 1 to §261.33 - Commercial Chemical Products, Manufacturing Chemical Intermediates or Off-Specification Commercial Chemical Products or Manufacturing Chemical Intermediates that are Acute Hazardous Wastes

Hazardous waste No.	Chemical abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone.
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H_3 AsO_4
P012	1327-53-3	Arsenic oxide As_2 O_3
P011	1303-28-2	Arsenic oxide As_2 O_5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl-
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-,(R)-
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.

P188	57-64-7	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).
P001	\1\ 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[methylamino)carbonyl] oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide $Ca(CN)_2$
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl-,2, 3-dihydro-2,2-dimethyl- 7-benzofuranyl ester.
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]- 5-methyl-1H- pyrazol-3-yl ester.
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H- pyrazol-5-yl ester.
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester.
P127	1563-66-2	Carbofuran.
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan.
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P202	64-00-6	m-Cumenyl methylcarbamate.
P030	.....	Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)

P004	309-00-2	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)-
P060	465-73-6	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)-
P037	60-57-1	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)-
P051	\1\ 72-20-8	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
P044	60-51-5	Dimethoate
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P191	644-64-4	Dimetilan.
P047	\1\ 534-52-1	4,6-Dinitro-o-cresol, & salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)-carbonyl]oxime.
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, & metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P194	23135-22-0	Ethanimidothioc acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester.
P066	16752-77-5	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethyleneimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P198	23422-53-9	Formetanate hydrochloride.
P197	17702-57-7	Formparanate.
P065	628-86-4	Fulminic acid, mercury(2+) salt (R,T)

P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P192	119-38-0	Isolan
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-,
P196	15339-36-3	Manganese dimethyldithiocarbamate
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis[chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino)-carbonyl]oxy]phenyl]-, monohydrochloride.
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino)carbonyl]oxy]phenyl]-
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P199	2032-65-7	Methiocarb
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methyllactonitrile
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb
P128	315-8-4	Mexacarbate
P072	86-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl $Ni(CO)_4$, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide $Ni(CN)_2$
P075	\1\ 54-11-5	Nicotine, & salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline

P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO_2
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO_4, (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	51-28-5	Phenol, 2,4-dinitro-
P047	\1\ 534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methylcarbamate
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methylcarbamate
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P204	57-47-6	Physostigmine
P188	57-64-7	Physostigmine salicylate
P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Potassium silver cyanide
P201	2631-37-0	Promecarb

P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-,O-[(methylamino)carbonyl]oxime
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime.
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	\1\ 54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol,1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-.
P114	12039-52-0	Selenious acid, dithallium(1+) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	\1\ 57-24-9	Strychnidin-10-one, & salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	\1\ 57-24-9	Strychnine, & salts
P115	7446-18-6	Sulfuric acid, dithallium(1+) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide $Tl_2 O_3$
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Thallium(I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide $[(H_2 N)C(S)]_2$ NH
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-

P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P185	26419-73-8	Tirpate
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide $V_2 O_5$
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	\1\ 81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-,
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P122	1314-84-7	Zinc phosphide $Zn_3 P_2$, when present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram

\1\ CAS Number given for parent compound only.

Under 40 CFR §261.33(f), it is stated that the commercial chemical products, manfacturing chemical intermediates, or off-specification commercial chemical products referred to in 40 CFR §261.33(a) through (d), are identified as toxic wastes (T), unless otherwise designated and are subject to the small quantity generator exclusion defined in 30 TAC §335.78(a) and (g). (Comment: for the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.) These wastes and their corresponding EPA Hazardous Waste Numbers are listed in Figure 7: 30 TAC Chapter 335 - Preamble, Table 1 to §261.33 - Commercial Chemical Products, Manufacturing Chemical Intermediates or Off-Specification Commercial Chemical Products or Manufacturing Chemical Intermediates that are Toxic Wastes Unless Otherwise Noted.

Figure 7: 30 TAC Chapter 335 - Preamble

Figure 7: 30 TAC Chapter 335 - Preamble

Table 1 to §261.33 - Commercial Chemical Products, Manufacturing Chemical Intermediates or Off-Specification Commercial Chemical Products or Manufacturing Chemical Intermediates that are Toxic Wastes Unless Otherwise Noted

Hazardous waste No.	Chemical abstracts No.	Substance
U394	30558-43-1	A2213
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	\1\ 94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U112	141-78-6	Acetic acid ethyl ester (I)
U144	301-04-2	Acetic acid, lead(2+) salt
U214	563-68-8	Acetic acid, thallium(1+) salt
see F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino[2',3'<or =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)]-
U280	101-27-9	Barban
U278	22781-23-3	Bendiocarb
U364	22961-82-6	Bendiocarb phenol
U271	17804-35-2	Benomyl
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz[c]acridine

U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4-carbonimidoylbis[N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-,hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-,ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I,T)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)

U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4- methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U202	\1\ 81-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U064	189-55-9	Benzo[rst]pentaphene
U248	\1\81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo[a]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2'-Bioxirane
U021	92-87-5	[1,1'-Biphenyl]-4,4-diamine
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U143	303-34-4	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*),7aalpha]]-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U271	17804-35-2	Carbamic acid, [1- [(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester

U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis(iminocarbonothioyl)] bis-, dimethyl ester
U097	79-44-7	Carbamic chloride, dimethyl-
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U114	\1\ 111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U279	63-25-2	Carbaryl
U372	10605-21-7	Carbendazim
U367	1563-38-8	Carbofuran phenol
U215	6533-73-9	Carbonic acid, dithallium(1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H_2 CrO_4, calcium salt
U050	218-01-9	Chrysene
U051	……	Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN)Br
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-

U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	\1\ 94-75-7	2,4-D, salts & esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U395	5952-26-1	Diethylene glycol, dicarbamate
U086	1615-80-1	N,N'-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3'-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine

U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U404	121-44-8	Ethanamine, N,N-diethyl-
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U117	60-29-7	Ethane, 1,1'-oxybis-(I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U410	59669-26-0	Ethanimidothioic acid, N,N'-[thiobis[(methylimino) carbonyloxy]]bis-, dimethyl ester
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)

U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether (I)
U114	\1\ 111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro-(I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3- nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H<INF>2 S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U190	85-44-9	1,3-Isobenzofurandione

U140	78-83-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I, T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro- (I, T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I, T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene,1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methyl chloroform
U157	56-49-5	3-Methylcholanthrene

U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	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)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl [1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate.
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1+) salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl) tetrahydro-, 2-oxide
U115	75-21-8	Oxirane (I,T)

U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate.
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U145	7446-27-7	Phosphoric acid, lead(2+) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
U193	1120-71-4	1,3-Propane sultone
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)

U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122-42-9	Propham
U411	114-26-1	Propoxur
U387	52888-80-9	Prosulfocarb
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U202	\1\ 81-07-2	Saccharin, & salts
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS<INF>2 (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Thallium(I) carbonate

U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	Thallium chloride Tlcl
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb.
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide $[(H_2 N)C(S)]_2 S_2$, tetramethyl-
U409	23564-05-8	Thiophanate-methyl
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U389	2303-17-5	Triallate
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U408	118-79-6	2,4,6-Tribromophenol
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	\1\ 81-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
U249	1314-84-7	Zinc phosphide $Zn_3 P_2$, when present at concentrations of 10% or less

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\1\ CAS Number given for parent compound only.

Under 40 CFR §261.35(a), wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of 40 CFR §261.35(b) and (c). These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.

Under 40 CFR §261.35(b), generators must either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the ground water, surface water, or atmosphere.

Under 40 CFR §261.35(b)(1), generators shall do one of the following: (a) prepare and follow an equipment cleaning plan and clean equipment in accordance with 40 CFR §261.35; (b) prepare and follow an equipment replacement plan and replace equipment in accordance with 40 CFR §261.35; or (c) document cleaning and replacement in accordance with 40 CFR §261.35, carried out after termination of use of chlorophenolic preservations.

Under 40 CFR §261.35(b)(2), the cleaning requirements are spelled out, as follows: (a) prepare and sign a written equipment cleaning plan that describes the equipment to be cleaned, how the equipment will be cleaned, the solvent to be used in cleaning, how solvent rinses will be tested, and how cleaning residues will be disposed; (b) equipment must be cleaned by removing all visible residues from process

equipment and rinsing process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse; (c) analytical requirements are that rinses must be tested in accordance with SW-846, Method 8290 and “Not detected” means at or below the lower method calibration limit (MCL) in Method 8290, Table 1; (d) the generator must manage all residues from the cleaning process as F032 waste.

Under 40 CFR §261.35(b)(3), replacement requirements are as follows: (a) prepare and sign a written equipment replacement plan that describes the equipment to be replaced, how the equipment will be replaced, and how the equipment will be disposed; and (b) the generator must manage the discarded equipment as F032 waste.

Under 40 CFR §261.35(b)(4), there is a requirement to document that previous equipment cleaning and/or replacement was performed in accordance with 40 CFR §261.35 and occurred after cessation of use of chlorophenolic preservatives.

Under 40 CFR §261.35(c), the generator must maintain the following records documenting the cleaning and replacement as part of the facility's operating record: the name and address of the facility; formulations previously used and the date on which their use ceased in each process at the plant; formulations currently used in each process at the plant; the equipment cleaning or replacement plan; the name and address of any persons who conducted the cleaning and replacement; the dates on which cleaning and replacement were accomplished; the dates of sampling and testing; a description of the sample handling and preparation techniques, including techniques used for extraction, containerization,

preservation, and chain-of-custody of the samples; a description of the tests performed, the date the tests were performed, and the results of the tests; the name and model numbers of the instrument(s) used in performing the tests; quality assurance/quality control (QA/QC) documentation; and he following statement signed by the generator or his authorized representative: "I certify under penalty of law that all process equipment required to be cleaned or replaced under 40 CFR §261.35 was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment."

FISCAL NOTE

Bob Orozco, Strategic Planning and Appropriations, has determined that for the first five-year period the proposed amendments to Chapter 335, Industrial Solid Waste and Municipal Hazardous Waste, are in effect, there will be no significant fiscal implications for state government or units of local government as a result of administration or enforcement of the proposed amendments. The purpose of the proposed amendments is to revise state rules so it is clear that the state definition of hazardous waste is consistent with the federal definition of hazardous waste as adopted in the Code of Federal Regulations through a date certain. Specifically, the proposed amendments would incorporate the definitions and criteria in federal regulations relating to solid wastes which are not hazardous wastes; dredged material which is not hazardous waste; criteria for identifying the characteristics of hazardous waste; criteria for listing hazardous waste; characteristics of ignitability, corrosivity, reactivity, and toxicity; lists of hazardous wastes from non-specific and from specific sources; lists of discarded

commercial chemical products, off-specification species, container residues, and spill residues thereof; and deletion of certain hazardous waste codes following cleaning and replacement.

Fiscal implications are not anticipated to be significant as the proposed amendments clarify the state definition to make it consistent with existing definitions and meanings in current federal regulations and do not create any new requirements.

PUBLIC BENEFIT

Mr. Orozco has also determined that for each year of the first five years the proposed amendments to Chapter 335 are in effect, the public benefit anticipated from enforcement of and compliance with these rules will be continued consistency between state and federal hazardous waste regulatory requirements and clarification of which wastes have been identified by the EPA as hazardous wastes and consequently by the commission through the amendment of the state rule definition. The proposed amendments incorporate the meaning of "hazardous waste" as adopted in the federal regulations up through May 11, 1999 at 64 FedReg 25408. The fiscal implications to individuals and small business are contained in the Small Business Analysis section of this preamble.

SMALL BUSINESS ASSESSMENT

No adverse economic effects are anticipated to any person or small business as a result of implementing the provisions of the proposed amendments to the rules, since regulated entities must already comply with the federal definition of hazardous waste. In addition, although no adverse economic effects are anticipated, it is not legal or feasible to reduce the effects on small businesses considering the purpose

of the statutes under which these rules are proposed and adopted. The purpose of the proposed amendments to Chapter 335 is to revise and clarify state rules so it is clear that the state definition of hazardous waste is consistent with the federal definition of hazardous waste as adopted in the Code of Federal Regulations through a date certain. Specifically, the proposed amendments would incorporate the definitions and criteria in federal regulations relating to solid wastes which are not hazardous wastes; dredged material which is not hazardous waste; criteria for identifying the characteristics of hazardous waste; criteria for listing hazardous waste; characteristics of ignitability, corrosivity, reactivity, and toxicity; lists of hazardous wastes from non-specific and from specific sources; lists of discarded commercial chemical products, off-specification species, container residues, and spill residues thereof; and deletion of certain hazardous waste codes following cleaning and replacement.

DRAFT REGULATORY IMPACT ASSESSMENT

The commission has reviewed the proposed rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and has determined that the rulemaking is not subject to §2001.0225 because it does not meet the definition of a "major environmental rule." "Major environmental rule" means a rule the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. Although the proposed amendments will have the effect of protecting the environment and reducing the risk to human health from environmental exposure, this is not a major environmental rule because the specific intent of the proposed rulemaking is procedural in nature and clarifies the state definition and criteria to match definitions and criteria in federal regulations and does

not adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. Furthermore, the proposed amendments do not meet any of the four applicability requirements listed in §2001.0225(a). Specifically, the proposed amendments do not exceed a standard set by federal law, exceed an express requirement of state law, exceed a requirement of a delegation agreement, or propose to adopt a rule solely under the general powers of the agency. This proposal does not exceed a standard set by federal law because the main purpose of this proposal is to adopt state rules equivalent to the corresponding federal regulations. This proposal does not exceed an express requirement of state law because it fulfills the express state law requirements under which these rules are proposed (e.g., the definition of "hazardous waste"). This proposal does not exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program because there is no delegation agreement or contract applicable to this rulemaking. This proposal does not adopt a rule solely under the general powers of the agency, but rather under a specific state law (i.e., Texas Health and Safety Code, Solid Waste Disposal Act, §361.003, §361.017 and §361.024). Finally, this rulemaking is not being proposed or adopted on an emergency basis to protect the environment or to reduce risks to human health from environmental exposure.

TAKINGS IMPACT ASSESSMENT

The commission has prepared a Takings Impact Assessment for these proposed rules pursuant to Texas Government Code Annotated §2007.043. The following is a summary of that assessment. The specific purpose of the proposed amendments is to clarify that the state definition and criteria matches the

definitions and criteria in federal regulations regarding the meaning of "hazardous waste." The proposed rules would substantially advance this stated purpose by adopting the federal meaning of the term "hazardous waste." Promulgation and enforcement of these proposed rules would not affect private real property which is the subject of the rules because the proposed rule language simply clarifies the existing definition without adding or taking away any requirements. There is no burden on private real property because the regulation simply clarifies the existing definition without adding or taking away any requirements. The subject proposed regulations do not affect a landowner's rights in private real property because this rulemaking does not restrict or limit the owner's right to property that would otherwise exist in the absence of the regulations. A property owner may continue to use the property for the management of hazardous waste. In other words, because these rules merely clarify the definition of hazardous waste, they do not restrict the owner's right to property.

COASTAL MANAGEMENT PROGRAM

The commission has reviewed the proposed rulemaking for consistency with the Texas Coastal Management Program (CMP) goals and policies in accordance with the regulations of the Coastal Coordination Council and found that the proposed rules are subject to the CMP and must be consistent with applicable CMP goals and policies. The commission has determined that the proposed rulemaking is consistent with each applicable CMP goal and policy, which are found in 31 TAC §§501.12 and 501.14. The rulemaking would revise the commission rules to clarify that the state definition and criteria matches the definitions and criteria in federal regulations regarding the meaning of "hazardous waste." The commission has also determined that the proposed rule will not have a direct and significant adverse effect on Coastal Natural Resource Areas (CNRAs) identified in the applicable CMP

policies. For example, the proposed rules would clarify the commission's rules concerning hazardous and industrial solid waste, thereby serving to protect, preserve, restore, and enhance the diversity, quality, quantity, functions, and values of CNRAs, and also thereby serving to ensure that new solid waste facilities and areal expansions of existing solid waste facilities are sited, designed, constructed, and operated to prevent releases of pollutants that may adversely affect CNRAs and, at a minimum, comply with standards established under the Solid Waste Disposal Act, 42 United States Code Annotated, §§6901 et seq. The commission invites public comment on the applicability of the CMP and on the consistency determination of the proposed rule.

SUBMITTAL OF COMMENTS

Written comments may be submitted by mail to Bettie Bell, Office of Environmental Policy, Analysis, and Assessment, MC-205, P.O. Box 13087, Austin, Texas 78711-3087; or by fax at (512) 239-4808. All comments must be received by September 27, 1999, and should reference Rule Log No. 99024-335-WS. Comments received by 5:00 p.m. on that date will be considered by the commission prior to any final action on the proposal. For further information, please contact Ray Henry Austin at (512) 239-6814.

STATUTORY AUTHORITY

The amendment is proposed under Texas Water Code §5.103 and §5.105, which provide the commission with the authority to adopt any rules necessary to carry out its powers and duties under the provisions of the Texas Water Code or other laws of this state; and under Texas Health and Safety Code, Solid Waste Disposal Act, §361.003, §361.017 and §361.024, which authorize the commission

to regulate industrial solid waste and municipal hazardous waste and to adopt rules consistent with the general intent and purposes of the Act.

The amended language implement Texas Health and Safety Code Chapter 361.

SUBCHAPTER A : INDUSTRIAL SOLID WASTE AND MUNICIPAL HAZARDOUS WASTE IN GENERAL

§335.1. Definitions.

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly requires otherwise.

(1) **Aboveground tank** - A device meeting the definition of tank in this section and that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank (including the tank bottom) is able to be visually inspected.

(2) **Act** - The Solid Waste Disposal Act, Texas Health and Safety Code, Chapter 361 (Vernon Pamphlet 1992).

(3) **Active life** - The period from the initial receipt of hazardous waste at the facility until the executive director receives certification of final closure.

(4) **Active portion** - That portion of a facility where processing, storage, or disposal operations are being or have been conducted after November 19, 1980, and which is not a closed portion. (See also "closed portion" and "inactive portion.")

(5) **Activities associated with the exploration, development, and protection of oil or gas or geothermal resources** - Activities associated with:

(A) the drilling of exploratory wells, oil wells, gas wells, or geothermal resource wells;

(B) the production of oil or gas or geothermal resources, including:

(i) activities associated with the drilling of injection water source wells that penetrate the base of usable quality water;

(ii) activities associated with the drilling of cathodic protection holes associated with the cathodic protection of wells and pipelines subject to the jurisdiction of the commission to regulate the production of oil or gas or geothermal resources;

(iii) activities associated with gasoline plants, natural gas or natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants;

(iv) activities associated with any underground natural gas storage facility, provided the terms "natural gas" and "storage facility" shall have the meanings set out in the Texas Natural Resources Code, §91.173;

(v) activities associated with any underground hydrocarbon storage facility, provided the terms "hydrocarbons" and "underground hydrocarbon storage facility" shall have the meanings set out in the Texas Natural Resources Code, §91.173; and

(vi) activities associated with the storage, handling, reclamation, gathering, transportation, or distribution of oil or gas prior to the refining of such oil or prior to the use of such gas in any manufacturing process or as a residential or industrial fuel;

(C) the operation, abandonment, and proper plugging of wells subject to the jurisdiction of the commission to regulate the exploration, development, and production of oil or gas or geothermal resources; and

(D) the discharge, storage, handling, transportation, reclamation, or disposal of waste or any other substance or material associated with any activity listed in subparagraphs (A)-(C) of this paragraph, except for waste generated in connection with activities associated with gasoline plants, natural gas or natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants if that waste is a hazardous waste as defined by the administrator of the United States Environmental Protection Agency (EPA) pursuant to the Federal Solid Waste Disposal Act, as amended (42 United States Code, §6901 et seq.).

(6) **Administrator** - The administrator of the United States Environmental Protection Agency or his designee.

(7) **Ancillary equipment** - Any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to a storage or processing tank(s), between hazardous waste storage and processing tanks to a point of disposal on-site, or to a point of shipment for disposal off-site.

(8) **Aquifer** - A geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs.

(9) **Authorized representative** - The person responsible for the overall operation of a facility or an operation unit (i.e., part of a facility), e.g., the plant manager, superintendent, or person of equivalent responsibility.

(10) **Battery** - Has the definition adopted under §335.261 of this title (relating to Universal Waste Rule).

(11) **Boiler** - An enclosed device using controlled flame combustion and having the following characteristics:

(A) the unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases;

(B) the unit's combustion chamber and primary energy recovery section(s) must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section(s) (such as waterwalls and superheaters) must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream), and fluidized bed combustion units; and

(C) while in operation, the unit must maintain a thermal energy recovery efficiency of at least 60%, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(D) the unit must export and utilize at least 75% of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

(E) the unit is one which the executive director has determined, on a case-by-case basis, to be a boiler, after considering the standards in §335.20 of this title (relating to Variance to be Classified as a Boiler).

(12) **Carbon regeneration unit** - Any enclosed thermal treatment device used to regenerate spent activated carbon.

(13) **Certification** - A statement of professional opinion based upon knowledge and belief.

(14) **Class 1 wastes** - Any industrial solid waste or mixture of industrial solid wastes which because of its concentration, or physical or chemical characteristics, is toxic, corrosive, flammable, a strong sensitizer or irritant, a generator of sudden pressure by decomposition, heat, or other means, or may pose a substantial present or potential danger to human health or the environment when improperly processed, stored, transported, or disposed of or otherwise managed, as further defined in §335.505 of this title (relating to Class 1 Waste Determination). Class 1 waste is also referred to throughout this chapter as Class I waste.

(15) **Class 2 wastes** - Any individual solid waste or combination of industrial solid waste which cannot be described as Hazardous, Class 1 or Class 3 as defined in §335.506 of this title (relating to Class 2 Waste Determination). Class 2 waste is also referred to throughout this chapter as Class II waste.

(16) **Class 3 wastes** - Inert and essentially insoluble industrial solid waste, usually including, but not limited to, materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc., that are not readily decomposable, as further defined in §335.507 of this title (relating to Class 3 Waste Determination). Class 3 waste is also referred to throughout this chapter as Class III waste.

(17) **Closed portion** - That portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements. (See also "active portion" and "inactive portion.")

(18) **Closure** - The act of permanently taking a waste management unit or facility out of service.

(19) **Commercial hazardous waste management facility** - Any hazardous waste management facility that accepts hazardous waste or PCBs for a charge, except a captured facility or a facility that accepts waste only from other facilities owned or effectively controlled by the same person, where "captured facility" means a manufacturing or production facility that generates an industrial solid waste or hazardous waste that is routinely stored, processed, or disposed of on a shared basis in an integrated waste management unit owned, operated by, and located within a contiguous manufacturing complex.

(20) **Component** - Either the tank or ancillary equipment of a tank system.

(21) **Confined aquifer** - An aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined groundwater.

(22) **Consignee** - The ultimate treatment, storage, or disposal facility in a receiving country to which the hazardous waste will be sent.

(23) **Container** - Any portable device in which a material is stored, transported, processed, or disposed of, or otherwise handled.

(24) **Containment building** - A hazardous waste management unit that is used to store or treat hazardous waste under the provisions of §335.152(a)(19) or §335.112(a)(21) of this title (relating to Standards).

(25) **Contaminant** - Includes, but is not limited to, “solid waste,” “hazardous waste,” and “hazardous waste constituent” as defined in this subchapter, “pollutant” as defined in the Texas Water Code, §26.001, and Texas Health and Safety Code, §361.431, “hazardous substance” as defined in the Texas Health and Safety Code, §361.003, and other substances that are subject to the Texas Hazardous Substances Spill Prevention and Control Act, Texas Water Code, §§26.261-26.268.

(26) **Contaminated medium/media** - A portion or portions of the physical environment to include soil, sediment, surface water, ground water or air, that contain contaminants at levels that pose a substantial present or future threat to human health and the environment.

(27) **Contingency plan** - A document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(28) **Control** - To apply engineering measures such as capping or reversible treatment methods and/or institutional measures such as deed restrictions to facilities or areas with wastes or contaminated media which result in remedies that are protective of human health and the environment when combined with appropriate maintenance, monitoring, and any necessary further corrective action.

(29) **Corrective action management unit or CAMU** - An area within a facility that is designated by the commission under 40 Code of Federal Regulations (CFR) Part 264, Subpart S, for the purpose of implementing corrective action requirements under §335.167 of this title (relating to Corrective Action for Solid Waste Management Units) and the Texas Solid Waste Disposal Act, Texas Health and Safety Code Annotated (Vernon Pamphlet 1993), §361.303 (concerning Corrective Action). A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.

(30) **Corrosion expert** - A person who, by reason of his knowledge of the physical sciences and the principles of engineering and mathematics, acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be certified as being qualified by the National Association of Corrosion Engineers (NACE) or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

(31) **Decontaminate** - To apply a treatment process(es) to wastes or contaminated media whereby the substantial present or future threat to human health and the environment is eliminated.

(32) **Designated facility** - A Class I or hazardous waste storage, processing, or disposal facility which has received an EPA permit (or a facility with interim status) in accordance with the requirements of 40 Code of Federal Regulations, Parts 270 and 124; a permit from a state authorized in accordance with 40 Code of Federal Regulations Part 271 (in the case of hazardous waste); a permit issued pursuant to §335.2 of this title (relating to Permit Required) (in the case of nonhazardous waste); or that is regulated under §335.24(f), (g), or (h) of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials) or §335.241 of this title (relating to Applicability and Requirements) and that has been designated on the manifest by the generator pursuant to §335.10 of this title (relating to Shipping and Reporting Procedures Applicable to Generators of Hazardous Waste or Class I Waste and Primary Exporters of Hazardous Waste). If a

waste is destined to a facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility must be a facility allowed by the receiving state to accept such waste.

(33) **Destination facility** - Has the definition adopted under §335.261 of this title (relating to Universal Waste Rule).

(34) **Dike** - An embankment or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

(35) **Discharge or hazardous waste discharge** - The accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of waste into or on any land or water.

(36) **Disposal** - The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste (whether containerized or uncontainerized) into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

(37) **Disposal facility** - A facility or part of a facility at which solid waste is intentionally placed into or on any land or water, and at which waste will remain after closure. The term “disposal facility” does not include a corrective action management unit into which remediation wastes are placed.

(38) **Drip pad** - An engineered structure consisting of a curbed, free-draining base, constructed of a non-earthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

(39) **Elementary neutralization unit** - A device which:

(A) is used for neutralizing wastes which are hazardous only because they exhibit the corrosivity characteristic defined in 40 CFR §261.22, or are listed in 40 CFR Part 261, Subpart D, only for this reason; or is used for neutralizing the pH of non-hazardous industrial solid waste; and

(B) meets the definition of tank, tank system, container, transport vehicle, or vessel as defined in this section.

(40) **Environmental Protection Agency acknowledgment of consent** - The cable sent to EPA from the United States Embassy in a receiving country that acknowledges the written consent of the receiving country to accept the hazardous waste and describes the terms and conditions of the receiving country's consent to the shipment.

(41) **Environmental Protection Agency hazardous waste number** - The number assigned by the EPA to each hazardous waste listed in 40 Code of Federal Regulations, Part 26l, Subpart D and to each characteristic identified in 40 Code of Federal Regulations, Part 26l, Subpart C.

(42) **Environmental Protection Agency identification number** - The number assigned by the EPA or the commission to each generator, transporter, and processing, storage, or disposal facility.

(43) **Essentially insoluble** - Any material, which if representatively sampled and placed in static or dynamic contact with deionized water at ambient temperature for seven days, will not leach any quantity of any constituent of the material into the water in excess of current United States Public Health Service or EPA limits for drinking water as published in the Federal Register.

(44) **Equivalent method** - Any testing or analytical method approved by the administrator under 40 Code of Federal Regulations §260.20 and §260.21.

(45) **Existing portion** - That land surface area of an existing waste management unit, included in the original Part A permit application, on which wastes have been placed prior to the issuance of a permit.

(46) **Existing tank system or existing component** - A tank system or component that is used for the storage or processing of hazardous waste and that is in operation, or for which

installation has commenced on or prior to July 14, 1986. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either:

(A) a continuous on-site physical construction or installation program has begun; or

(B) the owner or operator has entered into contractual obligations--which cannot be canceled or modified without substantial loss--for physical construction of the site or installation of the tank system to be completed within a reasonable time.

(47) **Extrusion** - A process using pressure to force ground poultry carcasses through a decreasing-diameter barrel or nozzle, causing the generation of heat sufficient to kill pathogens, and resulting in an extruded product acceptable as a feed ingredient.

(48) **Facility** - Includes:

(A) all contiguous land, and structures, other appurtenances, and improvements on the land, used for storing, processing, or disposing of municipal hazardous waste or industrial solid waste. A facility may consist of several storage, processing, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them);

(B) for the purpose of implementing corrective action under §335.167 of this title (relating to Corrective Action for Solid Waste Management Units), all contiguous property under the control of the owner or operator seeking a permit for the storage, processing, and/or disposal of hazardous waste. This definition also applies to facilities implementing corrective action under the Texas Solid Waste Disposal Act, Texas Health and Safety Code Annotated (Vernon Pamphlet 1993), §361.303 (Corrective Action).

(49) **Final closure** - The closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities) and Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing or Disposal Facilities) are no longer conducted at the facility unless subject to the provisions in §335.69 of this title (relating to Accumulation Time).

(50) **Food-chain crops** - Tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

(51) **Freeboard** - The vertical distance between the top of a tank or surface impoundment dike, and the surface of the waste contained therein.

(52) **Free liquids** - Liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

(53) **Generator** - Any person, by site, who produces municipal hazardous waste or industrial solid waste; any person who possesses municipal hazardous waste or industrial solid waste to be shipped to any other person; or any person whose act first causes the solid waste to become subject to regulation under this chapter. For the purposes of this regulation, a person who generates or possesses Class III wastes only shall not be considered a generator.

(54) **Groundwater** - Water below the land surface in a zone of saturation.

[(55) **Hazardous industrial waste** - Any industrial solid waste or combination of industrial solid wastes identified or listed as a hazardous waste by the administrator of the EPA pursuant to the Resource Conservation and Recovery Act of 1976, §3001. The administrator has identified the characteristics of hazardous wastes and listed certain wastes as hazardous in 40 Code of Federal Regulations Part 26l. The executive director will maintain in the offices of the commission a current list of hazardous wastes, a current set of characteristics of hazardous waste, and applicable appendices, as promulgated by the administrator.]

(55) [(56)] **Hazardous substance** - Any substance designated as a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 40 Code of Federal Regulations, Part 302.

(56) [(57)] **Hazardous waste** - Any solid waste identified or listed as a hazardous waste by the administrator of the EPA pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 United States Code 6901 et seq., as amended, pursuant to Title 40 Code of Federal Regulations §§261.3, 261.4(b), 261.4(g), 261.10, 261.11, 261.20 - 261.24, 261.30 - 261.33, and §261.35, as amended through May 11, 1999 at 64 FedReg 25408. When used in this chapter, the term "municipal hazardous waste" means "municipal solid waste" that meets the definition of "hazardous waste," and the term "hazardous industrial waste" means "industrial solid waste" that meets the definition of "hazardous waste."

(57) [(58)] **Hazardous waste constituent** - A constituent that caused the administrator to list the hazardous waste in 40 Code of Federal Regulations Part 261, Subpart D or a constituent listed in Table 1 of 40 Code of Federal Regulations §261.24.

(58) [(59)] **Hazardous waste management facility** - All contiguous land, including structures, appurtenances, and other improvements on the land, used for processing, storing, or disposing of hazardous waste. The term includes a publicly or privately owned hazardous waste management facility consisting of processing, storage, or disposal operational hazardous waste management units such as one or more landfills, surface impoundments, waste piles, incinerators, boilers, and industrial furnaces, including cement kilns, injection wells, salt dome waste containment caverns, land treatment facilities, or a combination of units.

(59) [(60)] **Hazardous waste management unit** - A landfill, surface impoundment, waste pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or land treatment unit, or any other structure, vessel, appurtenance, or other improvement on land used to manage hazardous waste.

(60) [(61)] **In operation** - Refers to a facility which is processing, storing, or disposing of hazardous waste.

(61) [(62)] **Inactive portion** - That portion of a facility which is not operated after November 19, 1980. (See also "active portion" and "closed portion.")

(62) [(63)] **Incinerator** - Any enclosed device that:

(A) uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(B) meets the definition of infrared incinerator or plasma arc incinerator.

(63) [(64)] **Incompatible waste** - A hazardous waste which is unsuitable for:

(A) placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g., container inner liners or tank walls); or

(B) commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases.

(64) [(65)] **Individual generation site** - The contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

(65) [(66)] **Industrial furnace** - Includes any of the following enclosed devices that use thermal treatment to accomplish recovery of materials or energy:

(A) cement kilns;

(B) lime kilns;

(C) aggregate kilns;

(D) phosphate kilns;

(E) coke ovens;

(F) blast furnaces;

(G) smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces);

(H) titanium dioxide chloride process oxidation reactors;

(I) methane reforming furnaces;

(J) pulping liquor recovery furnaces;

(K) combustion devices used in the recovery of sulfur values from spent sulfuric acid;

(L) halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least 3.0%, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of 20% as generated; and

(M) other devices the commission may list, after the opportunity for notice and comment is afforded to the public.

(66) [(67)] **Industrial solid waste** - Solid waste resulting from or incidental to any process of industry or manufacturing, or mining or agricultural operation, which may include hazardous waste as defined in this section.

(67) [(68)] **Infrared incinerator -** Any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(68) [(69)] **Inground tank** - A device meeting the definition of tank in this section whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground.

(69) [(70)] **Injection well** - A well into which fluids are injected. (See also "underground injection.")

(70) [(71)] **Inner liner** - A continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

(71) [(72)] **Installation inspector** - A person who, by reason of his knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.

(72) [(73)] **International shipment** - The transportation of hazardous waste into or out of the jurisdiction of the United States.

(73) [(74)] **Land treatment facility** - A facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface and that is not a corrective action management unit; such facilities are disposal facilities if the waste will remain after closure.

(74) [(75)] **Landfill** - A disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, an injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

(75) [(76)] **Landfill cell** - A discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

(76) [(77)] **Leachate** - Any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

(77) [(78)] **Leak-detection system** - A system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary containment structure. Such a system must employ operational controls (e.g., daily visual inspections for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure.

(78) [(79)] **Liner** - A continuous layer of natural or man-made materials, beneath or on the sides of a surface impoundment, landfill, or landfill cell, which restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.

(79) [(80)] **Management or hazardous waste management** - The systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

(80) [(81)] **Manifest** - The uniform hazardous waste manifest form, Form TWC-0311, and, if necessary, TWC-0311B, furnished by the executive director to accompany shipments of municipal hazardous waste or Class I industrial solid waste.

(81) [(82)] **Manifest document number** - A number assigned to the manifest by the commission for reporting and recordkeeping purposes.

(82) [(83)] **Miscellaneous unit** - A hazardous waste management unit where hazardous waste is stored, processed, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under Chapter 331 of this title (relating to Underground Injection Control), corrective action management unit, containment building, or unit eligible for a research, development, and demonstration permit or under Chapter 305, Subchapter K of this title (relating to Research Development and Demonstration Permits).

(83) [(84)] **Movement** - That hazardous waste transported to a facility in an individual vehicle.

[(85) **Municipal hazardous waste** - A municipal solid waste or mixture of municipal solid wastes which has been identified or listed as a hazardous waste by the administrator of the United States Environmental Protection Agency.]

(84) [(86)] **Municipal solid waste** - Solid waste resulting from or incidental to municipal, community, commercial, institutional, and recreational activities; including garbage, rubbish, ashes, street cleanings, dead animals, abandoned automobiles, and all other solid waste other than industrial waste.

(85) [(87)] **New tank system or new tank component** - A tank system or component that will be used for the storage or processing of hazardous waste and for which installation has

commenced after July 14, 1986; except, however, for purposes of 40 Code of Federal Regulations §264.193(g)(2) (incorporated by reference at §335.152(a)(8) of this title (relating to Standards)) and 40 Code of Federal Regulations §265.193(g)(2) (incorporated by reference at §335.112(a)(9) of this title (relating to Standards)), a new tank system is one for which construction commences after July 14, 1986 (see also "existing tank system.")

(86) [(88)] **Off-site** - Property which cannot be characterized as on-site.

(87) [(89)] **Onground tank** - A device meeting the definition of tank in this section and that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

(88) [(90)] **On-site** - The same or geographically contiguous property which may be divided by public or private rights-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing, as opposed to going along, the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property.

(89) [(91)] **Open burning** - The combustion of any material without the following characteristics:

(A) control of combustion air to maintain adequate temperature for efficient combustion;

(B) containment of the combustion-reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(C) control of emission of the gaseous combustion products. (See also "incineration" and "thermal treatment.")

(90) [(92)] **Operator** - The person responsible for the overall operation of a facility.

(91) [(93)] **Owner** - The person who owns a facility or part of a facility.

(92) [(94)] **Partial closure** - The closure of a hazardous waste management unit in accordance with the applicable closure requirements of Subchapters E and F of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; and Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing or Disposal Facilities) at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank (including its associated piping and underlying containment systems), landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the same facility continue to operate.

(93) [(95)] **PCBs or polychlorinated biphenyl compounds** - Compounds subject to Title 40, Code of Federal Regulations, Part 761.

(94) [(96)] **Permit** - A written permit issued by the commission which, by its conditions, may authorize the permittee to construct, install, modify or operate a specified municipal hazardous waste or industrial solid waste storage, processing, or disposal facility in accordance with specified limitations.

(95) [(97)] **Person** - Any individual, corporation, organization, government or governmental subdivision or agency, business trust, partnership, association or any other legal entity.

(96) [(98)] **Personnel or facility personnel** - All persons who work at, or oversee the operations of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of this chapter.

(97) [(99)] **Pesticide** - Has the definition adopted under §335.261 of this title (relating to Universal Waste Rule).

(98) [(100)] **Petroleum substance** - A crude oil or any refined or unrefined fraction or derivative of crude oil which is a liquid at standard conditions of temperature and pressure.

(A) Except as provided in subparagraph (C) of this definition for the purposes of this chapter, a "petroleum substance" shall be limited to a substance in or a combination

or mixture of substances within the following list (except for any listed substance regulated as a hazardous waste under the federal Solid Waste Disposal Act, Subtitle C (42 United States Code §§6921, et seq.)) and which is liquid at standard conditions of temperature (20 degrees Centigrade) and pressure (1 atmosphere):

(i) basic petroleum substances - i.e., crude oils, crude oil fractions, petroleum feedstocks, and petroleum fractions;

(ii) motor fuels - a petroleum substance which is typically used for the operation of internal combustion engines and/or motors (which includes but is not limited to stationary engines and engines used in transportation vehicles and marine vessels);

(iii) aviation gasolines - i.e., Grade 80, Grade 100, and Grade 100-LL;

(iv) aviation jet fuels - i.e., Jet A, Jet A-1, Jet B, JP-4, JP-5, and JP-8;

(v) distillate fuel oils - i.e., Number 1-D, Number 1, Number 2-D, and Number 2;

(vi) residual fuel oils - i.e., Number 4-D, Number 4-light, Number 4, Number 5-light, Number 5-heavy, and Number 6;

(vii) gas-turbine fuel oils - i.e., Grade O-GT, Grade 1-GT, Grade 2-GT, Grade 3-GT, and Grade 4-GT;

(viii) illuminating oils - i.e., kerosene, mineral seal oil, long-time burning oils, 300 oil, and mineral colza oil;

(ix) lubricants - i.e., automotive and industrial lubricants;

(x) building materials - i.e., liquid asphalt and dust-laying oils;

(xi) insulating and waterproofing materials - i.e., transformer oils and cable oils;

(xii) used oils - (See definition for "used oil" in this section); and

(B) For the purposes of this chapter, a "petroleum substance" shall include solvents or a combination or mixture of solvents (except for any listed substance regulated as a hazardous waste under the federal Solid Waste Disposal Act, Subtitle C (42 United States Code

§§6921, et seq.)) and which is liquid at standard conditions of temperature (20 degrees Centigrade) and pressure (1 atmosphere) i.e., Stoddard solvent, petroleum spirits, mineral spirits, petroleum ether, varnish makers' and painters' naphthas, petroleum extender oils, and commercial hexane.

(C) The following materials are not considered petroleum substances:

(i) polymerized materials, i.e., plastics, synthetic rubber, polystyrene, high and low density polyethylene;

(ii) animal, microbial, and vegetable fats;

(iii) food grade oils;

(iv) hardened asphalt and solid asphaltic materials—i.e., roofing shingles, roofing felt, hot mix (and cold mix); and

(v) cosmetics.

(99) [(101)] **Pile** - Any noncontainerized accumulation of solid, nonflowing hazardous waste that is used for processing or storage, and that is not a corrective action management unit or a containment building.

(100) [(102)] **Plasma arc incinerator** - Any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(101) [(103)] **Poultry** - Chickens or ducks being raised or kept on any premises in the state for profit.

(102) [(104)] **Poultry carcass** - The carcass, or part of a carcass, of poultry that died as a result of a cause other than intentional slaughter for use for human consumption.

(103) [(105)] **Poultry facility** - A facility that:

(A) is used to raise, grow, feed, or otherwise produce poultry for commercial purposes; or

(B) is a commercial poultry hatchery that is used to produce chicks or ducklings.

(104) [(106)] **Primary exporter** - Any person who is required to originate the manifest for a shipment of hazardous waste in accordance with the regulations contained in 40 Code of Federal Regulations, Part 262, Subpart B, which are in effect as of November 8, 1986, or equivalent state

provision, which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export.

(105) [(107)] **Processing** - The extraction of materials, transfer, volume reduction, conversion to energy, or other separation and preparation of solid waste for reuse or disposal, including the treatment or neutralization of hazardous waste, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material from the waste or so as to render such waste nonhazardous, or less hazardous; safer to transport, store or dispose of; or amenable for recovery, amenable for storage, or reduced in volume. The transfer of solid waste for reuse or disposal as used in this definition does not include the actions of a transporter in conveying or transporting solid waste by truck, ship, pipeline, or other means. Unless the executive director determines that regulation of such activity is necessary to protect human health or the environment, the definition of processing does not include activities relating to those materials exempted by the administrator of the Environmental Protection Agency pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 United States Code §6901 et seq., as amended.

(106) [(108)] **Publicly-owned treatment works (POTW)** - Any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a state or municipality (as defined by the Clean Water Act, §502(4)). The definition includes sewers, pipes or other conveyances only if they convey wastewater to a POTW providing treatment.

(107) [(109)] **Qualified groundwater scientist** - A scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certifications, or completion of accredited university courses that enable that individual to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport.

(108) [(110)] **Receiving country** - A foreign country to which a hazardous waste is sent for the purpose of treatment, storage, or disposal (except short-term storage incidental to transportation).

(109) [(111)] **Regional administrator** - The regional administrator for the Environmental Protection Agency region in which the facility is located, or his designee.

(110) [(112)] **Remediation** - The act of eliminating or reducing the concentration of contaminants in contaminated media.

(111) [(113)] **Remediation waste** - All solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements under §335.167 of this title (relating to Corrective Action for Solid Waste Management Units) and the Texas Solid Waste Disposal Act, Texas Health and Safety Code Annotated (Vernon Pamphlet 1993), §361.303 (Corrective Action). For a given facility,

remediation wastes may originate only from within the facility boundary, but may include waste managed in implementing corrective action for releases beyond the facility boundary under the Texas Solid Waste Disposal Act, Texas Health and Safety Code Annotated (Vernon Pamphlet 1993), §361.303 (Corrective Action), §335.166(5) of this title (relating to Corrective Action Program), or §335.167(c) of this title (relating to Corrective Action for Solid Waste Management Units).

(112) [(114)] **Remove** - To take waste, contaminated design or operating system components, or contaminated media away from a waste management unit, facility, or area to another location for storage, processing, or disposal.

(113) [(115)] **Replacement unit** - A landfill, surface impoundment, or waste pile unit:

(A) from which all or substantially all the waste is removed; and

(B) that is subsequently reused to treat, store, or dispose of hazardous waste. "Replacement unit" does not apply to a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with an approved closure plan or EPA or state approved corrective action.

(114) [(116)] **Representative sample** - A sample of a universe or whole (e.g., waste pile, lagoon, groundwater) which can be expected to exhibit the average properties of the universe or whole.

(115) [(117)] **Run-off** - Any rainwater, leachate, or other liquid that drains over land from any part of a facility.

(116) [(118)] **Run-on** - Any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

(117) [(119)] **Saturated zone or zone of saturation** - That part of the earth's crust in which all voids are filled with water.

(118) [(120)] **Shipment** - Any action involving the conveyance of municipal hazardous waste or industrial solid waste by any means off-site.

(119) [(121)] **Sludge dryer** - Any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating valve of the sludge itself, of 2,500 Btu/lb of sludge treated on a wet-weight basis.

(120) [(122)] **Small quantity generator** - A generator who generates less than 1,000 kg of hazardous waste in a calendar month.

(121) [(123)] **Solid Waste** -

(A) Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, municipal, commercial,

mining, and agricultural operations, and from community and institutional activities, but does not include:

(i) solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows, or industrial discharges subject to regulation by permit issued pursuant to the Texas Water Code, Chapter 26 (an exclusion applicable only to the actual point source discharge that does not exclude industrial wastewaters while they are being collected, stored or processed before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment);

(ii) uncontaminated soil, dirt, rock, sand and other natural or man-made inert solid materials used to fill land if the object of the fill is to make the land suitable for the construction of surface improvements. The material serving as fill may also serve as a surface improvement such as a structure foundation, a road, soil erosion control, and flood protection. Man-made materials exempted under this provision shall only be deposited at sites where the construction is in progress or imminent such that rights to the land are secured and engineering, architectural, or other necessary planning have been initiated. Waste disposal shall be considered to have occurred on any land which has been filled with man-made inert materials under this provision if the land is sold, leased, or otherwise conveyed prior to the completion of construction of the surface improvement. Under such conditions, deed recordation shall be required. The deed recordation shall include the information required under §335.5(a) of this title (relating to Deed Recordation), prior to sale or other conveyance of the property;

(iii) waste materials which result from activities associated with the exploration, development, or production of oil or gas or geothermal resources, as those activities are defined in this section, and any other substance or material regulated by the Railroad Commission of Texas pursuant to the Natural Resources Code, §91.101, unless such waste, substance, or material results from activities associated with gasoline plants, natural gas or natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants and is a hazardous waste as defined by the administrator of the United States Environmental Protection Agency pursuant to the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 United States Code §§6901 et seq., as amended; or

(iv) a material excluded by 40 Code of Federal Regulations (CFR) §261.4(a)(1) - (14), as amended through August 6, 1998, at 63 FedReg 42110, by 40 CFR §261.4(a)(16), as amended through May 26, 1998 at 63 FedReg 28556, by 40 CFR §261.4(a)(18) - (19), as amended through August 6, 1998, at 63 FedReg 42110, or by variance granted under §335.18 of this title (relating to Variances from Classification as a Solid Waste) and §335.19 of this title (relating to Standards and Criteria for Variances from Classification as a Solid Waste).

(B) A discarded material is any material which is:

(i) abandoned, as explained in subparagraph (C) of this paragraph;

(ii) recycled, as explained in subparagraph (D) of this paragraph; or

(iii) considered inherently waste-like, as explained in subparagraph (E) of this paragraph.

(C) Materials are solid wastes if they are abandoned by being:

(i) disposed of;

(ii) burned or incinerated; or

(iii) accumulated, stored, or processed (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

(D) Materials are solid wastes if they are "recycled" or accumulated, stored, or processed before recycling as specified in this subparagraph. The chart referred to as Table 1 indicates only which materials are considered to be solid wastes when they are recycled and is not intended to supersede the definition of solid waste provided in subparagraph (A) of this paragraph.

(i) Used in a manner constituting disposal. Materials noted with an asterisk in Column 1 of Table 1 are solid wastes when they are:

(I) applied to or placed on the land in a manner that constitutes disposal; or

(II) used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste). However, commercial chemical products listed in 40 CFR §261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(ii) Burning for energy recovery. Materials noted with an asterisk in Column 2 of Table 1 are solid wastes when they are:

(I) burned to recover energy; or

(II) used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste). However, commercial chemical products, which are listed in 40 CFR §261.33, not listed in §261.33 but that exhibit one or more of the hazardous waste characteristics, or would be considered nonhazardous waste if disposed, are not solid wastes if they are fuels themselves and burned for energy recovery.

(iii) Reclaimed. Materials noted with an asterisk in Column 3 of Table 1 are solid wastes when reclaimed (except as provided under 40 CFR §261.4(a)(16)). Materials without an asterisk in Column 3 of Table 1 are not solid wastes when reclaimed (except as provided under 40 CFR §261.4(a)(16).

(iv) Accumulated speculatively. Materials noted with an asterisk in Column 4 of Table 1 are solid wastes when accumulated speculatively.

Figure 1: 30 TAC §335.1(D)(iv).

(E) Materials that are identified by the administrator of the EPA as inherently waste-like materials under 40 CFR §261.2(d) are solid wastes when they are recycled in any manner.

(F) Materials are not solid wastes when they can be shown to be recycled by being:

(i) used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed;

(ii) used or reused as effective substitutes for commercial products; or

(iii) returned to the original process from which they were generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land. In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at 40 CFR §261.4(a)(16) apply rather than this provision.

(iv) secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided:

(I) only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(II) reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces, or incinerators);

(III) the secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and

(IV) the reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

(G) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process, as described in subparagraph (F) of this paragraph:

(i) materials used in a manner constituting disposal, or used to produce products that are applied to the land;

(ii) materials burned for energy recovery, used to produce a fuel, or contained in fuels;

(iii) materials accumulated speculatively; or

(iv) materials deemed to be inherently waste-like by the administrator of the Environmental Protection Agency, as described in 40 CFR §§261.2(d)(1) - 261.2(d)(2).

(H) Respondents in actions to enforce the industrial solid waste regulations who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so and that the recycling activity is legitimate and beneficial.

(I) Materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under 40 CFR §261.3(c) unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.

(J) Other portions of this chapter that relate to solid wastes that are recycled include §335.6 of this title (relating to Notification Requirements), §335.17 of this title (relating to Special Definitions for Recyclable Materials and Nonhazardous Recyclable Materials), §335.18 of this title (relating to Variances from Classification as a Solid Waste), §335.19 of this title (relating to Standards and Criteria for Variances from Classification as a Solid Waste), §335.24 of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials), and Subchapter H (relating to Standards for the Management of Specific Wastes and Specific Types of Materials).

(122) [(124)] **Sorbent** - A material that is used to soak up free liquids by either adsorption or absorption, or both. Sorb means to either adsorb or absorb, or both.

(123) [(125)] **Spill** - The accidental spilling, leaking, pumping, emitting, emptying, or dumping of hazardous wastes or materials which, when spilled, become hazardous wastes into or on any land or water.

(124) [(126)] **Storage** - The holding of solid waste for a temporary period, at the end of which the waste is processed, disposed of, recycled or stored elsewhere.

(125) [(127)] **Sump** - Any pit or reservoir that meets the definition of tank in this section and those troughs/trenches connected to it that serve to collect hazardous waste for transport to hazardous waste storage, processing, or disposal facilities; except that as used in the landfill, surface impoundment, and waste pile rules, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

(126) [(128)] **Surface impoundment or impoundment** - A facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well or a

corrective action management unit. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

(127) [(129)] **Tank** - A stationary device, designed to contain an accumulation of solid waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

(128) [(130)] **Tank system** - A hazardous waste storage or processing tank and its associated ancillary equipment and containment system.

(129) [(131)] **Thermal processing** - The processing of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal processing are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge. (See also "incinerator" and "open burning.")

(130) [(132)] **Thermostat** - Has the definition adopted under §335.261 of this title (relating to Universal Waste Rule).

(131) [(133)] **Totally enclosed treatment facility** - A facility for the processing of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any

constituent thereof into the environment during processing. An example is a pipe in which acid waste is neutralized.

(132) [(134)] **Transfer facility** - Any transportation-related facility including loading docks, parking areas, storage areas, and other similar areas where shipments of hazardous or industrial solid waste are held during the normal course of transportation.

(133) [(135)] **Transit country** - Any foreign country, other than a receiving country, through which a hazardous waste is transported.

(134) [(136)] **Transport vehicle** - A motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle. Vessel includes every description of watercraft, used or capable of being used as a means of transportation on the water.

(135) [(137)] **Transporter** - Any person who conveys or transports municipal hazardous waste or industrial solid waste by truck, ship, pipeline, or other means.

(136) [(138)] **Treatability study**--A study in which a hazardous or industrial solid waste is subjected to a treatment process to determine:

(A) whether the waste is amenable to the treatment process;

(B) what pretreatment (if any) is required;

(C) the optimal process conditions needed to achieve the desired treatment;

(D) the efficiency of a treatment process for a specific waste or wastes; or

(E) the characteristics and volumes of residuals from a particular treatment process. Also included in this definition for the purpose of 40 CFR §261.4(e) and (f) (§§335.2, 335.69, and 335.78 of this title (relating to Permit Required; Accumulation Time; and Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators)) exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies. A treatability study is not a means to commercially treat or dispose of hazardous or industrial solid waste.

(137) [(139)] **Treatment** - To apply a physical, biological, or chemical process(es) to wastes and contaminated media which significantly reduces the toxicity, volume, or mobility of contaminants and which, depending on the process(es) used, achieves varying degrees of long-term effectiveness.

(138) [(140)] **Treatment zone** - A soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transferred, or immobilized.

(139) [(141)] **Underground injection** - The subsurface emplacement of fluids through a bored, drilled, or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. (See also "injection well.")

(140) [(142)] **Underground tank** - A device meeting the definition of tank in this section whose entire surface area is totally below the surface of and covered by the ground.

(141) [(143)] **Unfit-for-use tank system** - A tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or processing hazardous waste without posing a threat of release of hazardous waste to the environment. Waste and Municipal Hazardous Waste except as otherwise specified in § 335.261 of this title.

(142) [(144)] **Universal waste** - Any of the hazardous wastes defined as universal waste under §335.261(b)(13)(F) that are managed under the universal waste requirements of §335.261 of this title (relating to Universal Waste Rule).

(143) [(145)] **Universal waste handler** - Has the definition adopted under §335.261 of this title (relating to Universal Waste Rule).

(144) [(146)] **Universal waste transporter** - Has the definition adopted under §335.261 of this title (relating to Universal Waste Rule).

(145) [(147)] **Unsaturated zone or zone of aeration** - The zone between the land surface and the water table.

(146) [(148)] **Uppermost aquifer** - The geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected within the facility's property boundary.

(147) [(149)] **Used oil** - Any oil that has been refined from crude oil, or any synthetic oil, that has been used, and, as a result of such use, is contaminated by physical or chemical impurities. Used oil fuel includes any fuel produced from used oil by processing, blending, or other treatment. Rules applicable to nonhazardous used oil, oil characteristically hazardous from use versus mixing, Conditionally Exempt Small Quantity Generator (CESQG) hazardous used oil, and household used oil after collection that will be recycled are found in Chapter 324 of this title (relating to Used Oil) and 40 CFR Part 279 (Standards for Management of Used Oil).

(148) [(150)] **Wastewater treatment unit** - A device which:

(A) is part of a wastewater treatment facility subject to regulation under either the Federal Water Pollution Control Act (Clean Water Act), 33 United States Code §466 et seq., §402 or §307(b), as amended;

(B) receives and processes or stores an influent wastewater which is a hazardous or industrial solid waste, or generates and accumulates a wastewater treatment sludge which is a hazardous or industrial solid waste, or processes or stores a wastewater treatment sludge which is a hazardous or industrial solid waste; and

(C) meets the definition of tank or tank system as defined in this section.

(149) [(151)] **Water (bulk shipment)** - The bulk transportation of municipal hazardous waste or Class I industrial solid waste which is loaded or carried on board a vessel without containers or labels.

(150) [(152)] **Well** - Any shaft or pit dug or bored into the earth, generally of a cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

(151) [(153)] **Zone of engineering control** - An area under the control of the owner/operator that, upon detection of a hazardous waste release, can be readily cleaned up prior to the release of hazardous waste or hazardous constituents to groundwater or surface water.