OFFICIAL

Texas Administrative Code

Title 30 Environmental Quality

1994–Part Two

Amendments effective through
January 1, 1994

Published by
West Publishing Co.
St. Paul, Minn.

under authority of the Texas Secretary of State

CHAPTER 335. INDUSTRIAL SOLID WASTE AND MUNICIPAL HAZARDOUS WASTE

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Authority: The provisions of this Chapter 335 issued under the Texas Water Code, §5.103 and §5.105, unless otherwise noted.

Cross References: This Chapter cited in 30 TAC §120.13, (relating to Representations in Application for Permit); 30 TAC §305.30, (relating to Emergency Actions Concerning Hazardous Waste); 30 TAC §305.50, (relating to Additional Requirements for an Application for a Solid Waste Permit); 30 TAC §305.51, (relating to Revision of Applications for Hazardous Waste Permits); 30 TAC §305.62, (relating to Amendment); 30 TAC §305.127, (relating to Conditions To Be Determined for Individual Permits); 30 TAC §305.156, (relating to Hazardous Waste); 30 TAC §312.3, (relating to Exclusions); 30 TAC §331.47, (relating to Pond Lining); 30 TAC §334.95, (relating to Financial Test of Self-Insurance); 30 TAC §334.483, (relating to Disposal by Generator).

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

Cross References: This Subchapter cited in 30 TAC §335.61, (relating to Purpose, Scope, and Applicability); 30 TAC §335.69, (relating to Accumulation Time); 30 TAC §335.91, (relating to Scope); 30 TAC §335.212, (relating to Standards Applicable to Generators and Transporters of Materials Used in a Manner That Constitutes Disposal); 30 TAC §335.213, (relating to Standards Applicable to Storers of Materials That Are To Be Used in a Manner That Constitutes Disposal Who Are Not the Ultimate); 30 TAC §335.214, (relating to Standards Applicable to Users of Materials That Are Used in a Manner That Constitutes Disposal); 30 TAC §335.222, (relating to Management Prior to Burning); 30 TAC §335.223, (relating to Additional Permit Standards for Burners); 30 TAC §335.224, (relating to Additional Interim Status Standards for Burners); 30 TAC §335.251, (relating to Applicability and Requirements).

§ 335.1. Definitions

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

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.

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

Active life—The period from the initial receipt of hazardous waste at the facility until the executive director received certification of final closure.

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.")

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, §91.201; 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 pursuant to the federal Solid Waste Disposal Act, as amended (42 United States Code §6901 et seq.)

Administrator—The administrator of the United States Environmental Protection Agency or his designee.

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.

Aquifer—A geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs.

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

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 force 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).

Carbon regeneration unit—Any enclosed thermal treatment device used to regenerate spent activated carbon.

Certification—A statement of professional opinion based upon knowledge and belief.

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.

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.

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.

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.")

Closure—The act of permanently taking a waste management unit or facility out of service.

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.

Component—Either the tank or ancillary equipment of a tank system.

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.

Consignee—The ultimate treatment, storage, or disposal facility in a receiving country to which the hazardous waste will be sent.

Container—Any portable device in which a material is stored, transported, processed, or disposed of, or otherwise handled.

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 the 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, the Texas Water Code, §§26.261-26.268.

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

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.

Control—To apply engineering measures such as capping, 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 com-

bined with appropriate maintenance, monitoring, and any necessary further corrective action.

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.

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.

Designated facility—A Class I or hazardous waste storage, processing, or disposal facility which has received an Environmental Protection Agency (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.

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

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.

Disposal—The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste 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.

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.

Drip pad—An engineered structure consisting of a curbed, free-draining base, constructed of a nonearthen 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.

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 Code of Federal Regulations §261.22, or are listed in 40 Code of Federal Regulations, Part 261, Subpart D, only for this reason; and

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

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.

Environmental Protection Agency hazardous waste number—The number assigned by the Environmental Protection Agency to each hazardous waste listed in 40 Code of Federal Regulations, Part 261, Subpart D, and to each characteristic identified in 40 Code of Federal Regulations, Part 261, Subpart C.

Environmental Protection Agency identification number—The number assigned by the Environmental Protection Agency or the commission to each generator, transporter, and processing, storage, or disposal facility.

Equivalent method—Any testing or analytical method approved by the administrator under 40 Code of Federal Regulations §260.20 and §260.21.

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 United States Environmental Protection Agency limits for drinking water as published in the Federal Register.

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.

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.

Facility—Includes all contiguous land, and structures, other appurtenances, and improvements on the land 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 thereof).

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 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) are no longer conducted at the facility unless subject to the provisions in §335.69 of this title (relating to Accumulation Time).

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

Freeboard—The vertical distance between the top of a tank or surface impoundment dike, and the surface of the waste contained therein.

Free liquids—Liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

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.

Groundwater—Water below the land surface in a zone of saturation.

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 United States Environmental Protection Agency 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 261. 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.

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.

Hazardous waste—Any solid waste identified or listed as a hazardous waste 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.

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.

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.

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.

In operation—Refers to a facility which is processing, storing, or disposing of hazardous waste.

Inactive portion—That portion of a facility which is not operated after November 19, 1980. (See also "active portion" and "closed portion.")

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.

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.

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.

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.

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.

Infrared incinerator—Any enclosed device that uses electric powered resistance heaters as a source of radiant heat and which is not listed as an industrial furnace.

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.

Injection well—A well into which fluids are injected. (See also "underground injection.")

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.

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.

International shipment—The transportation of hazardous waste into or out of the jurisdiction of the United States.

Land treatment facility—A facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface; such facilities are disposal facilities if the waste will remain after closure.

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 saltbed formation, an underground mine, or a cave.

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.

Leachate—Any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

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 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.

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.

Management or hazardous waste management—The systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

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.

Manifest document number—A number assigned to the manifest by the commission for reporting and recordkeeping purposes.

Miscellaneous unit—A hazardous waste management unit where hazardous waste is treated, stored, 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), or unit eligible for a research, development, and demonstration permit under Chapter 305, Subchapter K of this title (relating to Research, Development, and Demonstration Permits).

Movement—That hazardous waste transported to a facility in an individual vehicle.

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.

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.

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.")

Off-site—Property which cannot be characterized as on-site.

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.

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.

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.")

Operator—The person responsible for the overall operation of a facility.

Owner—The person who owns a facility or part of a facility.

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.

PCBs or polychlorinated biphenyl compounds—Compounds subject to Title 40, Code of Federal Regulations, Part 761.

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.

Person—Any individual, corporation, organization, government or governmental subdivision or agency, business trust, partnership, association, or any other legal entity.

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.

Pile—Any noncontainerized accumulation of solid, nonflowing hazardous waste that is used for processing or storage.

Plasma arc incinerator—Any enclosed device using a high intensity electrical discharge or arc as a source of heat and which is not listed as an industrial furnace.

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.

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 regu-

lation 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.

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.

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).

Regional administrator—The regional administrator for the Environmental Protection Agency region in which the facility is located, or his designee.

Remediation—The act of eliminating or reducing the concentration of contaminants in contaminated media.

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.

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.

Run-off—Any rainwater, leachate, or other liquid that drains over land from any part of a facility.

Run-on—Any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

Saturated zone or zone of saturation—That part of the earth's crust in which all voids are filled with water.

Shipment—Any action involving the conveyance of municipal hazardous waste or industrial solid waste by any means off-site.

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.

Small quantity generator—A generator who generates less than 1,000 kg of hazardous waste in a calendar month.

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, semi-solid, 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. 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. Any land which has been used to dispose of man-made inert materials under this provision shall be deed recorded, including 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 discarded material excluded by 40 Code of Federal Regulations §261.4(a) 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 Code of Federal Regulations §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 listed in 40 Code of Federal Regulations §261.33 are not solid wastes if they are fuels themselves.

(iii) Reclaimed. Materials noted with an asterisk in Column 3 of Table 1 are solid wastes when reclaimed.

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

TABLE 1

	Use Constituting Disposal (1)	Energy Recovery/Fuel (2)	Reclamation (3)	Speculative Accumulation (4)
Spent materials (listed hazardous & non-listed characteristically hazardous)	*	*	*	*
Spent materials (Class I non-hazardous and Class II)[1]	*	*	*	*
Sludges (listed hazardous in 40 CFR §261.31 or §261.32)	*	*	*	*
Sludges (non-listed characteristically hazardous)	*	*		*
Sludges (Class I non-hazardous and Class II)[1]	*	*		*

	Use Constituting Disposal (1)	Energy Recovery/Fuel (2)	Reclamation (3)	Speculative Accumulation (4)
By-products (listed hazardous in 40 CFR §261.31 or §261.32)	*	*	*	*
By-products (non-listed characteristically hazardous)	*	*		*
By-products (Class I non-hazardous and Class II)[1]	*	*		*
Commercial chemical products listed in 40 CFR §261.33	*	*		
Scrap metal (hazardous)	*	*	*	*
Scrap metal (Class I non-hazardous and Class II)[1]	*	*	*	*

NOTE: The terms "spent materials", "sludges", "by-products", and "scrap metal" are defined in §335.17 of this title (relating to Special Definitions for Recyclable Materials and Nonhazardous Recyclable Materials).
1 These materials are governed by the provisions of §335.24(h) only.

(E) Materials that are identified by the administrator of the Environmental Protection Agency as inherently waste-like materials under 40 Code of Federal Regulations §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. The material must be returned as a substitute for raw material feedstock, and the process must use raw materials as principal feedstocks;

(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 12 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 Code of Federal Regulations §261.2(d).

(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 Code of Federal Regulations

§261.3(c) unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.

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.

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.

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.

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. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

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.

Tank system—A hazardous waste storage or processing tank and its associated ancillary equipment and containment system.

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.")

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.

Transfer facility—Any transportation-related facility including loading docks, parking areas, storage areas, and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

Transit country—Any foreign country, other than a receiving country, through which a hazardous waste is transported.

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.

Transporter—Any person who conveys or transports municipal hazardous waste or industrial solid waste by truck, ship, pipeline, or other means.

Treatability study—A study in which a hazardous 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 Code of Federal Regulations §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 waste.

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.

Treatment zone—A soil area of the unsaturated zone of a land treatment unit within which hazard-

ous constituents are degraded, transferred, or immobilized.

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.")

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.

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.

Unsaturated zone or zone of aeration—The zone between the land surface and the water table.

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.

Used oil—Any oil that has been refined from crude oil, 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.

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 waste, or generates and accumulates a wastewater treatment sludge which is a hazardous waste, or processes or stores a wastewater treatment sludge which is a hazardous waste; and

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

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.

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.

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.

Source: The provisions of this §335.1 adopted to be effective May 28, 1986, 11 TexReg 2335; amended to be effective September 1, 1986, 11 TexReg 3692; amended to be effective January 6, 1987, 11 TexReg 5096; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515; amended to be effective February 1, 1989, 14 TexReg 316; amended to be effective August 4, 1989, 14 TexReg 3532; amended to be effective November 7, 1991, 16 TexReg 6065; amended to be effective July 29, 1992, 17 TexReg 5017; amended to be effective November 27, 1992, 17 TexReg 8010; amended to be effective June 28, 1993, 18 TexReg 3814; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §101.1, (relating to Definitions); 30 TAC §115.10, (relating to Definitions); 30 TAC §305.62, (relating to Amendment); 30 TAC §305.66, (relating to Permit Denial, Suspension, and Revocation); 30 TAC §312.3, (relating to Exclusions); 30 TAC §313.3, (relating to Definitions); 30 TAC §313.9, (relating to Prohibited Activities); 30 TAC §330.2, (relating to Definitions); 30 TAC §331.2, (relating to Definitions); 30 TAC §335.17, (relating to Special Definitions for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.20, (relating to Variance To Be Classified as a Boiler); 30 TAC §335.41, (relating to Purpose, Scope, and Applicability); 30 TAC §335.322, (relating to Definitions); 30 TAC §335.508, (relating to Classification of Specific Industrial Solid Wastes).

§ 335.2. Permit Required

(a) Except with regard to storage, processing, or disposal to which subsections (c)-(h) of this section apply, and as provided in §335.45(b) of this title (relating to Effect on Existing Facilities), and in accordance with the requirements of §335.24 of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials), no person may cause, suffer, allow, or permit any activity of storage, processing, or disposal of any industrial solid waste or municipal hazardous waste, unless such activity is authorized by a permit, amended permit, or other authorization from the Texas Water Commission or its predecessor agencies, the Texas Department of Health, or other valid authorization from a Texas state agency. No person may commence physical construction of a new hazardous waste management facility without first having submitted Part A and Part B of the permit application and received a finally effective permit.

(b) In accordance with the requirements of subsection (a) of this section, no generator, transporter, owner, or operator of a facility, or any other person may cause, suffer, allow, or permit its

wastes to be stored, processed, or disposed of at an unauthorized facility or in a violation of a permit. In the event this requirement is violated, the executive director will seek resource against not only the person who stored, processed, or disposed of the waste, but also against the generator, transporter, owner, or operator, or other person who caused, suffered, allowed, or permitted its waste to be stored, processed, or disposed.

(c) Any owner or operator of a solid waste management facility that is in existence on the effective date of a statutory or regulatory change that subjects the owner or operator to a requirement to obtain a hazardous waste permit who has filed a hazardous waste permit application with the commission in accordance with the rules and regulations of the commission, may continue the storage, processing, or disposal of hazardous waste until such time as the Texas Natural Resource Conservation Commission approves or denies the application, or, if the owner or operator becomes subject to a requirement to obtain a hazardous waste permit after November 8, 1984, except as provided by the United States Environmental Protection Agency or commission rules relative to termination of interim status. If a solid waste facility which has become a commercial hazardous waste management facility as a result of the federal toxicity characteristic rule effective September 25, 1990, and is required to obtain a hazardous waste permit, such facility that qualifies for interim status is limited to those activities that qualify it for interim status until the facility obtains the hazardous waste permit. Owners or operators of municipal hazardous waste facilities which satisfied this requirement by filing an application on or before November 19, 1980, with the United States Environmental Protection Agency are not required to submit a separate application with the Texas Department of Health. Applications filed under this section shall meet the requirements of §335.44 of this title (relating to Application for Existing On-Site Facilities). Owners and operators of solid waste management facilities that are in existence on the effective date of statutory or regulatory amendments under the Solid Waste Disposal Act, Texas Health and Safety Code, Chapter 361 (Vernon's Supplement 1991), Texas Civil Statutes, Article 4477-7, or the Resource Conservation and Recovery Act of 1976, as amended, 42 United States Code §§6901 et seq., that render the facility subject to the requirement to obtain a hazardous waste permit, may continue to operate if Part A of their permit application is submitted no later than six months after the date of publication of regulations by the United States Environmental Protection Agency pursuant to the Resource Conservation and Recovery Act of 1976, as amended, which first require them to comply with the standards set forth in Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), or Subchapter H of this chapter (relating to Standards for the Management of Specific Wastes and Specific Types of Facilities); or 30 days after the date they first become subject to the standards set forth in these subchapters, whichever first occur; or for generators who generate greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month and who process, store, or dispose of these wastes on-site, a Part A permit application shall be submitted to the United States Environmental Protection Agency by March 24, 1987, as required by 40 Code of Federal Regulations §270.10(e)(1)(iii). This subsection shall not apply to a facility if it has been previously denied a hazardous waste permit or if authority to operate the facility has been previously terminated. Applications filed under this section shall meet the requirements of §335.44 of this title (relating to Application for Existing On-Site Facilities). For purposes of this subsection, a solid waste management facility is in existence if the owner or operator has obtained all necessary federal, state, and local preconstruction approvals or permits, as required by applicable federal, state, and local hazardous waste control statutes, regulations, or ordinances; and either:

(1) a continuous physical, on-site construction program has begun; or

(2) the owner or operator has entered into contractual obligations, which cannot be cancelled or modified without substantial loss, for construction of the facility to be completed within a reasonable time.

(d) No permit shall be required for the storage, processing, or disposal of industrial solid waste which is not hazardous industrial waste, if the waste is disposed of on property owned or otherwise effectively controlled by the owner or operator of the industrial plant, manufacturing plant, mining operation, or agricultural operation from which the waste results or is produced; the property is within 50 miles of the plant or operation; and the waste is not commingled with waste from any other source or sources. An industrial plant, manufacturing plant, mining operation, or agricultural

operation owned by one person shall not be considered an "other source" with respect to other plants and operations owned by the same person. Any person who intends to conduct such activity under this subsection shall comply with the notification requirements of §335.6 of this title (relating to Notification Requirements).

(e) No permit shall be required for the on-site storage of hazardous waste by a person who is a conditionally exempt small quantity generator as described in §335.78 of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators).

(f) No permit under this chapter shall be required for the storage, processing, or disposal of hazardous waste by a person described in §335.41(b)-(d) of this title (relating to Purpose, Scope, and Applicability) or for the storage of hazardous waste under the provisions of 40 Code of Federal Regulations §261.4(c) and (d).

(g) No permit under this chapter shall be required for the storage, processing, or disposal of hazardous industrial waste or municipal hazardous waste which is generated or collected for the purpose of conducting treatability studies. Such samples are subject to the requirements set out in 40 Code of Federal Regulations §261.4(e) and (f) which are in effect as of July 19, 1988, and which are adopted herein by reference.

(h) A person may obtain authorization from the executive director for the storage, processing, or disposal of nonhazardous industrial solid waste in an interim status landfill which has qualified for interim status pursuant to 40 Code of Federal Regulations, Part 270, Subpart G, and which has complied with the standards set forth in Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), by complying with the notification and information requirements as set forth in §335.6 of this title (relating to Notification Requirements). The executive director may approve or deny the request for authorization or grant the request for authorization subject to conditions which may include, without limitation, public notice and technical requirements. A request for authorization for the disposal of nonhazardous industrial solid waste under this subsection shall not be approved unless the executive director determines that the subject facility is suitable for disposal of such waste at the facility as requested. At a minimum, a determination of suitability by the executive director must include approval by the executive director of construction of a hazardous waste landfill meeting the design requirements of Title 40, Code of Federal Regulations §265.301(a). In accordance with §335.6 of this title, such person shall not engage in the requested activities if denied by the executive director or unless 90 days' notice has been provided and the executive director approves the request except where express executive director approval has been obtained prior to the expiration of the 90 days. Authorizations obtained under this subsection shall be effective during the pendency of the interim status and shall cease upon the termination of interim status, final administrative disposition of the subject permit application, failure of the facility to operate in compliance with the standards set forth in Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), or as otherwise provided by law. Authorization may not be obtained under this subsection for:

(1) nonhazardous industrial solid waste, the storage, processing, or disposal of which is expressly prohibited under an existing permit or site development plan applicable to the facility or a portion of the facility;

(2) PCB wastes subject to regulation by 40 Code of Federal Regulations, Part 761;

(3) explosives and shock-sensitive materials;

(4) pyrophorics;

(5) infectious materials;

(6) liquid organic peroxides;

(7) radioactive or nuclear waste materials, receipt of which would require a license from the Texas Department of Health or Texas Water Commission or any other successor agency; and

(8) friable asbestos waste unless authorization is obtained in compliance with the procedures established under §330.136(b)(6)(B)-(E) of this title (relating to Disposal of Special Wastes).

(i) Owners or operators of hazardous waste management units must have permits during the active life (including the closure period) of the unit. Owners or operators of surface impoundments, landfills, land treatment units, and waste pile units that received wastes after July 26, 1982, or that certified closure (according to 40 Code of Federal Regulations §265.115) after January 26, 1983, must have post-closure permits, unless they demonstrate closure by removal as provided under 40 Code of Federal Regulations §270.1(c)(5) and (6). If a post-

closure permit is required, the permit must address applicable provisions of 40 Code of Federal Regulations Part 264, and Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities) provisions relating to groundwater monitoring, unsaturated zone monitoring, corrective action, and post-closure care requirements. The denial of a permit for the active life of a hazardous waste management facility or unit does not affect the requirement to obtain a post-closure permit under this section.

(j) Upon receipt of the federal Hazardous and Solid Waste Act (HSWA) authorization for the Texas Water Commission's (commission) Hazardous Waste Program, the commission shall be authorized to enforce the provisions that the Environmental Protection Agency (EPA) imposed in hazardous waste permits that were issued before the HSWA authorization was granted.

(k) When used in this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste), the references contained in 40 Code of Federal Regulations §260.11 are incorporated by reference.

Source: The provisions of this §335.2 adopted to be effective May 29, 1986, 11 TexReg 2335; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective January 5, 1988, 12 TexReg 4846; amended to be effective February 1, 1989, 14 TexReg 316; amended to be effective August 14, 1990, 15 TexReg 4397; amended to be effective November 7, 1991, 16 TexReg 6065; amended to be effective May 12, 1993, 18 TexReg 2799; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §120.3, (relating to Applicability); 30 TAC §281.2, (relating to Applicability); 30 TAC §305.42, (relating to Application Required); 30 TAC §335.1, (relating to Definitions); 30 TAC §335.4, (relating to General Prohibitions); 30 TAC §335.6, (relating to Notification Requirements); 30 TAC §335.8, (relating to Closure and Remediation); 30 TAC §335.43, (relating to Permit Required); 30 TAC §335.94, (relating to Transfer Facility Requirements); 30 TAC §335.201, (relating to Purpose, Scope, and Applicability); 30 TAC §335.202, (relating to Definitions); 30 TAC §335.322, (relating to Definitions); 30 TAC §335.323, (relating to Generation Fee Assessment); 30 TAC §335.325, (relating to Hazardous Waste Management Fee Assessment); 30 TAC §335.362, (relating to Applicability); 30 TAC §343.2, (relating to Permit Exemption for Emergency Cleanup Activities).

§ 335.4. General Prohibitions

In addition to the requirements of §335.2 of this title (relating to Permit Required), no person may cause, suffer, allow, or permit the collection, handling, storage, processing, or disposal of industrial solid waste or municipal hazardous waste in such a manner so as to cause:

(1) the discharge or imminent threat of discharge of industrial solid waste or municipal hazardous waste into or adjacent to the waters in the state without obtaining specific authorization for such a discharge from the Texas Water Commission;

(2) the creation and maintenance of a nuisance; or

(3) the endangerment of the public health and welfare.

Source: The provisions of this §335.4 adopted to be effective May 29, 1986, 11 TexReg 2335; amended to be effective September 1, 1986, 11 TexReg 3692.

Cross References: This Section cited in 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.241, (relating to Applicability and Requirements); 30 TAC §335.411, (relating to General Requirements for Transporters); 30 TAC §335.412, (relating to General Requirements for Processing, Storage, or Disposal Facilities).

§ 335.5. Deed Recordation of Waste Disposal

(a) Deed recordation of disposal of industrial solid waste or municipal hazardous waste. No person may cause, suffer, allow, or permit the disposal of industrial solid waste or municipal hazardous waste in a landfill prior to recording in the county deed records of the county or counties in which the disposal takes place the following information:

(1) a metes and bounds description of the portion or portions of the tract of land on which disposal of industrial solid waste or municipal hazardous waste will take place;

(2) the class or classes of industrial solid wastes or municipal hazardous wastes to be disposed of and waste description; and

(3) the name or permanent address of the person or persons operating the facility where more specific information on the disposal activity can be obtained.

(b) Proof of recordation. Proof of recordation shall be provided to the executive director in writing prior to instituting disposal operations.

(c) Additional requirements. Owners of property on which facilities for disposal of hazardous waste are located are subject to further requirements adopted by reference in §335.112(a)(6) of this title (relating to Standards).

Source: The provisions of this §335.5 adopted to be effective May 29, 1986, 11 TexReg 2335; amended to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.1, (relating to Definitions); 30 TAC §335.554, (relating to Attainment of Risk Reduction Standard Number 1: Closure/Remediation to Background).

§ 335.6. Notification Requirements

(a) A person who intends to store, process, or dispose of industrial solid waste without a permit, as authorized by §335.2(d), (e), (f), or (h) of this title (relating to Permit Required) or §335.24 of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials), shall notify the executive director in writing that storage, processing, or disposal activities are planned, at least 90 days prior to engaging in such activities. Such person shall submit to the executive director upon request such information as may reasonably be required to enable the executive director to determine whether such storage, processing, or disposal is compliant with the terms of this chapter. Such information may include, but is not limited to, information concerning waste composition, waste management methods, facility engineering plans and specifications, or the geology where the facility is located. Any information provided under this subsection shall be submitted to the executive director in duplicate form.

(b) Any person who stores, processes, or disposes of municipal hazardous waste or industrial solid waste shall have the continuing obligation to immediately provide written notice to the executive director of any changes or additional information concerning waste composition, waste management methods, facility engineering plans and specifications, and the geology where the facility is located to that reported in subsection (a) of this section, authorized in any permit, or stated in any application filed with the commission. Any information provided under this subsection shall be submitted to the executive director in duplicate form.

(c) Any person who generates municipal hazardous waste in quantities equal to or greater than 1,000 kilograms in a calendar month or quantities of acute municipal hazardous waste in excess of quantities specified in §335.78 of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators) in a calendar month, or generates any quantities of industrial solid waste, shall notify the executive director of such activity on forms furnished or approved by the executive director. Such person shall also submit to the executive director upon request such information as may reasonably be required to enable the executive director to determine whether the storage, processing, or disposal is compliant with the terms of this chapter. Notifications submitted pursuant to this section shall be in addition to information provided in any permit applications required by §335.2 of this title (relating to Permit Required), or any reports required by §335.9 of this title (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators), §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), and §335.13 of this title (relating to Recordkeeping and Reporting Procedures Applicable to Generators of Hazardous Waste or Class I Waste and Primary Exporters of Hazardous Waste). Any person who provides notification pursuant to this subsection shall have the continuing obligation to immediately document any changes or additional information with respect to such notification and within 90 days of the occurrence of such change or of becoming aware of such additional information, provide written notice to the executive director of any such changes or additional information, to that reported previously. If waste is recycled on-site or managed pursuant to §335.2(d) of this title (relating to Permit Required), the generator must also comply with the notification requirements specified in subsection (h) of this section. The information submitted pursuant to the notification requirements of this subchapter and to the additional requirements of §335.503 of this title (relating to Waste Classification and Waste Coding Required) shall include, but is not limited to:

(1) a description of the waste;

(2) a description of the process generating the waste;

(3) the composition of the waste;

(4) a proper hazardous waste determination which includes the appropriate EPA hazardous waste number(s) described in 40 Code of Federal Regulations Part 261. Generators must determine whether such waste is hazardous as defined in 40 Code of Federal Regulations Part 261 and submit the results of that hazardous waste determination to the executive director;

(5) the disposition of each solid waste generated, if subject to the notification requirement of this subsection, including the following information:

(A) whether the waste is managed on-site and/or off-site;

(B) a description of the type and use of each on-site waste management facility unit;

(C) a listing of the wastes managed in each unit;

(D) whether each unit is permitted, or qualifies for an exemption, under §335.2 of this title (relating to Permit Required).

(d) Persons generating more than 100 kilograms but less than 1,000 kilograms of hazardous municipal waste in any calendar month shall notify the executive director of such activity on forms provided by the executive director. Such person shall also submit to the executive director upon request such information as may be reasonably required to enable the executive director to determine whether the storage, processing, or disposal of such waste is compliant with the terms of these sections. Notifications submitted pursuant to this section shall be in addition to any information provided on any permit application required by §335.2 of this title (relating to Permit Required), or any reports required by §335.9 of this title (relating to Shipping and Reporting Procedures Applicable to Generators), §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), and §335.13 of this title (relating to Recordkeeping and Reporting Procedures Applicable to Generators Shipping Hazardous Waste or Class I Waste and Primary Exporters of Hazardous Waste). Any person who provides notification pursuant to this subsection shall have the continuing obligation to immediately document any changes or additional information with respect to such notification and within 90 days of the occurrence of any such change or of becoming aware of such new information provide written notice to the executive director of any such changes or additional information to that reported previously.

(e) Except for conditionally exempt small quantity generators who only transport their own hazardous waste, any person who transports hazardous waste or Class I waste shall notify the executive director of such activity on forms furnished or approved by the executive director. Persons operating transfer facilities in accordance with §335.94 of this title (relating to Transfer Facility Requirements) shall notify the executive director of such activity.

(f) Upon written request of the executive director, any person who ships, stores, processes, or disposes of industrial solid waste or hazardous waste, as defined in this subchapter, shall perform a chemical analysis of the solid waste and provide results of the analysis to the executive director.

(g) A person who stores, processes, or disposes of industrial solid waste or municipal hazardous waste shall notify the executive director in writing of any activity of facility expansion not authorized by permit, at least 90 days prior to conducting such activity. Such person shall submit to the executive director upon request such information as may reasonably be required to enable the executive director to determine whether such activity is compliant with this chapter. Any information provided under this subsection shall be submitted to the executive director in duplicate form.

(h) Any person who conducts or intends to conduct the recycling of industrial solid waste or municipal hazardous waste as defined in §335.24 of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials) or Subchapter H of this chapter (relating to Standards for the Management of Specific Wastes and Specific Types of Facilities) and who is required to notify under §335.24 of this title or Subchapter H of this chapter must submit in writing to the executive director, at a minimum, the following information: the type(s) of industrial solid waste or municipal hazardous waste to be recycled, the method of storage prior to recycling, and the nature of the recycling activity. New recycling activities require such notification a minimum of 90 days prior to engaging in such activities. Persons engaged in recycling of industrial solid waste or municipal hazardous waste prior to the effective date of this section shall submit such notification within 60 days of the effective date of this subsection.

(i) The owner or operator of a facility qualifying for the small quantity burner exemption under 40 Code of Federal Regulations (CFR) §266.108 must provide a one-time signed, written notification to the United States Environmental Protection Agency and to the executive director indicating the following:

(1) the combustion unit is operating as a small quantity burner of hazardous waste;

(2) the owner and operator are in compliance with the requirements of 40 CFR §266.108, §335.221(a)(19) of this title (relating to Applicability and Standards), and this subsection; and

(3) the maximum quantity of hazardous waste that the facility may burn as provided by 40 CFR §266.108(a)(1).

Source: The provisions of this §335.6 adopted to be effective May 29, 1986, 11 TexReg 2335; amended to be effective September 1, 1986, 11 TexReg 3692; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13

TexReg 3515; amended to be effective July 29, 1992, 17 TexReg 5616; amended to be effective November 27, 1992, 17 TexReg 8010; amended to be effective May 12, 1993, 18 TexReg 2799; amended to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.2, (relating to Permit Required); 30 TAC §335.9, (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.212, (relating to Standards Applicable to Generators and Transporters of Materials Used in a Manner That Constitutes Disposal); 30 TAC §335.213, (relating to Standards Applicable to Storers of Materials That Are To Be Used in a Manner That Constitutes Disposal Who Are Not the Ultimate); 30 TAC §335.214, (relating to Standards Applicable to Users of Materials That Are Used in a Manner That Constitutes Disposal); 30 TAC §335.241, (relating to Applicability and Requirements); 30 TAC §335.411, (relating to General Requirements for Transporters); 30 TAC §335.501, (relating to Purpose, Scope, and Applicability); 30 TAC §335.502, (relating to Conversion to New Waste Notification and Classification System).

§ 335.7. Bond or Other Financial Assurance Required

Authority to store, process, or dispose of industrial solid waste or municipal hazardous waste pursuant to a permit issued by the commission is contingent upon the execution and maintenance of a surety bond or other financial assurance acceptable to the executive director, in an amount specified in the permit, which provides for the closing of the solid waste storage, processing, or disposal facility in accordance with the permit issued for the facility and all other rules of the commission. The commission may require the execution and maintenance of a surety bond or other financial assurance acceptable to the executive director for the closing of any solid waste facility exempt from the requirement of a permit under this chapter, but subject to the requirement of a permit under the Texas Water Code, Chapter 26. Persons storing, processing, or disposing of hazardous waste are subject to further requirements concerning financial assurance and closure and post-closure contained in Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities).

Source: The provisions of this §335.7 adopted to be effective May 29, 1986, 11 TexReg 2335; amended to be effective January 5, 1988, 12 TexReg 2335.

§ 335.8. Closure and Remediation

(a) Applicability. The regulations in this section are effective on June 28, 1993. The regulations in this section apply to persons who undertake the closure of facilities used for the storage, processing, or disposal of industrial solid waste or municipal hazardous waste. The regulations in this section also apply to persons who undertake the remediation of contaminated media resulting from unauthorized discharges from such facilities, either as part of closure or at any time before or after closure. The regulations in this section also apply to persons who undertake remediation of areas that are not otherwise designated as a facility but that contain unauthorized discharges of industrial solid waste or municipal hazardous waste. The regulations of this subsection, in addition to other applicable rules, permits, or orders, establish the obligation for persons to perform closures or remediations for facilities or areas containing industrial solid and municipal hazardous waste and further specify the mechanism to evaluate such closures or remediations. The obligation to perform remediations for unauthorized discharges of contaminants under the state superfund and spill response programs occurs through the application of the commission's rules and statutes pertaining to those programs; however, once such obligation has occurred the regulations in this section will be used to specify the mechanism to evaluate remediation of unauthorized discharges of contaminants subject to those programs. The regulations in this section supplement but do not replace any requirements for closure or remediation specified in the regulations for the programs subject to these rules and shall apply as specified in paragraphs (1)-(6) of this subsection.

(1) Persons shall complete notification and response actions for spills in accordance with the Texas Water Code, §26.039 and §26.261, and the administrative and procedural requirements of the commission to carry out the Texas Hazardous Substance Spill Prevention and Control Act. This section applies to spills when the response actions do not result in remediation within the timeframes specified by the commission's spill response program. In such circumstances the person shall submit a plan in accordance with subsection (b) of this section.

(2) This section applies to remediations performed under the state superfund program in accordance with Subchapter K of this chapter (relating to Hazardous Substance Facilities Assessment and Remediation) with the exception that information, including a baseline risk assessment, shall be provided and potential remedies shall be evaluated in response to Subchapter K of this chapter rather than the requirements of subsections (c) and (d) of this section, §335.553 of this title (relating to Required Information), and §335.562 of this title (relating to Remedy Evaluation Factors for Risk Reduction Standard Number 3). Also, under the state superfund program,

persons shall determine media cleanup levels assuming future residential land use unless the person demonstrates to the satisfaction of the executive director using the provisions of §335.563(e) of this title (relating to Media Cleanup Requirements for Risk Reduction Standard Number 3) that an alternative land use is more appropriate.

(3) Any person who stores, processes, or disposes of industrial solid waste or municipal hazardous waste at a facility permitted under §335.2(a) of this title (relating to Permit Required) shall, unless specifically modified by other order of the commission, close the facility in accordance with the closing provisions of the permit.

(4) Any person who stores, processes, or disposes of hazardous waste is also subject to the applicable provisions relating to closure and post-closure in Subchapters E and F of this chapter (relating to Interim Standards for Hazardous Waste Storage, Processing, or Disposal Facilities; and Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities, respectively).

(5) Persons who have received approval of closure or remediation plans by the executive director and have either completed or not completed the action prior to the effective date of this section may either maintain or complete the action, as applicable, according to the approved plan and are not subject to the requirements of this section unless a substantial change in circumstances develops at the facility or area which results in an unacceptable threat to human health or the environment as described in subsection (b)(5) of this section. Plans or reports submitted but not approved prior to the effective date of this section will be reviewed according to the regulations in effect at the time of document submittal. If the executive director denies approval of the plan or report under those regulations for reasons of technical inadequacy, the person must then comply with the requirements of this section upon receipt of written notice from the executive director that the plan or report is not approved. Closure plans approved as part of an industrial solid or municipal hazardous waste permit which was issued prior to the effective date of this section but not implemented at the time of permit renewal are subject to review for compliance with this section as part of the permit renewal process. Persons may resubmit such plans or reports that they have revised voluntarily to conform with the requirements of this section, unless such resubmittal would result in noncompliance with a previously approved or imposed schedule of compliance.

(6) The requirements of this section do not apply to substances discharged or spilled from storage tanks regulated by Chapter 334 of this title (relating to Underground and Aboveground Storage Tanks).

(b) Closure and remediation obligations. Persons identified in subsection (a) of this section have the obligation to conduct the activities described in paragraphs (1)-(4) of this subsection when performing a closure or remediation. Upon receipt of approval by the executive director of reports demonstrating compliance with all applicable requirements, the person has completed these obligations unless a substantial change in circumstances results in an unacceptable risk to human health or the environment as described in paragraph (5) of this subsection.

(1) Notify the executive director in writing of any closure or remediation activities as is further specified in subsection (c) of this section.

(2) Perform closure or remediation activities at the facility or area of unauthorized discharge which meet one or more of the risk reduction standards specified in subparagraphs (A)-(C) of this paragraph. Unless the requirement to close a waste management facility is specified by other rule, permit, or order, the person will determine the time for initiation of closure. The timely remediation of unauthorized discharges resulting from operation of a waste management unit does not compel the closure of the unit unless closure is a necessary part of the remedy to achieve protection of human health and the environment:

(A) Risk Reduction Standard Number 1. Closure/remediation to background—to remove and/or decontaminate all waste, waste residues, leachate, and contaminated media to background levels unaffected by waste management or industrial activities as further specified in §335.554 of this title (relating to Attainment of Risk Reduction Standard Number 1); or

(B) Risk Reduction Standard Number 2. Closure/remediation to health-based standards and criteria—to remove and/or decontaminate all waste, waste residues, leachate, and contaminated media to standards and criteria such that any substantial present or future

threat to human health or the environment is eliminated as further specified in §335.555 of this title (relating to Attainment of Risk Reduction Standard Number 2); or

(C) Risk Reduction Standard Number 3. Closure/remediation with controls—to remove, decontaminate, and/or control all waste, waste residues, leachate, and contaminated media to levels and in a manner such that any substantial present or future threat to human health or the environment is eliminated or reduced to the maximum extent practicable, as further specified in §335.561 of this title (relating to Attainment of Risk Reduction Standard Number 3).

(3) Demonstrate in writing to the executive director that closure or remediation has been completed as is further specified in subsection (d) of this section.

(4) Perform any necessary post-closure care and deed certification or recordation activities as required by Subchapter S of this chapter (relating to Risk Reduction Standards).

(5) Respond on a continuing basis pursuant to paragraphs (1)-(4) of this subsection in the event that a substantial change in circumstances at the facility or area results in an unacceptable threat to human health or the environment. In response to these substantial changes in circumstances, the person shall comply with this subsection utilizing the then-prevailing criteria and perform such actions as necessary to provide protection of human health and the environment. A substantial change in circumstance can include, but is not limited to, the situations described in subparagraphs (A)-(D) of this paragraph:

(A) a failure of institutional or engineering controls to prevent or mitigate exposure at the approved performance level;

(B) a change in land use from nonresidential to residential; or

(C) an actual exposure condition is determined to be occurring at levels not protective of human health or the environment. For purposes of this subparagraph, changes made to Subchapter S of this chapter (relating to Risk Reduction Standards) in response to periodic reviews of the general procedures specified to generate numeric cleanup levels, or in response to annual revisions of Appendix II of Subchapter S to reflect new toxicity data, do not constitute a substantial change in circumstances, unless these changes are of such magnitude to present an unacceptable threat to human health or the environment when evaluated for future exposure conditions based on site-specific considerations; or

(D) new information indicates that the contamination at the facility or area was not sufficiently characterized such that an unacceptable threat to human health or the environment continues to exist.

(c) Notification and initiation requirements.

(1) A person who intends to perform any activity of closure or remediation in accordance with subsection (b) of this section shall determine the risk reduction standard(s) to be attained. The person shall notify the executive director and the commission's office in the district where the facility or area is located in writing of the following information at least 10 days prior to conducting the activity:

(A) the facility or area to be subject to closure or remediation activities;

(B) the risk reduction standard(s) to be attained; and

(C) the estimated time necessary to complete the activity.

(2) After performing notification in accordance with paragraph (1) of this subsection, the person may initiate the actions necessary to attain Risk Reduction Standard Numbers 1 or 2 without prior approval by the executive director, unless such approval is required by other regulation, order, or permit of the commission. Any plan submitted for prior approval by the executive director shall contain the information specified in §335.553(a) of this title (relating to Required Information).

(3) If the person intends to attain Risk Reduction Standard Number 3, or determines that Standard Numbers 1 or 2 have not been attained in a self-implemented action, the person shall submit to the executive director the information specified in §335.553(b) of this title (relating to Required Information) for approval prior to beginning, or continuing, as applicable, the closure or remediation activities.

(4) The person may include one or more waste management units or areas in a submittal for the purpose of responding to this subsection and subsection (d) of this section.

(5) Notwithstanding any other requirement, the person shall submit to the executive director upon request such information as may reason-

ably be required to enable the executive director to determine whether the closure or remediation is compliant with this section.

(d) Demonstration of conformance with risk reduction standards. Upon completion of a closure or remediation, the person shall demonstrate in a form acceptable to the executive director that the activity meets the intended risk reduction standards and any applicable closure criteria listed or referenced in this chapter. Any submittal to the executive director in response to this subsection shall be in the form of a plan or report that contains the information specified in §335.553 of this title (relating to Required Information).

Source: The provisions of this §335.8 adopted to be effective May 29, 1986, 11 TexReg 2335; amended to be effective September 1, 1986, 11 TexReg 3692; amended to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.551, (relating to Purpose, Scope, and Applicability).

§ 335.9. Recordkeeping and Annual Reporting Procedures Applicable to Generators

(a) Except with regard to nonhazardous recyclable materials regulated pursuant to §335.24(h) of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials), each generator of hazardous waste or industrial solid waste shall comply with the following.

(1) The generator shall keep records of all hazardous waste and industrial solid waste activities regarding the quantities generated, stored, processed, and disposed of on-site or shipped off-site for storage, processing, or disposal and which, at a minimum, includes the information described in subparagraphs (A)-(G) of this paragraph. These records may be maintained in any format provided they are retrievable and easy to copy. The required records must be sufficiently detailed and complete to support any contentions or claims made by the generator with respect to:

(A) the description, character, and classification of each waste, and any changes and additional information required under §335.6(c) and (d) of this title (relating to Notification Requirements);

(B) the quantity generated;

(C) except for conditionally exempting small quantity generators regulated under §335.78 of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators), the quantity held in on-site storage as of December 31 of each calendar year;

(D) the quantity processed or disposed of at each on-site facility unit during the calendar year;

(E) the method of storage, processing, or disposal (as described by codes in Appendix I, Table 2, titled Handling Codes for Storage, Processing, and Disposal Methods, of 40 Code of Federal Regulations Parts 264 and 265);

(F) the quantity shipped off-site for storage, processing, or disposal each calendar year, including the name, address, and location of each off-site facility and transporter receiving shipments;

(G) the location of all hazardous waste accumulation areas, situated at or near any point of generation, where hazardous wastes under the control of the operator of the process generating the wastes are placed in containers and initially accumulated without a permit or interim status in accordance with §335.69(d) of this title (relating to Accumulation Time).

(2) The generator shall submit to the Texas Water Commission on or before January 25 of each year an annual generation, storage, processing, and disposal summary for all hazardous and Class I wastes. The summary shall be submitted on forms furnished or approved by the executive director and shall contain at a minimum the information specified in paragraph (1) of this subsection. Upon written request by the generator, the executive director may authorize a modification in the reporting period.

(3) Generators are not required to submit the information required in paragraph (1) of this subsection if they certify on the annual summary that all of the following conditions have been met:

(A) during the year, total on-site accumulation of hazardous and Class I waste did not equal or exceed 1,000 kilograms;

(B) during the year, no hazardous or Class I waste was processed or disposed of on-site;

(C) no acute hazardous waste was generated during the year or remained in storage at the end of the year;

(D) a total of less than 1,200 kilograms of hazardous waste, a total of less than 1,200 kilograms of Class I nonhazardous waste, and a combined total of less than 1,200 kilograms

of hazardous waste and Class I nonhazardous waste was generated during the year.

(4) Generators who are regulated under §335.78 of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators) and also meet the requirements of paragraph (3) of this subsection are not required to submit an annual summary.

(b) A generator who ships his hazardous waste off-site must also include the information specified in §335.71 of this title (relating to Annual Reporting). Any generator who stores, processes, or disposes of hazardous waste on-site shall also submit an annual report in accordance with the requirements of §335.114 of this title (relating to Reporting Requirements).

Source: The provisions of this §335.9 adopted to be effective July 14, 1987, 12 TexReg 2106; amended to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §305.146, (relating to Reporting); 30 TAC §335.6, (relating to Notification Requirements); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.74, (relating to Special Requirements for Generators of Between 100 and 1,000 Kilograms per Month); 30 TAC §335.241, (relating to Applicability and Requirements); 30 TAC §335.329, (relating to Records and Reports); 30 TAC §335.513, (relating to Documentation Required).

§ 335.10. Shipping and Reporting Procedures Applicable to Generators of Hazardous Waste or Class I Waste and Primary Exporters of Hazardous Waste

(a) Except as provided in subsection (g) of this section, no generator of hazardous or Class I waste consigned to an off-site solid waste storage facility within the United States or primary exporters of hazardous waste consigned to a foreign country shall cause, suffer, allow, or permit the shipment of hazardous waste or Class I waste unless:

(1) for generators of Class I waste and generators of municipal hazardous waste shipping municipal hazardous waste which is part of a total quantity of municipal hazardous waste generated in quantities greater than 100 kilograms in a calendar month, or quantities of acute hazardous waste in excess of quantities specified in §335.78(e) of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators), who consign that waste to an off-site solid waste storage, processing, or disposal facility in Texas, a Texas Water Commission (TWC) manifest on Form TWC-0311, and, if necessary, TWC-0311 is prepared;

(2) the generator is a conditionally exempt small quantity generator (CESQG) of municipal hazardous waste;

(3) for generators of hazardous waste or Class I waste generated in Texas for consignment to another state the consignment state's manifest, if provided, or a TWC manifest if the consignment state does not provide a manifest, is prepared;

(4) for a primary exporter of hazardous waste for consignment to a foreign country the hazardous waste is accompanied by a manifest from the primary exporter's state if that state supplies the manifest form and requires its use or a manifest from any source if the primary exporter's state does not supply the manifest form; and

(5) a generator designates on the manifest one facility which is authorized to receive the waste described on the manifest. A generator may also designate one alternative facility which is authorized to receive the waste in the event an emergency prevents delivery of the waste to the primary designated facility. An alternate facility shall be identified on the manifest in the item marked "Special Handling Instructions and Additional Information." If the transporter is unable to deliver the waste to the designated facility or the alternate facility, the generator must either designate another facility or instruct the transporter to return the waste;

(6) for shipments of hazardous waste to a designated facility in an authorized state which has not yet obtained authorization to regulate that particular waste as hazardous, the generator must assure that the designated facility agrees to sign and return the manifest to the generator, and that any out-of-state transporter signs and forwards the manifest to the designated facility.

(b) The manifest shall contain the following information.

(1) The manifest shall contain the generator's United States Environmental Protection Agency (EPA) 12-digit identification number and the unique five-digit number assigned to the manifest by the generator. This requirement does not apply if the waste being shipped is nonhazardous or if the generator is a conditionally exempt small quantity generator of hazardous waste.

(2) The manifest shall contain the total number of pages used to complete the manifest, plus the

number of continuation sheets, if any (page 1 of _____).

(3) The manifest shall contain the name, mailing address, and telephone number of the generator.

(4) The manifest shall contain the telephone number where an authority agent of the generator may be reached in the event of an emergency.

(5) The manifest shall contain the generator's Texas Water Commission (TWC) registration and/or permit number. Conditionally exempt small quantity generators shipping hazardous waste regulated under §335.78 of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators) may utilize the letters "CESQG" for their TWC generator registration number unless they have previously been assigned a TWC registration number.

(6) The manifest shall contain the first transporter's company name.

(7) The manifest shall contain the first transporter's EPA 12-digit identification number. This requirement does not apply if the waste being shipped is nonhazardous or the transporter is a conditionally exempt small quantity generator transporting only his own hazardous waste.

(8) The manifest shall contain the first transporter's state registration number. Conditionally exempt small quantity generators of hazardous waste are instructed to use the letters "CESQG" as the TWC state transporter's registration number when transporting their own hazardous waste unless they have previously been assigned a TWC registration number.

(9) The manifest shall contain a telephone number where an authorized agent of first transporter may be reached in the event of an emergency.

(10) The manifest shall contain the second transporter's company name.

(11) The manifest shall contain the second transporter's 12-digit identification number. This requirement does not apply if the waste being shipped is nonhazardous.

(12) The manifest shall contain the second transporter's state registration number.

(13) The manifest shall contain a telephone number where an authorized agent of the second transporter may be reached in the event of an emergency.

(14) The manifest shall contain the company name and site address of the facilities designated to receive the waste identified on the manifest and an alternate facility, if designated. Except as provided otherwise in §335.78 of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators) for the shipment of hazardous wastes that are required to be manifested under subsection (a) of this section, generators shall designate on the manifest only those storage, processing, or disposal facilities which are authorized under the Resource Conservation and Recovery Act (RCRA) of 1976, Subtitle C, or an approved state hazardous waste program administered in lieu thereof.

(15) The manifest shall contain the designated facility's EPA 12-digit identification number; however, this requirement does not apply if the waste being shipped is nonhazardous.

(16) The manifest shall contain the Texas Water Commission's or Texas Department of Health's state storage, processing, or disposal facility registration and/or permit number.

(17) The manifest shall contain the appropriate notation in the hazardous materials (HM) column of the Texas uniform hazardous waste manifest. The form has been designed to allow the listing of both federally regulated wastes and wastes regulated solely by the state. In order to distinguish between federally regulated wastes and other waste, as required by United States Department of Transportation (DOT) regulations (49 Code of Federal Regulations §172.201(a)(1)), the Texas Water Commission has added a hazardous materials (HM) column on the manifest before the United States Department of Transportation description. When a waste shipment consists of both federally regulated materials and state regulated wastes, the hazardous materials (HM) column must be checked or marked for only those line entries which are regulated under federal law as hazardous wastes or hazardous materials.

(18) The manifest shall contain the United States Department of Transportation proper shipping name, hazard class, and identification number (UN/NA) for each hazardous waste as identified in 49 Code of Federal Regulations, Parts 171-177. If the shipment contains nonhazardous waste solely regulated by the Texas Water Commission, then the Texas Water Commission waste classification code description should be

used. If additional space is needed for waste descriptions, enter these additional descriptions in Item 28 on the continuation sheet.

(19) The manifest shall contain the number of containers for each waste and the appropriate abbreviation from Table 1 in §335.30 of this title (relating to Appendix I) for the type of container.

(20) The manifest shall contain the total quantity of each waste described on each line.

(21) The manifest shall contain the unit of measure of each waste described on each line. The appropriate abbreviation for the unit of measure may be found in Appendix I, Table 1 of 40 Code of Federal Regulations, Parts 264 or 265.

(22) The manifest shall contain the Texas Water Commission waste classification code assigned to the waste by the generator.

(23) The manifest shall contain a certification by the generator stating: "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations. if I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of processing, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; or, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford."

(24) If a mode other than highway is used, the word "highway" should be lined out and the appropriate mode (rail, water, or air) inserted in the space provided below the word "highway." If another mode in addition to the highway mode is used, enter the appropriate additional mode (e.g., and rail) in the space provided below the word "highway."

(c) The manifest shall consist of at least the number of copies which will provide the generator, each transporter, the owner or operator of the storage, processing, or disposal facility and in the case of hazardous waste exports, the United States customs official, with one copy each for their records and another copy to be returned to the generator.

(d) At the time of waste transfer, the generator shall:

(1) sign the manifest by hand;

(2) obtain the handwritten signature of the initial transporter and date of acceptance on the manifest;

(3) retain one copy, in accordance with §335.123(a) of this title (relating to Recordkeeping and Reporting Procedures Applicable to Generators Shipping Hazardous Waste or Class I Waste); and

(4) give the transporter the remaining copies of the manifest.

(e) For shipments of hazardous waste or Class I waste within the United States solely by water (bulk shipments only), the generator shall send three copies of the manifest dated and signed in accordance with this section to the owner or operator of the designated facility or to the last water (bulk shipment) transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

(f) For rail shipments of hazardous waste or Class I waste within the United States which originate at the site of generation, the generator shall send at least three copies of the manifest dated and signed in accordance with this section to:

(1) the next nonrail transporter, if any;

(2) the designated facility if transported solely by rail; or

(3) the last rail transporter to handle the waste in the United States if exported by rail.

(g) No manifest is required for the shipment of Class I waste which is not hazardous waste to property owned or otherwise effectively controlled by the owner or operator of an industrial plant, manufacturing plant, mining operation, or agricultural operation from which the waste results or is produced, provided that the property is within 50 miles of the plant or operation and the waste is not commingled with waste from any other source or sources. An industrial plant, manufacturing plant, mining operation, or agricultural operation owned by one person shall not be considered another source with respect to other plants or operations owned by the same person.

(h) Conditionally exempt small quantity generators (CESQGs) of municipal hazardous waste who choose to manifest their hazardous waste may do

so using the simplified instructions for CESQGs that are included in subsection (b) of this section.

Source: The provisions of this §335.10 adopted to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515; amended to be effective November 27, 1992, 17 TexReg 8010; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §335.1, (relating to Definitions); 30 TAC §335.6, (relating to Notification Requirements); 30 TAC §335.11, (relating to Shipping Requirements for Transporters of Hazardous Waste or Class I Waste); 30 TAC §335.12, (relating to Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities); 30 TAC §335.13, (relating to Recordkeeping and Reporting Procedures Applicable to Generators Shipping Hazardous Waste or Class I Waste and Primary Exporters); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.61, (relating to Purpose, Scope, and Applicability); 30 TAC §335.76, (relating to Additional Requirements Applicable to International Shipments); 30 TAC §335.241, (relating to Applicability and Requirements); 30 TAC §335.409, (relating to General Shipping, Manifesting, Recordkeeping, and Reporting Requirements); 30 TAC §335.502, (relating to Conversion to New Waste Notification and Classification System).

§ 335.11. Shipping Requirements for Transporters of Hazardous Waste or Class I Waste

(a) No transporter may cause, suffer, allow, or permit the shipment of solid waste for which a manifest is required under §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) to an off-site storage, processing, or disposal facility, unless the transporter:

(1) obtains a manifest completed by the generator or primary exporter where appropriate in accordance with §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);

(2) upon receipt and prior to shipment, signs and dates the manifest, acknowledging the acceptance of waste from the generator or primary exporter where appropriate;

(3) returns a signed copy to the generator or primary exporter where appropriate before leaving the generator's property; and

(4) in the case of hazardous waste exports, knows that the shipment conforms to the requirements set forth in the regulations contained in 40 Code of Federal Regulations §263.20(a), which are in effect as of November 8, 1986.

(b) The transporter shall ensure that the manifest accompanies the municipal hazardous waste or Class I waste.

(c) No transporter may cause, suffer, allow, or permit the delivery of a shipment of hazardous waste or Class I waste to another transporter designated on the manifest, unless the transporter:

(1) obtains the date of delivery and the handwritten signature of the accepting transporter on the manifest;

(2) retains one copy of the manifest in accordance with §335.14(a) of this title (relating to Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste);

(3) gives the remaining copies of the manifest to the accepting transporter; and

(4) in the case of hazardous waste exports, ensures that a copy of the EPA acknowledgment of consent also accompanies the hazardous waste.

(d) No transporter may cause, suffer, allow, or permit the delivery of a shipment of municipal hazardous waste or Class I waste to a storage, processing, or disposal facility, unless the transporter:

(1) obtains the date of delivery and the handwritten signature on the manifest of the owner or operator of the facility designated on the manifest;

(2) retains one copy of the manifest in accordance with §335.14(a) of this title (relating to Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste); and

(3) gives the remaining copies of the manifest to the owner or operator of the facility designated on the manifest.

(e) The requirements of subsections (b)-(d) and (f) of this section do not apply to water (bulk shipment) transporters if:

(1) the waste is delivered by water (bulk shipment) to the facility designated on the manifest;

(2) a shipping paper containing all the information required on the manifest (excluding the identification numbers, generator certification, and signatures) and, for hazardous waste exports, an EPA acknowledgment of consent accompanies the waste;

(3) the delivering transporter obtains the date of delivery and handwritten signature of the owner or operator of the facility on either the manifest of the shipping paper;

(4) the person delivering the waste to the initial water (bulk shipment) transporter obtains the date of delivery and the signature of the water (bulk shipment) transporter on the manifest and forwards it to the facility; and

(5) a copy of the shipping paper or manifest is retained by each water (bulk shipment) transporter in accordance with §335.14(b) of this title (relating to Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste).

(f) For shipments involving rail transportation, the requirements of subsections (b)-(e) of this section do not apply and the following requirements do apply.

(1) When accepting Class I waste from a nonrail transporter, the initial rail transporter must:

(A) sign and date, the manifest acknowledging acceptance of the waste;

(B) return a copy of the manifest to the nonrail transporter;

(C) forward at least three copies of the manifest to:

(i) the next nonrail transporter, if any;

(ii) the designated facility, if the shipment is delivered to that facility by rail; or

(iii) the last rail transporter designated to handle the waste in the United States;

(D) retain one copy of the manifest and rail shipping paper in accordance with § 335.14(c) of this title (relating to Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste).

(2) Rail transporters must ensure that a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator certification, and signatures) and, for hazardous waste exports, and EPA acknowledgment of consent accompanies the waste at all times. Intermediate rail transporters are not required to sign either the manifest or shipping paper.

(3) When delivering Class I waste or municipal hazardous waste to the designated facility, a rail transporter must:

(A) obtain the date of delivery and handwritten signature of the owner or operator of the designated facility on the manifest or shipping paper (if the manifest has not been received by the facility); and

(B) retain a copy of the manifest or signed shipping paper in accordance with §335.14(c) of this title (relating to Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste).

(4) When delivering hazardous waste or Class I waste to a nonrail transporter, a rail transporter must:

(A) obtain the date of delivery and the handwritten signature of the next nonrail transporter on the manifest; and

(B) retain a copy of the manifest in accordance with §335.14(c) of this title (relating to Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste).

(5) Before accepting municipal hazardous waste or Class I waste from a rail transporter, a nonrail transporter must sign and date the manifest and provide a copy to the rail transporter.

(g) Transporters who transport hazardous waste or Class I waste out of the United States shall:

(1) indicate on the manifest the date the municipal hazardous waste or Class I waste left the United States under the item labeled "special handling instructions and additional information";

(2) sign the manifest and retain one copy in accordance with § 335.14(c) of this title (relating to Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste);

(3) return a signed copy of the manifest to the generator or primary exporter where appropriate; and

(4) give a copy of the manifest to a United States customs official at the point of departure from the United States.

(h) The transporter must deliver the entire quantity of municipal hazardous waste or Class I waste which he has accepted from a generator or a transporter to:

(1) the designated facility listed on the manifest;

(2) the alternate designated facility if the waste cannot be delivered to the designated facility because an emergency prevents delivery;

(3) the next designated transporter; or

(4) the place outside the United States designated by the generator.

(i) If the transporter cannot deliver the waste in accordance with subsection (h) of this section, the transporter must contact the generator for further directions and must revise the manifest according to the generator's instructions.

Source: The provisions of this §335.11 adopted to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515.

Cross References: This Section cited in 30 TAC §335.14, (relating to Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.76, (relating to Additional Requirements Applicable to International Shipments); 30 TAC §335.241, (relating to Applicability and Requirements); 30 TAC §335.411, (relating to General Requirements for Transporters).

§ 335.12. Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities

(a) No owner or operator of a storage, processing, or disposal facility may accept delivery of solid waste for which a manifest is required under §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), for off-site storage, processing, or disposal unless:

(1) a manifest accompanies the shipment which designates that facility to receive the waste; and

(2) the owner or operator signs the manifest and immediately gives at least one copy of the signed manifest to the transporter; and

(3) retains one copy of the manifest in accordance with §335.15(a) of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities);

(4) within 30 days after the delivery, sends a copy of the manifest to the generator or primary exporter where appropriate; and

(5) in the case of hazardous waste exports, a copy of the EPA acknowledgment of consent also accompanies the waste and the owner or operator has no knowledge that the shipment does not conform to the EPA acknowledgment of consent.

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste or Class I waste which is accompanied by a shipping paper containing all the information required on the manifest, the owner or operator, or his agent, shall:

(1) sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste or Class I waste covered by the manifest or the shipping paper was received;

(2) immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

(3) within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator; and

(4) retain at the facility a copy of each shipping paper and manifest in accordance with §335.15(a) of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities).

(c) If a facility receives hazardous waste or Class I waste accompanied by a manifest, or in the case of shipments by rail or water (bulk shipment), by a shipping paper, the owner or operator, or his agent, must note any significant discrepancies on each copy of the manifest or shipping paper (if the manifest has not been received).

(1) Manifest discrepancies are differences between the quantity or type of hazardous waste or Class I waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste or Class I waste a facility actually received. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported in the manifest or shipping paper. Significant discrepancies in quantity are:

(A) for bulk weight, variations greater than 10% in weight; and

(B) for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload.

(2) Upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the executive di-

rector a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue. The commission does not intend that the owner or operator of a facility perform the general waste analysis required by 40 Code of Federal Regulations §264.13 or §265.13 before signing the manifest and giving it to the transporter. However, subsection (c) of this section does require reporting an unreconciled discrepancy discovered during later analysis.

Source: The provisions of this §335.12 adopted to be effective May 28, 1986, 11 TexReg 2335; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515.

Cross References: This Section cited in 30 TAC §305.146, (relating to Reporting); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.41, (relating to Purpose, Scope, and Applicability); 30 TAC §335.47, (relating to Special Requirements for Persons Eligible for a Federal Permit by Rule); 30 TAC §335.76, (relating to Additional Requirements Applicable to International Shipments); 30 TAC §335.223, (relating to Additional Permit Standards for Burners); 30 TAC §335.224, (relating to Additional Interim Status Standards for Burners); 30 TAC §335.241, (relating to Applicability and Requirements); 30 TAC §335.251, (relating to Applicability and Requirements); 30 TAC §335.412, (relating to General Requirements for Processing, Storage, or Disposal Facilities).

§ 335.13. Recordkeeping and Reporting Procedures Applicable to Generators Shipping Hazardous Waste or Class I Waste and Primary Exporters of Hazardous Waste

(a) The generator or primary exporter shall retain a copy of each manifest required by §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) for a minimum of three years from the date of shipment by the generator or primary exporter or until the generator or primary exporter receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

(b) Generators or primary exporters who ship to other states, or import shipments from outside the United States through Texas to other states, or export hazardous waste to a foreign country, shall prepare a shipment summary from the manifests, summarizing the quantity and classification of each waste shipment itemized by manifest document number. Such shipment summary shall be prepared on forms provided or approved by the executive director and submitted to the Texas Water Commission on or before the 25th day of each month for shipments originating during the previous month. A generator or primary exporter must keep a copy of each summary for a period of at least three years from the due date of the summary. A generator or primary exporter required to comply with this subsection shall prepare and submit a shipment summary for only those months in which he actually made shipments. Conditionally exempt small quantity generators shipping municipal hazardous waste are not subject to the requirements of this subsection.

(c) A generator of greater than 1,000 kilograms of hazardous waste in a calendar month or a generator of Class I waste who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter must contact the transporter and/or the owner or operator of the designated facility to determine the status of the hazardous waste or Class I waste.

(d) A generator of greater than 1,000 kilograms of hazardous waste in a calendar month or a generator of Class I waste must submit an exception report to the commission if he has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date that the waste was accepted by the initial transporter. Primary exporters of hazardous waste must submit an exception report to the executive director as set forth in §335.76(c) of this title (relating to Additional Requirements Applicable to International Shipments). The exception report must be retained by the generator or primary exporter for at least three years from the date the waste was accepted by the initial transporter and must include:

(1) a legible copy of the manifest for which the generator does not have confirmation of delivery; and

(2) a copy of a letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous waste or Class I waste and the results of those efforts.

(e) The periods of record retention required by this section are automatically extended during the course of any unresolved enforcement action regarding the regulated activity.

(f) The requirements of subsections (c) and (d) of this section do not apply to generators generating

hazardous waste or Class I waste in quantities less than 100 kilograms in a calendar month, or acute hazardous waste in quantities specified in §335.78(e)(1) or (2) of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators).

(g) A generator of greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter must submit a legible copy of the manifest, with some indication that the generator has not received confirmation of delivery, to the executive director.

Source: The provisions of this §335.13 adopted to be effective May 28, 1986, 11 TexReg 2335; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §335.6, (relating to Notification Requirements); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.61, (relating to Purpose, Scope, and Applicability); 30 TAC §335.74, (relating to Special Requirements for Generators of Between 100 and 1,000 Kilograms per Month); 30 TAC §335.329, (relating to Records and Reports).

§ 335.14. Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste

(a) A transporter of hazardous waste or Class I waste shall retain a copy of each manifest signed by the generator or, in the case of exports of hazardous waste, the primary exporter; the transporter; and the next designated transporter, or the owner or operator of the facility designated on the manifest for a minimum of at least three years from the date of the initial shipment.

(b) For shipments delivered to the facility designated on the manifest by water (bulk shipment), each water (bulk shipment) transporter must retain a copy of a shipping paper containing all the information required by §335.11(e) of this title (relating to Shipping Requirements for Transporters of Hazardous Waste or Class I Waste) for a minimum of three years from the date of initial shipment.

(c) For shipments of hazardous waste or Class I waste by rail within the United States:

(1) the initial rail transporter must keep a copy of the manifest and shipping paper with all of the information required in §335.11(f)(2) of this title (relating to Shipping Requirements for Transporters of Hazardous Waste or Class I Waste) for a period of three years from the date the hazardous waste or Class I waste was accepted by the initial transporter; and

(2) the final rail transporter must keep a copy of the signed manifest (or the shipping paper if signed by the designated facility in lieu of the manifest) for a period of three years from the date the hazardous waste or Class I waste was accepted by the initial transporter.

(d) A transporter who transports waste out of the United States must retain a copy of the manifest indicating that the hazardous waste or waste left the United States for a minimum of three years from the date of initial shipment.

(e) The periods of record retention required by this section are automatically extended during the course of any unresolved enforcement action regarding the regulated activity.

Source: The provisions of this §335.14 adopted to be effective May 28, 1986, 11 TexReg 2335; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515.

Cross References: This Section cited in 30 TAC §335.11, (relating to Shipping Requirements for Transporters of Hazardous Waste or Class I Waste); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.76, (relating to Additional Requirements Applicable to International Shipments); 30 TAC §335.411, (relating to General Requirements for Transporters).

§ 335.15. Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities

This section does not apply to owners and operators that store, process, or dispose of hazardous waste or Class I waste on-site and do not receive any Class I waste from off-site sources.

(1) The owner or operator of the storage, processing, or disposal facility designated on the manifest shall retain a copy of each manifest or, in the case of shipments by rail or water (bulk shipment), a copy of each manifest and shipping paper, for a minimum of three years from the date of initial shipment by the generator or primary exporter where appropriate.

(2) Except as provided in paragraph (6) of this section, the owner or operator shall prepare a monthly summary from his copy of all manifests received during the month (in those cases where a manifest is required), summarizing the quantity, character, transporter identity, and the method of storage, processing, and disposal of each hazardous waste or Class I waste shipment received, itemized by manifest document number.

Such monthly summary report shall be prepared on forms provided or approved by the executive director and submitted to the Texas Water Commission on or before the 25th day of each month for wastes or manifests received during the previous month. The appropriate abbreviations from Appendix I, Tables 1 and 2 of 40 Code of Federal Regulations Parts 264 or 265 are to be used for units of measure and for handling codes for storage, processing, and disposal methods. An owner or operator receiving hazardous waste shall prepare a monthly summary which also includes the following information:

(A) the Environmental Protection Agency (EPA) identification number, name, and address of the facility:

(B) the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;

(C) a description and the quantity of each hazardous waste the facility received during the year. This information must be listed by EPA identification number of each generator; and

(D) the method of processing, storage, or disposal for each hazardous waste.

(3) The owner or operator shall submit a report on forms provided or approved by the executive director summarizing the types and volumes of any hazardous waste or Class I waste received without manifests, or, in the case of shipments by rail or water (bulk shipments), without shipping papers. This report shall be submitted within 15 days of receiving the waste regardless of quantity, and shall include the following information:

(A) the Environmental Protection Agency (EPA) identification number (applicable to hazardous waste only), name, and address of the facility;

(B) the date the facility received the waste;

(C) the EPA identification number (applicable to hazardous waste only), name, and address of the generator and the transporter, if available;

(D) a description and the quantity of each hazardous waste or Class I waste the facility received which was not accompanied by a manifest;

(E) the method of storage, processing, or disposal for each hazardous waste or Class I waste;

(F) the certification signed by the owner or operator of the facility or his authorized representative; and

(G) a brief explanation of why the waste was unaccompanied by a manifest, if known.

(4) The owner or operator shall retain a copy of each summary required by paragraphs (2) and (3) of this subsection for a minimum of three years from the date of each summary.

(5) The periods of record retention required by this section are automatically extended during the course of any unresolved enforcement action regarding the regulated activity.

(6) An owner or operator reclaiming hazardous wastes received from conditionally exempt small quantity generators is subject to the requirements of this section requiring completion of a monthly summary from his copy of all manifests received during the month, unless he has requested in writing a modification in the reporting requirements. A modification relieving the owner or operator of having to report each manifested shipment on the monthly summary may be granted at the discretion of the executive director on a case-by-case basis.

Source: The provisions of this §335.15 adopted to be effective May 28, 1986, 11 TexReg 2335; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515.

Cross References: This Section cited in 30 TAC §305.146, (relating to Reporting); 30 TAC §335.12, (relating to Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.41, (relating to Purpose, Scope, and Applicability); 30 TAC §335.47, (relating to Special Requirements for Persons Eligible for a Federal Permit by Rule); 30 TAC §335.114, (relating to Reporting Requirements); 30 TAC §335.115, (relating to Additional Reports); 30 TAC §335.154, (relating to Reporting Requirements for Owners and Operators); 30 TAC §335.155, (relating to Additional Reports); 30 TAC §335.223, (relating to Additional Permit Standards for Burners); 30 TAC §335.224, (relating to Additional Interim Status Standards for Burners); 30 TAC §335.329, (relating to Records and Reports); 30 TAC §335.412, (relating to General Requirements for Processing, Storage, or Disposal Facilities).

§ 335.17. Special Definitions for Recyclable Materials and Nonhazardous Recyclable Materials

For the purposes of the definition of solid waste in §335.1 of this title (relating to Definitions) and §335.24 of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials):

(1) a spent material is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing;

(2) sludge has the same meaning used in the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, §2;

(3) a by-product is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form in which it is produced by the process;

(4) a material is reclaimed if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents;

(5) a material is used or reused if it is either:

(A) employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

(B) employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment);

(6) scrap metal is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wires) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled;

(7) a material is recycled if it is used, reused, or reclaimed;

(8) a material is accumulated speculatively if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that, during the calendar year (commencing on January 1), the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75% by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75% requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under 40 Code of Federal Regulations §261.4(c) are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation.) Materials are no longer in this category once they are removed from accumulation for recycling, however.

Source: The provisions of this §335.17 adopted to be effective May 28, 1986, 11 TexReg 2335; amended to be effective September 1, 1986, 11 TexReg 3692.

Cross References: This Section cited in 30 TAC §335.18, (relating to Variances from Classification as a Solid Waste); 30 TAC §335.241, (relating to Applicability and Requirements); 30 TAC §335.322, (relating to Definitions).

§ 335.18. Variances from Classification as a Solid Waste

In accordance with the standards and criteria in §335.19 of this title (relating to Standards and Criteria for Variances from Classification as a Solid Waste) and the procedures in §335.21 of this title (relating to Procedures for Variances from Classification as a Solid Waste or to be Classified as a Boiler), the executive director may determine on a case-by-case basis that the following recyclable materials and nonhazardous recyclable materials are not solid wastes:

(1) materials that are accumulated speculatively without sufficient amounts being recycled (as defined in §335.17 of this title (relating to Special Definitions for Recyclable Materials and Nonhazardous Recyclable Materials));

(2) materials that are reclaimed and then reused within the original primary production process in which they were generated; or

(3) materials that have been reclaimed but must be reclaimed further before the materials are completely recovered.

Source: The provisions of this §335.18 adopted to be effective May 29, 1986, 11 TexReg 2335.

§ 335.19. Standards and Criteria for Variances from Classification as a Solid Waste

(a) The executive director may grant requests for a variance from classifying as a solid waste those

materials that are accumulated speculatively without sufficient amounts being recycled if the applicant demonstrates that sufficient amounts of the material will be recycled or transferred for recycling in the following year. If a variance is granted, it is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. The executive director's decision will be based on the following standards and criteria:

(1) the manner in which the material is expected to be recycled, when the material is expected to be recycled, and whether this expected disposition is likely to occur (for example, because of past practice, market factors, the nature of the material, or contractual arrangements for recycling);

(2) the reason that the applicant has accumulated the material for one or more years without recycling 75% of the weight or volume accumulated at the beginning of the year;

(3) the quantity of material already accumulated and the quantity expected to be generated and accumulated before the material is recycled;

(4) the extent to which the material is handled to minimize loss;

(5) other relevant factors.

(b) The executive director may grant requests for a variance from classifying as a solid waste those materials that are reclaimed and then reused as feedstock within the original primary production process in which the materials were generated if the reclamation operation is an essential part of the production process. This determination will be based on the following criteria:

(1) how economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;

(2) the prevalence of the practice on an industry-wide basis;

(3) the extent to which the material is handled before reclamation to minimize loss;

(4) the time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;

(5) the location of the reclamation operation in relation to the production process;

(6) whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;

(7) whether the person who generates the material also reclaims it;

(8) other relevant factors.

(c) The executive director may grant requests for a variance from classifying as a solid waste those materials that have been reclaimed but must be reclaimed further before recovery is completed if, after initial reclamation, the resulting material is commodity-like (even though it is not yet a commercial product, and has to be reclaimed further). This determination will be based on the following factors:

(1) the degree of processing the material has undergone and the degree of further processing that is required;

(2) the value of the material after it has been reclaimed;

(3) the degree to which the reclaimed material is like an analogous raw material;

(4) the extent to which an end market for the reclaimed material is guaranteed;

(5) the extent to which the reclaimed material is handled to minimize loss;

(6) other relevant factors.

Source: The provisions of this §335.19 adopted to be effective May 28, 1986, 11 TexReg 2335.

Cross References: This Section cited in 30 TAC §335.1, (relating to Definitions); 30 TAC §335.18, (relating to Variances from Classification as a Solid Waste); 30 TAC §335.21, (relating to Procedures for Variances from Classification as a Solid Waste or To Be Classified as a Boiler).

§ 335.20. Variance To Be Classified as a Boiler

In accordance with the standards and criteria in §335.1 of this title (relating to Definitions) (definition of boiler), and the procedures in §335.21 of this title (relating to Procedures for Variances from Classification as a Solid Waste or to be Classified as a Boiler), the executive director may determine on a case-by-case basis that certain enclosed devices using controlled flame combustion are boilers, even though they do not otherwise meet the definition of boiler contained in §335.1 of this title (relating to Definitions), after considering the following criteria:

(1) the extent to which the unit has provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases;

(2) the extent to which the combustion chamber and energy recovery equipment are of integral design;

(3) the efficiency of energy recovery, calculated in terms of the recovered energy compared with the thermal value of the fuel;

(4) the extent to which exported energy is utilized;

(5) the extent to which the device is in common and customary use as a boiler functioning primarily to produce steam, heated fluids, or heated gases; and

(6) other factors, as appropriate.

Source: The provisions of this §335.20 adopted to be effective May 29, 1986, 11 TexReg 2335.

Cross References: This Section cited in 30 TAC §335.1, (relating to Definitions); 30 TAC §335.21, (relating to Procedures for Variances from Classification as a Solid Waste or To Be Classified as a Boiler).

§ 335.21. Procedures for Variances from Classification as a Solid Waste or To Be Classified as a Boiler

The executive director will use the following procedures in evaluating applications for variances from classification as a solid waste or applications to classify particular enclosed flame combustion devices as boilers:

(1) The application must address the relevant criteria contained in §335.19 of this title (relating to Standards and Criteria for Variances from Classification as a Solid Waste) and §335.20 of this title (relating to Variance to be Classified as a Boiler).

(2) The executive director will evaluate the application and issue a draft notice tentatively granting or denying the application. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the locality where the recycler is located. The executive director will accept comment on the tentative decision for 30 days, and may also hold a public hearing upon request or at his discretion. The executive director will issue a final decision after receipt of comments and after the hearing (if any). Any person affected by a final decision of the executive director may petition the commission to review the decision. Any person affected by the final decision or order of the commission may file a petition for judicial review within 30 days after the decision or order is final and appealable, in accordance with Chapter 273 of this title (relating to Procedures After Final Decision) and the Texas Administrative Procedure and Texas Register Act, Article 6252-13a.

Source: The provisions of this §335.21 adopted to be effective May 29, 1986, 11 TexReg 2335.

Cross References: This Section cited in 30 TAC §335.18, (relating to Variances from Classification as a Solid Waste); 30 TAC §335.20, (relating to Variance To Be Classified as a Boiler).

§ 335.22. Additional Regulation of Certain Hazardous Waste Recyclable Activities on a Case-By-Case Basis

The commission may decide on a case-by-case basis that person accumulating or storing the recyclable materials described in §335.24(b)(4) of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials) should be regulated under §335.24(d)-(f) of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials). The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect human health and the environment because the materials of their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. The procedures for this decision are set forth in §335.23 of this title (relating to Procedures for Case-by-Case Regulation of Hazardous Waste Recycling Activities). In making this decision, the commission will consider the following factors:

(1) the types of materials accumulated or stored and the amounts accumulated or stored;

(2) the method of accumulation or storage;

(3) the length of time the materials have been accumulated or stored before being reclaimed;

(4) whether any contaminants are being released into the environment, or are likely to be so released; and

(5) other relevant factors.

Source: The provisions of this §335.22 adopted to be effective May 28, 1986, 11 TexReg 2335; amended to be effective September 1, 1986, 11 TexReg 3692; amended to be effective July 14, 1987, 12 TexReg 2106.

§ 335.23. Procedures for Case-By-Case Regulation of Hazardous Waste Recycling Activities

The commission will use the following procedures when determining whether to regulate hazardous waste recycling activities described in §335.24(b)(4) of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials) under the provisions of §335.24(d)-(f) of this title (relating to Requirements for Recyclable Materials and Nonhazardous Re-

cyclable Materials), rather than under the provisions governing recyclable materials utilized for precious metal recovery under Subchapter H of this chapter (relating to Standards for the Management of Specific Wastes and Specific Types of Facilities).

(1) If a generator is accumulating the waste, the commission will issue a notice setting forth the factual basis for the decision and stating that the person must comply with the applicable requirements of Subchapters A-C of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General; Hazardous Waste Management-General Provisions, and Standards Applicable to Generators of Hazardous Waste), respectively. The notice will become final within 30 days, unless the person served requests a public hearing to challenge the decision. Upon receiving such a request, the commission will hold a public hearing. The commission will provide notice of the hearing to the public and allow public participation at the hearing. The commission will issue a final order after the hearing stating whether or not compliance with Subchapters A-C of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General; Hazardous Waste Management-General Provisions; and Standards Applicable to Generators of Hazardous Waste), respectively, is required. A person affected by a final decision or order of the commission may file a petition for judicial review within 30 days after the decision or order is final and appealable, in accordance with Chapter 273 of this title (relating to Procedures After Final Decision) and the Texas Administrative Procedure and Texas Register Act, Article 6252-13a.

(2) If the person is accumulating the recyclable material at a storage facility, the notice will state that the person must obtain a permit in accordance with all applicable provisions of Chapter 305 of this title (relating to Consolidated Permits) and Chapter 261 of this title (relating to Introductory Provisions); Chapter 263 of this title (relating to General Rules); Chapter 265 of this title (relating to Procedures Before Public Hearing); Chapter 267 of this title (relating to Procedures During the Public Hearing); Chapter 269 of this title (relating to Procedures After Public Hearing Before an Examiner); Chapter 271 of this title (relating to Procedures After Public Hearing Before the Full Commission); and Chapter 273 of this title (relating to Procedures After Final Decision). The owner or operator of the facility must apply for a permit within no less than 60 days and no more than six months of notice, as specified in the notice. If the owner or operator of the facility wishes to challenge the commission's decision, he may do so in his permit application, in a public hearing held on the draft permit, or in comments filed on the draft permit or on the notice of intent to deny the permit. The proposal for decision accompanying the permit will include the reason for the commission's determination. The question of whether the commission's decision was proper will remain open for consideration during the public comment period and in any subsequent hearing.

Source: The provisions of this §335.23 adopted to be effective May 29, 1986, 11 TexReg 2335; amended to be effective September 1, 1986, 11 TexReg 3692; amended to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §335.22, (relating to Additional Regulation of Certain Hazardous Waste Recyclable Activities on a Case-By-Case Basis).

§ 335.24. Requirements for Recyclable Materials and Nonhazardous Recyclable Materials

(a) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of subsections (d)-(f) of this section, except for the materials listed in subsections (b) and (c) of this section. Hazardous wastes that are recycled will be known as recyclable materials. Nonhazardous industrial wastes that are recycled will be known as nonhazardous recyclable materials. Nonhazardous recyclable materials are subject to the requirements of subsections (h) and (i) of this section.

(b) The following recyclable materials are not subject to the requirements of this section, except as provided in subsections (g) and (h) of this section, but are regulated under the applicable provisions of Subchapter H of this chapter (relating to Standards for the Management of Specific Wastes and Specific Types of Facilities) and all applicable provisions in Chapter 305 of this title (relating to Consolidated Permits) and Chapter 261 of this title (relating to Introductory Provisions); Chapter 263 of this title (relating to General Rules); Chapter 265 of this title (relating to Procedures Before Public Hearing); Chapter 267 of this title (relating to Procedures During Public Hearing); Chapter 269 of this title (relating to Procedures After Public Hearing Before an Examiner); Chapter 271 of this title (relating to Procedures After Public Hearing Before the Full Commission); and Chapter 273 of

this title (relating to Procedures after Final Decision):

(1) recyclable materials used in manner constituting disposal;

(2) hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities) or Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities);

(3) used oil that exhibits one or more of the characteristics of hazardous waste and is burned for energy recovery in boilers and industrial furnaces that are not regulated under the provisions governing incinerators that are adopted by reference in §335.112(a)(14) of this title (relating to Standards) and §335.152(a)(13) of this title (relating to Standards);

(4) recyclable materials from which precious metals are reclaimed;

(5) spent lead-acid batteries that are being reclaimed.

(c) The following recyclable materials are not subject to regulation under Subchapters B-I and O of this chapter, (relating to Hazardous Waste Management—General Provisions; Standards Applicable to Generators of Hazardous Waste; Standards Applicable to Transporters of Hazardous Waste; Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, and Disposal Facilities; Location Standards for Hazardous Waste Storage, Processing or Disposal; Standards for the Management of Specific Wastes and Specific Types of Facilities; Prohibition on Open Dumps; and Land Disposal Restrictions), respectively, or Chapters 261, 263, 265, 267, 269, 271, 273, and 305 of this title (relating to Introductory Provisions; General Rules; Procedures Before Public Hearing; Procedures During Public Hearing; Procedures After Public Hearing Before an Examiner; Procedures After Public Hearing Before the Full Commission; Procedures After Final Decision; and Consolidated Permits), except as provided in subsections (g) and (h) of this section:

(1) industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in the regulations contained in 40 Code of Federal Regulations §262.58, which are in effect as of November 8, 1986:

(A) a person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, must comply with the requirements applicable to a primary exporter in the regulations contained in 40 Code of Federal Regulations §§262.53, 262.56(a)(1)-(4) and (6) and (b), and 262.57, which are in effect as of November 8, 1986, export such materials only upon such consent of the receiving country and in conformance with the EPA acknowledgment of consent as defined in the regulations contained in 40 Code of Federal Regulations, Part 262, Subpart E, which are in effect as of November 8, 1986, and provide a copy of the EPA acknowledgment of consent to the shipment to the transporter transporting the shipment for export;

(B) transporters transporting a shipment for export may not accept a shipment if he knows the shipment does not conform to the EPA acknowledgment of consent, must ensure that a copy of the EPA acknowledgment of consent accompanies the shipment, and must ensure that it is delivered to the facility designated by the person initiating the shipment;

(2) used batteries (or used battery cells) returned to a battery manufacturer for regeneration;

(3) used oil that exhibits one or more of the characteristics of hazardous waste but is recycled in some other manner than being burned for energy recovery;

(4) scrap metal;

(5) fuels produced from the refining of oil-bearing hazardous wastes along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices;

(6) oil reclaimed from hazardous waste resulting from normal petroleum refining, production, and transportation practices, which oil is to be refined along with normal process streams at a petroleum refining facility;

(7) coke and coal tar from the iron and steel industry that contains EPA hazardous waste No. K087 (decanter tank tar sludge from coking operations) hazardous waste from the iron and steel production process;

(8) the following hazardous waste fuels:

(A) hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under 40 Code of Federal Regulations §266.40(e) and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

(B) hazardous waste fuel produced from oil-bearing hazardous waste from petroleum-refining production, and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specifications under 40 Code of Federal Regulations §266.40(e);

(C) oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under 40 Code of Federal Regulations §266.40(e); and

(9) petroleum coke produced from petroleum refinery hazardous wastes containing oil at the same facility at which such wastes were generated, unless the resulting coke product exceeds one or more of the characteristics of hazardous waste in 40 Code of Federal Regulations Part 261, Subpart C.

(d) Generators and transporters of recyclable materials are subject to the applicable requirements of Subchapter C of this chapter (relating to Standards Applicable to Generator of Hazardous Waste) and Subchapter D of this chapter (relating to Standards Applicable to Transporter of Hazardous Waste), and the notification requirements of §335.6 of this title (relating to Notification Requirements), except as provided in subsections (a)-(c) of this section.

(e) Owners or operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of this chapter, and Chapter 305 of this title (relating to Consolidated Permits) and Chapter 261 of this title (relating to Introductory Provisions); Chapter 263 of this title (relating to General Rules); Chapter 265 of this title (relating to Procedures Before Public Hearing); Chapter 267 of this title (relating to Procedures During Public Hearing); Chapter 269 of this title (relating to Procedures After Public Hearing Before an Examiner); Chapter 271 of this title (relating to Procedures After Public Hearing Before the Full Commission); and Chapter 273 of this title (relating to Procedures After Final Decision), and the notification requirement under §335.6 of this title (relating to Notification Requirements), except as provided in subsections (a)-(c) of this section. The recycling process itself is exempt from regulation.

(f) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in subsections (a)-(c) of this section:

(1) notification requirements under §335.6 of this title (relating to Notification Requirements);

(2) §335.12 of this title (relating to Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities).

(g) Except as provided in subsection (h) of this section, recyclable materials (excluding those listed in subsection (c)(1) and (5)-(9) of this section), remain subject to the requirements of §§335.4, 335.6, and 335.9-335.15 of this title (relating to General Prohibitions; Notification Requirements; Recordkeeping and Annual Reporting Procedures Applicable to Generators; Shipping and Reporting Procedures Applicable to Generators of Hazardous Waste or Class I Waste and Primary Exporters of Hazardous Waste; Shipping Requirements for Transporters of Hazardous Waste or Class I Waste; Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities; Recordkeeping and Reporting Procedures Applicable to Generators Shipping Hazardous Waste or Class I Waste; Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste; and Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities; respectively), as applicable.

(h) Industrial solid wastes that are nonhazardous recyclable materials; and recyclable materials listed in subsections (b)(5) and (c)(2)-(4) of this section remain subject to the requirements of §335.4 of this title (relating to General Prohibitions) and §335.6 of this title (relating to Notification Requirements). Such waste may also be subject to the requirements of §§335.10-335.15 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; Shipping Requirements for Transporters of Hazardous Waste or Class I Waste; Shipping Requirements Applicable to Owners or Operators of Storage, Processing or Disposal Facilities; Recordkeeping and Reporting Procedures Applicable to Generators Shipping Hazardous Waste or Class I Waste and Primary Exporters of Hazardous Waste; Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste; and Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities; respectively), as applicable, if the executive director determines that such requirements are necessary to protect human health and the environment. In making the determination, the executive director shall consider the following criteria:

(1) the waste's toxicity, corrosivity, flammability, ability to sensitize or irritate, or propensity for decomposition and creation of sudden pressure;

(2) the potential for the objectionable constituent to migrate from the waste into the environment if improperly managed;

(3) the persistence of any objectionable constituent or any objectionable degradation product in the waste;

(4) the potential for the objectionable constituent to degrade into nonharmful constituents;

(5) the degree to which the objectionable constituent bioaccumulates in ecosystems;

(6) the plausible types of improper management to which the waste could be subjected;

(7) the nature and severity of potential damage to the public health and environment;

(8) whether subjecting the waste to additional regulation will provide additional protection for human health and the environment;

(9) other relevant factors.

(i) Except as provided in the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, §4(f)(1), facilities managing recyclable materials that are required to obtain a permit under this section may also be permitted to manage nonhazardous recyclable materials at the same facility if the executive director determines that such regulation is necessary to protect human health and the environment. In making this determination, the executive director shall consider the following criteria:

(1) whether managing nonhazardous recyclable materials will create an additional risk of release of the hazardous recyclable materials into the environment;

(2) whether hazardous and nonhazardous wastes that are incompatible are stored and/or processed in the same or connected units;

(3) whether the management of recyclable materials and nonhazardous recyclable materials is segregated within the facility;

(4) the waste's toxicity, corrosivity, flammability, ability to sensitize or irritate, or propensity for decomposition and creation of sudden pressure;

(5) the potential for the objectionable constituent to migrate from the waste into the environment if improperly managed;

(6) the persistence of any objectionable constituent or any objectionable degradation product in the waste;

(7) the potential for the objectionable constituent to degrade into harmful constituents;

(8) the degree to which the objectionable constituent bioaccumulates in ecosystems;

(9) the plausible types of improper management to which the waste could be subjected;

(10) the nature and severity of potential damage to the public health and environment;

(11) whether subjecting the waste to additional regulation will provide additional protection for human health and the environment;

(12) other relevant factors.

Source: The provisions of this §335.24 adopted to be effective September 1, 1986, 11 TexReg 3693; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515.

Cross References: This Section cited in 30 TAC §335.2, (relating to Permit Required); 30 TAC §335.6, (relating to Notification Requirements); 30 TAC §335.9, (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators); 30 TAC §335.17, (relating to Special Definitions for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.22, (relating to Additional Regulation of Certain Hazardous Waste Recyclable Activities on a Case-By-Case Basis); 30 TAC §335.23, (relating to Procedures for Case-By-Case Regulation of Hazardous Waste Recycling Activities); 30 TAC §335.41, (relating to Purpose, Scope, and Applicability); 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.221, (relating to Applicability and Standards); 30 TAC §335.322, (relating to Definitions).

§ 335.28. Adoption of Memoranda of Understanding by Reference

The following memoranda of understanding between the commission and other state agencies, required to be adopted by rule as set forth in the Texas Water Code, §5.104, are adopted by refer-

ence. Copies of these documents are available upon request from the Texas Water Commission, Legal Division, P.O. Box 13087, Austin, Texas 78711-3087, (512) 463-8078.

(1) the memorandum of understanding (effective July 14, 1987) between the attorney general of Texas and the Texas Water Commission, which concerns public participation in the state hazardous waste enforcement process;

(2) the memorandum of understanding (effective September 1, 1987) between the Texas Department of Health and the Texas Water Commission, which concerns the regulation and management of radioactive mixed wastes; and

(3) the memorandum of understanding (effective December 1, 1987) between the Railroad Commission of Texas, the Texas Department of Health, and the Texas Water Commission, which concerns the division of jurisdiction among the agencies over wastes that result from or are related to activities associated with the exploration, development, and production of oil, gas, or geothermal resources, and the refining of oil.

Source: The provisions of this §335.28 adopted to be effective December 1, 1987, 12 TexReg 4193.

§ 335.29. Adoption of Appendices by Reference

The following appendices contained in 40 Code of Federal Regulations Part 261 are adopted by reference as amended and adopted through April 1, 1987, and as further amended as indicated in each paragraph:

(1) Appendix I—Representative Sampling Methods;

(2) Appendix II—Method 1311 Toxicity Characteristic Leaching Procedure (TCLP) (as amended through September 25, 1990);

(3) Appendix III—Chemical Analysis Test Methods (as amended through March 9, 1990, at 55 FedReg 8948);

(4) Appendix VII—Basis for Listing Hazardous Waste;

(5) Appendix VIII—Hazardous Constituents;

(6) Appendix IX—Wastes Excluded Under §260.20 and §260.22; and

(7) Appendix X—Method of Analysis for Chlorinated Dibenzo-p-dioxins and Dibenzofurans.

Source: The provisions of this §335.29 adopted to be effective July 14, 1987, 12 TexReg 2106; amended to be effective March 18, 1991, 16 TexReg 1369; amended to be effective November 23, 1993, 18 TexReg 8218.

§ 335.30. Appendix I

The following appendix will be used for the purposes of Subchapter A which relate to municipal hazardous waste and industrial solid waste.

When using the Uniform Waste Manifest for rail or water (bulk shipment) or international shipments refer to the applicable TWC regulations

REPORT SPILLS AND/OR DISCHARGES TO THE TEXAS SPILL RESPONSE CENTER AT 512/463-7727 (24 HOURS)

INSTRUCTIONS TO GENERATOR Please Type or Print Clearly)

(1) Enter the Generator's U S. EPA twelve digit identification number and the unique five digit number assigned to this manifest by the generator if you are shipping hazardous waste

(2) Enter the total number of pages used to complete this manifest

(3) Enter the company name and mailing address

(4) Provide a phone number where an authorized agent of your firm may be reached in the event of an emergency.

(5) Enter the company name of the first transporter and their U.S. EPA ID Number

(6) If applicable, enter the company name of the second transporter and their U.S. EPA ID Number. If more than two transporters are used, enter each additional transporter s information on the Continuation Sheet (EPA form 8700-22A)

(7) Enter the company name, site address, and U.S. EPA ID Number of the facility designated to receive the waste listed on this manifest

(8) **COMPLETE ALL STATE OF TEXAS INFORMATION A. THROUGH H. IN THE SHADED AREAS.**

(9) Complete the waste description table as follows

(A) ITEM 11A—When shipping an EPA/DOT regulated hazardous waste or material in conjunction with solely state regulated waste enter an "x" in the HM box before each EPA/DOT regulated wate/material description.

(B) ITEM 11—Enter the U.S. DOT Proper Shipping Name, Hazard Class, and ID Number (UN/NA) for each waste identified. If it is a Class I nonhazardous waste use the Texas Waste Code description.

(C) ITEM 12—Enter the number of containers for each waste and the appropriate abbreviation for type located in Subchapter A of the TDWR Industrial Solid Waste Rules.

(D) ITEM 13—Enter the total quantity of waste described on each line

(E) ITEM 14—Enter the appropriate letter from the table below for the unit of measure.

G = Gallons (liquids only)	L = Liter (liquids only)
P = Pounds	K = Kilograms
T = Tons (2000 lbs	M = Metric Tons (1000 kg)
Y = Cubic Yards	N = Cubic Meters

(F) ITEM I—Enter the appropriate TWC State Waste Code for each waste you are shipping

(10) The Generator must read, sign (by hand), and date the certification statement. If a mode other than highway is used, the word "highway" should be lined out and the appropriate mode (rail, water or air) inserted in the space below. In signing the waste minimization certification statement, those generators shipping hazardous waste who have not been exempted by statute or regulation from the duty to make a waste minimization certification are also certifying that they have complied with the waste minimization requirements

(11) The manifest must be signed and dated by the first transporter in the presence of the Generator. If more than one transporter is to be used, the Generator must provide additional copies for their use

*(12) Generator retains green copy, sending remaining copies with the driver

INSTRUCTIONS FOR THE TRANSPORTER (Please Type or Print Clearly)

(1) As driver of the transport vehicle, you are responsible for ensuring that all waste received by you arrives at the specified destination.

(2) Sign and date the space provided, certifying the waste amounts in **PART I** were received for transport. **NOTE:** If you are unable to carry out the delivery of the shipment as specified, dial the emergency phone numbers given in **PART I** notifying the **GENERATOR**

(3) Upon delivery of the shipment, the **TSD** Facility Owner/Operator is to sign for the shipment in your presence and fill in "date received"

*(4) Separate the yellow copy and retain for your records. Leave the remaining copies with the **TSD** Facility Owner/Operator

INSTRUCTIONS TO TREATMENT, STORAGE AND DISPOSAL (TSD) FACILITY OWNER/OPERATOR (Please Type or Print Clearly

(1) The authorized representative of the designated (or alternate) facility s owner or operator must note in **ITEM 19** any significant discrepancy between the waste described on the manifest and the waste actually received at the facility.

(2) Enter date received and sign in the presence of the driver declaring receipt of the wastes and verifying the quantities in the table in **PART I**

(4) Retain the pink copy for your records and return the completed original (white) copy to the **GENERATOR**

* U.S. EPA and TWC regulations require that copies of this Uniform Hazardous Waste Manifest be retained for a period of three (3) years in your company records. Do **not** send to TWC unless otherwise notified by these departments.

TEXAS WATER COMMISSION
P.O. Box 13087, Capitol Station
Austin, Texas 78711-3087

Please print or type (Form designed for use on elite (12 pitch) typewriter.)

Form approved OMB No. 2050-0404 Expires 7-31-88

UNIFORM HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No. | Manifest Document No. | 2 Page 1 of | Information in the shaded areas is not required by Federal law.

3 Generator's Name and Mailing Address

4 Generator's Phone ( )

A State Manifest Document Number

B State Generator's ID

5 Transporter 1 Company Name | 6 US EPA ID Number

C State Transporter's ID

D Transporter's Phone

7 Transporter 2 Company Name | 8 US EPA ID Number

E State Transporter's ID

F Transporter's Phone

9 Designated Facility Name and Site Address | 10 US EPA ID Number

G State Facility's ID

H Facility's Phone

11A HM	11 US DOT Description (including Proper Shipping Name, Hazard Class and ID Number)	12 Containers No	12 Containers Type	13 Total Quantity	14 Unit Wt./Vol.	I Waste No
	a					
	b					
	c					
	d					

GENERATOR

J Additional Descriptions for Materials Listed Above

K Handling Codes for Wastes Listed Above

15 Special Handling Instructions and Additional Information

16 **GENERATOR'S CERTIFICATION** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of processing, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name | Signature | Month Day Year

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name | Signature | Month Day Year

18 Transporter 2 Acknowledgement of Receipt of Materials | Date

Printed/Typed Name | Signature | Month Day Year

FACILITY

19 Discrepancy Indication Space

20 Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19 | Date

Printed/Typed Name | Signature | Month Day Year

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete White - original Pink TSD Facility Yellow Transporter Green Generator's first copy

TWC 0311 (Rev. 09-01-85)

Please print or type (Form designed for use on elite (12-pitch) typewriter.)

Form approved OMB No. 2000-0404 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST *(Continuation Sheet)*

21 Generator's US EPA ID No | Manifest Document No | 22 Page | Information in the shaded areas is not required by Federal law

23 Generator's Name | L. State Manifest Document Number | M. State Generator's ID

24 Transporter ____ Company Name | 25 US EPA ID Number | N. State Transporter's ID | O. Transporter's Phone

26 Transporter ____ Company Name | 27 US EPA ID Number | P. State Transporter's ID | Q. Transporter's Phone

28A HM	28 US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	29 Containers No	Type	30 Total Quantity	31 Unit Wt/Vol	R Waste No
	a					
	b					
	c					
	d					
	e					
	f					
	g					
	h					
	i					

GENERATOR

S. Additional Descriptions for Materials Listed Above | T. Handling Codes for Wastes Listed Above

32 Special Handling Instructions and Additional Information

TRANSPORTER

33 Transporter ____ Acknowledgement of Receipt of Materials | Printed/Typed Name | Signature | Date (Month Day Year)

34 Transporter ____ Acknowledgement of Receipt of Materials | Printed/Typed Name | Signature | Date (Month Day Year)

FACILITY

35 Discrepancy Indication Space

EPA Form 8700-22 (3-84) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

TWC-0311E

Table 1

Types of Containers

DM = Metal drums, barrels, kegs
DW = Wooden Drums, barrels, kegs
DF = Fiberboard or plastic drums, barrels, kegs
TP = Tanks portable
TT = Cargo tanks (tank trucks)
TC = Tank cars
DT = Dump truck
CY = Cylinders
CM = Metal boxes, cartons, cases (including roll-offs)
CW = Wooden boxes, cartons, cases
CF = Fiber or plastic boxes, cartons, cases
BA = Burlap, cloth, paper or plastic bags.

Source: The provisions of this §335.30 adopted to be effective May 28, 1986, 11 TexReg 2335.

Cross References: This Section cited in 30 TAC §335.10, (relating to Shipping and Reporting Procedures Applicable to Generators of Hazardous Waste or Class I Waste and Primary Exporters of Hazardous Waste); 30 TAC §335.329, (relating to Records and Reports).

SUBCHAPTER B. HAZARDOUS WASTE MANAGEMENT GENERAL PROVISIONS

Cross References: This Subchapter cited in 30 TAC §335.213, (relating to Standards Applicable to Storers of Materials That Are To Be Used in a Manner That Constitutes Disposal Who Are Not the Ultimate); 30 TAC §335.214, (relating to Standards Applicable to Users of Materials That Are Used in a Manner That Constitutes Disposal); 30 TAC §335.222, (relating to Management Prior to Burning); 30 TAC §335.251, (relating to Applicability and Requirements); 30 TAC §335.323, (relating to Generation Fee Assessment).

§ 335.41. Purpose, Scope, and Applicability

(a) The purpose of this chapter is to implement a state hazardous waste program which controls from point of generation to ultimate disposal those wastes which have been identified by the administrator of the United States Environmental Protection Agency (EPA) in 40 Code of Federal Regulations Part 261.

(b) 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) and §335.12 of this title (relating to Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities) and §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage Processing, or Disposal Facilities) do not apply to an owner or operator of a totally enclosed treatment facility, as defined in §335.1 of this title (relating to Definitions).

(c) Except as provided in §335.47 of this title (relating to Special Requirements for Persons Eligible for a Federal Permit by Rule), 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) do not apply to the owner or operator of a publicly owned treatment works (POTW) which processes, stores, or disposes of hazardous waste.

(d) 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) do not apply to:

(1) the owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in §335.1 of this title (relating to Definitions);

(2) persons engaged in processing or containment activities during immediate response to a discharge of a hazardous waste; an imminent and substantial threat of discharge of hazardous waste; or a discharge of a material which, when discharged, becomes a hazardous waste, except that such person must comply with all applicable requirements of 40 Code of Federal Regulations Part 264, Subparts C and D, and 40 Code of Federal Regulations Part 265, Subparts C and D. Any person who continues or initiates hazardous waste processing or containment activities after the immediate response is over is subject to all applicable requirements of Subchapter E of the chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities) (incorporating by reference 40 Code of Federal Regulations Part 265), Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities) (incorporating by reference 40 Code of Federal Regulations Part 264 and Chapter 305 of of this title (relating to Consolidated Permits); and

(3) persons adding absorbent material to waste in a container, as defined in §335.1 of this title (relating to Definitions) and persons adding waste to absorbent material in a container, provided that these actions occur at the time that waste is first placed in the container, and that in the case of permitted facilities, 40 Code of Federal Regulations §§264.17(b), 264.171, and 264.172, are complied with, and for all other facilities, 40 Code of Federal Regulations §§265.17(b), 265.171, and 265.172 are complied with;

(4) a farmer disposing of waste pesticides from his own use in compliance with §335.77 of this title (relating to Farmers) of this title.

(e) Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities) does not apply to:

(1) a person who stores, processes, or disposes of hazardous waste on-site and meets the requirements of §335.78 of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); or

(2) the owner or operator of a solid waste facility under the jurisdiction of the Texas Department of Health who stores, processes, or disposes of hazardous waste received from a conditionally exempt small quantity generator.

(f) The following requirements apply to residues of hazardous waste in containers.

(1) Subchapters B-F and O of this chapter (relating to Hazardous Waste Management General Provisions; Standards Applicable to Generators of Hazardous Waste; Standards Applicable to Transporters of Hazardous Waste; Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; and Land Disposal Restrictions) do not apply to any hazardous waste remaining in either an empty container or an inner liner removed from an empty container, as defined in paragraph (2) of this subsection. This exemption does not apply to any hazardous waste in either a container that is not empty or an inner liner removed from a container that is not empty.

(2) For purposes of determining whether a container is empty under this subsection, the following provisions apply.

(A) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in 40 Code of Federal Regulations §§261.31, 261.32, or 261.33(e), is empty if:

(i) all wastes have been removed that can be, using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating; and

(ii) no more than 2.5 centimeters (one inch) of residue remains on the bottom of the container or inner liner; or

(iii) no more than 3.0% by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 110 gallons in size, or no more than 0.3% by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 110 gallons in size.

(B) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmosphere.

(C) A container or an inner liner removed from a container that has held an acute hazardous waste listed in 40 Code of Federal Regulations §§261.31, 261.32, or 261.33(e), is empty if:

(i) the container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(ii) the container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(iii) in the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container has been removed.

(g) Subchapters B-F and O of this chapter (relating to Hazardous Waste Management General Provisions; Standards Applicable to Generators of Hazardous Waste; Standards Applicable to Trans-

porters of Hazardous Waste; Interim Standards for Owners and Operators of Hazardous Waste Storage; Processing, or Disposal Facilities; Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing or Disposal Facilities; and Land Disposal Restrictions) do not apply to hazardous waste which is managed as a recyclable material described in §335.24(b) and (c) of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials), except to the extent that requirements of these subchapters are referred to in Subchapter H of this chapter (relating to Standards for the Management of Specific Wastes and Specific Types of Facilities).

(h) 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) apply to owners or operators of all facilities which treat, store, or dispose of hazardous waste referred to in Subchapter O of this chapter (relating to Land Disposal Restrictions).

(i) Except as provided in §335.47 of this title (relating to Special Requirements for Persons Eligible for a Federal Permit by Rule), Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities) does not apply to persons disposing of hazardous waste by means of underground injection. However, Subchapter F does apply to the aboveground storage or processing of hazardous waste before it is injected underground.

Source: The provisions of this §335.41 adopted to be effective May 28, 1986, 11 TexReg 2344; amended to be effective September 1, 1986, 11 TexReg 3695; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §335.2, (relating to Permit Required); 30 TAC §335.77, (relating to Farmers); 30 TAC §335.151, (relating to Purpose, Scope, and Applicability); 30 TAC §335.323, (relating to Generation Fee Assessment); 30 TAC §335.324, (relating to Facility Fee Assessment); 30 TAC §335.325, (relating to Hazardous Waste Management Fee Assessment); 30 TAC §335.508, (relating to Classification of Specific Industrial Solid Wastes).

§ 335.43. Permit Required

(a) Except as provided in subsection (b) of this section and §335.2 of this title (relating to Permit Required), no person shall store, process, or dispose of hazardous waste without first having obtained a permit from the Texas Water Commission.

(b) Any owner or operator of a solid waste management facility that is in existence on the effective date of a statutory or regulatory change that subjects the owner or operator to a requirement to obtain a hazardous waste permit who has filed a hazardous waste permit application with the commission in accordance with the rules and regulations of the commission, may continue the storage, processing, or disposal of hazardous waste until such time as the Texas Water Commission approves or denies the application, or, if the owner or operator becomes subject to a requirement to obtain a hazardous waste permit after November 8, 1984, except as provided by the United States Environmental Protection Agency or commission rules relative to termination of interim status. If a solid waste facility which has been receiving waste from off-site sources has become a commercial hazardous waste management facility as a result of the federal toxicity characteristic rule effective September 25, 1990, and is required to obtain a hazardous waste permit, such a facility that qualifies for interim status is limited to those activities that qualify it for interim status until the facility obtains the hazardous waste permit. Owners and operators of solid waste management facilities that are in existence on the effective date of statutory or regulatory amendments under the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, or the Resource Conservation and Recovery Act of 1976, as amended, 42 United States Code §6901 et seq., that render the facility subject to the requirement to obtain a hazardous waste permit, may continue to operate if Part A of their permit application is submitted no later than:

(1) six months after the date of publication of regulations by the United States Environmental Protection Agency pursuant to the Resource Conservation and Recovery Act of 1976, as amended, which first require them to comply with the standards set forth in Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), or Subchapter H of this chapter (relating to Standards for the Management of Specific Wastes and Specific Types of Facilities); or

(2) 30 days after the date they first become subject to the standards set forth in Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), or Subchapter H of this chapter (relating to Standards for the Management of Specific Wastes

and Specific Types of Facilities); whichever first occurs; or

(3) for generators who generate greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month and who process, store, or dispose of these wastes on-site, a Part A permit application shall be submitted to the Environmental Protection Agency by March 24, 1987, as required by 40 Code of Federal Regulations §270.10(e)(1)(iii).

(c) The following words and terms, when used in subsection (b) of this section, shall have the following meanings, unless the text clearly indicates otherwise.

(1) On-site storage, processing, or disposal—On-site storage, processing, or disposal occurs when industrial solid waste is:

(A) collected, handled, stored, processed, or disposed of within the property boundaries of a tract of land owned or otherwise effectively controlled by the owners or operators of the particular industrial plant, manufacturing plant, mining operation, or agricultural operation from which the waste results or is produced, and which tract of land is within 50 miles from the plant or operation which is the source of the industrial waste; and

(B) the industrial solid waste is not collected, handled, stored, processed, or disposed of with solid waste from any other source or sources. An industrial plant, manufacturing plant, mining operation, or agricultural operation owned by one person shall not be considered an "other source" with respect to other plants and operations owned by the same person.

(2) Commenced on-site storage, processing, or disposal of hazardous waste—A person has commenced on-site storage, processing, or disposal of hazardous waste if the owner or operator has obtained all necessary federal, state, and local preconstruction approvals or permits as required by applicable federal, state, and local hazardous waste control statutes, regulations, or ordinances; and either:

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

(B) the owner or operator has entered into contractual obligations, which cannot be cancelled or modified without substantial loss, for construction of the facility to be completed within a reasonable time.

(d) Subsection (b) of this section shall not apply to a facility if it has been previously denied a hazardous waste permit or if authority to operate the facility has been previously terminated.

(e) Upon receipt of federal Hazardous and Solid Waste Act (HSWA) authorization for the Texas Water Commission's (commission) Hazardous Waste Program, the commission shall be authorized to enforce the HSWA provisions that the Environmental Protection Agency (EPA) imposed in hazardous waste permits that were issued before the HSWA authorization was granted.

Source: The provisions of this §335.43 adopted to be effective September 1, 1986, 11 TexReg 3695; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective August 14, 1990, 15 TexReg 4397; amended to be effective November 7, 1991, 16 TexReg 6065.

Cross References: This Section cited in 30 TAC §120.3, (relating to Applicability); 30 TAC §281.2, (relating to Applicability); 30 TAC §281.3, (relating to Initial Review); 30 TAC §281.19, (relating to Technical Review); 30 TAC §305.51, (relating to Revision of Applications for Hazardous Waste Permits); 30 TAC §335.44, (relating to Application for Existing On-Site Facilities); 30 TAC §335.201, (relating to Purpose, Scope, and Applicability); 30 TAC §335.202, (relating to Definitions); 30 TAC §335.322, (relating to Definitions); 30 TAC §335.362, (relating to Applicability).

§ 335.44. Application for Existing On-Site Facilities

(a) In order to satisfy the application deadline specified in §335.43(b) of this title (relating to Permit Required), an application must be submitted prior to that date which contains information defining the following:

(1) owner(s) and operator(s) of the facility;

(2) description of the site;

(3) description of the facility and all facility components;

(4) identification of wastes generated, stored, processed, or disposed, together with quantities and sources; and

(5) methods and types of operations used in the storage, processing, or disposal of wastes.

(b) In addition to the information required in subsection (a) of this section, a complete application, required prior to action on an application by the commission, must include the following:

(1) engineering plans and specifications and other documentation necessary to demonstrate that all components of the facility design, construction, and operation conform to standards established by the commission; and

(2) information describing actions necessary to bring existing facilities into compliance with

commission standards and a schedule for completion of such actions.

(c) An application form can be obtained from the executive director for each geographical location for which the storage, processing, or disposal of hazardous waste is proposed.

(d) The application shall be signed by the applicant or by a duly authorized agent, employee, officer, or representative of the applicant and shall be verified before a notary public.

Source: The provisions of this §335.44 adopted to be effective May 28, 1986, 11 TexReg 2344; amended to be effective September 1, 1986, 11 TexReg 3695.

Cross References: This Section cited in 30 TAC §335.2, (relating to Permit Required); 30 TAC §335.45, (relating to Effect on Existing Facilities).

§ 335.45. Effect on Existing Facilities

(a) Effect on permitted off-site facilities. Subchapters B-E of this chapter (relating to Hazardous Waste Management General Provisions; Standards Applicable to Generators of Hazardous Waste; Standards Applicable to Transporters of Hazardous Waste; and Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), provide minimum requirements applicable to all persons generating, transporting, storing, processing, and disposing of hazardous waste. All persons holding permits or any other authorizations from the commission or its predecessor agencies, which relate to hazardous waste, shall meet the requirements of Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities) until final administrative disposition of their permit application pursuant to standards prescribed by Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities) is made. However, where the permit or authorization specifies additional or more stringent requirements, the provisions of the permit or authorization shall be complied with.

(b) Effect on off-site facilities without a permit to re-use, recycle, or reclaim hazardous waste, or to burn hazardous waste in boilers or industrial furnaces. Any person who has commenced the off-site storage, processing, or disposal of hazardous wastes, or activities that are listed, identified, or described by the administrator of the United States Environmental Protection Agency in 40 Code of Federal Regulations Part 261, on or before the effective date of statutory or regulatory amendments under the Resource Conservation and Recovery Act of 1976, as amended, 42 United States Code §§6901 et seq., concerning the re-use, recycling, or reclamation of hazardous waste, or relating to the burning of hazardous waste in boilers or industrial furnaces, that render such wastes or activities subject to the requirements to have a hazardous waste permit, shall file an application with the commission on or before the effective date of such amendments, which includes the applicable information required by §335.44 of this title (relating to Application for Existing On-site Facilities). Any person who has commenced off-site storage, processing, or disposal of hazardous waste on or before the effective date of such amendments, who has filed a hazardous waste permit application with the commission on or before the effective date of such amendments in accordance with the rules and regulations of the commission, and who complies with requirements in this chapter applicable to such activities, may continue the off-site storage, processing, or disposal of the newly listed or identified wastes or waste activities until such time as the Texas Water Commission approves or denies the application. In cases where the aforementioned federal statutory or regulatory amendments become effective prior to the effective date of state statutory or regulatory amendments under the Texas Solid Waste Disposal Act, Texas Health and Safety Code Annotated, Chapter 361 (Vernon Pamphlet 1992), submittal to the executive director of a copy of the properly filed United States Environmental Protection Agency permit application within 30 days of the effective date of the applicable state statutory or regulatory requirements shall constitute compliance with this subsection with regard to application filing requirements. Facilities that have received a permit for the re-use, recycling, or reclamation of hazardous waste in accordance with Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities) are not required to comply with this subsection and may operate pursuant to their existing permit. Such permits, however, are subject to amendment under §305.62 of this title (relating to Amendment) to reflect new regulatory requirements.

Source: The provisions of this §335.45 adopted to be effective September 1, 1986, 11 TexReg 3695; amended to be effective July 29, 1992, 17 TexReg 5017.

Cross References: This Section cited in 30 TAC §120.3, (relating to Applicability); 30 TAC §335.2, (relating to Permit Required); 30 TAC §335.201, (relating to Purpose, Scope, and Applicability);

30 TAC §335.202, (relating to Definitions); 30 TAC §335.362, (relating to Applicability).

§ 335.46. Sharing of Information

Any information obtained or used by the commission in the administration of a hazardous waste program authorized under the Resource Conservation and Recovery Act of 1976, §3006, and 40 Code of Federal Regulations Part 271 shall be available to the Environmental Protection Agency upon request without restriction. If the information has been submitted to the commission under a claim of confidentiality, the commission shall submit that claim to the Environmental Protection Agency when providing information under this section. Any information obtained from the commission and subject to a claim of confidentiality will be treated by the Environmental Protection Agency in accordance with 40 Code of Federal Regulations Part 2. If the Environmental Protection Agency obtains information that is not claimed to be confidential, the Environmental Protection Agency may make that information available to the public without further notice.

Source: The provisions of this §335.46 adopted to be effective May 28, 1986, 11 TexReg 2344.

§ 335.47. Special Requirements for Persons Eligible for a Federal Permit by Rule

(a) The following persons are eligible for a permit by rule under 40 Code of Federal Regulations §270.60:

(1) the owner or operator of a barge or other vessel which accepts hazardous waste for ocean disposal;

(2) the owner or operator of a publicly owned treatment works (POTW) which accepts hazardous waste for treatment; and

(3) the owner or operator of an injection well used to dispose of hazardous waste.

(b) To be eligible for a permit by rule, such person shall comply with the requirements of 40 Code of Federal Regulations §270.60 and the following rules:

(1) 40 Code of Federal Regulations §264.11 (EPA identification number);

(2) 40 Code of Federal Regulations §264.72 (manifest discrepancies);

(3) 40 Code of Federal Regulations §264.73(a) and (b)(1) (operating record);

(4) 40 Code of Federal Regulations §264.76 (unmanifested waste report);

(5) §335.12 of this title (relating to Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities) and §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners of Storage, Processing, or Disposal Facilities) (shipping and reporting procedures); and

(6) §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities) and §335.154 of this title (relating to Reporting Requirements for Owners and Operators) (annual and monthly reports).

(c) In addition to the requirements stated in subsection (b) of this section, the owner or operator of an injection well used to dispose of hazardous waste shall:

(1) comply with the applicable personnel training requirements of 40 Code of Federal Regulations §264.16;

(2) when abandonment is completed, submit to the executive director certification by the owner or operator and certification by an independent registered professional engineer that the facility has been closed in accordance with the specifications in §331.46 of this title (relating to Plugging and Abandonment Standards); and

(3) for underground injection control permits issued after November 8, 1984, comply with §335.167 of this title (relating to Corrective Action for Solid Waste Management Units). Where the underground injection well is the only unit at a facility which requires a permit, comply with 40 Code of Federal Regulations §270.14(d) (concerning information requirements for solid waste management units). Persons who dispose of hazardous waste by means of underground injection must obtain a permit under the Texas Water Code, Chapter 27.

(d) In addition to the requirements stated in subsection (b) of this section, the owner or operator of a publicly owned treatment works (POTW) which accepts hazardous waste for treatment shall:

(1) meet all federal, state, and local pretreatment requirements which would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe, or similar conveyance; and

(2) for National Pollutant Discharge Elimination System (NPDES) permits issued after November 8, 1984, comply with §335.167 of this title (relating to Corrective Action for Solid Waste Management Units).

Source: The provisions of §335.47 adopted to be effective May 28, 1986, 11 TexReg 2344; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §331.121, (relating to Class I Wells); 30 TAC §335.41, (relating to Purpose, Scope, and Applicability).

SUBCHAPTER C. STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

Cross References: This Subchapter cited in 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.212, (relating to Standards Applicable to Generators and Transporters of Materials Used in a Manner That Constitutes Disposal); 30 TAC §335.222, (relating to Management Prior to Burning).

§ 335.61. Purpose, Scope, and Applicability

(a) Except as provided in subsection (b) of this section, this subchapter establishes standards for generators of hazardous waste. These standards are in addition to any applicable provisions contained in Subchapter A of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General).

(b) The provisions of this subchapter with which a generator who stores, processes, or disposes of hazardous waste on-site must comply are §335.62 of this title (relating to Hazardous Waste Determination), §335.63 of this title (relating to EPA Identification Numbers), §335.70 of this title (relating to Recordkeeping), §335.73 of this title (relating to Additional Reporting), and, if applicable, §335.77 of this title (relating to Farmers), and §335.69 of this title (relating to Accumulation Time).

(c) Any person who imports hazardous waste into the state from a foreign country shall comply with standards applicable to generators.

(d) An owner or operator who initiates a shipment of hazardous waste from a processing, storage, or disposal facility must comply with the generator standards contained in §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) and §335.13 of this title (relating to Recordkeeping and Reporting Procedures Applicable to Generators Shipping Hazardous Waste or Class I Waste and Primary Exporters of Hazardous Waste), and this subchapter. The provisions of §335.69 of this title (relating to Accumulation Time) are applicable to on-site accumulation of hazardous wastes by generators. Therefore, the provisions of §335.69 of this title only apply to owners or operators who are shipping hazardous waste which they generate at that facility.

(e) A farmer who generates waste pesticides which are hazardous waste and who complies with §335.77 of this title (relating to Farmers) is not required to comply with this chapter with respect to those pesticides.

(f) A generator who treats, stores, or disposes of hazardous waste on-site must comply with the applicable standards and permit requirements set forth in Subchapters E, F, H, and O of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste) and with Chapter 305 of this title (relating to Consolidated Permits).

Source: The provisions of this §335.61 adopted to be effective May 28, 1986, 11 TexReg 2345; amended to be effective September 1, 1986, 11 TexReg 3695; amended to be effective April 8, 1987, 12 TexReg 999; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515; amended to be effective November 23, 1993, 18 TexReg 8218.

§ 335.62. Hazardous Waste Determination and Waste Classification

A person who generates a solid waste must determine if that waste is hazardous pursuant to §335.504 of this title (relating to Hazardous Waste Determination) and must classify any nonhazardous waste under the provisions of Subchapter R of this chapter (relating to Waste Classification).

Authority: The provisions of this §335.62 issued under the Texas Water Code, §5.103 and §26.011; and the Texas Solid Waste Disposal Act, §361.017.

Source: The provisions of this §335.62 adopted to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §335.61, (relating to Purpose, Scope, and Applicability); 30 TAC §335.70, (relating to Recordkeeping); 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators).

§ 335.63. EPA Identification Numbers

(a) A generator must not store, process, dispose of, transport, or offer for transportation, hazardous waste without having received an Environmental Protection Agency (EPA) identification number.

(b) A generator must not offer hazardous waste to transporters or to storage, processing or disposal facilities that have not received an EPA identification number.

Source: The provisions of this §335.63 adopted to be effective May 28, 1986, 11 TexReg 2345.

Cross References: This Section cited in 30 TAC §335.61, (relating to Purpose, Scope, and Applicability); 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators).

§ 335.65. Packaging

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the applicable Department of Transportation regulations on packaging under 49 Code of Federal Regulations Parts 173, 178, and 179.

Source: The provisions of this §335.65 adopted to be effective May 28, 1986, 11 TexReg 2345.

Cross References: This Section cited in 30 TAC §335.94, (relating to Transfer Facility Requirements).

§ 335.66. Labeling

Before transporting or offering hazardous waste for transportation off-site, a generator must label each package in accordance with applicable Department of Transportation regulations on hazardous materials under 49 Code of Federal Regulations Part 172.

Source: The provisions of this §335.66 adopted to be effective May 28, 1986, 11 TexReg 2345.

§ 335.67. Marking

(a) Before transporting or offering hazardous waste for transportation off-site, a generator must mark each package of hazardous waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 Code of Federal Regulations Part 172.

(b) Before transporting or offering hazardous waste for transportation off-site, a generator must mark each container of 110 gallons or less used in such transportation with the following words and information displayed in accordance with the requirements of 49 Code of Federal Regulations §172.304: HAZARDOUS WASTE-Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Source: The provisions of this §335.67 adopted to be effective May 28, 1986, 11 TexReg 2345.

§ 335.68. Placarding

Before transporting or offering hazardous waste for transportation off-site, a generator must placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 Code of Federal Regulations Part 172, Subpart F.

Source: The provisions of this §335.68 adopted to be effective May 28, 1986, 11 TexReg 2345.

§ 335.69. Accumulation Time

(a) Except as provided in subsections (f)-(h) of this section, a generator may accumulate hazardous waste on-site for 90 days without a permit or interim status provided that:

(1) the waste is placed:

(A) in containers and the generator complies with the provisions adopted by reference in §335.112(a)(8) of this title (relating to Standards); or

(B) in tanks and the generator complies with the requirements adopted by reference in §335.112(a)(9) of this title (relating to Standards), except 40 Code of Federal Regulations §265.197(c) and §265.200; or

(C) on drip pads and the generator complies with §335.112(a)(18) of this title (relating to Standards) and maintains the following records at the facility: a description of procedures that will be followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every 90 days; and documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal. In addition, such a generator is exempt from all requirements adopted by reference in §335.112(a)(6) and (7) of this title, except 40 Code of Federal Regulations §265.111 and §265.114;

(2) the date upon which each period of accumulation begins is clearly marked and visible for inspection on each container; and

(3) while being accumulated on-site, each container and tank is labeled or marked clearly with the words, "Hazardous Waste"; and

(4) the generator complies with the requirements for owners or operators contained in 40 Code of Federal Regulations Part 265, Subparts C and D, as incorporated by reference in §335.112 of this title (relating to Standards), with 40 Code of Federal Regulations §265.16, with 40 Code of Federal Regulations §268.7(a)(4), and §335.113 of this title (relating to Reporting of Emergency Situations by Emergency Coordinator).

(b) A generator who accumulates hazardous waste for more than 90 days is an operator of a hazardous waste storage facility and is subject to the requirements of this chapter applicable to such owners and operators, unless he has been granted an extension to the 90-day period. Such extension may be granted by the commission if hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the executive director on a case-by-case basis.

(c) Persons exempted under this provision, who generate hazardous waste, are still subject to the requirements in Subchapter A of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General) applicable to generators of Class I waste.

(d) A generator, other than a conditionally exempt small quantity generator regulated under §335.78 of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators), may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in 40 Code of Federal Regulations §261.33(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with subsection (a) of this section provided he:

(1) complies with 40 Code of Federal Regulations §§265.171, 265.172, and 265.173(a); and

(2) marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

(e) A generator who accumulates either hazardous waste or acutely hazardous waste listed in 40 Code of Federal Regulations §261.33(e) in excess of the amounts listed in subsection (d) of this section at or near any point of generation must, with respect to that amount of excess waste, comply within three days with subsection (a) of this section or other applicable provisions of this chapter. During the three-day period, the generator must continue to comply with subsection (d) of this section. The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

(f) A generator who generates greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month may accumulate hazardous waste on-site for 180 days or less without a permit or without having interim status provided that:

(1) the quantity of waste accumulated on-site never exceeds 6,000 kilograms;

(2) the generator complies with the requirements of Subpart I of 40 Code of Federal Regulations Part 265, except 40 Code of Federal Regulations §265.176;

(3) the generator complies with the requirements of 40 Code of Federal Regulations §265.201 in Subpart J of 40 Code of Federal Regulations Part 265;

(4) the generator complies with the requirements of subsection (a)(2) and (3) of this section and the requirements of 40 Code of Federal Regulations Part 265, Subpart C, the requirements of 40 Code of Federal Regulations §268.7(a)(4); and

(5) the generator complies with the following requirements:

(A) At all times, there must be at least one employee either on the premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in subparagraph (D) of this paragraph. This employee is the emergency coordinator.

(B) The generator must post the following information next to telephones that may be used to summon emergency assistance:

(i) the name and telephone number of the emergency coordinator;

(ii) location of fire extinguishers and spill control material, and, if present, fire alarm; and

(iii) the telephone number of the fire department, unless the facility has a direct alarm.

(C) The generator must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

(D) The emergency coordinator or his designee must respond to any emergencies that arise. The applicable responses are as follows.

(i) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher.

(ii) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil.

(iii) In the event of a fire, explosion, or other release which could threaten human health outside the facility or when the generator has knowledge that a spill has reached surface water, the generator must immediately notify the National Response Center (using their 24-hour toll free number (800) 424-8802) and the commission according to the procedures set out in the State of Texas oil and hazardous substances spill contingency plan. The reports must include the following information:

(I) the name, address, and United States Environmental Protection Agency (EPA) identification number of the generator;

(II) date, time, and type of incident (e.g., spill or fire);

(III) quantity and type of hazardous waste involved in the incident;

(IV) extent of injuries, if any; and

(V) estimated quantity and disposition of recovered materials, if any.

(g) A generator who generates greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month and who must transport his waste, or offer his waste for transportation, over a distance of 200 miles or more for off-site processing, storage, or disposal may accumulate hazardous waste on-site for 270 days or less without a permit or without having interim status, provided that he complies with the requirements of subsection (f) of this section.

(h) A generator who generates greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month and who accumulates hazardous waste in quantities exceeding 6,000 kg or accumulates hazardous waste for more than 180 days (or more than 270 days if he must transport his waste, or offer his waste for transportation, over a distance of 200 miles or more) is an operator of storage facility and is subject to the requirements of this chapter and 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) and the permit requirements of Chapter 305 of this title (relating to Consolidated Permits), unless he has been granted an extension to the 180-day (or 270-day, if applicable) period. Such extension may be granted by the Texas Water Commission if hazardous wastes must remain on-site for longer than 180 days (or 270 days, if applicable) due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the executive director on a case-by-case basis.

(i) A generator who generates or collects hazardous waste for the purpose of treatability studies is not subject to this section.

Source: The provisions of this §335.69 adopted to be effective May 28, 1986, 11 TexReg 2345; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective January 5, 1988, 12 TexReg 4846; amended to be effective February 1, 1989, 14 TexReg 316; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §335.1, (relating to Definitions); 30 TAC §335.9, (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators); 30 TAC §335.61, (relating to Purpose, Scope, and Applicability); 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.325, (relating to Hazardous Waste Management Fee Assessment).

§ 335.70. Recordkeeping

(a) A generator of hazardous waste must keep records of any test results, waste analyses, or other determinations made in accordance with §335.62 of this title (relating to Hazardous Waste Determination) for at least three years from the date that the waste was last sent to an on-site or off-site storage, processing or disposal facility.

(b) The generator shall keep a copy of each annual report and exception report required by this title for a period of at least three years from the due date of the report.

(c) The periods of record retention required by subsections (a) and (b) of this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the executive director.

Source: The provisions of this §335.70 adopted to be effective May 28, 1986, 11 TexReg 2345.

Cross References: This Section cited in 30 TAC §335.61, (relating to Purpose, Scope, and Applicability); 30 TAC §335.74, (relating to Special Requirements for Generators of Between 100 and 1,000 Kilograms per Month); 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators).

§ 335.71. Annual Reporting

(a) Any generator or primary exporter who ships hazardous waste off site shall prepare and submit a single copy of an annual report to the executive director by January 25 of each year. The annual report must cover facility activities during the previous calendar year and must include the following information:

(1) the Environmental Protection Agency (EPA) identification number, name, and address of the generator;

(2) the calendar year covered by the report;

(3) the EPA identification number, TWC registration number, name, and address for each off site processing, storage, or disposal facility within the United States to which waste was shipped during the year;

(4) the name and EPA identification number and TWC registration number of each transporter used during the reporting year for shipments to a processing, storage, or disposal facilities within the United States;

(5) the TWC hazardous waste code and a description, EPA hazardous waste number from 40 Code of Federal Regulations, Part 261, Subpart C or D, United States Department of Transportation (DOT) hazard class, and quantity of each hazardous waste shipped off-site for shipments to a processing, storage, or disposal facility within the United States. This information must be listed by EPA identification number of each off-site facility to which waste was shipped;

(6) a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;

(7) a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984; and

(8) the certification signed by the generator or his or her authorized representative.

(b) Any generator who processes, stores, or disposes of hazardous waste on site must submit a report in accordance with the provisions of § 335.114 of this title (relating to Reporting Requirements) and §335.154 of this title (relating to Reporting Requirements for Owners and Operators).

(c) Primary exporters of hazardous waste must submit an annual report in accordance with the requirements set out in the regulations contained in 40 Code of Federal Regulations, §262.56 which are in effect as of November 8, 1986.

Source: The provisions of this §335.71 adopted to be effective May 28, 1986, 11 TexReg 2345; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 2515.

Cross References: This Section cited in 30 TAC §305.146, (relating to Reporting); 30 TAC §335.9, (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators); 30 TAC §335.76, (relating to Additional Requirements Applicable to International Shipments); 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators).

§ 335.73. Additional Reporting

The executive director may require generators to furnish additional reports concerning the quantities and disposition of wastes identified or listed in 40 Code of Federal Regulations Part 261, Subparts C and D.

Source: The provisions of this §335.73 adopted to be effective May 28, 1986, 11 TexReg 2345.

Cross References: This Section cited in 30 TAC §335.61, (relating to Purpose, Scope, and Applicability); 30 TAC §335.74, (relating to Special Requirements for Generators of Between 100 and 1,000 Kilograms per Month).

§ 335.74. Special Requirements for Generators of Between 100 and 1,000 Kilograms per Month

A generator who generates greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month is exempt from the recordkeeping and reporting requirements of this subchapter, except for §335.70(a) and (c) of this title (relating to Recordkeeping); and §335.73 of this title (relating to Additional Reporting); and §335.13(a) and (g) of this title (relating to Recordkeeping and Reporting Procedures Applicable to Generators Shipping Hazardous Waste and Primary Exporters of Hazardous Waste). Such generators are subject to the requirements of §335.9 of this title (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators).

Source: The provision of this §335.74 adopted to be effective July 14, 1987, 12 TexReg 2106; amended to be effective November 23, 1993, 18 TexReg 8218.

§ 335.75. Notification Requirements for Interstate Shipments

In the case of interstate shipments of hazardous waste for which a manifest has not been returned within 45 days of acceptance of the waste by the initial transporter, the generator shall notify the appropriate regulatory agency of the state in which the designated facility is located and the appropri-

ate regulatory agency of the state in which the shipment may have been delivered. If a state required to be notified under this section has not received interim or final authorization pursuant to the Resource Conservation and Recovery Act of the 1976, §3006, the generator shall notify the administrator that the manifest has not been returned.

Source: The provisions of this §335.75 adopted to be effective May 28, 1986, 11 TexReg 2345; amended to be effective July 14, 1987, 12 TexReg 2106.

§ 335.76. Additional Requirements Applicable to International Shipments

(a) Any person who exports hazardous waste to a foreign country or imports hazardous waste from a foreign country into the state must comply with the requirements of this title and with the special requirements of this section. Except to the extent the regulations contained in 40 Code of Federal Regulations, §262.58, which are in effect as of November 8, 1986, provide otherwise, a primary exporter of hazardous waste must comply with the special requirements of this section as they apply to primary exporters, and a transporter transporting hazardous waste for export must comply with applicable requirements of §335. 11 of this title (relating to Shipping Requirements for Transporters of Hazardous Waste or Class I Waste) and §335.14 of this title (relating to Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste) and Subchapter D of this chapter (relating to Standards Applicable to Transporters of Hazardous Waste). Title 40 Code of Federal Regulations, §262.58, sets forth the requirements of international agreements between the United States and receiving countries which establish different notice, export, and enforcement procedures for the transportation, processing, storage, and disposal of hazardous waste for shipments between the United States and those counties.

(b) Exports of hazardous waste are prohibited except in compliance with the applicable requirements of this subchapter, the special requirements of this section, and §335.11 of this title (relating to Shipping Requirements for Transporters of Hazardous Waste or Class I Waste) and §335.14 of this title (relating to Recordkeeping Requirements Applicable to Transporters of Hazardous Waste or Class I Waste) and Subchapter D of this chapter (relating to Standards Applicable to Transporters of Hazardous Waste). Exports of hazardous waste are prohibited unless:

(1) notification in accordance with the regulations contained in 40 Code of Federal Regulations, §262.53, which are in effect as of November 8, 1986, has been provided;

(2) the receiving country has consented to accept the hazardous waste;

(3) a copy of the EPA acknowledgment of consent to the shipment accompanies the hazardous waste shipment and, unless exported by rail, is attached to the manifest (or shipping paper for exports by water (bulk shipment));

(4) the hazardous shipment conforms to the terms of the receiving country's written consent as reflected in the EPA acknowledgment of consent; and

(5) the primary exporter complies with the manifest requirements of §335.10(a)-(d) 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) except that:

(A) in lieu of the name, site address, and EPA ID number of the designated permitted facility, the primary exporter must enter the name and site address of the consignee;

(B) in lieu of the name, site address, and EPA ID number of a permitted alternate facility, the primary exporter may enter the name and site address of any alternate consignee;

(C) in special handling instructions and additional information, the primary exporter must identify the point of departure from the United States;

(D) the following statement must be added to the end of the first sentence of the certification set forth in item 16 of the uniform hazardous manifest form, as set out in §10(b)(23) 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): "and conforms to the terms of the attached EPA acknowledgment of consent";

(E) the primary exporter must require the consignee to confirm in writing the delivery of the hazardous waste to that facility and to describe any significant discrepancies (as defined in §335.12(c)(1) of this title (relating to Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities) as the subsection applies to hazardous waste between the manifest and the

shipment. A copy of the manifest signed by such facility may be used to confirm delivery of the hazardous waste;

(F) in lieu of the requirements of §335.10(a) 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), where a shipment cannot be delivered for any reason to the designated or alternate consignee, the primary exporter must:

(i) renotify EPA of a change in the conditions of the original notification to allow shipment to a new consignee in accordance with the regulations contained in 40 Code of Federal Regulations, §262.53(c), which are in effect as of November 8, 1986, and obtain an EPA acknowledgment of consent prior to delivery; or

(ii) instruct the transporter to return the waste to the primary exporter in the United States or designate another facility within the United States; and

(iii) instruct the transporter to revise the manifest in accordance with the primary exporter's instructions;

(G) the primary exporter must attach a copy of the EPA acknowledgment of consent to the shipment to the manifest which must accompany the hazardous waste shipment. For exports by rail or water (bulk shipment), the primary exporter must provide the transporter with an EPA acknowledgment of consent which must accompany the hazardous waste but which need not be attached to the manifest except that for exports by water (bulk shipment) the primary exporter must attach the copy of the EPA acknowledgment of consent to the shipping paper; and

(H) the primary exporter shall provide the transporter with an additional copy of the manifest for delivery to the United States customs official at the point the hazardous waste leaves the United States in accordance with §335.11(g) (4) of this title (relating to Shipping Requirements for Transporters of Hazardous Waste or Class I Waste).

(c) A primary exporter must submit an exception report to the executive director if:

(1) he has not received a copy of the manifest signed by the transporter stating the date and place of departure from the United States within 45 days from the date it was accepted by the initial transporter;

(2) within 90 days from the date the waste was accepted by the initial transporter, the primary exporter has not received written confirmation from the foreign consignee that the hazardous waste was received; or

(3) the waste was returned to the United States.

(d) When importing hazardous waste into the state from a foreign country, a person must prepare a manifest in accordance with the requirements of §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) for the manifest except that:

(1) in place of the generator's name, address, and EPA identification number, the name and address of the foreign generator and the importer's name, address, and EPA identification number must be used;

(2) in place of the generator's signature on the certification statement, the United States importer or his agent must sign and date the certification and obtain the signature of the initial transporter; and

(3) a person who imports hazardous waste must obtain the manifest form from the consignment state if the state supplies the manifest and requires its use. If the consignment state does not supply the manifest form, then the manifest form may be obtained from any source.

(e) Any person exporting hazardous waste shall file an annual report with the executive director as required in §335.71(a) of this title (relating to Annual Report) summarizing the types, quantities, frequency, and ultimate destination of all such hazardous waste exported during the previous calendar year.

(f) Any person who exports hazardous waste to a foreign country or imports hazardous waste from a foreign country into the state must comply with the requirements of the regulations contained in 40 Code of Federal Regulations, §262.58 (International Agreements), which are in effect as of November 8, 1986.

(g) Except to the extent that they are clearly inconsistent with the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, or the rules of the commission, primary exporters must comply with the regulations contained in 40 Code of Feder-

al Regulations, §262.57, which are in effect as of November 8, 1986.

Source: The provisions of this §335.76 adopted to be effective May 28, 1986, 11 TexReg 2345; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515.

Cross References: This Section cited in 30 TAC §335.13, (relating to Recordkeeping and Reporting Procedures Applicable to Generators Shipping Hazardous Waste or Class I Waste and Primary Exporters).

§ 335.77. Farmers

A farmer disposing of waste pesticides from his own use which are hazardous wastes is not required to comply with this chapter for those wastes provided that he triple rinses each emptied pesticide container in accordance with § 335.41(f)(2)(C) of this title (relating to Purpose, Scope, and Applicability) and disposes of the pesticide residues on his own farm in a manner consistent with the disposal instructions on the pesticide label.

Source: The provisions of this §335.77 adopted to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §335.41, (relating to Purpose, Scope, and Applicability); 30 TAC §335.61, (relating to Purpose, Scope, and Applicability).

§ 335.78. Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators

(a) A generator is a conditionally exempt small quantity generator in a calendar month if he generates no more than 100 kilograms of hazardous waste in that month.

(b) Except for those wastes identified in subsections (e)-(g) and (j) of this section, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under Subchapters C-H and O of this chapter (relating to Standards Applicable to Generators of Hazardous Waste; Standards Applicable to Transporters of Hazardous Waste; Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Location Standards for Hazardous Waste Storage, Processing, or Disposal; Standards for the Management of Specific Wastes and Specific Types of Facilities; and Land Disposal Restrictions) and Chapters 261, 263, 265, 267, 269, 271, 273, and 305 (relating to Introductory Provisions; General Rules; Procedures Before Public Hearing; Procedures During Public Hearing; Procedures After Public Hearing Before an Examiner; Procedures After Public Hearing Before the Full Commission; Procedures After Final Decision; and Consolidated Permits) and the notification requirements of the Resource Conservation and Recovery Act, §3010, provided the generator complies with the requirements of subsections (f), (g), and (j) of this section.

(c) Hazardous waste that is not subject to regulation or that is subject only to §§335.62, 335.63, 335.70, and 335.71 of this title (relating to Hazardous Waste Determination; EPA Identification Numbers; Recordkeeping; and Annual Reporting) is not included in the quantity determinations of this section and Subchapters C-H and O of this chapter (relating to Standards Applicable to Generators of Hazardous Waste; Standards Applicable to Transporters of Hazardous Waste; Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Location Standards for Hazardous Waste Storage, Processing, or Disposal; Standards for the Management of Specific Wastes and Specific Types of Facilities; and Land Disposal Restrictions) and Chapter 305 of this title (relating to Consolidated Permits) and is not subject to any of the requirements of such subchapters or chapter. Hazardous waste that is subject to the requirements of §§335.24(d)-(f), 335.211-335.214, 335.221-335.226, and 335.241 of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials; Recyclable Materials Used in a Manner Constituting Disposal; Hazardous Waste Burned for Energy Recovery; and Applicability) is included in the quantity determination of this section and is subject to the requirements of Subchapters C-H of this chapter (relating to Standards Applicable to Generators of Hazardous Waste; Standards Applicable to Transporters of Hazardous Waste; Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Location Standards for Hazardous Waste Storage, Processing, or Disposal; and Standards for the Management of Specific Wastes and Specific Types of Facilities) and Chapter 305 of this title (relating to Consolidated Permits).

(d) In determining the quantity of hazardous waste generated, a generator need not include:

(1) hazardous waste when it is removed from on-site storage provided that the waste was counted at the time it was generated;

(2) hazardous waste which is generated or collected for the purpose of treatability studies;

(3) hazardous waste produced by on-site processing (including reclamation) of his hazardous waste, so long as the hazardous waste that is processed was counted once; or

(4) spent materials that are generated, reclaimed, and subsequently reused on-site, so long as such spent materials have been counted once.

(e) If a generator generates acute hazardous waste in a calendar month in quantities greater than set forth in paragraphs (1) or (2) of this subsection, all quantities of that acute hazardous waste are subject to full regulation under Subchapters C-H and O of this chapter (relating to Standards Applicable to Generators of Hazardous Waste; Standards Applicable to Transporters of Hazardous Waste; Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Location Standards for Hazardous Waste Storage, Processing, or Disposal; Standards for the Management of Specific Wastes and Specific Types of Facilities; and Land Disposal Restrictions) and Chapters 261, 263, 265, 267, 269, 271, 273, and 305 of this title (relating to Introductory Provisions; General Rules; Procedure Before Public Hearing; Procedures During Public Hearing, Procedures After Public Hearing Before an Examiner; Procedures After Public Hearing Before the Full Commission; Procedures After Final Decision; and Consolidated Permits) and the notification requirements of the Resource Conservation and Recovery Act, §3010:

(1) a total of one kilogram of acute hazardous waste listed in 40 Code of Federal Regulations §§261.31, 261.32, or 261.33(e); or

(2) a total of 100 kilograms of any residue or contaminated soil, waste, or other debris resulting from the clean-up of a spill, into or on any land or water, of any acute hazardous wastes listed in 40 Code of Federal Regulations §§261.31, 261.32, or 261.33(e).

(f) In order for acute hazardous wastes generated by a generator of acute hazardous wastes in quantities equal to or less than those set forth in subsection (e)(1) or (2) of this section to be excluded from full regulation under this section, the generator must comply with the following requirements:

(1) The generator must comply with the requirements in §335.62 of this title (relating to Hazardous Waste Determination).

(2) The generator may accumulate acute hazardous waste on-site. If he accumulates at any time acute hazardous wastes in quantities greater than those set forth in subsection (e)(1) or (2) of this section, all of those accumulated wastes are subject to regulation under Subchapters C-H and O of this chapter (relating to Standards Applicable to Generators of Hazardous Waste; Standards Applicable to Transporters of Hazardous Waste; Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Permitting Standards for Owners and Operators of Hazardous Storage, Processing, or Disposal Facilities; Location Standards for Hazardous Waste Storage, Processing, or Disposal; Standards for the Management of Specific Wastes and Specific Types of Facilities; and Land Disposal Restrictions) and Chapters 261, 263, 265, 267, 269, 271, 273, and 305 of this title (relating to Introductory Provisions; General Rules; Procedures Before Public Hearing; Procedures During Public Hearing; Procedures After Public Hearing Before an Examiner; Procedures After Public Hearing Before the Full Commission; Procedures After Final Decision; and Consolidated Permits) and the notification requirements of the Resource Conservation and Recovery Act, §3010. The time period of §335.69(f) of this title (relating to Accumulation Time) for accumulation of wastes on-site begins when the accumulated wastes exceed the applicable exclusion limit.

(3) A conditionally exempt small quantity generator may either process or dispose of his acute hazardous waste in an on-site facility, or ensure delivery to an off-site storage, processing or disposal facility, either of which, if located in the United States is:

(A) permitted by the United States Environmental Protection Agency under 40 Code of Federal Regulations Part 270;

(B) in interim status under 40 Code of Federal Regulations Parts 270 and 265;

(C) authorized to manage hazardous waste by a state with a hazardous waste management program approved under 40 Code of Federal Regulations Part 271;

(D) permitted, licensed, or registered by a state to manage municipal or industrial solid waste: or

(E) a facility which:

(i) beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(ii) processes its waste prior to beneficial use or reuse, or legitimate recycling or reclamation.

(g) In order for hazardous waste generated by a conditionally exempt small quantity generator in quantities of less than 100 kilograms of hazardous waste during a calendar month to be excluded from full regulation under this section, the generator must comply with the following requirements:

(1) The conditionally exempt small quantity generator must comply with §335.62 of this title (relating to Hazardous Waste Determination).

(2) The conditionally exempt small quantity generator may accumulate hazardous waste on-site. If he accumulated at any time more than a total of 1,000 kilograms of his hazardous wastes, all of those accumulated wastes are subject to regulation under the special provisions of this subchapter applicable to generators of between 100 kilograms and 1,000 kilograms of hazardous waste in a calendar month as well as the requirements of Subchapters D-H and O of this chapter (relating to Standards Applicable to Transporters of Hazardous Waste; Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities; Location Standards for Hazardous Waste Storage, Processing, or Disposal; Standards for the Management of Specific Wastes and Specific Types of Facilities; and Land Disposal Restrictions) and Chapters 261, 263, 265, 267, 269, 271, 273, and 305 of this title (relating to Introductory Provisions; General Rules; Procedures Before Public Hearing; Procedures During Public Hearing; Procedures After Public Hearing Before an Examiner; Procedures After Public Hearing Before the Full Commission; Procedures After Final Decision; and Consolidated Permits) and the notification requirements of the Resource Conservation and Recovery Act, §3010. The time period of §335.69(f) of this title (relating to Accumulation Time) for accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes exceed 1,000 kilograms;

(3) A conditionally exempt small quantity generator may either process or dispose of his hazardous waste in an on-site facility, or ensure delivery to an off-site storage, processing or disposal facility, either of which, if located in the United States, is:

(A) permitted by the United States Environmental Protection Agency under 40 Code of Federal Regulations Part 270;

(B) in interim status under 40 Code of Federal Regulations Parts 270 and 265;

(C) authorized to manage hazardous waste by a state with a hazardous waste management program approved under 40 Code of Federal Regulations Part 271;

(D) permitted, licensed, or registered by a state to manage municipal or industrial solid waste; or

(E) a facility which:

(i) beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(ii) processes its waste prior to beneficial use or reuse, or legitimate recycling or reclamation.

(h) Hazardous waste subject to the reduced requirements of this section may be mixed with nonhazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous waste identified in 40 Code of Federal Regulations Part 261, Subpart C.

(i) If any person mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this section, the mixture is subject to full regulation under this chapter.

(j) If a conditionally exempt small quantity generator's wastes are mixed with used oil, the mixture is subject to 40 Code of Federal Regulations Part 266, Subpart E, if it is destined to be burned for energy recovery. Any material produced from such a mixture by processing, blending, or other treatment is also so regulated if it is destined to be burned for energy recovery.

Source: The provision of this §335.78 adopted to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515; amended to be effective February 1, 1989, 14 TexReg 316.

Cross References: This Section cited in 30 TAC §335.2, (relating to Permit Required); 30 TAC §335.6, (relating to Notification Requirements); 30 TAC §335.9, (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators); 30 TAC §335.10, (relating to Shipping and Reporting Procedures Applicable to Generators of Hazardous Waste or Class I Waste and

Primary Exporters of Hazardous Waste); 30 TAC §335.13, (relating to Recordkeeping and Reporting Procedures Applicable to Generators Shipping Hazardous Waste or Class I Waste and Primary Exporters); 30 TAC §335.41, (relating to Purpose, Scope, and Applicability); 30 TAC §335.69, (relating to Accumulation Time); 30 TAC §335.221, (relating to Applicability and Standards); 30 TAC §335.323, (relating to Generation Fee Assessment).

SUBCHAPTER D. STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE

Cross References: This Subchapter cited in 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.76, (relating to Additional Requirements Applicable to International Shipments); 30 TAC §335.212, (relating to Standards Applicable to Generators and Transporters of Materials Used in a Manner That Constitutes Disposal); 30 TAC §335.222, (relating to Management Prior to Burning).

§ 335.91. Scope

(a) This subchapter establishes standards for transporters transporting hazardous waste to offsite storage, processing, or disposal facilities. These standards are in addition to any applicable provisions contained in Subchapter A of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General).

(b) This subchapter does not apply to on-site transportation of hazardous waste by generators or by owners or operators of storage, processing, or disposal facilities.

(c) A transporter of hazardous waste must also comply with any standards applicable to generators of hazardous waste if he:

(1) transports hazardous waste into the state from a foreign country; or

(2) mixes hazardous waste of different Department of Transportation shipping descriptions by placing them into a single container.

(d) Transporters who store hazardous waste are owners or operators of storage facilities and, as such, are also subject to the permit requirements and storage standards contained in this chapter.

Source: The provisions of this §335.91 adopted to be effective May 28, 1986, 11 TexReg 2347.

§ 335.92. EPA Identification Number

A transporter must not transport hazardous wastes without having received an Environmental Protection Agency (EPA) identification number.

Source: The provisions of this §335.92 adopted to be effective May 28, 1986, 11 TexReg 2347.

§ 335.93. Hazardous Waste Discharges

(a) In the event of a discharge of hazardous waste during transportation, the transporter shall notify the commission as soon as possible and not later than 24 hours after the occurrence, according to the provisions of the Texas Water Code, §26.039, and the procedures set out in the State Oil and Hazardous Substances Spill Contingency Plan, and also take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge).

(b) If a discharge of hazardous waste occurs during transportation and a commission official acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, that official may authorize the removal of the waste by transporters who do not have EPA identification numbers and without the preparation of a manifest.

(c) An air, rail, highway, or water transporter who has discharged hazardous waste must also:

(1) give notice, if required by 49 Code of Federal Regulations §171.15, to the National Response Center (800-424-8802 or 202-426-2675); and

(2) report in writing as required by 49 Code of Federal Regulations §171.16 to the Director, Office of Hazardous Waste Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590.

(d) A water (bulk shipment) transporter who has discharged hazardous waste must give the same notice as required by 33 Code of Federal Regulations §153.203 for oil and hazardous substances.

(e) A transporter must clean up any hazardous waste discharge that occurs during transportation or take such action as may be required or approved by the commission so that the hazardous waste discharge no longer presents a hazard to human health or the environment.

Source: The provisions of this §335.93 adopted to be effective May 28, 1986, 11 TexReg 2347.

§ 335.94. Transfer Facility Requirements

(a) Unless the executive director determines that a permit should be required in order to protect human health and the environment, a transporter who stores manifested shipments of hazardous waste in containers meeting the requirements of §335.65 of this title (relating to Packaging) at a

transfer facility for a period of 10 days or less is not subject to the requirement for a permit under §335.2 of this title (relating to Permit Required), with respect to the storage of those wastes provided that the transporter complies with the following sections:

(1) 40 Code of Federal Regulations §265.14 relating to Security);

(2) 40 Code of Federal Regulations §265.15 (relating to General Inspection Requirements);

(3) 40 Code of Federal Regulations §265.16 (relating to Personnel Training);

(4) 40 Code of Federal Regulations Part 265, Subpart C;

(5) 40 Code of Federal Regulations Part 265, Subpart D (except §265.56(j)) and §335.113 of this title (relating to Reporting of Emergency Situations by Emergency Coordinator);

(6) 40 Code of Federal Regulations Part 265, Subpart I.

(b) The executive director may require a permit for that portion of a facility otherwise exempted from that requirement under subsection (a) of this section, with respect to the storage of hazardous waste in containers, if the facility's operation also includes other storage and processing of hazardous waste which is not exempt under subsection (a) of this section.

Source: The provisions of this §335.94 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §335.6, (relating to Notification Requirements).

SUBCHAPTER E. INTERIM STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE STORAGE, PROCESSING, OR DISPOSAL FACILITIES

Cross References: This Subchapter cited in 30 TAC §335.1, (relating to Definitions); 30 TAC §335. 2, (relating to Permit Required); 30 TAC §335.8, (relating to Closure and Remediation); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.41, (relating to Purpose, Scope, and Applicability); 30 TAC §335.43, (relating to Permit Required); 30 TAC §335.45, (relating to Effect on Existing Facilities); 30 TAC §335.69, (relating to Accumulation Time); 30 TAC §335.213, (relating to Standards Applicable to Storers of Materials That Are To Be Used in a Manner That Constitutes Disposal Who Are Not the Ultimate); 30 TAC §335.214, (relating to Standards Applicable to Users of Materials That Are Used in a Manner That Constitutes Disposal); 30 TAC §335.222, (relating to Management Prior to Burning); 30 TAC §335.224, (relating to Additional Interim Status Standards for Burners); 30 TAC §335.251, (relating to Applicability and Requirements); 30 TAC §335.565, (relating to Post-Closure Care Required for Risk Reduction Standard Number 3).

§ 335.111. Purpose, Scope, and Applicability

(a) The purpose of this subchapter is to establish minimum requirements that define the acceptable management of hazardous waste prior to the issuance or denial of a hazardous waste permit and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled. This subchapter applies to owners and operators of hazardous waste storage, processing, or disposal facilities who have fully complied with the requirements for interim status under the Resource Conservation and Recovery Act, §3005(e).

(b) Environmental Protection Agency (EPA) Hazardous Waste Numbers F020, F021, F022, F023, F026, or F027 must not be managed at facilities subject to regulation under this subchapter, unless:

(1) the wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

(2) the waste is stored in tanks or containers;

(3) the waste is stored or processed in waste piles that meet the requirements of 40 Code of Federal Regulations §264.250(c) as well as all other applicable requirements of 40 Code of Federal Regulations Part 265, Subpart L, and §335.120 of this title (relating to Containment for Waste Piles);

(4) the waste is burned in incinerators that are certified pursuant to the standards and procedures in 40 Code of Federal Regulations §265.352; or

(5) the waste is burned in facilities that thermally process the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in 40 Code of Federal Regulations §265.383.

(c) The requirements of this section apply to owners or operators of all facilities which process, store, or dispose of hazardous waste referred to in 40 Code of Federal Regulations Part 268, and the 40 Code of Federal Regulations Part 268 standards are considered material conditions or requirements of the Part 265 interim status standards incorporated by reference in §335.112 of this title (relating to Standards).

Source: The provisions of this §335.111 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.112. Standards

(a) The following regulations contained in 40 Code of Federal Regulations Part 265 (including all appendices to Part 265) (except as otherwise specified herein) are adopted by reference as amended and adopted in the Code of Federal Regulations through June 1, 1990 (see 55 FedReg 22685) and as further amended as indicated in each paragraph of this section:

(1) Subpart B—General Facility Standards (as amended through April 26, 1991, in 56 FedReg 19290;

(2) Subpart C—Preparedness and Prevention;

(3) Subpart D—Contingency Plan and Emergency Procedures, except 40 Code of Federal Regulations §265.56(d);

(4) Subpart E—Manifest System, Recordkeeping and Reporting (as amended through April 26, 1991, in 56 FedReg 19290), except 40 Code of Federal Regulations §§265.71, 265.72, and 265.75-265.77;

(5) Subpart F—Groundwater Monitoring, except 40 Code of Federal Regulations §265.90 and §265.94;

(6) Subpart G—Closure and Post-Closure (as amended through February 21, 1991, in 56 FedReg 7207); except 40 Code of Federal Regulations §265.112(d)(3) and (4) and §265.118(e) and (f);

(7) Subpart H—Financial Requirements (as amended through July 1, 1991, in 56 FedReg 30200); except 40 Code of Federal Regulations §265.142(a)(2); and facilities qualifying for a corporate guarantee for liability are subject to §265.147(g)(2);

(8) Subpart I—Use and Management of Containers;

(9) Subpart J—Tank Systems (as amended through December 6, 1990, at 55 FedReg 50486);

(10) Subpart K—Surface Impoundments;

(11) Subpart L—Waste Piles, except 40 Code of Federal Regulations §265.253;

(12) Subpart M—Land Treatment, except 40 Code of Federal Regulations §§265.272, 265.279, and 265.280;

(13) Subpart N—Landfills, except 40 Code of Federal Regulations §§265.302, 265.314, and 265.315;

(14) Subpart O—Incinerators (as amended through February 21, 1991, at 56 FedReg 7208);

(15) Subpart P—Thermal Treatment (as amended through July 17, 1991, at 56 FedReg 32692); and

(16) Subpart Q—Chemical, Physical, and Biological Treatment;

(17) Subpart R—Underground Injection;

(18) Subpart W—Drip Pads (as amended through December 24, 1992, at 57 FedReg 61492);

(19) Subpart AA—Air Emission Standards for Process Vents (as amended through through April 26, 1991, at 56 FedReg 19290); and

(20) Subpart BB—Air Emission Standards for Equipment Leaks (as amended through April 26, 1991, at 56 FedReg 19290).

(b) Where there is a reference in the Environmental Protection Agency (EPA) regulations adopted by reference in this section to the regional administrator, the reference is more properly made, for purposes of state law, to the executive director of the Texas Water Commission, or to the Texas Water Commission, consistent with the organization of the agency as set forth in the Texas Water Code, Chapter 5, Subchapter B. Where there is a reference in the EPA regulations to the term "treatment," the reference is more properly made, for purposes of state law, to the term "processing." A copy of 40 Code of Federal Regulations, Part 265, is available for inspection at the library of the Texas Water Commission, located on the fifth floor of the Stephen F. Austin State Office Building, 1700 North Congress, Austin.

Source: The provisions of this §335.112 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective September 1, 1986, 11 TexReg 3696; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515; amended to be effective August 4, 1989, 14 TexReg 3532; amended to be effective October 29, 1990, 15 TexReg 6017; amended to be effective March 18, 1991, 16 TexReg 1369; amended to be effective July 16, 1991, 16 TexReg 3730; amended to be effective December 13, 1991, 16 TexReg 6936; amended to be effective July 29, 1992, 17 TexReg 5017; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.5, (relating to Deed Recordation of Waste Disposal); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.69, (relating to Accumulation Time); 30 TAC §335.111, (relating to Purpose, Scope, and Applicability); 30 TAC §335.115, (relating to Additional Reports); 30 TAC §335.222, (relating to Management Prior to Burning); 30 TAC §335.226, (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities).

§ 335.113. Reporting of Emergency Situations by Emergency Coordinator

If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility, he must report his findings as follows.

(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate local officials decide whether local areas should be evacuated.

(2) He must immediately notify the commission according to procedures set out in the State of Texas oil and hazardous substances spill contingency plan. The report must include:

(A) name and telephone number of reporter;

(B) name and address of facility;

(C) time and place of incident (e.g., release, fire);

(D) name and quantity of material(s) involved, to the extent known;

(E) the extent of injuries, if any; and

(F) the possible hazards to human health or the environment outside the facility.

Source: The provisions of this §335.113 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.69, (relating to Accumulation Time); 30 TAC §335.94, (relating to Transfer Facility Requirements); 30 TAC §335.224, (relating to Additional Interim Status Standards for Burners).

§ 335.114. Reporting Requirements

(a) The owner or operator must prepare and submit to the executive director by January 25 of each year a single copy of an annual report which covers facility activities during the previous year and contains the following information:

(1) the EPA identification number, name, and address of the facility;

(2) the calendar year covered by the report;

(3) the TWC hazardous waste code and a description and the quantity of each hazardous waste the facility received during the year;

(4) the method of processing, storage, or disposal for each hazardous waste;

(5) monitoring data under §335.117(a)(2)(B) and (C), and (b)(2) of this title (relating to Recordkeeping and Reporting) where required;

(6) the most recent closure cost estimate under the regulations contained in 40 Code of Federal Regulations, §265.142, which are in effect as of May 2, 1986, and §335.127 of this title (relating to Cost Estimate for Closure), and, for disposal facilities, the most recent post-closure cost estimate under the regulations contained in 40 Code of Federal Regulations, §265.144 which are in effect as of May 2, 1986;

(7) for generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;

(8) for generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984; and

(9) the certification signed by the owner or operator of the facility or his authorized representative.

(b) An owner of operator receiving waste from off-site sources shall also file a monthly summary in accordance with §335.15 of this title (related to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities). The annual report required by this section for such owners and operators need not contain the information required by subsection (a)(3) and (4) of this section if such information has already been submitted pursuant to §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities).

Source: The provisions of this §335.114 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.9, (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators); 30 TAC §335.71, (relating to Annual Reporting); 30 TAC §335.115, (relating to Additional Reports); 30 TAC §335.117, (relating to Recordkeeping and Reporting); 30 TAC §335.224, (relating to Additional Interim Status Standards for Burners).

§ 335.115. Additional Reports

In addition to submitting the annual report and waste reports described in §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners and Operators of Storage, Processing, or Disposal Facilities) and

§335.114 of this title (relating to Reporting Requirements), the owner or operator must also report to the executive director:

(1) releases, fires, and explosions as specified in 40 Code of Federal Regulations §265.56(j);

(2) groundwater contamination and monitoring data as specified in 40 Code of Federal Regulations §265.93 and §335.117 of this title (relating to Recordkeeping and Reporting);

(3) facility closure as specified in 40 Code of Federal Regulations §265.115; and

(4) as otherwise required by §335.112(a)(2) of this title (relating to Standards), which incorporates the requirements of 40 Code of Federal Regulations Part 265, Subparts AA and BB.

Source: The provisions of this §335.115 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.224, (relating to Additional Interim Status Standards for Burners).

§ 335.116. Applicability of Groundwater Monitoring Requirements

(a) On November 19, 1981, the owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste must implement a groundwater monitoring program capable of determining the facility's impact on the quality of groundwater in the uppermost aquifer underlying the facility, except as provided in subsection (c) of this section.

(b) Except as provided in subsections (c) and (d) of this section, the owner or operator must install, operate, and maintain a groundwater monitoring system which meets the requirements of 40 Code of Federal Regulations §265.91, and must comply with 40 Code of Federal Regulations §265.92 and §265.93, and §335.117 of this title (relating to Recordkeeping and Reporting). This groundwater monitoring program must be carried out during the active life of the facility, and for disposal facilities during the post-closure care period as well.

(c) All or part of the groundwater monitoring requirements of this subchapter may be waived if the owner or operator can demonstrate that there is a low potential for migration of hazardous waste or hazardous waste constituents from the facility via the uppermost aquifer to water supply wells (domestic, industrial, or agricultural) or to surface water. This demonstration must be in writing and must be kept at the facility. This demonstration must be certified by a qualified geologist or geotechnical engineer and must establish the following:

(1) the potential for migration of hazardous waste constituents from the facility to the uppermost aquifer, by an evaluation of:

(A) a water balance of precipitation, evapotranspiration, runoff, and infiltration; and

(B) unsaturated zone characteristics (i.e., geologic materials, physical properties, and depth to ground water); and

(2) the potential for hazardous waste or hazardous waste constituents which enter the uppermost aquifer to migrate to a water supply well or surface water, by an evaluation of:

(A) saturated zone characteristics (i.e., geologic materials, physical properties, and rate of groundwater flow); and

(B) the proximity of the facility to water supply wells or surface water.

(d) If an owner or operator assumes (or knows) that groundwater monitoring of indicator parameters in accordance with 40 Code of Federal Regulations §265.91 and §265.92 would show statistically significant increases (or decreases in the case of pH) when evaluated under 40 Code of Federal Regulations §265.93(b), he may install, operate, and maintain an alternate groundwater monitoring system (other than the one described in 40 Code of Federal Regulations §265.91 and §265.92). If the owner or operator does decide to use an alternate groundwater monitoring system he must:

(1) prior to November 19, 1981, submit to the executive director a specific plan certified by a qualified geologist or geotechnical engineer which satisfies the requirements of 40 Code of Federal Regulations §265.93(d)(3), for an alternate groundwater monitoring system;

(2) prior to November 19, 1981, initiate the determinations specified in 40 Code of Federal Regulations §265.93(d)(4);

(3) prepare and submit a written report in accordance with 40 Code of Federal Regulations §265.93(d)(5);

(4) continue to make the determinations specified in 40 Code of Federal Regulations §265.93(d)(4) on a quarterly basis until final closure of the facility; and

(5) comply with the recordkeeping and reporting requirements in §335.117 of this title (relating to Recordkeeping and Reporting).

(e) The groundwater monitoring requirements of this subchapter may be waived with respect to any surface impoundment that:

(1) is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristic under 40 Code of Federal Regulations §261.22 or are listed as hazardous wastes in 40 Code of Federal Regulations Part 261, Subpart D, only for this reason; and

(2) contains no other hazardous wastes, if the owner or operator can demonstrate that there is no potential for migration of hazardous wastes from the impoundment. The demonstrations must establish, based upon consideration of the characteristics of the wastes and the impoundment, that the corrosive wastes will be neutralized to the extent that they no longer meet the corrosivity characteristic before they can migrate out of the impoundment. The demonstration must be in writing and must be certified by a qualified professional.

(f) For owners and operators who have not established background concentrations or values in accordance with 40 Code of Federal Regulations §265.92(c) by November 19, 1982, the executive director may require the implementation of a groundwater assessment plan under 40 Code of Federal Regulations §265.93, whenever he determines that existing data indicates that there is a substantial likelihood that hazardous waste or hazardous constituents from the facility have entered the uppermost aquifer.

Source: The provisions of this §335.116 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.117. Recordkeeping and Reporting

(a) Unless the groundwater is monitored to satisfy the requirements of 40 Code of Federal Regulations §265.93(d)(4), the owner or operator must:

(1) keep records of the analyses required in 40 Code of Federal Regulations §265.92(c) and (d), the associated groundwater surface elevations required in 40 Code of Federal Regulations §265.92(e), and the evaluations required in §335.93(b) of this title (relating to Hazardous Waste Discharges) throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) report the following groundwater monitoring information to the executive director:

(A) during the first year, when initial background concentrations are being established for the facility, concentrations or values of the parameters listed in 40 Code of Federal Regulations §265.92(b)(1) for each groundwater monitoring well within 15 days after completing each quarterly analysis. The owner or operator must separately identify for each monitoring well any parameters whose concentration or value has been found to exceed the maximum contaminant levels listed in Appendix III of 40 Code of Federal Regulations Part 265;

(B) quarterly, during the initial year of groundwater monitoring, concentrations or values of the parameters listed in 40 Code of Federal Regulations §265. 92(b)(2) and (3) for each groundwater monitoring well. Annually thereafter, concentrations or values of the parameters listed in 40 Code of Federal Regulations §265.92(b)(3) for each groundwater monitoring well, along with the required evaluations for these parameters under 40 Code of Federal Regulations §265.93(b). The owner or operator must separately identify any significant differences from initial background found in the upgradient wells, in accordance with 40 Code of Federal Regulations §265.93(c)(1). During the active life of the facility, this information must be submitted as part of the annual report required under §335.114 of this title (relating to Reporting Requirements). In addition, concentration of the groundwater quality parameters listed in 40 Code of Federal Regulations §265.92(b)(2) shall be reported annually.

(C) as a part of the annual report required under §335.114 of this title (relating to Reporting Requirements), results of the evaluation of groundwater surface elevations under 40 Code of Federal Regulations §265.93(f), and a description of the response to that evaluation where applicable.

(b) If the groundwater is monitored to satisfy the requirements of 40 Code of Federal Regulations §265.93(d)(4), the owner or operator must:

(1) keep records of the analyses and evaluations specified in the plan which satisfies the requirements of 40 Code of Federal Regulations §265.93(d)(3), throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) annually, until final closure of the facility, submit to the executive director a report contain-

ing the results of his groundwater quality assessment program which includes, but is not limited to, the calculated (or measured) rate of migration of hazardous waste or hazardous waste constituents in the groundwater during the reporting period. This report must be submitted as part of the annual report required under §335.114 of this title (relating to Reporting Requirements).

(c) The owner or operator shall submit, upon request of the executive director, the following static information for each groundwater monitoring well:

(1) date of well construction;

(2) total depth of well (based on mean sea level);

(3) type of well (ex. trench lysimeter, piezometer, well cluster, multiple screen, pressure vacuum, lysimeter);

(4) latitude/longitude (based on United States geological survey topographic map);

(5) geologic age of aquifer sampled;

(6) aquifer name/geologic formation and age.

(d) The owner or operator shall submit, upon request of the executive director, the following information on each sampling event for each groundwater monitoring well sampled:

(1) date of observation;

(2) depth to water level (based upon mean sea level);

(3) sample collection method (i.e. pumped well, bailer, probe, air-lift pump, jetted, peristaltic pump, centrifugal pump, or pitcher pump);

(4) depth to the top cf the sample interval which is measured in the number of feet below the land surface datum (LSD);

(5) depth to the bottom of the sample interval which is measured in feet below the LSD.

Source: The provisions of this §335.117 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.115, (relating to Additional Reports); 30 TAC §335.116, (relating to Applicability of Groundwater Monitoring Requirements).

§ 335.118. Closure Plan; Submission and Approval of Plan

(a) Except as provided in this section, the owner or operator must submit his closure plan to the executive director in accordance with 40 Code of Federal Regulations §265.112. The owner or operator must submit his closure plan to the executive director no later than 15 days after:

(1) termination of interim status (except when a permit is issued to the facility simultaneously with termination of interim status); or

(2) issuance of a judicial decree or compliance order under the Resource Conservation and Recovery Act of 1976, Texas Civil Statutes, Article 4477-7, to cease receiving wastes or close.

(b) The executive director will provide the owner or operator and the public, through newspaper notice, the opportunity to submit written comments on the plan and request modifications of the plan within 30 days of the date of the notice. The owner or operator is responsible for the cost of publication. The executive director may, in response to a request or at his own discretion; hold a public hearing when ever such a hearing might clarify one or more issues concerning a closure plan. The executive director will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and two notice may be combined.) The executive director will approve, modify, or disapprove the plan within 90 days of receipt. If the executive director does not approve the plan, he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator must modify the plan or submit a new plan within 30 days after receiving such written statement. The executive director will approve or modify this plan in writing within 60 days. If the executive director modifies the plan, this modified plan becomes the approved closure plan. The executive director's decision, must assure that the approved closure plan is consistent with 40 Code of Federal Regulations §265.111 and §265.115 and the applicable closure requirements contained in this chapter for specific waste management methods. A copy of this modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator plans to begin closure before November 19, 1981, he must submit the closure plan by May 19, 1981.

Source: The provisions of this §335.118 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.123, (relating to Closure and Post-Closure (Land Treatment Facilities)).

§ 335.119. Post-closure Plan; Submission and Approved of Plan

(a) The owner or operator of a facility with hazardous waste management units subject to the post-closure care requirements in 40 Code of Federal Regulations Part 265, Subpart G, must submit his post-closure plan to the executive director at least 180 days before the date he expects to begin partial or final closure of the first hazardous waste disposal unit. The date when he expects to begin closure must be either within 30 days after the date on which the hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous waste no later than one year after the date on which the unit received the most recent volume of hazardous wastes. The owner or operator must submit his post-closure plan to the executive director no later than 15 days after:

(1) termination of interim status (except when a permit issued to the facility simultaneously with terminations of interim status); or

(2) issuance of a judicial decree or compliance order under the Resource Conservation and Recovery Act of 1976, §3008, as amended, or the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, to cease receiving wastes or close.

(b) The executive director will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the post-closure plan and request modifications of the plan, including modification of the 30-year post-closure period required in 40 Code of Federal Regulations §265.117 within 30 days of the date of the notice. The owner or operator is responsible for the cost of publication. The executive director may, in response to a request or at his own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The executive director will give the public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for written public comments and the two notices may be combined.) The executive director will approve, modify, or disapprove the plan within 90 days of its receipt. If the executive director does not approve the plan, he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator must modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The executive director will approve or modify this plan in writing within 60 days. If the executive director modifies the plan, this modified plan becomes the approved post-closure plan. The executive director must ensure that the approved post-closure plan is consistent with 40 Code of Federal Regulations §§265.117-265.120. A copy of this modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator. If an owner or operator plans to begin closure before November 19, 1981, he must submit the post-closure plan by May 19, 1981.

Source: The provisions of this §335.119 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.120. Containment for Waste Piles

If leachate or run-off from a pile is a hazardous waste, then either:

(1) the pile must be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage; the owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 100-year storm; the owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 100-year storm; and collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control, systems must be emptied or otherwise managed expeditiously to maintain design capacity of the system;

(2) the pile is managed such that:

(A) the pile must be protected from precipitation and run-on by some other means; and

(B) no liquids or wastes containing free liquids may be placed in the pile.

Source: The provisions of this §335.120 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.111, (relating to Purpose, Scope, and Applicability).

§ 335.121. General Operating Requirements (Land Treatment Facilities)

(a) Hazardous waste must not be placed in or on a land treatment facility unless the waste can be

made less hazardous or nonhazardous by degradation, transformation, or immobilization processes occurring in or on the soil.

(b) The owner or operator must design, construct, operate, and maintain a run-control system capable of preventing flow on to the active portions of the facility during peak discharge from at least a 100-year storm.

(c) The owner or operator must design, construct, operate, and maintain a run-off management system capable of collecting and controlling a water volume at least equivalent to a 24-hour, 100-year storm.

(d) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(e) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator must manage the unit to control wind dispersal.

Source: The provisions of this §335.121 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.123, (relating to Closure and Post-Closure (Land Treatment Facilities)).

§ 335.122. Recordkeeping

The owner of a land treatment facility must keep records of the application dates, application rates, quantities, and location of each hazardous waste placed in the facility in the operating record required in 40 Code of Federal Regulations §265.73.

Source: The provisions of this §335.122 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.123. Closure and Post-Closure (Land Treatment Facilities)

(a) In the closure plan under 40 Code of Federal Regulations §265.112 and the post-closure plan under 40 Code of Federal Regulations §265.118, the owner or operator must address the following objectives and indicate how they will be achieved:

(1) control of the migration of hazardous waste and hazardous waste constituents from the treated area into the groundwater;

(2) control of the releaser of contaminated run-off from the facility into surface water;

(3) control of the release of airborne particulate contaminants caused by wind erosion; and

(4) compliance with 40 Code of Federal Regulations §265.276, concerning the growth of food-chain crops.

(b) The owner or operator must consider at least the following factors addressing the closure and post-closure care objectives of subsection (a) of this section:

(1) type and amount of hazardous waste and hazardous constituents applied to the land treatment facility;

(2) the mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

(3) site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration (e.g., proximity to groundwater, surface water, and drinking water sources);

(4) climate, including amount, frequency, and pH or precipitation;

(5) geological and soil profiles and surface and subsurface hydrology of the site, and soil characteristics, including cation exchange capacity, total organic carbon, and pH;

(6) unsaturated zone monitoring information obtained under 40 Code of Federal Regulations §265.278; and

(7) type, concentration, and depth of migration of hazardous waste constituents in the soil as compared to their background concentrations.

(c) The owner or operator must consider at least the following method in addressing the closure and post-closure care objective of subsection (a) of this section:

(1) removal of contaminated soils;

(2) placement of a final cover, considering:

(A) functions of the cover (e.g., infiltration control, erosion and run-off control, and wind erosion control); and

(B) characteristics of the cover, including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover;

(3) collection and treatment run-off;

(4) diversion structures to prevent surface water run-on from entering the treated area; and

(5) monitoring of soil, soil-pore water, and groundwater.

(d) In addition to the requirements of 40 Code of Federal Regulations Part 265, Subpart G, relating to closure and post-closure, §335.118 of this title (relating to Closure Plan; Submission and Approval of Plan) and §335. 119 of this title (relating to Post-Closure Plan; Submission and Approval Plan), during the closure period, the owner or operator of a land treatment facility must:

(1) continue unsaturated zone monitoring in a manner frequency specified in the closure plan, except that soil pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone;

(2) maintain the run-on control system required under §335.121(b) of this title (relating to General Operating Requirements (Land Treatment Facilities));

(3) maintain the run-off management system required under §335.121(c) of this title (relating to General Operating Requirements (Land Treatment Facilities)); and

(4) control wind dispersal of particulate matter which may be subjected to wind dispersal.

(e) For the purpose of complying with 40 Code of Federal Regulations §265.115 concerning certification of closure, when closure is completed, the owner or operator may submit to the executive director certification both by the owner or operator and by an independent qualified soil scientist, in lieu of an independent registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(f) In addition to the requirements of 40 Code of Regulations §265.117 concerning post-closure care and use of property, during the post-closure care period, the owner or operator of a land treatment unit must:

(1) continue soil-core monitoring by collecting and analyzing samples in a manner and frequency specified in the post-closure plan;

(2) restrict access to unit as appropriate for its post-closure use;

(3) assure that growth of food chain crops complies with 40 Code of Federal Regulations §265.276 concerning food chain crops; and

(4) control wind dispersal of hazardous waste.

Source: The provisions of this §335.123 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.10, (relating to Shipping and Reporting Procedures Applicable to Generators of Hazardous Waste or Class I Waste and Primary Exporters of Hazardous Waste).

§ 335.124. General Operating Requirements (Landfills)

(a) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 100-year storm.

(b) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 100-year storm.

(c) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(d) The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind must cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

(e) As required by 40 Code of Federal Regulations §265.13, the waste analysis plan must include analyses needed to comply with 40 Code of Federal Regulations §265.312 and §265.313 concerning special requirements for incompatible wastes. As required by 40 Code of Federal Regulations §265.73 concerning operating record, the owner or operator must place the results of these analyses in the operating record of the facility.

Source: The provisions of this §335.124 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.125. Special Requirements for Bulk and Containerized Waste

(a) Bulk or noncontainerized liquid waste or waste containing free liquids may be placed in a landfill prior to May 8, 1985, only if prior to disposal, the liquid waste or waste containing free liquids is processed or stabilized, chemically or physically (e.g., by mixing with an absorbent solid), so that free liquids are no longer present.

(b) Effective May 8, 1985, the placement of bulk or noncontainerized liquid hazardous waste or hazardous waste containing free liquids (whether or not absorbents have been added) in any landfill is prohibited.

(c) A container holding liquid waste or waste containing free liquids must not be placed in a landfill unless:

(1) the container is designed to hold liquids or free liquids for use other than storage, such as capacitor or battery;

(2) the container is very small, such as an ampule; or

(3) the container is disposed of in accordance with 40 Code of Federal Regulations §265.316.

(d) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (paint filter liquids test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods." (EPA Publication SW-846 Second Edition, 1982, as amended by Update I (April 1984) and Update II (April 1985)).

(e) The date for compliance with subsection(a) of this section is November 19, 1981. The date of compliance with subsection (c) of this section is March 22, 1982.

(f) Effective November 8, 1985, the placement of any liquid which is not hazardous waste in a landfill is prohibited unless the owner or operator of such landfill demonstrates to the executive director or the executive director determines that:

(1) the only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste; and

(2) placement is such owner of operator's landfill will not present a risk of contamination of any underground source of drinking water (as that term is defined in §331.2 of this title (relating to Definitions)).

Source: The provisions of this §335.125 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.126. Special Requirements for Containers

(a) Containers must be crushed flat, shredded, or similarly reduced in volume to the maximum extent practicable before burial in a landfill.

(b) Owners or operators must be in compliance with this section by November 19, 1981.

Source: The provisions of this §335.126 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.127. Cost Estimate for Closure

In addition to the requirements of 40 Code of Federal Regulations §265.142 (excluding 40 Code of Federal Regulations §265.142(a)(2), the closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator (see the definition of parent corporation in 40 Code of Federal Regulations §265.141(d). Notwithstanding other closure costs, such estimate must also include the costs associated with third part removal, shipment off-site, and processing or disposal offsite of the following wastes to an authorized storage, processing, or disposal facility:

(1) maximum inventory of wastes in storage and/or processing units, including, but not limited to, storage surface impoundments, waste piles, tanks, and containers;

(2) wastes generated as a result of closure activities (e.g., decontamination, removal of liquids from surface impoundments, or waste piles);

(3) contaminated stormwater; or

(4) leachate.

Source: The provision of this §335.127 adopted to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.114, (relating to Reporting Requirements); 30 TAC §335.224, (relating to Additional Interim Status Standards for Burners).

SUBCHAPTER F. PERMITTING STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE STORAGE, PROCESSING, OR DISPOSAL FACILITIES

Cross References: This Subchapter cited in 30 TAC §120.21, (relating to General Air Emissions Requirements for Hazardous or Solid Waste Management Facilities); 30 TAC §305.50, (relating

to Additional Requirements for an Application for a Solid Waste Permit); 30 TAC §305.141, (relating to Applicability); 30 TAC §335.2, (relating to Permit Required); 30 TAC §335.7, (relating to Bond or Other Financial Assurance Required); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.41, (relating to Purpose, Scope, and Applicability); 30 TAC §335.45, (relating to Effect on Existing Facilities); 30 TAC §335.213, (relating to Standards Applicable to Storers of Materials That Are To Be Used in a Manner That Constitutes Disposal Who Are Not the Ultimate); 30 TAC §335.214, (relating to Standards Applicable to Users of Materials That Are Used in a Manner That Constitutes Disposal); 30 TAC §335.222, (relating to Management Prior to Burning); 30 TAC §335.223, (relating to Additional Permit Standards for Burners); 30 TAC §335.251, (relating to Applicability and Requirements); 30 TAC §335.366, (relating to General Air Emissions Requirements for Hazardous or Solid Waste Management Facilities).

§ 335.151. Purpose, Scope, and Applicability

(a) The purpose of this subchapter is to establish minimum standards to define the acceptable management of hazardous waste. These standards are to be applied in the evaluation of an application for a permit to manage hazardous waste, pursuant to the Texas Solid Waste Disposal Act, Texas Health and Safety Code, Chapter 361 (Vernon Pamphlet 1992), and in the evaluation of an investigation report to implement groundwater protection requirements relating to compliance monitoring and corrective action; and in the evaluation of corrective action measures to be instituted pursuant to §335.167 of this title (relating to Corrective Action for Solid Waste Management Units). For facilities that store, process, or dispose of industrial solid waste, in addition to hazardous waste, nothing herein shall be construed to restrict or abridge the commission's authority to implement the provisions of the Texas Water Code, Chapter 26, and §335.4 of this title (relating to General Prohibitions), with respect to those activities.

(b) The standards in this subchapter apply to owners and operators of all facilities which process, store, or dispose of hazardous waste, except as specifically provided for in §335.41 of this title (relating to Purpose, Scope, and Applicability).

Source: The provisions of §335.151 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective July 29, 1992, 17 TexReg 5017.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.152. Standards

(a) The following regulations contained in 40 Code of Federal Regulations Part 264 (including all appendices to Part 264) are adopted by reference as amended and adopted in the Code of Federal Regulations through June 1, 1990 (see 55 FedReg 22685) and as further amended and adopted as indicated in each paragraph of this section:

(1) Subpart B—General Facility Standards (as amended through June 21, 1990, at 55 FedReg 25494); in addition, the facilities which are subject to 40 Code of Federal Regulations Part 264, Subpart X, are subject to regulation under 40 Code of Federal Regulations §264.15(b)(4) and §264.18(b)(1)(ii);

(2) Subpart C—Preparedness and Prevention;

(3) Subpart D—Contingency Plan and Emergency Procedures, except 40 Code of Federal Regulations §264.56(d);

(4) Subpart E—Manifest System, Recordkeeping, and Reporting (as amended through June 21, 1990, at 55 FedReg 25494), except 40 Code of Federal Regulations §§264.71, 264.72, and 264.75-264.77; facilities which are subject to 40 Code of Federal Regulations Part 264, Subpart X, are subject to 40 Code of Federal Regulations §264.73(b)(6);

(5) Subpart G—Closure and Post-Closure (as amended through February 21, 1991, at 56 Fed Reg 7207); facilities which are subject to 40 Code of Federal Regulations Part 264, Subpart X, are subject to 40 Code of Federal Regulations §§264.90(d), 264.111(c), 264.112(a)(2), 264.114,264.117(a)(1)(i) and (ii), and §264.118(b)(1) and (2)(i) and (ii);

(6) Subpart H—Financial Requirements; except 40 Code of Federal Regulations §264.142(a)(2); facilities which are subject to 40 Code of Federal Regulations, Part 264, Subpart X, are subject to 40 Code of Federal Regulations §§264.142(a), 264.144(a), and 264.147(b); and facilities which qualify for the corporate guarantee for liability are additionally subject to §264.147(g)(2) and §264.151(h)(2);

(7) Subpart I—Use and Management of Containers;

(8) Subpart J—Tank Systems (as amended through December 6, 1990, at 55 FedReg 50484);

(9) Subpart K—Surface Impoundments, except 40 Code of Federal Regulations §264.221 and §264.228;

(10) Subpart L—Waste Piles, except 40 Code of Federal Regulations §264.251;

(11) Subpart M—Land Treatment, except 40 Code of Federal Regulations §264.273 and §264.280;

(12) Subpart N—Landfills, except 40 Code of Federal Regulations §§264.301, 264.310, 264.314, and 264.315;

(13) Subpart O—Incinerators (as amended through February 21, 1991, at 54 FedReg 7207); and

(14) Subpart W—Drip Pads (as amended through December 24, 1992, at 57 FedReg 61492);

(15) Subpart X—Miscellaneous Units;

(16) Subpart AA—Air Emission Standards for Process Vents (as amended through April 26, 1991, at 56 FedReg 19290);

(17) Subpart BB—Air Emission Standards for Equipment Leaks (as amended through April 26, 1991, at 56 FedReg 19290).

(b) The provisions of 40 Code of Federal Regulations §264.18(b) are applicable to owners and operators of hazardous waste management facilities, for which a permit is being sought, which are not subject to the requirements of Subchapter G of this chapter (relating to Location Standards for Hazardous Waste Storage, Processing, or Disposal). A copy of 40 Code of Federal Regulations §264.18(b) is available for inspection at the library of the Texas Water Commission, located on the fifth floor of the Stephen F. Austin Building, 1700 North Congress Avenue, Austin.

(c) Where there is reference in the Environmental Protection Agency regulations adopted by reference in this section to the regional administrator, the reference is more properly made, for purposes of state law, to the executive director of the Texas Water Commission or the commission, consistent with the organization of the commission as set out in the Texas Water Code, Chapter 5, Subchapter B. Where there is a reference in the Environmental Protection Agency regulations to the term "treatment," the reference is more properly made, for purposes of state law, to the term "processing." A copy of 40 Code of Federal Regulations, Part 264, is available for inspection at the library of the Texas Water Commission, located on the fifth floor of the Stephen F. Austin State Office Building, 1700 North Congress Avenue, Austin.

Source: The provisions of this §335.152 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective September 1, 1986, 11 TexReg 3696; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515; amended to be effective August 4, 1989, 14 TexReg 3532; amended to be effective October 29, 1990, 15 TexReg 6017; amended to be effective December 13, 1991, 16 TexReg 6936; amended to be effective July 29, 1992, 17 TexReg 5017; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §305.64, (relating to Transfer of Permits); 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §331.3, (relating to Injection Prohibited); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.222, (relating to Management Prior to Burning); 30 TAC §335.226, (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities).

§ 335.153. Reporting of Emergency Situations by Emergency Coordinator

If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment outside the facility, he must report his findings as follows.

(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate local officials decide whether local areas should be evacuated.

(2) He must immediately notify the commission according to procedures set out in the State of Texas oil and hazardous substances spill contingency plan. The report must include:

(A) name and telephone number of reporter;

(B) name and address of facility;

(C) time and place of incident (e.g., release, fire);

(D) name and quantity of material(s) involved, to the extent known;

(E) the extent of injuries, if any; and

(F) the possible hazards to human health, or the environment, outside the facility.

Source: The provisions of this §335.153 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.223, (relating to Additional Permit Standards for Burners).

§ 335.154. Reporting Requirements for Owners and Operators

(a) The owner or operator must prepare and submit to the executive director by January 25 of each year an annual report which covers facility activities during the previous calendar year and which contains the following information:

(1) the EPA identification number, name, and address of the facility;

(2) the calendar year covered by the report;

(3) the TWC hazardous waste code and description and the quantity of each hazardous waste the facility received during the year;

(4) the method of storage, processing, or disposal for each hazardous waste;

(5) the most recent closure cost estimate under the regulations contained in 40 Code of Federal Regulations, §264.142 which are in effect as of May 2, 1986, and §335.178 of this title (relating to Cost Estimate For Closure) and, for disposal facilities, the most recent post-closure cost estimate under the regulations contained in 40 Code of Federal Regulations, §264.144 which are in effect as of May 2, 1986;

(6) for generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;

(7) for generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984; and

(8) The certification signed by the owner or operator of the facility or his authorized representative.

(b) An owner or operator receiving hazardous waste from off-site shall file a monthly summary in accordance with §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposable Facilities). The annual report required by this section by such owners or operators need not included the information required by subsection (a)(3) and (4) of this section if such information has already been submitted pursuant to §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities).

Source: The provisions of this §335.154 adopted to be effective May 28,1986, 11 TexReg 2347; amended to be effective July 14, 1987, 12 TexReg 2106; amended to be effective July 27, 1988, 13 TexReg 3515.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.146, (relating to Reporting); 30 TAC §335.47, (relating to Special Requirements for Persons Eligible for a Federal Permit by Rule); 30 TAC §335.71, (relating to Annual Reporting); 30 TAC §335.155, (relating to Additional Reports); 30 TAC §335.223, (relating to Additional Permit Standards for Burners).

§ 335.155. Additional Reports

In addition to submitting the annual report and waste reports described in §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners and Operators of Storage, Processing, or Disposal Facilities) and §335.154 of this title (relating to Reporting Requirements for Owners and Operators), the owner or operator must also report to the executive director:

(1) releases, fires, and explosions as specified in 40 Code of Federal Regulations §264.56(j);

(2) facility closure as specified in 40 Code of Federal Regulations §264.115;

(3) as otherwise required by 40 Code of Federal Regulations Part 264, Subparts F, K-N, X, AA, and BB.

Source: The provisions of this §335.155 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective August 4, 1989, 14 TexReg 3532; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.223, (relating to Additional Permit Standards for Burners).

§ 335.156. Applicability of Groundwater Monitoring and Response

(a) Except as provided in subsection (b) of this section, the rules pertaining to groundwater monitoring and response apply to owners and operators of facilities that process, store, or dispose of hazardous waste.

(1) The owner or operator must satisfy those requirements of paragraph (2) of this subsection for all wastes (or constituents thereof) contained in any such waste management unit at the facility, regardless of the time at which waste was placed in the units.

(2) All solid waste management units must comply with the requirements in §335.167 of this title (relating to Corrective Action for Solid Waste Management Units). A surface impoundment, waste pile, land treatment unit, or landfill that receives hazardous waste after July 26, 1982, (hereinafter referred to as a regulated unit) must comply with the requirements of §§335.157-335.166 of this title (relating to Required Programs; Groundwater Protection Standard; Hazardous Constituents; Concentration Limits; Point of Compliance; Compliance Period; General Groundwater Monitoring Requirements; Detection Monitoring Program; Compliance Monitoring Program; and Corrective Ac-

tion Program); in lieu of §335.167 of this title (relating to Corrective Action for Solid Waste Management Units for purposes of detecting, characterizing, and responding to release to the uppermost aquifer. The financial responsibility requirements of §335.167 of this title (relating to Corrective Action for Solid Waste Management Units) apply to regulated units.

(b) The owner or operator's regulated unit or units are not subject to regulation for releases into the uppermost aquifer under this section and §§335.157-335.166 of this title (relating to Required Programs; Groundwater Protection Standard; Hazardous Constituents; Concentration Limits; Point of Compliance Period; General Groundwater Monitoring Requirements; Detection Monitoring Program; Compliance Monitoring Program; and Corrective Action Program) if:

(1) he is exempted under 40 Code of Federal Regulations §264.1;

(2) he operates a unit which the commission finds;

(A) is an engineered structure;

(B) does not receive or contain liquid waste or waste containing free liquids;

(C) is designed and operated to exclude liquid, precipitation, and other run-on and runoff;

(D) has both inner and outer layer of containment enclosing the waste;

(E) has a leak detection system built into each containment layer for which continuing operation and maintenance will be provided during the active life of the unit and the closure and post-closure care periods; and

(F) to a reasonable degree of certainty, will not allow hazardous constituents to migrate beyond the outer containment layer prior to the end of the post-closure care period.

(3) the commission finds, pursuant to 40 Code of Federal Regulations §264.280(d), that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above backgrounds levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of 40 Code of Federal Regulations §264.278 has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption under this paragraph can only relieve an owner or operator or responsibility to meet the requirements of this subchapter relating to groundwater monitoring and response during the post-closure care period; or

(4) The commission finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the post-closure care period specified under 40 Code of Federal Regulations §264.117. This demonstration must be certified by a qualified geologist or geotechnical engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator must base any predictions on assumptions that maximize the rate of liquid migration;

(5) he designs and operates a pile in compliance with 40 Code of Federal Regulations §264.250(c).

(c) This §§335.157-335.166 of this title (relating to Required Programs; Groundwater Protection Standard; Hazardous Constituents; Concentration Limits; Point of Compliance; Compliance Period; General Groundwater Monitoring Requirements; Detection Monitoring Program; Compliance Monitoring Program; and Corrective Action Program) apply during the active life of the regulated unit (including the closure period). After closure of the regulated unit, these sections:

(1) do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure;

(2) apply during the post closure care period under 40 Code of Federal Regulations §264.117 if the owner or operator is conducting a detection monitoring program under §335.164 of this title (relating to Detection Monitoring Program); or

(3) apply during the compliance period under §335.162 of this title (relating to Compliance Period) if the owner or operator is conducting a compliance monitoring program under §335.165 of this title (relating to Compliance Monitoring Program) or a corrective action program under §335.166 of this title (relating to Corrective Action Program).

Source: The provisions of this §335.156 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the

Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.157, (relating to Required Programs); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)); 30 TAC §335.174, (relating to Closure and Post-Closure Care (Landfills)); 30 TAC §335.223, (relating to Additional Permit Standards for Burners).

§ 335.157. Required Programs

(a) Owners and operators subject to §335.156 of this title (relating to Applicability of Groundwater Monitoring and Response); this section, and §§335.158-335.166 of this title (relating to Groundwater Protection Standard; Hazardous Constituents; Concentration Limits; Point of Compliance; Compliance Period; General Groundwater Monitoring Requirements; Detection Monitoring Program; Compliance Monitoring Program; and Corrective Action Program) must conduct a monitoring and response program as follows.

(1) Whenever hazardous constituents under §335.159 of this title (relating to Hazardous Constituents) from a regulated unit are detected at the compliance point under §335.161 of this title (relating to Point of Compliance), the owner or operator must institute a compliance monitoring program under §335.165 of this title (relating to Compliance Monitoring Program). "Detection" is defined as statistically significant evidence of contamination as described in §335.164(6) of this title (relating to Detection Monitoring Program).

(2) Whenever the groundwater protection standard under §335.158 of this title (relating to Groundwater Protection Standard) is exceeded, the owner or operator must institute a corrective action program under §335.166 of this title (relating to Corrective Action Program). "Exceeded" is defined as statistically significant evidence of increased contamination as described in §335.165(4) of this title (relating to Compliance Monitoring Program).

(3) Whenever hazardous constituents under §335.159 of this title (relating to Hazardous Constituents) from a regulated unit exceed concentration limits under §335.160 of this title (relating to Concentration Limits) in groundwater between the compliance point under §335.161 of this title (relating to Point of Compliance) and the downgradient facility property boundary, the owner or operator must institute a corrective action program under §335.166 of this title (relating to Corrective Action Program).

(4) In all other cases, the owner or operator must institute a detection monitoring program under §335.164 of this title (relating to Detection Monitoring Program).

(b) The commission will specify in the facility permit or in a compliance plan the specific elements of the monitoring and response program. The commission may include one or more of the programs identified in subsection (a) of this section in the facility permit or in a compliance plan as may be necessary to protect human health and the environment and will specify the circumstances under which each of the programs will be required. The commission will establish the programs specified in subsection (a)(1)-(3) of this section in a compliance plan. If the owner or operator is not otherwise subject to compliance monitoring, the detection monitoring program will be established in the facility permit. In deciding whether to require the owner or operator to be prepared to institute a particular program, the commission will consider the potential adverse effects on human health and the environment that might occur before final administrative action to incorporate such a program could be taken.

Source: The provisions of this §335.157 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective October 29, 1990, 15 TexReg 6017.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.156, (relating to Applicability of Groundwater Monitoring and Response); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)); 30 TAC §335.174, (relating to Closure and Post-Closure Care (Landfills)).

§ 335.158. Groundwater Protection Standard

The owner or operator must comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under §335.159 of this title (relating to Hazardous Constituents) which have been detected in the groundwater from a regulated unit do not exceed the concentration limits under §335.160 of this title (relating to Concentration Limits) in the uppermost aquifer underlying the waste management area beyond the point of compliance during the compliance period under §335.162 of this title (relating to Compliance Period). The commission will establish this groundwater protection standard in the compliance plan when hazardous constituents have been detected in the groundwater from a regulated unit.

Source: The provisions of this §335.158 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective October 29, 1990, 15 TexReg 6017.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.156, (relating to Applicability of Groundwater Monitoring and Response); 30 TAC §335.157, (relating to Required Programs); 30 TAC §335.159, (relating to Hazardous Constituents); 30 TAC §335.161, (relating to Point of Compliance); 30 TAC §335.162, (relating to Compliance Period); 30 TAC §335.165, (relating to Compliance Monitoring Program); 30 TAC §335.166, (relating to Corrective Action Program); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)); 30 TAC §335.174, (relating to Closure and Post-Closure Care (Landfills)).

§ 335.159. Hazardous Constituents

(a) The commission will specify in the compliance plan the hazardous constituents to which the groundwater protection standard of §335.158 of this title (relating to Groundwater Protection Standard) applies. Hazardous constituents are constituents identified in Appendix VIII of 40 Code of Federal Regulations, Part 261, that have been detected in groundwater in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the commission has excluded them under subsection (b) of this section.

(b) The commission will exclude an Appendix VIII constituent from the list of hazardous constituents specified in the compliance plan if it finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the commission will consider the following:

(1) potentially adverse effects on groundwater quality, considering:

(A) the physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(B) the hydrogeological characteristics of the facility and surrounding land;

(C) the quantity of groundwater and the direction of groundwater follows;

(D) the proximity and withdrawal rates of groundwater users;

(E) the current and future uses of groundwater in the area;

(F) the existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;

(G) the potential for health risks caused by human exposure to waste constituents;

(H) the potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(I) the persistence and permanence of the potentially adverse effects; and

(2) potentially adverse effects on hydraulically-connected surface water quality, considering:

(A) the volume and physical and chemical characteristics of the waste in the regulated unit;

(B) the hydrogeological characteristics of the facility and surrounding land;

(C) the quantity and quality of groundwater, and the direction of groundwater flow;

(D) the patterns of rainfall in the region;

(E) the proximity of the regulated unit to surface waters;

(F) the current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(G) the existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

(H) the potential for health risks caused by human exposure to waste constituents;

(I) the potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(J) the persistence and permanence of the potentially adverse effects.

(c) In making any determination under subsection (b) of this section about the use of groundwater in the area around the facility, the commission will consider any identification of underground sources of drinking water and exempted aquifers made under §331.13 of this title (relating to Exempted Aquifer).

Source: The provisions of this §335.159 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.156, (relating to Applicability of Groundwater Monitoring and Response); 30 TAC §335.157, (relating to Required Programs); 30 TAC §335.158, (relating to Groundwater Protection Standard); 30 TAC §335.160, (relating to Concentration Limits); 30 TAC §335.165, (relating to Compliance Monitoring Program); 30 TAC §335.166, (relating to Corrective Action Program); 30 TAC §335.168, (relating to Design and Operating Requirements (Surface Impoundments)); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)); 30 TAC §335.173, (relating to Design and Operating Requirements (Landfills)); 30 TAC §335.174, (relating to Closure and Post-Closure Care (Landfills)).

§ 335.160. Concentration Limits

(a) The commission will specify in the compliance plan concentration limits in the groundwater for hazardous constituents established under §335.159 of this title (relating to Hazardous Constituents). The concentration of a hazardous constituent:

(1) must not exceed the background level of that constituent in the groundwater at the time that limit is specified in the plan;

(2) for any of the constituents listed in Table 1 of subsection (b)(1) of this section, must not exceed the respective value given in that table if the background level of the constituent is below the value given in Table 1; or

(3) must not exceed an alternate limit established by the commission under subsection (b) of this section.

(b) The commission will establish an alternate concentration limit for a hazardous constituent if it finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. In establishing alternate concentration limits, the commission will consider the following:

(1) potentially adverse effects on groundwater quality, considering the maximum concentration of constituents for groundwater protection described in the following Table 1 and:

Table 1
Maximum Concentration of Constituents for Groundwater Protection

Constituent	*Maximum Concentration**
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Lead	0.05
Mercury	0.002
Selenium	0.01
Silver	0.05
Endrin (1,2,3,4,10.10–hexachloro–1,7–expoxy–1,4,4a,5,6,7,8,9a–octahydro–1,4–endo, endo–5,8–dimethano naphthalene)	0.0002
Lindane (1,2,3,4,5,6–hexachlorocyclohexane, gamma isomer)	0.004
Methoxychlor (1,1,1–Trichloro–2, 2–bis) (p–methoyxphenylethane)	0.1
Toxaphene (C(–H(–Cl, Technical chlorinated camphene, 67–69 percent chlorine)	0.005
2-4-D (2,4-Dichlorophenoxyacetic acid)	0.1
2,4,5–TP Silvex (2,4,5–Trichlorophenoxypropionic acid)	0.01

* 15 Milligrams per liter.

(A) the physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(B) the hydrogeological characteristics of the facility and surrounding land;

(C) the quantity of groundwater and the direction of groundwater follow;

(D) the proximity and withdrawal rates of groundwater users;

(E) the current and future uses of groundwater in the area;

(F) the existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;

(G) the potential for health risks caused by human exposure to waste constituents;

(H) the potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(I) the persistence and permanence of the potentially adverse effects; and

(2) potentially adverse effects of hydraulically-connected surface-water quality, considering:

(A) the volume and physical and chemical characteristics of the waste in the regulated unit;

(B) the hydrogeological characteristics of the facility and surrounding land;

(C) the quantity and quality of groundwater, and the direction of groundwater flow;

(D) the patterns of rainfall in the region;

(E) the proximity of the regulated unit to surface waters;

(F) the current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(G) the existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;

(H) the potential for health risks caused by human exposure to waste constituents;

(I) the potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(J) the persistence and permanence of the potentially adverse effects.

(c) In making any determination under subsection (b) of this section about the use of groundwa-

ter in the area around the facility, the commission will consider any identification of underground sources of drinking water and exempted aquifers made under §331.13 of this title (relating to Exempted Aquifer).

Source: The provisions of this §335.160 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.156, (relating to Applicability of Groundwater Monitoring and Response); 30 TAC §335.157, (relating to Required Programs); 30 TAC §335.158, (relating to Groundwater Protection Standard); 30 TAC §335.164, (relating to Detection Monitoring Program); 30 TAC §335.165, (relating to Compliance Monitoring Program); 30 TAC §335.166, (relating to Corrective Action Program); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)); 30 TAC §335.174, (relating to Closure and Post-Closure Care (Landfills)); 30 TAC §335.563, (relating to Media Cleanup Requirements for Risk Reduction Standard Number 3).

§ 335.161. Point of Compliance

(a) The commission will specify in the facility permit the point of compliance at which the groundwater protection standard of §335.158 of this title (relating to Groundwater Protection Standard) applies and at which monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

(b) The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit.

(1) The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit.

(2) If the facility contains more than one regulated unit, the waste management area may be described in the following manner:

(A) by an imaginary line circumscribing the several regulated units;

(B) by an imaginary line circumscribing geographically proximate regulated units;

(C) by an imaginary line circumscribing individually regulated units; or

(D) a combination of subparagraphs (B) and (C) of this paragraph.

Source: The provisions of this §335.161 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.156, (relating to Applicability of Groundwater Monitoring and Response); 30 TAC §335.157, (relating to Required Programs); 30 TAC §335.164, (relating to Detection Monitoring Program); 30 TAC §335.165, (relating to Compliance Monitoring Program); 30 TAC §335.166, (relating to Corrective Action Program); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)); 30 TAC §335.174, (relating to Closure and Post-Closure Care (Landfills)).

§ 335.162. Compliance Period

(a) The commission will specify in the compliance plan the compliance period during which the groundwater protection standard of §335.158 of this title (relating to Groundwater Protection Standards) applies. The compliance period is the number of years equal to the active life of the waste management area (including any waste management activity prior to permitting and the closure period).

(b) The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of §335.165 of this title (relating to Compliance Monitoring Program).

(c) If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in subsection (a) of this section, the compliance period is extended until the owner or operator can demonstrate that the groundwater protection standard of §335.158 of this title (relating to Groundwater Protection Standard) has not been exceeded for a period of three consecutive years.

Source: The provisions of this §335.162 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.156, (relating to Applicability of Groundwater Monitoring and Response); 30 TAC §335.157, (relating to Required Programs); 30 TAC §335.158, (relating to Groundwater Protection Standard); 30 TAC §335.165, (relating to Compliance Monitoring Program); 30 TAC §335.166, (relating to Corrective Action Program); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)); 30 TAC §335.174, (relating to Closure and Post-Closure Care (Landfills)).

§ 335.163. General Groundwater Monitoring Requirements

If a facility contains more than one waste management area, separate groundwater monitoring systems must be installed. The owner or operator must comply with the following requirements for any groundwater monitoring program developed to

satisfy §§335.164-335.166 of this title (relating to Detection Monitoring Program; Compliance Monitoring Program; and Corrective Action Program).

(1) The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that:

(A) represent the quality of background water that has not been affected by leakage from a regulated unit:

(i) a determination of background quality may include sampling of wells that are not hydraulically upgradient of the waste management area where hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

(ii) sampling at other wells will provide an indication of background groundwater quality that is representative or more representative than that provided by the upgradient wells;

(B) represent the quality of groundwater passing the point of compliance; and

(C) allow for detection of contamination when hazardous waste or hazardous constituents have migrated from the waste management area to the uppermost aquifer.

(2) If a waste management area contains more than one regulated unit, separate groundwater monitoring systems are not required for each regulated unit, provided that provisions for sampling the groundwater in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the groundwater in the uppermost aquifer.

(3) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring-well bore hole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of groundwater samples. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the groundwater.

(4) The groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of groundwater quality below the waste management area. At a minimum, the program must include procedures and techniques for:

(A) sample collection;

(B) sample preservation and shipment;

(C) analytical procedures; and

(D) chain of custody control.

(5) The groundwater monitoring program must include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents in groundwater samples.

(6) The groundwater monitoring program must include a determination of the groundwater surface elevation each time groundwater is sampled.

(7) In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit will be collected from background wells and wells at the compliance point(s). The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed and shall follow generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant released to groundwater from a facility will be detected. The owner or operator will determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit. This sampling procedure shall be:

(A) a sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or

(B) an alternate sampling procedure proposed by the owner or operator of the facility and approved by the commission.

(8) The owner or operator will specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent which, upon approval by the commission, will be specified in the facility's permit on a unit by unit basis. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical quantification limits (PQLs) are used in any of the following statistical procedures to comply

with paragraph (9)(E) of this section, the PQL must be proposed by the owner or operator and approved by the executive director. Use of any of the following statistical methods must be protective of human health and the environment and must comply with the performance standards outlined in paragraph (9) of this section:

(A) a parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent;

(B) an analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent;

(C) a tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit;

(D) a control chart approach that gives control limits for each constituent;

(E) another statistical test method submitted by the owner or operator and approved by the executive director.

(9) Any statistical method chosen under paragraph (8) of this section for specification in the unit permit shall comply with the following performance standards, as appropriate.

(A) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(B) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

(C) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the commission if it finds it to be protective of human health and the environment.

(D) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be proposed by the owner or operator and approved by the commission if it finds these parameters to be protective of human health and the environment. These parameters will be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(E) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any PQL approved by the executive director under paragraph (8) of this section that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(F) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(10) Groundwater monitoring data collected in accordance with paragraph (7) of this section including actual levels of constituents must be maintained in the facility operating record. The commission will specify in the permit when the data must be submitted for review.

Source: The provisions of this §335.163 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective October 29, 1990, 15 TexReg 6017.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.156, (relating to Applicability of Groundwater Monitoring and Response); 30 TAC §335.157, (relating to Required Programs); 30 TAC §335.164, (relating to Detection Monitoring Program); 30 TAC §335.165, (relating to Compliance Monitoring Program); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)); 30 TAC §335.174, (relating to Closure and Post-Closure Care (Landfills)).

§ 335.164. Detection Monitoring Program

An owner or operator required to establish a detection monitoring program must, at a minimum, discharge the following responsibilities.

(1) The owner or operator must monitor for indicator parameters (e.g., specific conductance, total organic carbon, or total organic halogen), waste constituents, or reaction products that provide a reliable indication of the presence of hazardous constituents in groundwater. The commission will specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

(A) the types, quantities, and concentrations of constituents in wastes managed at the regulated unit;

(B) the mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

(C) the detectability of indicator parameters, waste constituents, and reaction products in groundwater; and

(D) the concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the groundwater background.

(2) The owner or operator must install a groundwater monitoring system at the compliance point as specified under §335.161 of this title (relating to Point of Compliance). The groundwater monitoring system must comply with §335.163(1)(B), (2), and (3) of this title (relating to General Groundwater Monitoring Requirements).

(3) The owner or operator must conduct a groundwater monitoring program for each chemical parameter and hazardous constituent specified in its permit pursuant to paragraph (1) of this section in accordance with §335.163(7) of this title (relating to General Groundwater Monitoring Requirements). The owner or operator must maintain a record of groundwater analytical data as measured and in a form necessary for the determination of statistical significance under §335.163(8) of this title (relating to General Groundwater Monitoring Requirements).

(A) The owner or operator must comply with §335.163(7) of this title (relating to General Groundwater Monitoring Requirements) in developing the data base used to determine background values.

(B) The owner or operator must express background values in a form necessary for the determination of statistically significant increases under §335.163(8) of this title (relating to General Groundwater Monitoring Requirements).

(C) In taking samples used in the determination of background values, the owner or operator must use a groundwater monitoring system that complies with §335.163(1)(A), (2), and (3) of this title (relating to General Groundwater Monitoring Requirements).

(4) The commission will specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit under paragraph (1) of this section in accordance with §335.163(7) of this title (relating to General Groundwater Monitoring Requirements). A sequence of at least four samples from each well (background and compliance wells) must be collected at least semiannually during detection monitoring.

(5) The owner or operator must determine the groundwater flow rate and direction in the uppermost aquifer at least annually.

(6) The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter or hazardous constituent specified in the permit pursuant to paragraph (1) of this section at a frequency specified under paragraph (4) of this section.

(A) In determining whether statistically significant evidence of contamination exists, the owner or operator must use the method(s) specified in the permit under §335.163(8) of this title (relating to General Groundwater Monitoring Requirements). These method(s) must compare data collected at the compliance

point(s) to the background groundwater quality data.

(B) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well at the compliance point within a reasonable period of time after completion of sampling. The commission will specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

(7) If the owner or operator determines pursuant to paragraph (6) of this section that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to paragraph (1) of this section at any monitoring well at the compliance point, he must:

(A) notify the executive director of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination;

(B) immediately sample the groundwater in all monitoring wells and determine whether constituents in the list of Appendix IX of 40 Code of Federal Regulations Part 264 are present, and if so, in what concentration;

(C) for any Appendix IX compounds found in the analysis pursuant to subparagraph (B) of this paragraph, the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring. If the owner or operator does resample for the compounds found pursuant to subparagraph (B) of this paragraph, the hazardous constituents found during this initial Appendix IX analysis will form the basis for compliance monitoring;

(D) within 90 days, submit to the executive director an application for a permit amendment or modification to establish a compliance monitoring program meeting the requirements of §335.165 of this title (relating to Compliance Monitoring Program). The application must include the following information:

(i) an identification of the concentration of any Appendix IX constituent detected in the groundwater at each monitoring well at the compliance point;

(ii) any proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of §335.165 of this title (relating to Compliance Monitoring Program);

(iii) any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of §335.165 of this title (relating to Compliance Monitoring Program); and

(iv) for each hazardous constituent detected at the compliance point, a proposed concentration limit under §335.160(a)(1) or (2) of this title (relating to Concentration Limits), or a notice of intent to seek an alternate concentration limit under §335.160(b) of this title (relating to Concentration Limits);

(E) within 180 days, submit to the executive director:

(i) all data necessary to justify an alternate concentration limit sought under §335.160(b) of this title (relating to Concentration Limits);

(ii) an engineering feasibility plan for a corrective action program necessary to meet the requirements of §335.166 of this title (relating to Corrective Action Program), unless:

(I) all hazardous constituents identified under subparagraph (B) of this paragraph are listed in Table 1 of §335.160 of this title (relating to Concentration Limits) and their concentrations do not exceed the respective values given in that table; or

(II) the owner or operator has sought an alternate concentration limit under §335.160(b) of this title (relating to Concentration Limits) for every hazardous constituent identified under subparagraph (B) of this paragraph;

(F) if the owner or operator determines, pursuant to paragraph (6) of this section, that there is a statistically significant difference for chemical parameters or hazardous constituents specified pursuant to paragraph (1) of this section at any monitoring well at the compliance point, he or she may demonstrate that a source other than a regulated unit caused the

contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater. The owner operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit amendment or modification application under subparagraph (D) of this paragraph; however, the owner or operator is not relieved of the requirement to submit a permit amendment or modification application within the time specified in subparagraph (D) of this paragraph unless the demonstration made under this paragraph successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this paragraph, the owner or operator must:

(i) notify the executive director in writing within seven days of determining statistically significant evidence of contamination at the compliance point that he intends to make a demonstration under this paragraph;

(ii) within 90 days, submit a report to the executive director which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;

(iii) within 90 days, submit to the executive director an application for a permit amendment or modification to make any appropriate changes to the detection monitoring program at the facility; and

(iv) continue to monitor in accordance with the detection monitoring program established under this section.

(8) If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this section, he must, within 90 days, submit an application for a permit amendment or modification to make any appropriate changes to the program.

Source: The provisions of this §335.164 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective August 4, 1989, 14 TexReg 3532; amended to be effective October 29, 1990, 15 TexReg 6017.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.156, (relating to Applicability of Groundwater Monitoring and Response); 30 TAC §335.157, (relating to Required Programs); 30 TAC §335.163, (relating to General Groundwater Monitoring Requirements); 30 TAC §335.165, (relating to Compliance Monitoring Program); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)); 30 TAC §335.174, (relating to Closure and Post-Closure Care (Landfills)).

§ 335.165. Compliance Monitoring Program

An owner or operator required to establish a compliance monitoring program must, at a minimum, discharge the following responsibilities.

(1) The owner or operator must monitor the groundwater to determine whether regulated units are in compliance with the groundwater protection standard under §335.158 of this title (relating to Groundwater Protection Standard). The commission will specify the groundwater protection standard in the compliance plan, including:

(A) a list of the hazardous constituents identified under §335.159 of this title (relating to Hazardous Constituents);

(B) concentration limits under §335.160 of this title (relating to Concentration Limits) for each of those hazardous constituents;

(C) the compliance point under §335.161 of this title (relating to Point of Compliance); and

(D) the compliance period under §335.162 of this title (relating to Compliance Period).

(2) The owner or operator must install a groundwater monitoring system at the compliance point as specified under §335.161 of this title (relating to Point of Compliance). The groundwater monitoring system must comply with §335.163(1)(B), (2), and (3) of this title (relating to General Groundwater Monitoring Requirements).

(3) The commission will specify the sampling procedures and statistical methods appropriate for the constituents at the facility, consistent with §335.163(7) and (8) of this title (relating to General Groundwater Monitoring Requirements).

(A) The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with §335.163(7) of this title (relating to General Groundwater Monitoring Requirements).

(B) The owner or operator must record groundwater analytical data as measured by and in a form necessary for the determination of statistical significance under §335.163(8) of this title (relating to General Groundwater Monitoring Requirements) for the compliance period of the facility.

(4) The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, pursuant to paragraph (1) of this section, at a frequency specified under paragraph (6) under this section.

(A) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the method(s) specified in the permit under §335.163(8) of this title (relating to General Groundwater Monitoring Requirements). The method(s) must compare data collected at the compliance point(s) to a concentration limit developed in accordance with §335.163 of this title (relating to General Groundwater Monitoring Requirements).

(B) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The commission will specify that time period in the facility permit after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

(5) The owner or operator must determine the groundwater flow rate and direction in the uppermost aquifer at least annually.

(6) The commission will specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with §335.163(7) of this title (relating to General Groundwater Monitoring Requirements). A sequence of at least four samples from each well (background and compliance wells) must be collected at least semiannually during the compliance period of the facility.

(7) The owner or operator must analyze samples from all monitoring wells at the compliance point for all constituents contained in Appendix IX of 40 Code of Federal Regulations Part 264 at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration, pursuant to procedures in §335.164(6) of this title (relating to Detection Monitoring Program). If the owner or operator finds Appendix IX constituents in the groundwater that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the Appendix IX analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the executive director within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then he must report the concentrations of these additional constituents to the executive director within seven days after completion of the initial analysis and add them to the monitoring list.

(8) If the owner or operator determines, pursuant to paragraph (4) of this section, that any concentration limits under §335.160 of this title (relating to Concentration Limits) are being exceeded at any monitoring well at the point of compliance, he must:

(A) notify the executive director of this finding in writing within seven days. The notification must indicate what concentration limits have been exceeded;

(B) submit to the executive director an investigation report to establish a corrective action program meeting the requirements of §335.166 of this title (relating to Corrective Action Program) within 180 days, or within 90 days if an engineering feasibility study has been previously submitted to the executive director under §335.164(7)(E) of this title (relating to Detection Monitoring Program). The report must at a minimum include the following information:

(i) a detailed description of corrective actions that will achieve compliance with the groundwater protection standard specified in the permit under paragraph (1) of this section; and

(ii) a plan for a groundwater monitoring program that will demonstrate the effectiveness of the corrective action. Such a groundwater monitoring program may be based on a compliance monitoring program developed to meet the requirements of this section.

(9) If the owner or operator determines, pursuant to paragraph (4) of this section, that the groundwater concentration limits are being exceeded at any monitoring well at the point of compliance, he may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by error in sampling, analysis, or evaluation or

natural variation in groundwater. In making a demonstration under this subsection, the owner or operator must:

(A) notify the executive director in writing within seven days that he intends to make a demonstration under this section;

(B) within 90 days submit a report to the executive director which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation;

(C) within 90 days submit to the executive director an application for a compliance plan amendment or compliance modification to make any appropriate change to the compliance monitoring program at the facility; and

(D) continue to monitor in accord with the compliance monitoring program established under this section.

(10) If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of this section, he must, within 90 days, submit an application for a plan modification to make any appropriate changes to the program.

(11) The owner or operator shall prepare an annual summary to include the groundwater quality data and groundwater flow rate and direction required under paragraphs (3) and (5) of this section. Such annual summary shall be submitted to the executive director by January 21 of each year on forms provided or approved by the executive director. An owner or operator must keep a copy of the summary for a period of at least three years from the due date of the summary. The period of record retention required by this section is automatically extended during the course of any unresolved enforcement action regarding the regulated activity.

Source: The provisions of this §335.165 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective August 4, 1989, 14 TexReg 3532; amended to be effective October 29, 1990, 15 TexReg 6017.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.156, (relating to Applicability of Groundwater Monitoring and Response); 30 TAC §335.157, (relating to Required Programs); 30 TAC §335.162, (relating to Compliance Period); 30 TAC §335.163, (relating to General Groundwater Monitoring Requirements); 30 TAC §335.164, (relating to Detection Monitoring Program); 30 TAC §335.166, (relating to Corrective Action Program); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)); 30 TAC §335.174, (relating to Closure and Post-Closure Care (Landfills)).

§ 335.166. Corrective Action Program

An owner or operator required to establish a corrective action program must, at a minimum, discharge the following responsibilities.

(1) The owner or operator must take corrective action to ensure that regulated units are in compliance with the groundwater protection standard under §335.158 of this title (relating to Groundwater Protection Standard). The commission will specify the groundwater protection standard in the compliance plan, including:

(A) a list of the hazardous constituents identified under §335.159 of this title (relating to Hazardous Constituents);

(B) concentration limits under §335.160 of this title (relating to Concentration Limits) for each of those hazardous constituents;

(C) the compliance point under §335.161 of this title (relating to Point of Compliance); and

(D) the compliance period under §335.162 of this title (relating to Compliance Period).

(2) The owner or operator must implement a corrective action program that prevents hazardous constituents from exceeding their respective concentration limits at the compliance point by removing the hazardous waste constituents or treating them in place. The plan will specify the specific measures that will be taken.

(3) The owner or operator must begin corrective action within a reasonable time period after the groundwater protection standard is exceeded. The commission will specify that time period in the plan. If a compliance plan includes a corrective action program in addition to a compliance monitoring program, the plan will specify when the corrective action will begin and such a requirement will operate in lieu of §335.165(9)(B) of this title (relating to Compliance Monitoring Program).

(4) In conjunction with a corrective action program, the owner or operator must establish and implement a groundwater monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program under §335.165 of this title (relating to Compliance Monitoring Program) and must be as effective as that program in determining compliance with the

groundwater protection standard under paragraph (5) of this section, where appropriate.

(5) In addition to the other requirements of this section, the owner or operator must conduct a corrective action program to remove or treat in place any hazardous constituents under §335.159 of this title (relating to Hazardous Constituents) that exceed concentration limits under §335.160 of this title (relating to Concentration Limits) in groundwater between the compliance point under §335.161 of this title (relating to Point of Compliance) and the downgradient facility property boundary and beyond the facility boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the executive director that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. The plan will specify the measures to be taken.

(A) Corrective action measures under this section must be initiated and completed within a reasonable period of time considering the extent of contamination.

(B) Corrective action measures under this section may be terminated once the concentration of hazardous constituents under §335.159 of this title (relating to Hazardous Constituents) is reduced to levels below their respective concentration under §335.160 of this title (relating to Concentration Limits).

(6) The owner or operator must continue corrective action measures during the compliance period to the extent necessary to ensure that the groundwater protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, he must continue that corrective action for as long as necessary to achieve compliance with the groundwater protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area (including the closure period) if he can demonstrate, based on data from the groundwater monitoring program under paragraph (4) of this section, that the groundwater protection standard of §335.158 of this title (relating to Groundwater Protection Standard) has not been exceeded for a period of three consecutive years.

(7) The owner or operator must report in writing to the executive director on the effectiveness of the corrective action program. The owner or operator must submit these reports semiannually.

(8) If the owner or operator determines that the corrective action program no longer satisfies the requirements of this section, he must, within 90 days, submit an application for a plan modification to make any appropriate changes to the program.

Source: The provisions of this §335.166 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.156, (relating to Applicability of Groundwater Monitoring and Response); 30 TAC §335.157, (relating to Required Programs); 30 TAC §335.163, (relating to General Groundwater Monitoring Requirements); 30 TAC §335.164, (relating to Detection Monitoring Program); 30 TAC §335.165, (relating to Compliance Monitoring Program); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)); 30 TAC §335.174, (relating to Closure and Post-Closure Care (Landfills)).

§ 335.167. Corrective Action for Solid Waste Management Units

(a) The owner or operator of a facility seeking a permit for the processing, storage, or disposal of hazardous waste must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

(b) Corrective action will be specified in the compliance plan under §305.401 of this title (relating to Groundwater Compliance Plan). The plan will contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit or plan) and assurances of financial responsibility for completing such corrective action.

(c) The owner or operator must implement corrective actions beyond the facility boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the executive director that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the neces-

sary permission to undertake such action. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action must be provided to the executive director.

Source: The provisions of this §335.167 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §305.401, (relating to Compliance Plan); 30 TAC §335.47, (relating to Special Requirements for Persons Eligible for a Federal Permit by Rule); 30 TAC §335.151, (relating to Purpose, Scope, and Applicability); 30 TAC §335.156, (relating to Applicability of Groundwater Monitoring and Response); 30 TAC §335.223, (relating to Additional Permit Standards for Burners).

§ 335.168. Design and Operating Requirements (Surface Impoundments)

(a) Any surface impoundment that is not covered by subsection (c) of this section or 40 Code of Federal Regulations §265.221 must have a liner for all portions of the impoundment (except for existing portions of such impoundments). The liner must be designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the impoundment. The liner may be constructed of materials that may allow wastes to migrate into the liner (but not into the adjacent subsurface soil or groundwater or surface water) during the active life of the facility, provided that the impoundment is closed in accordance with §335.169(a)(1) of this title (relating to Closure and Post-Closure Care (Surface Impoundments)). For impoundments that will be closed in accordance with §335.169(a)(2) of this title (relating to Closure and Post-Closure Care (Surface Impoundments)), the liner must be constructed of materials that can prevent wastes from migrating into the liner during the active life of the facility. The liner must be:

(1) constructed or materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(2) placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(3) installed to cover all surrounding earth likely to be in contact with the waste or leachate.

(b) The owner or operator will be exempted from the requirement of subsections (a) and (i) of this section if the commission finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see §335.159 of this title (relating to Hazardous Constituents)) into the groundwater or surface water at any future time. In deciding whether to grant an exemption, the commission will consider:

(1) the nature and quantity of the wastes;

(2) the proposed alternate design and operation;

(3) the hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the impoundment and groundwater or surface water; and

(4) all other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to groundwater or surface water.

(c) The owner or operator of each new surface impoundment, each new surface impoundment unit at an existing facility, each replacement of an existing surface impoundment unit, and each lateral expansion of an existing surface impoundment unit, must install two or more liners and a leachate collection system between such liners. The liners and leachate collection system must protect human health and the environment. The requirements of this subsection shall apply with respect to all waste received after the issuance of the permit for units where Part B of the permit application is received by the executive director after November 8, 1984. The requirement for the installation of two or more liners in this subsection may be satisfied by the installation of a top liner designed, operated, and constructed of materials to prevent the migration of any constituent into such liner during the period such facility remains in operation (including any post-closure monitoring period), and a lower liner designed, operated, and constructed to prevent the migration of any constituent through such liner during such period. A lower liner shall be deemed to satisfy this requirement if it is constructed of at

least a three-foot thick layer of recompacted clay or other natural material with a permeability of no more than 1 x 10^{-7} centimeter per second.

(d) Subsection (c) of this section will not apply if the owner or operator demonstrates to the commission and the commission finds for such surface impoundment, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituent into the groundwater or surface water at least as effectively as such liners and leachate collection systems.

(e) The double liner requirement set forth in subsection (c) of this section may be waived by the commission for any monofill which contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristics in 40 Code of Federal Regulations §261.24, and is in compliance with either of the following requirements:

(1) the monofill:

(A) has at least one liner for which there is no evidence that such liner is leaking. For the purposes of this subsection, the term "liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, groundwater, or surface water at any time during the active life of the facility. In the case of any surface impoundment which has been exempted from the requirements of subsection (c) of this section on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner at the closure of such impoundment, the owner or operator must remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner or operator of such impoundment will comply with appropriate post-closure requirements, including, but not limited to, groundwater monitoring and corrective action;

(B) is located more than ¼ mile from an underground source of drinking water (as that term is defined in §331.2 of this title (relating to Definitions)); and

(C) in compliance with groundwater monitoring requirements of this subchapter; or

(2) the owner or operator demonstrates that the monofill is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time.

(f) A surface impoundment must be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations, overfilling, wind, and wave action; rainfall; run-off, malfunctions of level controllers, alarms, and other equipment; and human error.

(g) A surface impoundment must have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent massive failure of the dikes. In ensuring structural integrity, it must not be presumed that the liner system will function without leakage during the active life of the unit.

(h) The commission will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

(i) A surface impoundment (except for an existing portion of a surface impoundment) that will be closed in accordance with §335.169(a)(2) of this title (relating to Closure and Post-Closure Care (Surface Impoundments)) must have an additional liner to that required in subsection (a) of this section which:

(1) prevents any migration of wastes out of the impoundment to the adjacent subsurface soil or groundwater or surface water at any time prior to the end of the post-closure care period; and

(2) minimizes the rate of migration of wastes out of the impoundment to the adjacent subsurface soil or groundwater or surface water so as not to pose a substantial present or potential hazard to human health and the environment.

Source: The provisions of this §335.168 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective March 18, 1991, 16 TexReg 1369; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.169, (relating to Closure and Post-Closure Care (Surface Impoundments)).

§ 335.169. Closure and Post-Closure Care (Surface Impoundments)

(a) At closure, the owner or operator must:

(1) remove or decontaminate all waste residues, contaminated containment system components (liners, etc.) contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 40 Code of Federal Regulations §261.3(d) applies; or

(2) eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues; stabilize remaining wastes to a bearing capacity sufficient to support final cover; and cover the surface impoundment with a final cover designed and constructed to:

(A) provide long-term minimization of the migration of liquids through the closed impoundment;

(B) function with minimum maintenance;

(C) promote drainage and minimize erosion or abrasion of the final cover;

(D) accommodate settling and subsidence so that the cover's integrity is maintained; and

(E) have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) If some waste residues or contaminated materials are left in place at final closure, the owner or operator must comply with all post-closure requirements contained in 40 Code of Federal Regulations §§264.117-264.120, including maintenance and monitoring throughout the post-closure care period (specified in the permit under 40 Code of Federal Regulations §264.117). The owner or operator must:

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

(2) maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of §§335.156-335.166 of this title (relating to Applicability of Groundwater Monitoring and Response; Required Programs; Groundwater Protection Standard; Hazardous Constituents; Concentration Limits; Point of Compliance; Compliance Period; General Groundwater Monitoring Requirements; Detection Monitoring Program; Compliance Monitoring Program; and Corrective Action Program; and

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

(c) If an owner or operator plans to close a surface impoundment in accordance with subsection (a)(1) of this section, and the impoundment does not comply with the liner requirements of §335.168(a) of this title (relating to Design and Operating Requirements (Surface Impoundments)) and is not exempt from them in accordance with §335.168(b) of this title (relating to Design and Operating Requirements (Surface Impoundments)), then:

(1) the closure plan for the impoundment under 40 Code of Federal Regulations §264.112 must include both a plan for complying with subsection (a)(1) of this section and a contingent plan for complying with subsection (a)(2) of this section, in case not all contaminated subsoils can be practicably removed at closure; and the owner or operator must prepare a contingent post-closure plan under 40 Code of Federal Regulations §264.118 for complying with subsection (b) of this section, in case not all contaminated subsoils can be practicably removed at closure;

(2) the cost estimates calculated under 40 Code of Federal Regulations §264. 142 and §264.144 for closure and post-closure care of an impoundment subject to this subsection must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under subsection (a)(1) of this section.

Source: The provisions of this §335.169 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.168, (relating to Design and Operating Requirements (Surface Impoundments)).

§ 335.170. Design and Operating Requirements (Waste Piles)

(a) A waste pile (except for an existing portion of a waste pile) must have:

(1) a liner that is designed, constructed, and installed to prevent any migration of wastes out of the pile into the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the waste pile. The liner may be constructed of materials that may allow waste to migrate into the liner itself (but not into the adjacent subsur-

face soil or groundwater or surface water) during the active life of the facility. The liner must be:

(A) constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(B) placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(C) installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(2) a leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the pile. The commission will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 centimeters (one foot). The leachate collection and removal system must be:

(A) constructed of materials that are:

(i) chemically resistant to the waste managed in the pile and the leachate expected to be generated; and

(ii) of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying wastes, waste cover materials, and by any equipment used at the pile; and

(B) designed and operated to function without clogging through the scheduled closure of the waste pile.

(b) The owner or operator will be exempted from the requirements of subsection (a) of this section if the commission finds, based on a demonstration by the owner or operator, the alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the groundwater or surface water at any future time. In deciding whether to grant an exemption, the commission will consider:

(a) of this section if the commission finds, based on a demonstration by the owner or operator, the alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the groundwater or surface water at any future time. In deciding whether to grant an exemption, the commission will consider:

(1) the nature and quantity of the wastes;

(2) the proposed alternate design and operation;

(3) the hydrogeologic setting of the facility, including attenuative capacity and thickness of the liners and soils present between the pile and groundwater or surface water; and

(4) all other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to groundwater or surface water.

(c) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 100-year storm.

(d) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume from active portions resulting from a 24-hour, 100-year storm.

(e) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(f) If the pile contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the pile to control wind dispersal.

(g) The commission will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

Source: The provisions of this §335.170 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.171. Design and Operating Requirements (Land Treatment Units)

The commission will specify in the facility permit how the owner or operator will design, construct, operate, and maintain the land treatment unit in compliance with this section.

(1) The owner or operator must design, construct, operate, and maintain the unit to maximize the degradation, transformation, and immobilization of hazardous constituents in the treatment zone. The owner or operator must design, construct, operate, and maintain the unit in accord with all design and operating conditions that were used in the treatment demonstration under 40 Code of Federal Regulations §264.272. At a minimum, the commission will specify the following in the facility permit:

(A) the rate and method of waste application to the treatment zone;

(B) measures to control soil pH;

(C) measures to enhance microbial or chemical reactions (e.g., fertilization, tilling); and

(D) measures to control the moisture content of the treatment zone.

(2) The owner or operator must design, construct, operate, and maintain the treatment zone to minimize run-off of hazardous constituents during the active life of the land treatment unit.

(3) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the treatment zone during peak discharge from at least a 100-year storm.

(4) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume from active portions resulting from a 24-hour, 100-year storm.

(5) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system.

(6) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator must manage the unit to control wind dispersal.

(7) The owner or operator must inspect the unit weekly and after storms to detect evidence of:

(A) deterioration, malfunctions, or improper operation of run-on and run-off control systems; and

(B) improper functioning of wind dispersal control measures.

Source: The provisions of this §335.171 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.172, (relating to Closure and Post-Closure Care (Land Treatment Units)).

§ 335.172. Closure and Post-Closure Care (Land Treatment Units)

(a) During the closure period, the owner or operator must:

(1) continue all operations (including pH control) necessary to maximize degradation, transformation, or immobilization of hazardous constituents within the treatment zone as required under §335.171(1) of this title (relating to Design and Operating Requirements (Land Treatment Units)), except to the extent such measures are inconsistent with paragraph (8) of this subsection;

(2) continue all operations in the treatment zone to minimize run-off of hazardous constituents as required under §335.171(3) of this title (relating to Design and Operating Requirements (Land Treatment Units));

(3) maintain the run-on control system required under §335.171(3) of this title (relating to Design and Operating Requirements (Land Treatment Units));

(4) maintain the run-off management system required under §335.171(4) of this title (relating to Design and Operating Requirements (Land Treatment Units));

(5) control wind dispersal of hazardous waste if required under §335.171(6) of this title (relating to Design and Operating Requirements (Land Treatment Units));

(6) continue to comply with any prohibitions or conditions concerning growth of food-chain crops under 40 Code of Federal Regulations §264.276;

(7) continue unsaturated zone monitoring in compliance with 40 Code of Federal Regulations §264.278, except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone; and

(8) establish a vegetative cover on the portion of the facility being closed at such time that the cover will not substantially impede degradation, transformation, or immobilization of hazardous constituents in the treatment zone. The vegetative cover must be capable of maintaining growth without extensive maintenance.

(b) For the purpose of complying with 40 Code of Federal Regulations §264.115, when closure is

completed, the owner or operator may submit to the executive director certification by an independent qualified soil scientist, in lieu of an independent registered professional engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(c) During the post-closure care period, the owner or operator must:

(1) continue all operations (including pH control) necessary to enhance degradation and transformation and sustain immobilization of hazardous constituents in the treatment zone to the extent that such measures are consistent with other post-closure care activities;

(2) maintain a vegetative cover over closed portions of the facility;

(3) maintain the run-on control system required under §335.171(3) of this title (relating to Design and Operating Requirements (Land Treatment Units));

(4) maintain the run-off management system required under §335.171(4) of this title (relating to Design and Operating Requirements (Land Treatment Units));

(5) control wind dispersal of hazardous waste if required under §335.171(6) of this title (relating to Design and Operating Requirements (Land Treatment Units));

(6) continue to comply with any prohibition or conditions concerning growth of food-chain crops under 40 Code of Federal Regulations §264.276; and

(7) continue unsaturated zone monitoring in compliance with 40 Code of Federal Regulations §264.278, except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone.

(d) The owner or operator is not subject to regulation under subsections (a)(8) and (c) of this section if the commission finds that the level of hazardous constituents in the treatment zone does not exceed the background value of those constituents by an amount that is statistically significant when using the test specified in paragraph (3) of this subsection. The owner or operator may submit such a demonstration to the executive director at any time during the closure or post-closure care periods.

(1) The owner or operator must establish background soil values and determine whether there is a statistically significant increase over those values for all hazardous constituents specified in the facility permit under 40 Code of Federal Regulations §264.271(b).

(A) Background soil values may be based on a one-time sampling of a background plot having characteristics similar to those of the treatment zone.

(B) The owner or operator must express background values and values for hazardous constituents in the treatment zone in a form necessary for the determination of statistically significant increases under paragraph (3) of this subsection.

(2) In taking samples used in the determination of background and treatment zone values, the owner or operator must take samples at a sufficient number of sampling points and at appropriate locations and depths to yield samples that represent the chemical make-up of soil that has not been affected by solid waste or leakage from the treatment zone, and the soil within the treatment zone, respectively.

(3) In determining whether a statistically significant increase has occurred, the owner or operator must compare the value of each constituent in the treatment zone to the background value for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The owner or operator must use a statistical procedure that:

(A) is appropriate for the distribution of the data used to establish background values; and

(B) provides a reasonable balance between the probability of falsely identifying hazardous constituent presence in the treatment zone and the probability of failing to identify real presence in the treatment zone.

(e) The owner or operator is not subject to regulation under §§335.156-335.166 of this title (relating to Applicability of Groundwater Monitoring and Response; Required Programs; Groundwater Protection Standard; Hazardous Constituents; Concentration Limits; Point of Compliance; Compliance Period; General Groundwater Monitoring Requirements; Detection Monitoring Program; Compliance Monitoring Program; and Corrective Action Program); if the commission finds that the owner or operator satisfied subsection (d) of this section and if unsaturated zone monitoring under 40 Code of Federal Regulations §264.278 indicates that hazardous constituents have not migrated beyond the treatment zone during the active life of the land treatment unit.

Source: The provisions of this §335.172 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.173. Design and Operating Requirements (Landfills)

(a) Any landfill that is not covered by subsection (c) of this section or 40 Code of Federal Regulations §265.301(a) must have a liner system for all portions of the landfill (except for existing portions of such landfill). The liner system must have:

(1) a liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the landfill. The liner must be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The liner must be:

(A) constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(B) placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(C) installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(2) a liner that:

(A) prevents any migration of wastes out of the landfill to the adjacent subsurface soil or groundwater or surface water at any time prior to the end of the post-closure care period; and

(B) minimizes the rate of migration of wastes out of the landfill to the adjacent subsurface soil or groundwater or surface water so as not to pose a substantial present or potential hazard to human health and the environment; and

(3) a leachate collection and removal system immediately above the top liner that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The commission will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 centimeters (one foot). The leachate collection and removal system must be:

(A) constructed of materials that are:

(i) chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

(ii) of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the landfill; and

(B) designed and operated to function without clogging through the scheduled closure of the landfill.

(b) The owner or operator will be exempted from the requirements of subsection (a) of this section if the commission finds, based on a demonstration by the owner or operator, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see §335.159 of this title (relating to Hazardous Constituents)) into the groundwater or surface water at any future time. In deciding whether to grant an exemption, the commission will consider:

(1) the nature and quantity of the wastes;

(2) the proposed alternate design and operation;

(3) the hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and groundwater or surface water; and

(4) all other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to groundwater or surface water.

(c) The owner or operator of each new landfill, each new landfill unit at an existing facility, each replacement of an existing landfill unit, and each lateral expansion of an existing landfill unit must install two or more liners and a leachate collection system above and between the liners. The liners and leachate collection systems must protect human health and the environment. The requirements of this subsection shall apply with respect to all waste received after the issuance of the permit for units where the Part B of the permit application is received by the executive director after November

8, 1984. The requirement for the installation of two or more liners in this subsection may be satisfied by the installation of a top liner designed, operated, and constructed of materials to prevent the migration of any constituent into such liner during the period such facility remains in operation (including any post-closure monitoring period), and a lower liner designed, operated, and constructed to prevent the migration of any constituent through such liner during such period. A lower liner shall be deemed to satisfy this requirement if it is constructed of at least a three-foot thick layer of recompacted clay or other natural material with a permeability of no more than 1×10^{-7} centimeter per second.

(d) Subsection (c) of this section will not apply if the owner or operator demonstrates to the commission and the commission finds for such landfill that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituent into the groundwater or surface water at least as effectively as such liners and leachate collection systems.

(e) The double liner requirement set forth in subsection (c) of this section may be waived by the commission for any monofill which contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristics in 40 Code of Federal Regulations §261.24, and is in compliance with either paragraph (1) or (2) of this subsection.

(1) The monofill:

(A) has at least one liner for which there is no evidence that such liner is leaking;

(B) is located more than ¼ mile from an underground source of drinking water (as that term is defined in §331.2 of this title (relating to Definitions)); and

(C) is in compliance with groundwater monitoring requirements of this subchapter.

(2) The owner or operator demonstrates that the monofill is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time.

(f) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 100-year storm.

(g) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume from active portions resulting from a 24-hour, 100-year storm.

(h) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(i) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the landfill to control wind dispersal.

(j) The commission will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this section are satisfied.

Source: The provisions of this §335.173 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective March 18, 1991, 16 TexReg 1369; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.174. Closure and Post-Closure Care (Landfills)

(a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:

(1) provide long-term minimization of migration of liquids through the closed landfill;

(2) function with minimum maintenance;

(3) promote drainage and minimize erosion or abrasion of the cover;

(4) accommodate settling and subsidence so that the cover's integrity is maintained; and

(5) have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) After final closure, the owner or operator must comply with all post-closure requirements contained in 40 Code of Federal Regulations §§264.117-264.120, including maintenance and monitoring throughout the post-closure care period (specified in the permit under 40 Code of Federal Regulations §264.117). The owner or operator must:

(1) maintain the integrity and effectiveness of the final cover, including making repairs to the

cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) continue to operate the leachate collection and removal system until leachate is no longer detected;

(3) maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of §§335.156-335.166 of this title (relating to Applicability of Groundwater Monitoring and Response; Required Programs; Groundwater Protection Standard; Hazardous Constituents; Concentration Limits; Point of Compliance; Compliance Period; General Groundwater Monitoring Requirements; Detection Monitoring Program; Compliance Monitoring Program; and Corrective Action Program);

(4) prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(5) protect and maintain surveyed benchmarks used in complying with 40 Code of Federal Regulations §264.309.

Source: The provisions of this §335.174 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.175. Special Requirements for Bulk and Containerized Waste

(a) Bulk or noncontainerized liquid waste or waste containing free liquids may be placed in a landfill prior to May 8, 1985, only if before disposal, the liquid is treated or stabilized, chemically or physically (e.g., by mixing with an absorbent solid), so that free liquids are no longer present.

(b) Effective May 8, 1985, the placement of bulk or noncontainerized liquid hazardous waste or hazardous waste containing free liquids (whether or not absorbents have been added) in any landfill is prohibited.

(c) To demonstrate the absence or presence of free liquids in either a containerized or bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in Test Methods for Evaluating Solid Wastes, Physical Chemical Methods. (EPA Publication SW-846 Second Edition, 1982, as amended by Update I (April 1984) and Update II (April 1985)).

(d) Effective November 8, 1985, the placement of any liquid which is not a hazardous waste in a landfill is prohibited, unless the owner or operator of such landfill demonstrates to the commission, or the commission determines, that:

(1) the only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains or may reasonably be anticipated to contain hazardous waste; and

(2) placement in such owner or operator's landfill will not present a risk of contamination of any underground source of drinking water (as that term is defined in §331.2 of this title (relating to Definitions)).

(e) Containers holding liquid waste or waste containing free liquids must not be placed in a landfill unless:

(1) the container is very small, such as an ampule; or

(2) the container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(3) the container is a lab pack as defined in 40 Code of Federal Regulations §264.316 and is disposed of in accordance with 40 Code of Federal Regulation §264.316.

Source: The provisions of this §335.175 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.176. Special Requirements for Containers

Unless they are very small, such as an ampule, containers must be crushed, shredded, or similarly reduced in volume to the maximum extent practical before burial in a landfill.

Source: The provisions of this §335.176 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.177. General Performance Standard

No person may cause, suffer, allow, or permit the storage, processing, or disposal of hazardous waste in such a manner so as to cause:

(1) the discharge or imminent threat of discharge of hazardous waste, hazardous or nonhazardous constituents, or any other materials resulting from industrial solid waste activities, including, but not limited to, reaction products,

into or adjacent to the waters in the state without specific authorization for such discharge from the Texas Water Commission;

(2) the creation and maintenance of a nuisance; or

(3) the endangerment of the public health or welfare.

Source: The provisions of this §335.177 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.178. Cost Estimate for Closure

In addition to the requirements of 40 Code of Federal Regulations §264.142 (excluding 40 Code of Federal Regulations §264.142(a)(2)), the closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither the parent nor a subsidiary of the owner or operator (see definition of parent corporation in 40 Code of Federal Regulations §264.141(d)). Not-withstanding other closure costs, such estimate must also include the costs associated with third party removal, shipment, off-site, and processing or disposal off-site, and processing or disposal off-site of the following wastes to an authorized storage, processing, or disposal facility:

(1) maximum inventory of wastes in storage and/or processing units, including, but not limited to, storage surface impoundments, waste piles, tanks, and containers;

(2) wastes generated as a result of closure activities (e.g., decontamination, removal of liquids from surface impoundments, or waste piles);

(3) contaminated stormwater; and

(4) leachate.

Source: The provisions of this §335.178 adopted to be effective July 14, 1987, 12 TexReg 2106.

Cross References: This Section cited in 30 TAC §305.50, (relating to Additional Requirements for an Application for a Solid Waste Permit); 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee); 30 TAC §335.154, (relating to Reporting Requirements for Owners and Operators); 30 TAC §335.223, (relating to Additional Permit Standards for Burners).

§ 335.179. Financial Assurance

(a) Before a permit may be issued, amended, extended or renewed for a solid waste facility for storage, processing, or disposal of hazardous waste, the commission shall determine the type or types of financial assurance which may be used by the applicant to comply with applicable regulations.

(b) Before hazardous waste may be received for storage, processing, or disposal at a solid waste facility for which a permit has been issued, amended, extended or renewed, the permittee shall execute the financial assurance conditioned on the permittee's satisfactorily operating and closing the solid waste facility.

(c) If liability insurance is required of an applicant, the applicant may not use a claims made policy as security unless the applicant places in escrow as provided by the commission an amount sufficient to pay an additional year of premiums for renewal of the policy by the state on notice of termination of coverage.

(d) In addition to other forms of financial assurance authorized by the commission regulations, an applicant may use the letter of credit form of financial assurance if either the issuing institution or another institution which guarantees payment under the letter:

(1) is a bank chartered by the state or by the federal government; and

(2) is federally insured and its financial practices are regulated by the state or the federal government.

Source: The provisions of this §335.179 adopted to be effective January 5, 1988, 12 TexReg 4846.

Cross References: This Section cited in 30 TAC §305.69, (relating to Solid Waste Permit Modification at the Request of the Permittee).

§ 335.180. Impact of New Hazardous Waste Management Facilities on Local Land Use

In evaluating an application for a new hazardous waste management facility permit, the commission shall assess the impact of the proposed facility on local land use in the area, including any relevant land use plans in existence before publication of the notice of intent to file a solid waste permit application, or, if no notice of intent is filed, at the time the permit application is filed.

(1) In determining whether a new hazardous waste management facility is compatible with local land use, the commission shall consider, at a minimum:

(A) the location of industrial and other waste-generating facilities in the area;

(B) the amounts of hazardous waste generated by those facilities;

(C) the risks associated with the transportation of hazardous waste to the facility; and

(D) compatibility of the application with any land use plan adopted pursuant to the Texas Local Government Code, Chapter 211 (Vernon's Supplement 1991), or with local planning, zoning, or land use laws and ordinances in existence before publication of the notice of intent to file a solid waste permit application, or, if no notice of intent is filed, at the time the permit application is filed.

(2) In addition, the commission may consider any of the following criteria in determining compatibility of a facility with local land use:

(A) the risk of fires or explosions from improper storage and disposal methods;

(B) the distance from the site boundary to existing structures; and

(C) location of the facility in relation to high-hazard areas such as 100-year hurricane flood zones.

(3) Based on its assessment of the application with respect to local land use, the commission may deny an application in accordance with §305.66(i) of this title (relating to Revocation and Suspension) or impose permit conditions deemed necessary to minimize or mitigate detrimental impacts on local land use, in accordance with §305.148 of this title (relating to Impact of New Hazardous Waste Management Facilities on Local Land Use).

Authority: The provisions of this §335.180 issued under the Texas Water Code, §5.104 and §26.011.

Source: The provisions of this §335.180 adopted to be effective November 7, 1991, 16 TexReg 6065.

Cross References: This Section cited in 30 TAC §305.66, (relating to Permit Denial, Suspension, and Revocation); 30 TAC §305.148, (relating to Impact of New Hazardous Waste Management Facilities on Local Land Use).

§ 335.181. Need for Specific Commercial Hazardous Waste Management Technologies

In evaluating an application for a new commercial hazardous waste management facility permit, the commission shall determine the need for the specific technology proposed in the facility to manage new or increased volumes of waste generated in the state, in accordance with the Texas Solid Waste Disposal Act, §361.0232.

Authority: The provisions of this §335.181 issued under the Texas Water Code, §5.104 and §26.011.

Source: The provisions of this §335.181 adopted to be effective November 7, 1991, 16 TexReg 6065.

§ 335.182. Burden on Public Roadways by a New Commercial Hazardous Waste Management Facility

In evaluating an application for a new commercial hazardous waste management facility permit, if the commission determines that a burden on public roadways will be imposed by the new commercial hazardous waste management facility, the commission shall require the applicant to pay the cost of the improvements necessary to minimize or mitigate the burden. The standards by which the commission shall make such a determination may include, but are not limited to, the requirements found in any of the following:

(1) Policy on Geometric Design of Highways and Streets, published by the American Association of State Highways and Transportation Officials (1990);

(2) Texas Manual on Uniform Traffic Control Devices;

(3) Highway Capacity Manual, published by the National Highway Institute;

(4) Highway Design Division and Procedures Manual, published by the Texas Department of Highways and Public Transportation; and

(5) Texas Flexible Pavement Design System.

Authority: The provisions of this §335.182 issued under the Texas Water Code, §5.104 and §26.011.

Source: The provisions of this §335.182 adopted to be effective November 7, 1991, 16 TexReg 6065.

Cross References: This Section cited in 30 TAC §305.66, (relating to Permit Denial, Suspension, and Revocation).

§ 335.183. Emergency Response Capabilities Required for New Commercial Hazardous Waste Management Facilities

(a) In evaluating an application for a new commercial hazardous waste management facility permit, the commission shall verify that:

(1) sufficient emergency response capabilities are available or will be available before the facility first receives waste, in the area in which the facility is located or proposed to be located; or

(2) the applicant has secured sufficient financial assurance in accordance with §305.50(12)(C)(ii) or (D) of this title (relating to Additional Requirements for an Application for a Solid Waste Permit) to fund the emergency response personnel and equipment determined to be necessary by the commission, to manage a

reasonable worst-case emergency condition associated with the operation of the facility.

(b) If the applicant for a new commercial hazardous waste management facility intends to use emergency response facilities that are not provided by the county or municipality in which the facility is located, the applicant must provide its own facilities or contract for emergency response facilities with an adjoining county, municipality, mutual aid association, or other appropriate entity. An appropriate entity would be defined as a professional organization, existing at the time of application, regularly doing business in the area of emergency and/or disaster response.

(c) If financial assurance is required pursuant to this section, it shall meet the following requirements.

(1) The financial assurance must benefit the county government or municipal government in the county in which the facility is located or proposed to be located, or both.

(2) The financial assurance must provide payment of the amount of the bond or other instrument to the governmental body or governmental bodies before the facility first receives waste, with a limitation that the money can only be spent for emergency response personnel and equipment.

(3) The financial assurance must meet the requirements of §305.50(12)(C)(ii) or (D) of this title (relating to Additional Requirements for an Application for a Solid Waste Permit).

(d) In evaluating the sufficiency of emergency response capabilities, the commission shall consider the following:

(1) geology of the area;

(2) drainage patterns;

(3) seasonally prevailing winds and weather patterns;

(4) availability of all local emergency response resources, including fire, police, hospital, etc. service;

(5) proximity of human exposure and/or sensitive environmental receptors;

(6) length of time for first response;

(7) trained response teams on-site (OSHA specialist level), with a 24-hour response team;

(8) the amount of equipment and trained personnel available on a first-response basis, including the minimum amount of equipment on hand or available near the facility with hazardous materials capabilities;

(9) the ability to deal with various types of injuries;

(10) the ability to respond effectively to environmental contamination; and

(11) the efficiency and safety of any evacuation plan submitted by the applicant.

Authority: The provisions of this §335.183 issued under the Texas Water Code, §5.104 and §26.011.

Source: The provisions of this §335.183 adopted to be effective November 7, 1991, 16 TexReg 6065.

Cross References: This Section cited in 30 TAC §305.50, (relating to Additional Requirements for an Application for a Solid Waste Permit).

SUBCHAPTER G. LOCATION STANDARDS FOR HAZARDOUS WASTE STORAGE, PROCESSING, OR DISPOSAL

Cross References: This Subchapter cited in 30 TAC §335.152, (relating to Standards).

§ 335.201. Purpose, Scope, and Applicability

(a) This subchapter establishes minimum standards for the location of facilities used for the storage, processing, and disposal of hazardous waste. These standards are to be applied in the evaluation of an application for a permit to manage hazardous waste. Except as otherwise provided in this section, this subchapter applies to permit applications for new hazardous management facilities and areal expansions of existing hazardous waste management facilities, filed on or after September 1, 1984. These sections do not apply to the following:

(1) permit applications submitted pursuant to §335.2(c) of this title (relating to Permit Required), §335.43(b) of this title (relating to Permit Required), and §335.45(b) of this title (relating to Effect on Existing Facilities), including any revision submitted pursuant to §305.51 of this title (relating to Revision of Applications for Hazardous Waste Permits);

(2) permit applications filed pursuant to §335.2(a) of this title (relating to Permit Required) which have been submitted in accordance with Chapter 305 of this title (relating to Consolidated Permits) and which have been declared to be administratively complete pursuant to §281.3 of this title (relating to Initial Review) prior to September 1, 1984; and

(3) on-site remedial actions conducted pursuant to the federal Comprehensive Environmental

Response, Compensation, and Liability Act of 1980, 42 United States Code §9601 et seq., as amended by the Superfund Amendments Reauthorization Act of 1986 or the Texas Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, §13.

(b) The standards contained in §§335.204(a)(6)-(9), 335.204(b)(7)-(12), 335.204(c)(6)-(11), 335.204(d)(6)-(11), 335.204(e)(8)-(13) are not applicable to facilities that have submitted a notice of intent to file a permit application pursuant to §335.391 of this title (relating to Pre-Application Review) prior to May 3, 1988, or to facilities that have filed permit applications pursuant to §335.2(a) of this title (relating to Permit Required) which were submitted in accordance with Chapter 305 of this title (relating to Consolidated Permits) and that were declared to be administratively complete pursuant to §281.3 of this title (relating to Initial Review) prior to May 3, 1988.

(c) The purpose of this subchapter is to condition issuance of a permit for a new hazardous waste management facility or the areal expansion of an existing hazardous waste management facility on selection of a site that reasonably minimizes possible contamination of surface water and groundwater; to define the characteristics that make an area unsuitable for a hazardous waste management facility; and to prohibit issuance of a permit for a facility to be located in an area determined to be unsuitable, unless the design, construction and operational features of the facility will prevent adverse effects from unsuitable site characteristics. Nothing herein is intended to restrict or abrogate the commission's general authority under the Solid Waste Disposal Act to review site suitability for all facilities which manage municipal hazardous waste or industrial solid waste.

Source: The provisions of this §335.201 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective September 1, 1986, 11 TexReg 3696; amended to be effective May 3, 1988, 13 TexReg 1913.

§ 335.202. Definitions

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

Active geologic processes—Any natural process which alters the surface and/or subsurface of the earth, including, but not limited to, erosion (including shoreline erosion along the coast), submergence, subsidence, faulting, karst formation, flooding in alluvial flood wash zones, meandering river bank cutting, and earthquakes.

Aquifer—A geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs. Portions of formations, such as clay beds, which are not capable of yielding a significant amount of groundwater to wells or springs are not aquifers.

Area subject to active shoreline erosion—A coastal area where shoreline erosion has been documented within historic time.

Areal expansion of an existing facility—The enlargement of a land surface area of an existing hazardous waste management facility from that described in a solid waste permit authorizing the facility.

Areas of direct drainage—Those land areas from which surface water runoff could flow into a lake used to supply public drinking water.

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.

Critical habitat of an endangered species—An area that is determined by the United States Fish and Wildlife Service to be a critical habitat for an endangered species.

Erosion—The group of natural processes, including weathering, deterioration, detachment, dissolution, abrasion, corrosion, wearing away, and transportation, by which earthen or rock material is removed from any part of the earth's surface.

Existing hazardous waste management facility—Any facility used for the storage, processing, or disposal of hazardous waste and which is authorized by a hazardous waste permit. Facilities identified in the following pending applications will also be considered existing hazardous waste management facilities pending final action on the application by the commission:

(A) an application submitted pursuant to §335.2(c) of this title (relating to Permit Required), §335.43(b) of this title (relating to Permit Required), and §335.45(b) of this title (relating to Effect on Existing Facilities), including any revisions made in accordance with §305.51 of this title (relating to Revision of Applications for Hazardous Waste Permits); or

(B) an application filed pursuant to §335.2(a) of this title (relating to Permit Required) which has been submitted in accordance with Chapter 305 of this title (relating to Consolidated Permits) and which has been declared to be administratively complete pursuant to §281.3 of this title (relating to Initial Review) prior to September 1, 1984.

New hazardous waste management facility—Any facility to be used for the storage, processing, or disposal of hazardous waste and which is not an existing hazardous waste management facility.

One hundred-year floodplain—Any land area which is subject to a 1.0% or greater chance of flooding in any given year from any source.

Public water system—A system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly services an average of at least 25 individuals daily at least 60 days out of the year.

Regional aquifer—An aquifer which has been identified by the Texas Water Commission as a major or minor aquifer. Major aquifers yield large quantities of water in large areas of the state. Minor aquifers yield large quantities of water in small areas of the state or small quantities of water in large areas of the state. (These aquifers are identified in Appendix B of the Texas Department of Water Resources Report Number 238.)

Residence—The structure and surrounding property within the property boundaries not to exceed 100 feet from the structure in all directions.

Secondary containment—A system designed and constructed to collect rainfall runoff, to prevent rainfall run-on from outside the structure, and to contain waste spills, leaks, or discharges within the structure until such waste can be removed.

Sole-source aquifer—An aquifer designated pursuant to the Safe Drinking Water Act of 1974, §1424(e), which solely or principally supplies drinking water to an area, and which, if contaminated, would create a significant hazard to public health. The Edwards Aquifer has been designated a sole-source aquifer by the United States Environmental Protection Agency. The Edwards Aquifer recharge zone is specifically that area delineated on maps in the offices of the executive director.

Storage surface impoundment—A surface impoundment from which all wastes and waste-contaminated soils are removed at the time of closure of the impoundment.

Wetlands—Those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Source: The provisions of this §335.202 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective September 1, 1986, 11 TexReg 3696; amended to be effective May 3, 1988, 13 TexReg 1913; amended to be effective November 7, 1991, 16 TexReg 6065; amended to be effective March 20, 1992, 17 TexReg 1737.

Cross References: This Section cited in 30 TAC §335.205, (relating to Prohibition of Permit Issuance).

§ 335.203. Site Selection To Protect Groundwater or Surface Water

The commission may not issue a permit for a new hazardous waste management facility or the areal expansion of an existing hazardous waste management facility unless it finds that the proposed site, when evaluated in light of proposed design, construction, and operational features, reasonably minimizes possible contamination of surface water and groundwater. In making this determination, the commission shall consider the following factors:

(1) active geologic processes such as flooding, erosion, subsidence, submergence, and faulting;

(2) groundwater conditions such as groundwater flow rate, groundwater quality, length of flow path to points of discharge, and aquifer recharge or discharge conditions;

(3) soil conditions such as stratigraphic profile and complexity, hydraulic conductivity of strata, and separation distance from the facility to the aquifer and points of discharge to surface water; and

(4) climatological conditions.

Source: The provisions of this §335.203 adopted to be effective May 28, 1986, 11 TexReg 2347.

Cross References: This Section cited in 30 TAC §335.205, (relating to Prohibition of Permit Issuance).

§ 335.204. Unsuitable Site Characteristics

(a) Storage or processing facilities (excluding storage surface impoundments).

(1) A storage or processing facility (excluding storage surface impoundments) may not be located in the 100-year floodplain unless it is designed, constructed, operated, and maintained to prevent physical transport of any hazardous waste by a 100-year flood event. "Physical transport" does not include movement of hazardous waste by an owner or operator to move the hazardous waste to safety during the threat of a 100-year flood event.

(2) A storage or processing facility (excluding storage surface impoundments) may not be located in wetlands.

(3) A storage or processing facility (excluding storage surface impoundments) may not be located on the recharge zone of a sole-source aquifer unless secondary containment is provided to preclude migration to groundwater from spills, leaks, or discharges.

(4) A storage or processing facility (excluding storage surface impoundments) may not be located in areas overlying regional aquifers unless:

(A) the regional aquifer is separated from the facility by a minimum of 10 feet of material with a hydraulic conductivity toward the aquifer not greater than 10^{-7}centimeters per second (cm/sec), or a thicker interval of more permeable material which provides equivalent or greater retardation to pollutant migration; or

(B) secondary containment is provided to preclude migration to groundwater from spills, leaks, or discharges.

(5) A storage or processing facility (excluding storage surface impoundments) may not be located in areas where soil unit(s) within five feet of the containment structure have a Unified Soil Classification of GW, GP, GM, GC, SW, SP, or SM, or a hydraulic conductivity greater than 10^{-5}cm/sec unless:

(A) secondary containment is provided to preclude migration to groundwater or surface water from spills, leaks, or discharges; or

(B) the soil unit is not sufficiently thick and laterally continuous to provide a significant pathway for waste migration.

(6) A storage or processing facility (excluding storage surface impoundments) may not be located in areas of direct drainage within one mile of a lake at its maximum conservation pool level, if the lake is used to supply public drinking water through a public water system, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from a release in such areas.

(7) A storage or processing facility (excluding storage surface impoundments) may not be located in areas of active geologic processes unless the design, construction, and operational features of the facility will prevent adverse effects resulting from the geologic processes.

(8) A storage or processing facility may not be located in the critical habitat of an endangered species of plant or animal unless the design, construction, and operational features of the facility will prevent adverse effects on the critical habitat of the endangered species.

(9) A storage or processing facility may not be located within 30 feet of the upthrown side or 50 feet of the downthrown side of the actual or inferred surface expression of a fault that has reasonably been shown to have caused displacement of shallow Quaternary sediments or of man-made structures, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from fault movement. The presence, and if a fault is found to be present, the width and location of the actual or inferred surface expression of a fault, including both the identified zone of deformation and the combined uncertainties in locating a fault trace, must be determined by a qualified geologist or geotechnical engineer. For purposes of fault assessment under this paragraph, depths of shallow sediments to be considered could be as little as 100 feet (for older, slowly accumulated sediments), or as great as 300 feet (for younger, rapidly accumulated sediments). The fault study should include analyses of any electric logs developed for any required subsurface characterization of the site, interpretation of available aerial photographs, study of available maps, logs, and documents that may indicate fault locations at the surface and in the subsurface, and a visual observation of the proposed site.

(b) Land treatment facilities.

(1) A land treatment facility may not be located in the 100-year floodplain unless it is designed, constructed, operated, and maintained to prevent physical transport of any hazardous waste by a 100-year flood event. A new commercial hazardous waste management facility land treatment unit may not be located in a 100-year floodplain,

unless the applicant demonstrates to the satisfaction of the commission that the facility design will prevent the physical transport of any hazardous waste by a 100-year flood event.

(2) A land treatment facility may not be located in wetlands.

(3) A land treatment facility may not be located in the recharge zone of a sole-source aquifer.

(4) A land treatment facility may not be located in areas overlying regional aquifers unless:

(A) it is an area where the average annual evaporation exceeds average annual rainfall plus the hydraulic loading rate of the facility by more than 40 inches and the depth to the regional aquifer is greater than 100 feet from the base of the treatment zone; or

(B) the regional aquifer is separated from the base of the treatment zone by a minimum of 10 feet of material with a hydraulic conductivity toward the aquifer not greater than 10^{-7}cm/sec, or a thicker interval of more permeable material which provides equivalent or greater retardation to pollutant migration.

(5) A land treatment facility may not be located in areas where soil unit(s) within five feet of the treatment zone have a Unified Soil Classification of GW, GP, GM, GC, SW, SP, or SM, or a hydraulic conductivity greater than 10^{-5}cm/sec, unless:

(A) it is in an area where the average annual evaporation exceeds average annual rainfall plus the hydraulic loading rate by more than 40 inches; or

(B) the soil unit is not sufficiently thick and laterally continuous to provide a significant pathway for waste migration.

(6) A land treatment facility may not be located within 1,000 feet of an established residence, church, school, day care center, surface water body used for a public drinking water supply, or dedicated public park which is in use at the time the notice of intent to file a permit application is filed with the commission, or if no such notice is filed, at the time the permit application is filed with the commission. The measurement of distances required for a new hazardous waste land treatment facility shall be taken from a perimeter around the proposed new hazardous waste land treatment management unit. The perimeter shall be not more than 75 feet from the edge of the proposed new hazardous waste land treatment unit.

(7) A land treatment facility may not be located in areas of direct drainage within one mile of a lake at its maximum conservation pool level, if the lake is used to supply public drinking water through a public water system, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from a release in such areas.

(8) A land treatment facility may not be located in areas of active geologic processes unless the design, construction, and operational features of the facility will prevent adverse effects resulting from the geologic processes.

(9) A land treatment facility may not be located within 1,000 feet of an area subject to active coastal shoreline erosion if the area is protected by a barrier island or peninsula unless the design, construction, and operational features of the facility will prevent adverse effects resulting from storm surge and erosion or scouring by water. On coastal shorelines which are subject to active shoreline erosion and which are unprotected by a barrier island or peninsula, a separation distance from the shoreline to the facility must be at least 5,000 feet unless the design, construction, and operational features of the facility will prevent adverse effects resulting from storm surge and erosion or scouring by water.

(10) A land treatment facility may not be located in the critical habitat of an endangered species of plant or animal unless the design, construction, and operational features of the facility will prevent adverse effects on the critical habitat of the endangered species.

(11) A land treatment facility may not be located on a barrier island or peninsula.

(12) A land treatment facility may not be located within 30 feet of the upthrown side or 50 feet of the downthrown side of the actual or inferred surface expression of a fault that has reasonably been shown to have caused displacement of shallow Quaternary sediments or of man-made structures, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from fault movement. The presence, and if a fault is found to be present, the width and location of the actual or inferred surface expression of a fault, including both the identified zone of deformation and the combined uncertainties in locating a fault trace, must be determined by a qualified geologist or geotechnical engineer. For purposes of fault assessment under this paragraph, depths of shallow sedi-

ments to be considered could be as little as 100 feet (for older, slowly accumulated sediments), or as great as 300 feet (for younger, rapidly accumulated sediments). The fault study should include analyses of any electric logs developed for any required subsurface characterization of the site, interpretation of available aerial photographs, study of available maps, logs, and documents that may indicate fault locations at the surface and in the subsurface, and a visual observation of the proposed site.

(c) Waste piles.

(1) A waste pile may not be located in the 100-year floodplain unless it is designed, constructed, operated, and maintained to prevent physical transport of any hazardous waste by a 100-year flood event. "Physical transport" does not include movement of hazardous waste by an owner or operator to move the hazardous waste to safety during the threat of a 100-year flood event.

(2) A waste pile may not be located in wetlands.

(3) A waste pile may not be located on the recharge zone of a sole-source aquifer.

(4) A waste pile may not be located in areas overlying regional aquifers unless:

(A) the regional aquifer is separated from the base of the containment structure by a minimum of 10 feet of material with a hydraulic conductivity toward the aquifer not greater than 10^{-7}cm/sec or a thicker interval of more permeable material which provides equivalent or greater retardation to pollutant migration; or

(B) secondary containment is provided to preclude pollutant migration to groundwater from spills, leaks, or discharges.

(5) A waste pile may not be located in areas where soil unit(s) within five feet of the containment structure have a Unified Soil Classification of GW, GP, GM, GC, SW, SP, or SM, or a hydraulic conductivity greater than 10^{-5}cm/sec unless:

(A) secondary containment is provided to preclude pollutant migration to groundwater or surface water from spills, leaks, or discharges; or

(B) the soil unit is not sufficiently thick and laterally continuous to provide a significant pathway for waste migration.

(6) A waste pile may not be located in areas of direct drainage within one mile of a lake at its maximum conservation pool level, if the lake is used to supply public drinking water through a public water system, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from a release in such areas.

(7) A waste pile may not be located in areas of active geologic processes unless the design, construction, and operational features of the facility will prevent adverse effects resulting from the geologic processes.

(8) A waste pile may not be located within 1,000 feet of an area subject to active coastal shoreline erosion if the area is protected by a barrier island or peninsula unless the design, construction, and operational features of the facility will prevent adverse effects resulting from storm surge and erosion or scouring by water. On coastal shorelines which are subject to active shoreline erosion and which are unprotected by a barrier island or peninsula, a separation distance from the shoreline to the facility must be at least 5,000 feet unless the design, construction, and operational features of the facility will prevent adverse effects resulting from storm surge and erosion or scouring by water.

(9) A waste pile may not be located in the critical habitat of an endangered species of plant or animal unless the design, construction, and operational features of the facility will prevent adverse effects on the critical habitat of the endangered species.

(10) A waste pile may not be located on a barrier island or peninsula.

(11) A waste pile may not be located within 30 feet of the upthrown side or 50 feet of the downthrown side of the actual or inferred surface expression of a fault that has reasonably been shown to have caused displacement of shallow Quaternary sediments or of man-made structures, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from fault movement. The presence, and if a fault is found to be present, the width and location of the actual or inferred surface expression of a fault, including both the identified zone of deformation and the combined uncertainties in locating a fault trace, must be determined by a qualified geologist or geotechnical engineer. For purposes of fault assessment under this paragraph, depths of shallow sedi-

ments to be considered could be as little as 100 feet (for older, slowly accumulated sediments), or as great as 300 feet (for younger, rapidly accumulated sediments). The fault study should include analyses of any electric logs developed for any required subsurface characterization of the site, interpretation of available aerial photographs, study of available maps, logs, and documents that may indicate fault locations at the surface and in the subsurface, and a visual observation of the proposed site.

(d) Storage surface impoundments.

(1) A storage surface impoundment may not be located in the 100-year floodplain unless it is designed, constructed, operated, and maintained to prevent physical transport of any hazardous waste by a 100-year flood event. "Physical transport" does not include movement of hazardous waste by an owner or operator to move the hazardous waste to safety during the threat of a 100-year flood event.

(2) A storage surface impoundment may not be located in wetlands.

(3) A storage surface impoundment may not be located on the recharge zone of a sole-source aquifer.

(4) A storage surface impoundment may not be located in areas overlying regional aquifers unless:

(A) the regional aquifer is separated from the base of the containment structure by a minimum of 10 feet of material with a hydraulic conductivity toward the aquifer not greater than 10^{-7}cm/sec or a thicker interval of more permeable material which provides equivalent or greater retardation to pollutant migration; or

(B) the impoundment is double-lined and has an intervening leak detection system or the facility has an equivalent design which provides commensurate or greater assurance of waste containment.

(5) A storage surface impoundment may not be located in areas where the soil unit(s) within five feet of the containment structure have a Unified Soil Classification of GW, GP, GM, GC, SW, SP, or SM, or a hydraulic conductivity greater than 10^{-5}cm/sec unless:

(A) the impoundment is double-lined and has an intervening leak detection system or the facility has an equivalent design which provides commensurate or greater assurance of waste containment; or

(B) the soil unit is not sufficiently thick and laterally continuous to provide a significant pathway for waste migration.

(6) A storage surface impoundment may not be located in areas of direct drainage within one mile of a lake at its maximum conservation pool level, if the lake is used to supply public drinking water through a public water system, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from a release in such areas.

(7) A storage surface impoundment may not be located in areas of active geologic processes unless the design, construction, and operational features of the facility will prevent adverse effects resulting from the geologic processes.

(8) A storage surface impoundment may not be located within 1,000 feet of an area of active coastal shoreline erosion if the area is protected by a barrier island or peninsula, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from storm surge and erosion or scouring by water. On coastal shorelines which are subject to active shoreline erosion and which are unprotected by a barrier island or peninsula, a separation distance from the shoreline to the facility must be at least 5,000 feet unless the design, construction, and operational features of the facility will prevent adverse effects resulting from storm surge and erosion or scouring by water.

(9) A storage surface impoundment may not be located in the critical habitat of an endangered species of plant and animal unless the design, construction, and operational features of the facility will prevent adverse effects on the critical habitat of the endangered species.

(10) A storage surface impoundment may not be located on a barrier island or peninsula.

(11) A storage surface impoundment may not be located within 30 feet of the upthrown side or 50 feet of the downthrown side of the actual or inferred surface expression of a fault that has reasonably been shown to have caused displacement of shallow Quaternary sediments or of man-made structures, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from fault movement. The presence, and if a fault is found to be present, the width and location of the actual or inferred surface expression of a fault,

including both the identified zone of deformation and the combined uncertainties in locating a fault trace, must be determined by a qualified geologist or geotechnical engineer. For purposes of fault assessment under this paragraph, depths of shallow sediments to be considered could be as little as 100 feet (for older, slowly accumulated sediments), or as great as 300 feet (for younger, rapidly accumulated sediments). The fault study should include analyses of any electric logs developed for any required subsurface characterization of the site, interpretation of available aerial photographs, study of available maps, logs, and documents that may indicate fault locations at the surface and in the subsurface, and a visual observation of the proposed site.

(e) Landfills. Any surface impoundment to be closed as a landfill (where wastes will remain after closure of the impoundment) is subject to the requirements for landfills.

(1) Except as provided in subparagraphs (A) and (B) of this paragraph, a landfill may not be located in the 100-year floodplain existing prior to site development except in areas with flood depths less than three feet. Any landfill within the 100-year floodplain must be designed, constructed, operated, and maintained to prevent physical transport of any hazardous waste by a 100-year flood event.

(A) The areal expansion of a landfill in a 100-year floodplain may be allowed by the commission if the applicant demonstrates to the satisfaction of the commission that the facility design will prevent the physical transport of any hazardous waste by a 100-year flood event.

(B) A new commercial hazardous waste management facility landfill unit may not be located in a 100-year floodplain, unless the applicant demonstrates to the satisfaction of the commission that the facility design will prevent the physical transport of any hazardous waste by a 100-year flood event.

(2) A landfill may not be located in wetlands.

(3) A landfill may not be located on the recharge zone of a sole-source aquifer.

(4) A landfill may not be located in areas overlying regional aquifers unless:

(A) it is in an area where the average annual evaporation exceeds the average annual rainfall by more than 40 inches and the depth to the regional aquifer is greater than 100 feet from the base of the containment structure; or

(B) the regional aquifer is separated from the base of the containment structure by a minimum of 10 feet of material with a hydraulic conductivity toward the aquifer not greater than 10^{-7}cm/sec or a thicker interval of more permeable material which provides equivalent or greater retardation to pollutant migration.

(5) A landfill may not be located in areas where the soil unit(s) within five feet of the containment structure have a Unified Soil Classification of GW, GP, GM, GC, SW, SP, or SM, or a hydraulic conductivity greater than 10^{-5}cm/sec unless:

(A) it is an area where the average annual evaporation exceeds average annual rainfall by more than 40 inches; or

(B) the soil unit is not sufficiently thick and laterally continuous to provide a significant pathway for waste migration.

(6) A landfill may not be located within 1,000 feet of an established residence, church, school, day care center, surface water body used for a public drinking water supply, or dedicated public park which is in use at the time the notice of intent to file a permit application is filed with the commission, or if no such notice is filed, at the time the permit application is filed with the commission. The measurement of distances required for a new hazardous waste landfill shall be taken from a perimeter around the proposed new hazardous waste landfill. The perimeter shall be not more than 75 feet from the edge of the proposed new hazardous waste landfill unit.

(7) A landfill at which hazardous waste is received for a fee may not be located in the 100-year floodplain of a perennial stream, delineated on a flood map adopted by the Federal Emergency Management Agency after September 1, 1985, as zone A1-99, VO, or V1-30. This provision shall not apply to any facility for which a notice of intent to file an application, or an application, has been filed with the commission as of September 1, 1985.

(8) A landfill may not be located in areas of direct drainage within one mile of a lake at its maximum conservation pool level, if the lake is used to supply public drinking water through a public water system, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from a release in such areas.

(9) A landfill may not be located in areas of active geologic processes unless the design, construction, and operational features of the facility will prevent adverse effects resulting from the geologic processes.

(10) A landfill may not be located within 1,000 feet of an area subject to active coastal shoreline erosion, if the area is protected by a barrier island or peninsula, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from storm surge and erosion or scouring by water. On coastal shorelines which are subject to active shoreline erosion and which are unprotected by a barrier island or peninsula, a separation distance from the shoreline to the facility must be at least 5,000 feet unless the design, construction, and operational features of the facility will prevent adverse effects resulting from storm surge and erosion or scouring by water.

(11) A landfill may not be located in the critical habitat of an endangered species of plant or animal unless the design, construction, and operational features of the facility will prevent adverse effects on the critical habitat of the endangered species.

(12) A landfill may not be located on a barrier island or peninsula.

(13) A landfill may not be located within 30 feet of the upthrown side or 50 feet of the downthrown side of the actual or inferred surface expression of a fault that has reasonably been shown to have caused displacement of shallow Quaternary sediments or of man-made structures, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from fault movement. The presence, and if a fault is found to be present, the width and location of the actual or inferred surface expression of a fault, including both the identified zone of deformation and the combined uncertainties in locating a fault trace, must be determined by a qualified geologist or geotechnical engineer. For purposes of fault assessment under this paragraph, depths of shallow sediments to be considered could be as little as 100 feet (for older, slowly accumulated sediments), or as great as 300 feet (for younger, rapidly accumulated sediments). The fault study should include analyses of any electric logs developed for any required subsurface characterization of the site, interpretation of available aerial photographs, study of available maps, logs, and documents that may indicate fault locations at the surface and in the subsurface, and a visual observation of the proposed site.

(14) For purposes of this subchapter, any surface impoundment to be closed as a landfill (where wastes will remain after closure of the impoundment) is subject to the requirements for landfills.

(f) Injection wells. The placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine, or cave is prohibited.

Source: The provisions of this §335.204 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective May 3, 1988, 13 TexReg 1913; amended to be effective November 7, 1991, 16 TexReg 6065.

Cross References: This Section cited in 30 TAC §335.205, (relating to Prohibition of Permit Issuance).

§ 335.205. Prohibition of Permit Issuance

(a) The commission shall not issue a permit for a new hazardous waste management facility or an areal expansion of an existing facility if the facility or expansion does not meet the requirements of §335.204 of this title (relating to Unsuitable Site Characteristics).

(b) The commission shall not issue a permit for a new hazardous waste landfill or the areal expansion of an existing hazardous waste landfill if there is a practical, economic, and feasible alternative to such a landfill that is reasonably available to manage the types and classes of hazardous waste which might be disposed of at the landfill.

(c) No permit shall be issued for a new commercial hazardous waste management facility as defined in §335.202 of this title (relating to Definitions) including such facilities that burn or propose to burn waste-derived fuel, as defined in this section, or the subsequent areal expansion of such a facility or unit of that facility if the boundary of the unit is to be located within one-half of a mile (2,640 feet) of an established residence, church, school, day care center, surface water body used for a public drinking water supply, or dedicated public park.

(d) For a subsequent areal expansion of a new commercial hazardous waste management facility that is required to comply with subsection (c) of this section, distances shall be measured from an established residence, church, school, day care center, surface water body used for a public drinking water supply, or dedicated public park only if such structure, water supply, or park was in place

at the time the distance was certified for the original permit.

(e) No permit shall be issued for a new commercial hazardous waste management facility that is proposed to be located at a distance greater than ½ mile (2,640 feet) from an established residence, church, school, day care center, surface water body used for a public drinking water supply, or dedicated public park unless the applicant demonstrates to the satisfaction of the commission that the facility will be operated so as to safeguard public health and welfare and protect physical property and the environment, at any distance beyond the facility's property boundaries.

(f) The measurement of distances required in subsections (a) and (c)-(e) of this section shall be taken toward an established residence, church, school, day care center, surface water body used for a public drinking water supply, or dedicated public park that is in use when the notice of intent to file a permit application is filed with the commission or, if no notice of intent is filed, when the permit application is filed with the commission. The restrictions imposed by subsections (a) and (c)-(e) of this section do not apply to an established residence, church, school, day care center, surface water body used for a public drinking supply, or dedicated public park located within the boundaries of a commercial hazardous waste management facility, or property owned by the permit applicant.

(g) The measurement of distances required in subsections (a) and (c)-(e) of this section shall be taken from a perimeter around the proposed hazardous waste management unit. The perimeter shall be not more than 75 feet from the edge of the proposed hazardous waste management unit.

(h) No permit shall be issued for a Class I injection well, a proposed hazardous waste management facility other than a Class I injection well, or a capacity expansion of an existing hazardous waste management facility if a fault exists within 2 ½ miles from the proposed or existing wellbore of the Class I injection well or the area within the cone of influence whichever is greater, or if a fault exists within 3,000 feet of the proposed hazardous waste management facility other than a Class I injection well or of the capacity expansion of an existing hazardous waste management facility unless the applicant demonstrates to the satisfaction of the commission unless previously demonstrated to the commission or to the United States Environmental Protection Agency that:

(1) in the case of Class I injection wells, that the fault is not sufficiently transmissive or vertically extensive to allow migration of hazardous constituents out of the injection zone; or

(2) in the case of a proposed hazardous waste management facility other than a Class I injection well or for a capacity expansion of an existing hazardous waste management facility, that:

(A) the fault has not had displacement within Holocene time, or if faults have had displacement within Holocene time, that no such faults pass within 200 feet of the portion of the surface facility where treatment, storage, or disposal of hazardous waste will be conducted; and

(B) the fault will not result in structural instability of the surface facility or provide for groundwater movement to the extent that there is endangerment to human health or the environment.

(i) Nothing in this subchapter shall be construed to require the commission to issue a permit notwithstanding a finding that the proposed facility would satisfy the requirements of §335.203 of this title (relating to Site Selection To Protect Groundwater or Surface Water) and notwithstanding the absence of site characteristics which would disqualify the site from permitting pursuant to §335.204 of this title (relating to Unsuitable Site Characteristics).

(j) The term "waste-derived fuel," when used in this section, shall mean any material resulting from the blending or inclusion of hazardous waste that is to be burned for energy recovery. Such fuel does not include material derived from nonhazardous waste such as nonhazardous waste garbage, rubbish, refuse, tires, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility, or other nonhazardous waste solid, liquid, semisolid, or contained gaseous material resulting from industrial, municipal, commercial, mining, or agricultural operations or from community or institutional activities.

Source: The provisions of this §335.205 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective November 7, 1991, 16 TexReg 6065; amended to be effective July 29, 1992, 17 TexReg 5017.

§ 335.206. Petitions for Rulemaking

Local governments may petition the commission for a rule which restricts or prohibits the siting of a new hazardous waste management facility in areas including, but not limited to, those meeting one or

more of the characteristics delineated in the Texas Solid Waste Disposal Act, Texas Health and Safety Code Annotated, Chapter 361 (Vernon), §361.022, and §335.204 of this title (relating to Unsuitable Site Characteristics). Such petitions shall be submitted in writing and shall comply with the requirements of §275.78 of this title (relating to Petition for Adoption of Rules). No rule adopted by the commission under this section shall affect the siting of a new hazardous waste management facility if an application or a notice of intent to file an application with respect to such facility has been filed with the commission prior to the filing of a petition under this section.

Source: The provisions of this §335.206 adopted to be effective May 28, 1986, 11 TexReg 2347; amended to be effective April 23, 1991, 16 TexReg 2053.

SUBCHAPTER H. STANDARDS FOR THE MANAGEMENT OF SPECIFIC WASTES AND SPECIFIC TYPES OF FACILITIES

Cross References: This Subchapter cited in 30 TAC §335.2, (relating to Permit Required); 30 TAC §335.6, (relating to Notification Requirements); 30 TAC §335.23, (relating to Procedures for Case-By-Case Regulation of Hazardous Waste Recycling Activities); 30 TAC §335.24, (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials); 30 TAC §335.41, (relating to Purpose, Scope, and Applicability); 30 TAC §335.43, (relating to Permit Required).

RECYCLABLE MATERIALS USED IN A MANNER CONSTITUTING DISPOSAL

§ 335.211. Applicability

(a) The regulations of §§335.211-335.214 of this title (relating to Recyclable Materials Used in a Manner Constituting Disposal) apply to recyclable materials that are applied to or placed on the land:

(1) without mixing with any other substance(s);

(2) after mixing or combination with any other substance(s). These materials will be referred to throughout this subpart as materials used in a manner that constitutes disposal.

(b) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation if the recyclable materials have undergone a chemical reaction in the course of producing the product so as to become inseparable by physical means and if such products meet the applicable treatment standards in 40 Code of Federal Regulations, Subpart D, of Part 268 (or applicable prohibition levels in §268.32 or RCRA, §3004(d), where no treatment standards have been established) for each recyclable material (i.e., hazardous waste) that they contain. Commercial fertilizers that are produced for the general public's use that contain recyclable materials also are not presently subject to regulation provided they meet these same treatment standards or prohibition levels for each recyclable material that they contain. However, zinc-containing fertilizers using hazardous waste K061 that are produced for the general public's use are not presently subject to regulation.

Source: The provisions of this §335.211 adopted to be effective May 28, 1986, 11 TexReg 2348; amended to be effective August 30, 1988, 13 TexReg 4072; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.211, (relating to Applicability); 30 TAC §335.214, (relating to Standards Applicable to Users of Materials That Are Used in a Manner That Constitutes Disposal).

§ 335.212. Standards Applicable to Generators and Transporters of Materials Used in a Manner That Constitutes Disposal

Generators and transporters of materials that are used in a manner that constitutes disposal are subject to the applicable requirements of Subchapter A of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General), Subchapter C of this chapter (relating to Standards Applicable to Generators of Hazardous Waste) and Subchapter D of this chapter (relating to Standards Applicable to Transporters of Hazardous Waste), and the notification requirement under §335.6 of this title (relating to Notification Requirements).

Source: The provisions of this §335.212 adopted to be effective May 28, 1986, 11 TexReg 2348.

Cross References: This Section cited in 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.211, (relating to Applicability).

§ 335.213. Standards Applicable to Storers of Materials That Are To Be Used in a Manner That Constitutes Disposal Who Are Not the Ultimate Users

Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ulti-

mate users of the materials, are regulated under all applicable provisions of Subchapter A of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General), Subchapter B of this chapter (relating to Hazardous Waste Management-General Provisions), Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), Chapter 305 of this title (relating to Consolidated Permits), Chapter 261 of this title (relating to Introductory Provisions), Chapter 263 of this title (relating to General Rules), Chapter 265 of this title (relating to Procedures Before Public Hearing), Chapter 267 of this title (relating to Procedures During Public Hearing), Chapter 269 of this title (relating to Procedures After Public Hearing Before an Examiner), Chapter 271 of this title (relating to Procedures After Public Hearing Before the Full Commission), Chapter 273 of this title (relating to Procedures After Final Decision), and the notification requirement under §335.6 of this title (relating to Notification Requirements).

Source: The provisions of this §335.213 adopted to be effective May 28, 1986, 11 TexReg 2348.

Cross References: This Section cited in 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.211, (relating to Applicability).

§ 335.214. Standards Applicable to Users of Materials That Are Used in a Manner That Constitutes Disposal

(a) Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated under all applicable provisions of Subchapter A of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General), Subchapter B of this chapter (relating to Hazardous Waste Management-General Provisions), Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), Chapter 305 of this title (relating to Consolidated Permits), Chapter 261 of this title (relating to Introductory Provisions), Chapter 263 of this title (relating to General Rules), Chapter 265 of this title (relating to Procedures Before Public Hearing), Chapter 267 of this title (relating to Procedures During Public Hearing), Chapter 269 of this title (relating to Procedures After Public Hearing Before an Examiner), Chapter 271 of this title (relating to Procedures After Public Hearing Before the Full Commission), Chapter 273 of this title (relating to Procedures After Final Decision), and the notification requirement under §335.6 of this title (relating to Notification Requirements). These requirements do not apply to products which contain these recyclable materials under the provisions of §335.211(b) of this title (relating to Applicability).

(b) The use of waste or used oil or other material, which is contaminated with dioxin or any other hazardous waste (other than a waste identified solely on the basis of ignitability) for dust suppression or road treatment is prohibited.

Source: The provisions of this §335.214 adopted to be effective May 28, 1986, 11 TexReg 2348.

Cross References: This Section cited in 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.211, (relating to Applicability).

HAZARDOUS WASTE BURNED FOR ENERGY RECOVERY

§ 335.221. Applicability and Standards

(a) The following regulations contained in 40 Code of Federal Regulations (CFR) Part 266 (including all appendices to Part 266) are adopted by reference, as amended and adopted in the Code of Federal Regulations through June 1, 1990 (see FedReg 22685) and as published and adopted in the February 21, 1991, July 17, 1991, August 27, 1991, and September 5, 1991, issues of the Federal Register (see 56 FedReg 7239, 32688, 42504, and 43874):

(1) §266.100—Applicability, except §266.100(b);

(2) §266.102(a)—Permit Standards for Burners—Applicability, excepting those portions of §266.102(a) containing references to §§264.56(d), 264.71-264.72, 264.75-264.77, 264.90, 264.101, and 264.142(a)(2);

(3) §266.102(b)—Permit Standards for Burners—Hazardous Waste Analysis;

(4) §266.102(c)—Permit Standards for Burners—Emission Standards;

(5) §266.102(d)—Permit Standards for Burners—Permits;

(6) §266.102(e)—Permit Standards for Burners—Operating Requirements;

(7) §266.103(a)(1)-(3)—Interim Status Standards for Burners—Purpose, Scope, and Applicability—General; Exemptions; and Prohibition on Burning Dioxin-Listed Wastes, respectively, except §266.103(a)(1)(iii) and (2);

(8) §266.103(a)(4)—Interim Status Standards for Burners—Purpose, Scope, and Applicability—Applicability of Part 265 Standards, excepting those portions of §266.103(a)(4) containing references to §§265.56(d), 265.71-265.72, 265.75-265.77, 265.142(a)(2); facilities qualifying for a corporate guarantee for liability are subject to §265.147(g)(2) and §264.151(h)(2), as amended;

(9) §266.103(a)(5)-(6)—Interim Status Standards for Burners—Purpose, Scope, and Applicability: Special Requirements for Furnaces; and Restrictions on Burning Hazardous Waste That is Not a Fuel;

(10) §266.103(b)—Interim Status Standards for Burners—Certification of Precompliance, except §266.103(b)(1) and (6);

(11) §266.103(c)—Interim Status Standards for Burners—Certification of Compliance, except §266.103(c)(3)(i);

(12) §266.103(f)—Interim Status Standards for Burners—Start-Up and Shut-Down;

(13) §266.103(g)(1)-(2)—Interim Status Standards for Burners—Automatic Waste Feed Cutoff;

(14) §266.103(h)-(*l*)—Interim Status Standards for Burners: Fugitive Emissions; Changes; Monitoring and Inspections; Recordkeeping; and Closure, respectively;

(15) §266.104—Standards to Control Organic Emissions, except §266.104(i);

(16) §266.105—Standards to Control Particulate Matter, except §266.105(c) and except as provided by §335.226 of this title (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities);

(17) §266.106—Standards to Control Metals Emissions, except §266.106(i);

(18) §266.107—Standards to Control Hydrogen Chloride (HCl) and Chlorine Gas (Cl_2) Emissions, except §266.107(h);

(19) §266.108—Small Quantity On-Site Burner Exemption, except §266.108(d), and except that hazardous wastes subject to §335.78 of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators) may not be burned in an off-site device under the exemption provided by §266.108;

(20) §266.109—Low-Risk Waste Exemption;

(21) §266.110—Waiver of DRE Trial Burn for Boilers;

(22) §266.111—Standards for Direct Transfer; and

(23) §266.112—Regulation of Residues.

(b) The following hazardous wastes and facilities are not regulated under this section and §§335.222-335.229 of this title (relating to Hazardous Waste Burned in Boilers and Industrial Furnaces):

(1) used oil burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in 40 Code of Federal Regulations Part 261, Subpart C. Such used oil is subject to regulation by the United States Environmental Protection Agency (EPA) under 40 Code of Federal Regulations Part 266, Subpart E. This exception does not apply if the used oil has been mixed with hazardous waste, or if the used oil is considered to be a hazardous waste by EPA under 40 Code of Federal Regulations §266.40(c). Used oil exhibiting a characteristic of hazardous waste remains subject to the requirements of §335.24(g) of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials);

(2) hazardous wastes that are exempt from regulation under the provisions of 40 Code of Federal Regulations §261.4 and §335.24(c)(5)-(9) of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials), and hazardous wastes that are subject to the special requirements for conditionally exempt small quantity generators under the provisions of §335.78 of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators);

(3) gas recovered from hazardous or solid waste landfills when such gas is burned for energy recovery; and

(4) coke ovens, if the only hazardous waste burned is EPA Hazardous Waste Number K087, decanter tank tar sludge from coking operations.

Source: The provisions of this §335.221 adopted to be effective September 1, 1986, 11 TexReg 3697; amended to be effective July

14, 1987, 12 TexReg 2106; amended to be effective July 29, 1992, 17 TexReg 5017.

Cross References: This Section cited in 30 TAC §335.6, (relating to Notification Requirements); 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.223, (relating to Additional Permit Standards for Burners); 30 TAC §335.224, (relating to Additional Interim Status Standards for Burners); 30 TAC §335.226, (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities).

§ 335.222. Management Prior to Burning

(a) Generators. Generators of hazardous waste that is burned in a boiler or industrial furnace are subject to the requirements of Subchapter C of this chapter (relating to Standards Applicable to Generators of Hazardous Waste).

(b) Transporters. Transporters of hazardous waste that is burned in a boiler or industrial furnace are subject to the requirements of Subchapter D of this chapter (relating to Standards Applicable to Transporters of Hazardous Waste).

(c) Storage facilities. The provisions listed under paragraph (1) of this subsection apply to storage or processing by burners and by intermediaries such as processors, blenders, and distributors between the generator and the burner.

(1) Owners and operators of facilities that store or process hazardous waste that is burned in a boiler or industrial furnace are subject to the applicable provisions of the following, except as provided by paragraph (2) of this subsection:

(A) Subchapter A of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General);

(B) Subchapter B of this chapter (relating to Hazardous Waste Management General Provisions);

(C) Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), except §335.112(a)(12)-(19) of this title (relating to Standards);

(D) Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), except §335.152(11)-(16) of this title (relating to Standards);

(E) Chapter 305 of this title (relating to Consolidated Permits).

(2) Owners and operators of facilities that burn, in an on-site boiler or industrial furnace exempt from regulations under the small quantity burner provisions of 40 Code of Federal Regulations §266.108, only hazardous waste that they generate are exempt from regulation under the provisions listed above in paragraph (1) of this subsection, with respect to the storage or processing of mixtures of hazardous waste and the primary fuel to the boiler or industrial furnace in tanks that feed the fuel mixture directly to the burner. Storage or processing of hazardous waste by such owners and operators prior to mixing with the primary fuel is subject to regulation as prescribed in paragraph (1) of this subsection.

Source: The provisions of this §335.222 adopted to be effective July 29, 1992, 17 TexReg 5017.

Cross References: This Section cited in 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.221, (relating to Applicability and Standards); 30 TAC §335.226, (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities).

§ 335.223. Additional Permit Standards for Burners

(a) In addition to the permit standards for burners under §335.221(a)(2)-(6) of this title (relating to Applicability and Standards), owners and operators of boilers and industrial furnaces that burn hazardous waste are subject to the following provisions, including the applicable provisions of Subchapter A of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General) and Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), as follows:

(1) §335.12 of this title (relating to Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities);

(2) §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities);

(3) §335.153 of this title (relating to Reporting of Emergency Situations by Emergency Coordinator);

(4) §335.154 of this title (relating to Reporting Requirements for Owners and Operators);

(5) §335.155 of this title (relating to Additional Reports);

(6) §335.156 of this title (relating to Applicability of Groundwater Monitoring and Response);

(7) §335.167 of this title (relating to Corrective Action for Solid Waste Management Units);

(8) §335.178 of this title (relating to Cost Estimate for Closure).

(b) For the purposes of permit enforcement, compliance with the operating requirements specified in the permit, pursuant to 40 Code of Federal Regulations (CFR) §266.102, and §335.221(a)(1)-(6) of this title (relating to Applicability and Standards), and subsection (a)(1)-(8) of this section, will be regarded as compliance with 40 CFR §§266.104-266.107. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of 40 CFR §§266.104-266.107 may be "good cause" for justifying suspension or revocation of a permit under §305.66 of this title (relating to Permit Denial, Suspension, and Revocation) or may be "good cause" for amendment of the permit under §305.62(d)(2) of this title (relating to Amendment).

Source: The provisions of this §335.223 adopted to be effective July 29, 1992, 17 TexReg 5017.

Cross References: This Section cited in 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.221, (relating to Applicability and Standards); 30 TAC §335.226, (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities).

§ 335.224. Additional Interim Status Standards for Burners

In addition to the interim status standards for burners under §335.221(a)(7)-(14) of this title (relating to Applicability and Standards), owners and operators of "existing" boilers and industrial furnaces that burn hazardous waste are subject to the following provisions, including the applicable provisions of Subchapter A of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General) and Subchapter E of this chapter (relating to Interim Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), as follows.

(1) If a boiler or industrial furnace is located at a facility that already has a permit or interim status, then the owner or operator must comply with the applicable rules and regulations dealing with permit amendments or modifications under Chapter 305 of this title (relating to Consolidated Permits) and 40 Code of Federal Regulations (CFR) §270.42, or revisions of applications for hazardous waste permits and changes during interim status under Chapter 305 of this title (relating to Consolidated Permits) and 40 CFR §270.72.

(2) The requirements of this section and §335.221(a)(7)-(14) of this title (relating to Applicability and Standards) do not apply to hazardous wastes and facilities exempt under §335.221(b) of this title or exempt under 40 CFR §266.108, as adopted under §335.221(a)(19) of this title.

(3) Owners and operators of existing boilers and industrial furnaces that burn hazardous waste are subject to the following provisions:

(A) §335.12 of this title (relating to Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities);

(B) §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities);

(C) §335.113 of this title (relating to Reporting of Emergency Situations by Emergency Coordinator);

(D) §335.114 of this title (relating to Reporting Requirements);

(E) §335.115 of this title (relating to Additional Reports);

(F) §335.127 of this title (relating to Cost Estimate for Closure).

(4) The owner or operator must provide complete and accurate information specified in 40 CFR §266.103(b)(2) to the executive director on or before August 21, 1992, and must establish limits for the operating parameters specified in 40 CFR §266.103(b)(3). Such information is termed a "certification of precompliance" and constitutes a certification that the owner or operator has determined that, when the facility is operated within the limits specified in 40 CFR §266.103(b)(3), the owner or operator believes that, using best engineering judgment, emissions of particulate matter, metals, HCl and Cl_2 are not likely to exceed the limits provided under 40 CFR §§266.105, 266.106, and 266.107. The facility may burn hazardous waste only under the operating conditions that the owner or operator establishes under 40 CFR §266.103(b)(3) until the owner or operator submits a revised certification of precompliance under 40 CFR §266.103(b)(8) or a certification of compliance under 40 CFR §266.103(c), or until a permit is issued.

(5) On or before August 21, 1992, the owner or operator must submit a notice for publication in a newspaper regularly published, and generally circulated within the county and area wherein the facility is located and send a copy of the notice of those persons and entities listed under §305.103(b)(2)-(12) of this title (relating to Notice by Mail). The owner and operator must provide to the executive director, with the certification of precompliance, evidence of submittal of the notice for publication. The public notice requirements of this subsection do not apply to recertifications under 40 CFR §266.103(b)(8). The notice shall be entitled "Notice of Certification of Precompliance with Hazardous Waste Burning Requirements of 40 CFR §266.103(b) and 31 TAC §335.224(4) and (5)" An owner or operator who satisfied the public notice requirements under 40 CFR §266.103(b)(6) will be considered compliant with this paragraph provided that the owner or operator submits evidence of such public notice on or before 30 days after the effective date of this paragraph. The notice shall include:

(A) name and address of the owner and operator of the facility as well as the location of the device burning hazardous waste;

(B) date that the certification of precompliance was submitted to the executive director;

(C) brief description of the regulatory process required to comply with the interim status requirements of this section, §335.221(a)(7)-(14) of this title (relating to Applicability and Standards), and 40 CFR §266.103, including required emissions testing to demonstrate conformance with emissions standards for organic compounds, particulate matter, metals, and HCl and Cl_2;

(D) types and quantities of hazardous waste burned including, but not limited to, source(s), whether solids or liquids, as well as an appropriate description(s) of the waste(s);

(E) type of device(s) in which the hazardous waste is burned including a physical description and maximum production rate of each device;

(F) types and quantities per year of other fuels and industrial furnace feedstocks fed to each unit;

(G) brief description of the basis for this certification of precompliance as specified in 40 CFR §266.103(b)(2);

(H) locations where the operating record for the facility can be viewed and copied by interested parties. These locations shall at a minimum include:

(i) the local Texas Water Commission (TWC) district office; and

(ii) the facility site where the device is located;

(I) notification of the establishment by the facility owner or operator of a facility mailing list whereby interested parties shall notify the facility owner or operator that they wish to be placed on the mailing list to receive future information and notices about this facility; and

(J) location (mailing address) of the local TWC district office, where further information can be obtained on TWC regulation of hazardous waste burning.

(6) On or before August 21, 1992, the owner or operator shall conduct emissions testing to document compliance with the emissions standards of 40 CFR §§266.103(a)(5)(i)(D), 266.104(b)-(e), 266.105, 266.106, and 266.107, under the procedures prescribed by this paragraph and paragraphs (7) and (8) of this section and 40 CFR §266.103(c), except under extensions of time provided by 40 CFR §266.103(c)(7). Based on the compliance test, the owner or operator shall submit to the executive director a complete and accurate "certification of compliance," in accordance with 40 CFR §266.103(c)(4), with those emission standards establishing limits on the operating parameters specified in 40 CFR §266.103(c)(1). In accordance with paragraphs (12) and (13) of this section, the executive director may reject the certification of compliance or require additional information to be submitted within specified time frames.

(7) Compliance testing must be conducted under conditions for which the owner or operator has submitted a certification of precompliance under 40 Code of Federal Regulations (CFR) §266.103(b) and paragraphs (4) and (5) of this section, and under conditions established in the notification of compliance testing required by 40 CFR §266.103(c)(2). The owner and operator may seek approval on a case-by-case basis to use compliance test data from one unit in lieu of testing a similar on-site unit. To support the request, the owner or operator must provide a comparison of the hazardous waste burned and other feedstreams, and the design, operation, and maintenance of both the tested unit and the similar unit. The director shall provide a written

approval to use compliance test data in lieu of testing a similar unit if he finds that the hazardous wastes, the devices, and the operating conditions are sufficiently similar, and the data from the other compliance test is adequate to meet the requirements of §266.103(c).

(8) If the owner or operator chooses to submit a revised certification of compliance (recertification of compliance) under 40 CFR §266.103(c)(8), or if the owner or operator is required to submit a recertification of compliance under paragraph (9) or (11) of this section, then the owner or operator shall submit the recertification of compliance to the executive director under the procedures in 40 CFR §266.103(c)(8)(i)-(iv). In accordance with paragraphs (12) and (13) of this section, the executive director may reject the recertification of compliance or require additional information to be submitted within specified time frames.

(9) The owner or operator must conduct compliance testing and submit to the executive director a recertification of compliance under the provisions of paragraph (8) of this section and 40 CFR §266.103(c), within 150 days of rejection by the executive director under this paragraph and paragraphs (6) and (8) of this section. In accordance with paragraphs (12) and (13) of this section, the executive director may reject the recertification of compliance or require additional information to be submitted within specified time frames. Except for the activities necessary for the owner or operator to conduct the compliance testing in accordance with 40 CFR §266.103(c)(8)(i)-(iv), and except for a rejection by the executive director of a recertification of compliance which was voluntarily submitted by the owner or operator pursuant to paragraph (8) of this section, upon rejection by the executive director and until a subsequent recertification of compliance is approved under paragraph (8) of this section, the owner or operator shall not burn hazardous waste in the unit for which a certification of compliance or recertification of compliance was rejected.

(10) Except for a rejection by the executive director of a recertification of compliance which was voluntarily submitted by the owner or operator pursuant to paragraph (8) of this section, upon receipt of the third rejection by the executive director of a certification of compliance and/or recertification of compliance for the burning of hazardous waste in a boiler or industrial furnace, the owner or operator shall stop burning hazardous waste in the unit for which the certification and/or recertification were rejected, begin closure activities under 40 CFR §266.103(*l*), and shall not resume the burning of hazardous waste except under an operating permit issued under Chapter 305 of this title (relating to Consolidated Permits).

(11) Notwithstanding any requirement for a recertification under paragraph (9) of this section, the owner or operator must conduct compliance testing and submit to the executive director a recertification of compliance under the provisions of paragraph (8) of this section and 40 CFR §266.103(c) within three years from submitting the previous certification or recertification (excluding recertification(s) submitted under paragraph (9) of this section). If the owner or operator seeks to recertify compliance under new operating conditions, then the owner or operator must comply with the requirements of paragraph (8) of this section. In accordance with paragraphs (12) and (13) of this section, the executive director may reject the recertification of compliance or require additional information to be submitted within specified time frames.

(12) The executive director may reject certifications or recertifications of compliance based on the failure of the owner or operator to meet the substantive requirements under 40 CFR §266.103 or this section, including, but not limited to, the following:

(A) incorrect or inappropriate calculations or other mathematical techniques which lead to significant effects on operating condition limitations;

(B) incorrect or inappropriate sampling, physical measurements, or analysis techniques which lead to significant effects on operating condition limitations;

(C) equipment failure or malfunction during the compliance test which leads to inadequate results or incorrect results which significantly affects the limits on operating conditions;

(D) inappropriate feed rates of waste, raw production materials, and/or fuels which leads to significant effects on operating condition limitations;

(E) failure to operate the compliance test under steady-state conditions; or

(F) other significant deficiencies which, in the opinion of the executive director will lead to endangerment to public health and welfare

or insufficient protection of public property or the environment.

(13) The owner or operator may appeal to the commission any rejection of a certification or recertification by the executive director. Owners and operators who appeal to the commission any rejection of a certification or recertification by the executive director may continue operations under the rejected certification or recertification until the rejection is upheld by the commission.

(14) If the owner or operator does not comply with the interim status compliance schedule provided by paragraph (4), (5), (6), (9), or (11) of this section, hazardous waste burning must terminate on the date of the deadline, closure activities must begin under 40 CFR §266.103(*l*), and hazardous waste burning may not resume except under an operating permit issued under Chapter 305 of this title (relating to Consolidated Permits).

(15) During the compliance test required by paragraph (7) of this section and 40 CFR §266.103(c)(3), and upon certification of compliance under 40 CFR §266.103(c), a boiler or industrial furnace must be operated with a functioning system that automatically cuts off the hazardous waste feed when the applicable operating conditions specified in 40 CFR §266.103(c)(1)(i) and (v)-(xiii) deviate from those established in the certification of compliance, and the boiler or industrial furnace must be operated in accordance with 40 CFR §266.103(g)(1)-(2).

Source: The provisions of this §335.224 adopted to be effective July 29, 1992, 17 TexReg 5017; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §305.571, (relating to Applicability); 30 TAC §305.573, (relating to Interim Status and Trial Burn Requirements); 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.221, (relating to Applicability and Standards); 30 TAC §335.226, (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities).

§ 335.225. Additional Standards for Direct Transfer

(a) The requirements of this section and 40 Code of Federal Regulations (CFR) §266.111, adopted by reference at §335.221(a)(22) of this title (relating to Applicability and Standards), apply to owners and operators of boilers and industrial furnaces subject to 40 CFR §266.102 or §266.103, if hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit.

(b) The direct transfer of hazardous waste to a boiler or industrial furnace shall be conducted so that it does not adversely affect the capability of the boiler or industrial furnace to meet the standards provided by §335.226 of this title (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities).

Source: The provisions of this §335.225 adopted to be effective July 29, 1992, 17 TexReg 5017.

Cross References: This Section cited in 30 TAC §305.50, (relating to Additional Requirements for an Application for a Solid Waste Permit); 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.221, (relating to Applicability and Standards); 30 TAC §335.226, (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities).

§ 335.226. Standards for Burning Hazardous Waste in Commercial Combustion Facilities

In addition to the applicable requirements under §§335.221-335.225 of this title (relating to Applicability and Standards; Management Prior to Burning; Additional Permit Standards for Burners; Additional Interim Status Standards for Burners; and Additional Standards for Direct Transfer, respectively), no person shall cause, suffer, allow, or permit the burning of hazardous waste in a combustion unit at any facility that accepts such hazardous waste from off-site sources which involves a commercial transaction or a change in ownership of the waste and for which the combustion unit is not regulated by the United States Environmental Protection Agency at 40 Code of Federal Regulations (CFR), Part 264 or 265, Subpart O, or by the Texas Water Commission at §335.112(a)(14) or §335.152(a)(13) of this title (relating to Standards), unless the following requirements are met. Where compliance with any of the applicable requirements under §§335.221-335.229 of this title (relating to Applicability and Standards; Management Prior to Burning; Additional Permit Standards for Burners; Additional Interim Status Standards for Burners; Additional Standards for Direct Transfer; Testing Requirements for Commercial Hazardous Waste Combustion Facilities; Monitoring and Recordkeeping Requirements for Commercial Hazardous Waste Combustion Facilities; and Operating Requirements for Commercial Hazardous Waste Combustion Facilities, respectively) would result in lower emission rates of particulate matter, hydrogen chloride, chlorine gas, metals, carbon

monoxide, hydrocarbons, or principal hazardous organic constituents than the emission rates that would result from compliance with another requirement under §§335.221-335.229 of this title, then the owner or operator shall comply with the applicable requirements which would result in lower emission rates.

(1) Particulate emissions shall not exceed 0.18 gram per dry standard cubic meter or 0.08 grain per dry standard cubic foot, to include particulate matter caught by impinger train, when corrected for 7.0% oxygen in the stack gas according to the formula specified in §111.121(1) of this title (relating to Single, Dual, and Multiple-Chamber Incinerators).

(2) Hydrogen chloride (HCl) emissions greater than 1.8 kilograms (four pounds) per hour shall be controlled with a minimum removal efficiency of 95%.

(3) Except as provided by 40 CFR §266.104(a)(3)-(5), destruction and removal efficiency (DRE) shall be at least 99.99% for each principal organic hazardous constituent (POHC) in each waste feed. The POHCs shall be selected according to the method at 40 CFR Part 264.342 and shall be approved in advance by the executive director. DRE shall be determined using the following formula.

$$DRE = \left[1 - \frac{W_{out}}{W_{in}}\right] \times 100\%$$

in which

W_{in} = the mass feed rate of an approved POHC in the waste stream feeding the combustion facility;

and

W_{out} = the mass emission rate of the same POHC, expressed in the same units as the mass feed rate used in W_{in}, present in exhaust emissions of the combustion device prior to release to the atmosphere

(4) The facility shall perform a trial burn according to the requirements listed at 40 CFR Part 270.62 to determine compliance with paragraphs (1)-(3) of this section. The operating conditions and waste feed composition during a trial burn demonstrating compliance with the requirements of paragraphs (1)-(3) of this section shall be maintained as limits for subsequent operation of the facility. Substitution of new hazardous waste constituents and increases in the concentration of any hazardous waste constituent compared to the conditions existing during the trial burn will require retesting unless such change or substitution has received written approval from the executive director. The operating limits shall be monitored continuously and shall include the following:

(A) maximum carbon monoxide level in the exhaust gas of the combustion device;

(B) minimum oxygen level in the exhaust gas of the combustion device;

(C) maximum waste feed rate to the combustion device;

(D) minimum combustion temperature;

(E) an appropriate indicator of combustion gas velocity;

(F) maximum total hydrocarbons in the exhaust gas of the combustion device; and

(G) any other operating limit determined necessary by the executive director to ensure that the requirements of paragraphs (1)-(3) of this section are met.

(5) The facility shall not burn any chlorinated hazardous waste or hazardous waste containing any of the following metals unless an enforceable emission limit has been established which is designed to protect public health for each metal and for toxic products of incomplete combustion.

Metals	
Arsenic	Chromium
Antimony	Lead
Barium	Mercury
Beryllium	Silver
Cadmium	Thallium

(6) The facility shall maintain an automatic waste feed cutoff system which shall activate if the facility is not operating within the limits determined in accordance with paragraph (4) of this section and shall remain activated until the facility is operating within the limits determined in accordance with paragraph (4) of this section.

(7) During start-up or shutdown of the facility, hazardous waste fuels must not be fed into the combustion zone unless the facility is operating within the limits determined in accordance with paragraph (4) of this section.

(8) Fugitive emissions from the combustion zone shall be controlled by maintaining the combustion zone pressure lower than atmospheric pressure or by keeping the combustion zone totally sealed to prevent fugitive emissions.

(9) Compliance with the requirements of paragraphs (1)-(4) and (6)-(8) of this section shall be accomplished prior to the burning of any hazardous waste, except for such burning which is necessary to conduct the required trial burn. Compliance with paragraph (5) of this section shall be as soon as practicable but no later than July 31, 1992. This paragraph applies to facilities burning hazardous waste under state or federal interim status prior to the effective date of this section. Facilities not burning hazardous waste under interim status which are permitted after that date will be subject to compliance dates specified by permit.

Source: The provisions of this §335.226 adopted to be effective July 29, 1992, 17 TexReg 5017.

Cross References: This Section cited in 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators); 30 TAC §335.221, (relating to Applicability and Standards); 30 TAC §335.225, (relating to Additional Standards for Direct Transfer); 30 TAC §335.226, (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities); 30 TAC §335.227, (relating to Testing Requirements for Commercial Hazardous Waste Combustion Facilities); 30 TAC §335.228, (relating to Monitoring and Recordkeeping Requirements for Commercial Hazardous Waste Combustion Facilities); 30 TAC §335.229, (relating to Operating Requirements for Commercial Hazardous Waste Combustion Facilities).

§ 335.227. Testing Requirements for Commercial Hazardous Waste Combustion Facilities

Compliance with §335.226 of this title (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities) shall be demonstrated by application of the test methods included in §111.125 of this title (relating to Testing Requirements). Test reports prepared to demonstrate compliance with §335.226 shall clearly document the operating conditions and waste feed composition existing during the test.

Source: The provisions of this §335.227 adopted to be effective July 29, 1992, 17 TexReg 5017.

Cross References: This Section cited in 30 TAC §335.221, (relating to Applicability and Standards); 30 TAC §335.226, (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities).

§ 335.228. Monitoring and Recordkeeping Requirements for Commercial Hazardous Waste Combustion Facilities

(a) The owner or operator of a commercial combustion facility subject to the requirements of §335.226 or §111.125 of this title (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities, and Testing Requirements, respectively) shall maintain written records of all monitoring and testing results, hours of operation, and quantity of waste burned. Such records shall be retained for a period of not less than three years. Such records shall be made available upon request by authorized representatives of the commission, the Texas Air Control Board, the United States Environmental Protection Agency (EPA), or local air pollution control agencies.

(b) The owner or operator of a commercial combustion facility subject to the requirements of §335.226 of this title (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities) shall install, calibrate, maintain, and operate a monitoring device that continuously measures and records the waste feed rate, combustion gas velocity, opacity, oxygen content, carbon monoxide (CO) content, total hydrocarbon (THC) content, and temperature of the exhaust gas of the combustion device. CO and THC shall be corrected to 7.0% oxygen, reported on a dry basis, and measured in the same location. The oxygen, THC, CO, combustion gas velocity, and opacity devices must be certified for use following procedures outlined in 40 Code of Federal Regulations Part 60. Such certification must be approved by the executive director or by his designated representative. Compliance determinations may be made based on results of monitoring with a certified monitor.

Source: The provisions of this §335.228 adopted to be effective July 29, 1992, 17 TexReg 5017.

Cross References: This Section cited in 30 TAC §335.221, (relating to Applicability and Standards); 30 TAC §335.226, (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities); 30 TAC §335.229, (relating to Operating Requirements for Commercial Hazardous Waste Combustion Facilities).

§ 335.229. Operating Requirements for Commercial Hazardous Waste Combustion Facilities

The owner or operator of commercial combustion facilities subject to the requirements of §§335.226, 111.125, or 335.228 of this title (relating to Standards for Burning Hazardous Waste in Commercial Combustion Facilities; Testing Requirements; and Monitoring and Recordkeeping Requirements for Commercial Hazardous Waste Combustion Facilities), respectively, shall meet the requirements of §111.129 of this title (relating to Operating Requirements).

Source: The provisions of this §335.229 adopted to be effective July 29, 1992, 17 TexReg 5017.

Cross References: This Section cited in 30 TAC §335.221, (relating to Applicability and Standards); 30 TAC §335.226, (relating to

Standards for Burning Hazardous Waste in Commercial Combustion Facilities).

RECYCLABLE MATERIALS UTILIZED FOR PRECIOUS METAL RECOVERY

§ 335.241. Applicability and Requirements

(a) The regulations of this section apply to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these.

(b) Persons who generate, transport, or store recyclable materials that are regulated under this section are subject to the following requirements:

(1) §335.4 of this title (relating to General Prohibitions);

(2) §335.6 of this title (relating to Notification Requirements); and

(3) §§335.9-335.12 of this title (relating to Shipping and Reporting Procedures Applicable to Generators; Shipping and Reporting Procedures Applicable to Generators of Municipal Hazardous Waste or Class I Industrial Solid Waste; Shipping Requirements for Transporters of Municipal Hazardous Waste or Class I Industrial Solid Waste; and Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities), for generators, transporters, or persons who store, as applicable.

(c) Persons who store recyclable materials that are regulated under this section shall keep the following records to document that they are not accumulating these materials speculatively, as defined in §335.17 of this title (relating to Special Definitions for Recyclable Materials and Nonhazardous Recyclable Materials):

(1) records showing the volume of these materials stored at the beginning of the calendar year;

(2) the amount of these materials generated or received during the calendar year; and

(3) the amount of materials remaining at the end of the calendar year.

(d) Recyclable materials that are regulated under this section that are accumulated speculatively, as defined in §335.17 of this title (relating to Special Definitions for Recyclable Materials and Nonhazardous Recyclable Materials), are subject to all applicable provisions of this chapter (excluding this subchapter), Chapter 305 of this title (relating to Consolidated Permits), Chapter 261 of this title (relating to Introductory Provisions), Chapter 263 of this title (relating to General Rules), Chapter 265 of this title (relating to Procedures Before Public Hearing), Chapter 267 of this title (relating to Procedures During Public Hearing), Chapter 269 of this title (relating to Procedures After Public Hearing Before an Examiner), Chapter 271 of this title (relating to Procedures After Public Hearing Before the Full Commission), and Chapter 273 of this title (relating to Procedures After Final Decision).

Source: The provisions of this §335.241 adopted to be effective May 28, 1986, 11 TexReg 2349.

Cross References: This Section cited in 30 TAC §335.1, (relating to Definitions); 30 TAC §335.78, (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators).

SPENT LEAD-ACID BATTERIES BEING RECLAIMED

§ 335.251. Applicability and Requirements

(a) The regulations of this section apply to persons who reclaim spent lead-acid batteries that are recyclable materials (spent batteries). Persons who generate, transport, or collect spent batteries, or who store spent batteries but do not reclaim them, are not subject to regulation under this chapter, Chapter 305 of this title (relating to Consolidated Permits), Chapter 261 of this title (relating to Introductory Provisions), Chapter 263 of this title (relating to General Rules), Chapter 265 of this title (relating to Procedures Before Public Hearing), Chapter 267 of this title (relating to Procedures During Public Hearing), Chapter 269 of this title (relating to Procedures After Public Hearing Before an Examiner), Chapter 271 of this title (relating to Procedures After Public Hearing Before the Full Commission), or Chapter 273 of this title (relating to Procedures After Final Decision). Such persons, however, remain subject to the requirements of the Texas Water Code, Chapter 26.

(b) Owners or operators of facilities that store spent batteries before reclaiming them are subject to the following requirements:

(1) all applicable provisions in Subchapter A of this chapter (relating to Industrial Solid Waste and Municipal Hazardous Waste Management in General), Subchapter B of this chapter (relating to Hazardous Waste Management-General Provisions), Subchapter E of this chapter (relating to Interim Standards of Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities) and Subchapter F of this chapter (relating to Permitting Standards of Owners and

Operators of Hazardous Waste Storage, Processing, or Disposal Facilities), except for the requirements in §335.12 of this title (relating to Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities) and 40 Code of Federal Regulations §265.13; and

(2) all applicable provisions in Chapter 305 of this title (relating to Consolidated Permits), Chapter 261 of this title (relating to Introductory Provisions), Chapter 263 of this title (relating to General Rules), Chapter 265 of this title (relating to Procedures Before Public Hearing), Chapter 267 of this title (relating to Procedures During Public Hearings), Chapter 269 of this title (relating to Procedures After Public Hearing Before an Examiner), Chapter 271 of this title (relating to Procedures After Public Hearing Before the Full Commission), and Chapter 273 of this title (relating to Procedures After Final Decision.)

Source: The provisions of this §335.251 adopted to be effective May 28, 1986, 11 TexReg 2349; amended to be effective July 14, 1987, 12 TexReg 2106.

SUBCHAPTER I. PROHIBITION ON OPEN DUMPS

§ 335.301. Purpose

The purpose of this subchapter is to authorize the executive director to evaluate nonhazardous industrial solid waste land disposal facilities and practices in order to determine whether the facilities or practices constitute open dumps.

Source: The provisions of this §335.301 adopted to be effective May 28, 1986, 11 TexReg 2350.

§ 335.302. Prohibitions

(a) Any solid waste management practice or disposal of industrial solid waste which constitutes the open dumping of industrial solid waste is prohibited, except in the case of any practice or disposal of industrial solid waste under a timetable or schedule for compliance established under the Resource Conservation and Recovery Act of 1976, §4005(c), and §335.304 of this title (relating to Classification of Facilities).

(b) Where a schedule for compliance has not been established by the executive director, no person may cause, suffer, allow, or permit any activity of disposal of industrial solid waste at a facility which has been classified as an open dump by the executive director.

Source: The provisions of this §335.302 adopted to be effective May 28, 1986, 11 TexReg 2350.

§ 335.303. Criteria for Classification of Solid Waste Disposal Facilities and Practices

Except to the extent that they are clearly inconsistent with the express provisions of the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, or the rules of the commission, the regulations contained in 40 Code of Federal Regulations, Part 257 are adopted by reference. The executive director will maintain in the offices of the commission a set of the regulations contained in 40 Code of Federal Regulations, Part 257 and adopted by reference herein. The regulations may be examined in the library of the Texas Water Commission, Stephen F. Austin Building, 1700 North Congress, Austin.

Source: The provisions of this §335.303 adopted to be effective May 28, 1986, 11 TexReg 2350.

§ 335.304. Classification of Facilities

The executive director may evaluate all existing solid waste disposal facilities, except those exempted under 40 Code of Federal Regulations §257.1, according to the criteria in 40 Code of Federal Regulations, Part 257. The executive director shall classify as open dumps all facilities which fail to satisfy these criteria and shall prepare a list of those facilities. This list shall be submitted to the U.S. Environmental Protection Agency for inclusion in the open dump inventory under the Resource Conservation and Recovery Act of 1976, §4005.

Source: The provisions of this §335.304 adopted to be effective May 28, 1986, 11 TexReg 2350.

Cross References: This Section cited in 30 TAC §335.302, (relating to Prohibitions); 30 TAC §335.307, (relating to Notification of Classification by Commission).

§ 335.305. Upgrading or Closing of Open Dumps

(a) All existing industrial solid waste disposal facilities which are classified as open dumps shall be upgraded or closed in accordance with measures specified by the commission so that the facility or practice no longer violates the criteria in 40 Code of Federal Regulations Part 257.

(b) The executive director may establish a timetable or schedule of compliance for any facility classified as an open dump where the facility owner or operator has demonstrated that other public or private alternatives to comply with the prohibition

on open dumping have been considered and such alternatives to so comply cannot be utilized. The schedule of compliance shall specify a schedule of remedial measures and an enforceable sequence of actions leading to compliance within a reasonable time, not to exceed five years from the date of publication of the inventory under the Resource Conservation and Recovery Act of 1976, §4005.

(c) Nothing in this section precludes the executive director from seeking any relief deemed necessary for violation of this subchapter, any provision of the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, or any other regulations of the commission nor does this section establish any prerequisite for seeking that relief.

Source: The provisions of this §335.305 adopted to be effective May 28, 1986, 11 TexReg 2350.

§ 335.306. List of Interested or Affected Persons

The commission shall maintain a current list of agencies, organizations, and individuals affected by or interested in the state plan developed pursuant to the Resource Conservation and Recovery Act of 1976, Subtitle D, which shall include any parties that request to be on the list, the owner or operator of each facility classified as an open dump, and any other parties which the commission determines to be affected or interested in the plan.

Source: The provisions of this §335.306 adopted to be effective May 28, 1986, 11 TexReg 2350.

Cross References: This Section cited in 30 TAC §335.307, (relating to Notification of Classification by Commission).

§ 335.307. Notification of Classification by Commission

(a) Upon determination by the commission that a facility or practice violates any of the criteria set forth in 40 Code of Federal Regulations, Part 257 and should be in the open dump inventory under the Resource Conservation and Recovery Act of 1976, §4005(b), the owner or operator of such facility shall be so notified in writing by the commission at least 30 days prior to the initial submission of the classification to the U.S. Environmental Protection Agency. If the owner or operator wishes to contest that determination, he must so notify the commission within 20 days of the date of the notification and include any information indicating that the facility does not violate any of the criteria classification set forth in 40 Code of Federal Regulations, Part 257. If the owner or operator fails to respond to the notification, or if the commission determines that the information provided by the owner or operator does not affect its initial determination, the commission shall forward the name of the facility to the U.S. Environmental Protection Agency for publication in the Federal Register. The commission may delete the name of a facility from the list to be forwarded to the U.S. Environmental Protection Agency if, in the opinion of the commission, the information presented by the owner or operator pursuant to this subsection shows that the facility or practice does not violate any of the criteria set forth in 40 Code of Federal Regulations, Part 257.

(b) The commission shall also provide written notification of the availability of the results of any classification pursuant to §335.304 of this title (relating to Classification of Facilities) to all other persons on the list required by §335.306 of this title (relating to List of Interested or Affected Persons) at least 30 days prior to the initial submission of any classifications to the U. S. Environmental Protection Agency.

Source: The provisions of this §335.307 adopted to be effective May 28, 1986, 11 TexReg 2350.

§ 335.308. Complaints

To encourage public participation, the commission shall respond to complaints and other information received from the public which relate to any facility evaluated under this subchapter.

Source: The provisions of this §335.308 adopted to be effective May 28, 1986, 11 TexReg 2350.

SUBCHAPTER J. INDUSTRIAL SOLID WASTE AND HAZARDOUS WASTE FEE SYSTEM

Authority: The provisions of this Subchapter J issued under the Health and Safety Code, Chapter 361, as amended by House Bill 1986, Acts of the 72nd Legislature, 1991.

§ 335.321. Purpose

(a) It is the purpose of this subchapter to establish an industrial solid waste and hazardous waste fee program. Under this program the following fees are imposed:

(1) an annual fee on each generator of Class I industrial solid waste or hazardous waste;

(2) an annual fee on each facility which either holds a Class I industrial solid waste or hazardous waste permit or operates Class I industrial solid waste or hazardous waste management units subject to permit authorization;

(3) a fee on the operator of a hazardous waste storage, processing, or disposal facility for hazardous waste which is managed on site by the facility;

(4) a fee on each application for a permit for an industrial solid waste or hazardous waste facility assessed under §305.53 of this title (relating to Application Fees).

(b) Hazardous and solid waste fees fund.

(1) The hazardous and solid waste fees fund shall be used for the purpose of regulation of industrial solid waste and hazardous waste, including payment to other state agencies for services provided under contract relating to enforcement of the Health and Safety Code, Chapter 361.

(2) The fund shall consist of:

(A) generation fees assessed under §335.323 of this title (relating to Generation Fee Assessment);

(B) facility fees assessed under §335.324 of this title (relating to Facility Fee Assessment);

(C) hazardous waste management fees assessed and apportioned under §335.325 of this title (relating to Hazardous Waste Management Fee Assessment);

(D) application fees assessed under §305.53 of this title (relating to Application Fees); and

(E) interest penalties for late payment of industrial solid waste and hazardous waste fees imposed by §335.331 of this title (relating to Failure To Make Payment or Report).

(c) Hazardous and solid waste remediation fee fund.

(1) The hazardous and solid waste remediation fee fund shall be used for the purpose of the following:

(A) necessary and appropriate removal and remedial action at sites at which solid waste or hazardous substances have been disposed if funds from a liable party, independent third party, or the federal government are not sufficient for the removal or remedial action;

(B) necessary and appropriate maintenance of removal and remedial actions for the expected life of those actions if funds from a liable party have been collected and deposited in the fund for that purpose or if funds from a liable party, independent third party, or the federal government are not sufficient for the maintenance;

(C) expenses related to complying with the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 United States Code §§9601 et seq.) as amended, the federal Superfund Amendments and Reauthorization Act of 1986 (10 United States Code §§2701 et seq.), and the Health and Safety Code, Chapter 361, Subchapters F and I;

(D) expenses concerning the regulation and management of household hazardous substances and the prevention of pollution of the water resources of the state from the uncontrolled release of hazardous substances; and

(E) expenses concerning the cleanup or removal of a spill, release, or potential threat of release of a hazardous substance where immediate action is appropriate to protect human health and the environment.

(2) The fund shall consist of:

(A) hazardous waste management fees assessed and apportioned under §335.325 of this title (relating to Hazardous Waste Management Fee Assessment);

(B) interest and penalties imposed under §335.331 of this title (relating to Failure To Make Payment or Report);

(C) money paid by a person liable for facility cleanup and maintenance under provisions of the Health and Safety Code, §361.197;

(D) interest received from the investment of the fund in accounts under the charge of the treasurer; and

(E) monies collected on behalf of the commission or transferred from other agencies under any applicable provisions of the Health and Safety Code, including §361.138 concerning fees on lead-acid batteries, or grants from any person made for the purpose of remediation of facilities under the Health and Safety Code, Chapter 361.

(d) Hazardous waste management fees collected under §335.325 of this title (relating to Hazardous Waste Management Fee Assessment) shall be credited to the funds of the state as follows.

(1) One quarter, or 25%, of the hazardous waste management fee collected from a commercial waste storage, processing, or disposal facility shall be credited to the hazardous and solid waste fees fund to be distributed to the county in which the facility paying the fee is located. Funds due the affected county shall be paid by the

commission within 60 days of the receipt and verification of payments from a commercial hazardous waste facility in the county.

(2) The remaining amount of commercial hazardous waste management fees and the total amount of noncommercial hazardous waste fees shall be deposited as follows.

(A) One half, or 50%, of each amount shall be credited to the hazardous and solid waste remediation fee fund.

(B) One half, or 50%, of each amount shall be credited to the hazardous and solid waste fees fund.

Source: The provisions of this §335.321 adopted to be effective October 31, 1985, 10 TexReg 4090; amended to be effective July 3, 1986, 11 TexReg 2894; amended to be effective January 5, 1988, 12 TexReg 4844; amended to be effective September 12, 1990, 15 TexReg 4957; amended to be effective March 19, 1992, 17 TexReg 1737.

§ 335.322. Definitions

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

Authorized hazardous waste management unit—A unit at a hazardous waste management facility which is authorized by permit or which is identified in an application submitted pursuant to and in accordance with §335.2(c) of this title (relating to Permit Required) or §335.43(b) of this title (relating to Permit Required).

Captured facility—A manufacturing or production facility which generates an industrial solid waste or hazardous waste which is routinely stored, processed, or disposed, on a shared basis, in an integrated waste management unit owned and operated by and located within a contiguous manufacturing facility.

Class I waste—Any industrial solid waste or mixture of industrial solid wastes meeting the definition of Class I waste under §335.1 of this title (relating to Definitions).

Class I nonhazardous waste—Any Class I waste which is not a hazardous waste as defined in this section.

Commercial waste storage, processing, and disposal facility—Any facility which accepts an industrial solid waste or a hazardous waste for storage, processing (including incineration), or disposal for a charge.

Dry weight—The weight of all constituents other than water.

Generator—Any person whose act or process produces industrial solid waste or hazardous waste or whose act first causes an industrial solid waste or a hazardous waste to become subject to regulation by the commission.

Hazardous waste—Those solid wastes not otherwise exempted which have been identified or listed as hazardous wastes by the administrator of the United States Environmental Protection Agency pursuant to the federal Solid Waste Disposal Act, 42 United States Code §§6901 et seq., as amended.

Hazardous waste fuel—A hazardous waste or blend of hazardous wastes to be burned for energy recovery which, for the purposes of assessment of fees under this section, is not subject to regulation under 40 Code of Federal Regulations, Part 264 (or Part 265), Subpart O, concerning incinerators.

Industrial solid waste—A solid waste meeting the definition of industrial solid waste under §335.1 of this title (relating to Definitions).

Injection well—As provided in the Texas Water Code, §27.002(11).

Interim status—The status of any person who owns or operates a facility required to have a permit under this chapter, and who is required to submit an application for a permit pursuant to §335.2(c) of this title (relating to Permit Required) or §335.43(b) of this title (relating to Permit Required).

Land disposal facility—Any landfill, surface impoundment (excluding an impoundment treating, processing, or storing waste that is disposed pursuant to the Texas Water Code, Chapter 26 or Chapter 27), waste pile, facility at which land farming, land treatment, or a land application process is used, or an injection well. Land disposal does not include the normal application of agricultural chemicals or fertilizers.

Noncommercial waste storage, processing, or disposal facility—Any facility that accepts an industrial solid waste or a hazardous waste for storage, processing (including incineration), or disposal for no charge or that stores, processes, or disposes of wastes generated on site by the facility.

On-site land disposal facility—A hazardous waste unit which meets the definition of land disposal facility of this section and on-site disposal as defined in §335.1 of this title (relating to Definitions).

Primary metals high volume, low hazard waste—Hazardous waste from the extraction, beneficiation, and processing of ores, minerals, or scrap

metal and whose constituents, which are subject to the criteria for the identification or listing as a hazardous waste pursuant to the Resource Conservation and Recovery Act, §3001(a), 42 United States Code §6901 et seq., account for 10% or less of its total dry weight volume.

Processing—For the purposes of this subchapter, the term "processing" has the same meaning as defined in §335.1 of this title (relating to Definitions).

Recycled—For the purposes of this subchapter, a waste is recycled if it is used, reused, or reclaimed in a manner consistent with the definition of a recyclable material or nonhazardous recyclable material under §335.17 of this title (relating to Special Definitions for Recyclable Materials and Nonhazardous Recyclable Materials) and §335.24 of this title (relating to Requirements for Recyclable Materials and Nonhazardous Recyclable Materials).

Source: The provisions of this §335.322 adopted to be effective October 31, 1985, 10 TexReg 4090; amended to be effective July 3, 1986, 11 TexReg 2894; amended to be effective September 1, 1986, 11 TexReg 3697; amended to be effective September 12, 1990, 15 TexReg 4957; amended to be effective March 19, 1992, 17 TexReg 1737.

Cross References: This Section cited in 30 TAC §335.325, (relating to Hazardous Waste Management Fee Assessment).

§ 335.323. Generation Fee Assessment

(a) An annual generation fee is hereby assessed each generator which generates Class I industrial solid waste or hazardous waste or whose act first causes such waste to become subject to regulation under Subchapter B of this chapter (relating to Hazardous Waste Management General Provisions) on or after September 1, 1985. These fees shall be deposited in the hazardous and solid waste fee fund. The amount of a generation fee is determined by the total amount of Class I nonhazardous waste or hazardous waste generated during the previous calendar year. The annual generation fee may not be less than $50. The annual generation fee for hazardous waste shall not be more than $25,000 and for nonhazardous waste not more than $1,000.

(b) Hazardous wastes subject to the provisions of §335.78 of this title (relating to Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators) and precluded from the quantity determinations of such section shall be considered for the purposes of this subchapter in the total volume of hazardous waste generated and subject to fee assessment.

(c) Wastewaters containing hazardous wastes which are designated as hazardous solely because they exhibit a hazardous characteristic as defined in 40 Code of Federal Regulations, Part 261, Subpart C, concerning characteristics of hazardous waste, and are rendered nonhazardous by neutralization or other treatment on-site in totally enclosed treatment facilities or wastewater treatment units for which no permit is required under §335.2 of this title (relating to Permit Required) or §335.41 of this title (relating to Purpose, Scope, and Applicability) are exempt from the assessment of hazardous waste generation fees. This exemption from hazardous waste fee assessment in no way limits a generator's obligation to report such waste generation or waste management activity under any applicable provision of this chapter and does not preclude the assessment of generation fees for nonhazardous waste resulting from such treatment.

(d) Wastes generated in a removal or remedial action accomplished through the expenditure of public funds from the hazardous and solid waste remediation fee fund shall be exempt from any generation fee assessed under this section.

(e) Wastes which are recycled shall be exempt from any generation fee assessed under this section.

(f) Generation fees are to be assessed according to the following schedule including waste reported in tons and the annual fee.

(1) Hazardous waste:

(A) less than one ton—no charge;

(B) from one-50 tons—$100;

(C) greater than 50 tons—$2.00 per ton.

(2) Nonhazardous waste:

(A) less than one ton—no charge;

(B) from one-100 tons—$50;

(C) greater than 100 tons—$.50 per ton.

(g) Any claim of exemption from or adjustment to the assessment of a generation fee under this section must be made in writing to the executive director prior to the due date of the assessment.

Source: The provisions of this §335.323 adopted to be effective October31, 1985, 10 TexReg 4090; amended to be effective January 5, 1988, 12 TexReg 4844; amended to be effective September 12, 1990, 15 TexReg 4957; amended to be effective March 19, 1992, 17 TexReg 1737.

Cross References: This Section cited in 30 TAC §335.321, (relating to Purpose).

§ 335.324. Facility Fee Assessment

(a) An annual facility fee is hereby assessed on each permittee who holds one or more Class I industrial solid waste or hazardous waste permits and each facility operating a Class I industrial solid waste or hazardous waste management unit subject to permit authorization. These fees shall be deposited in the hazardous and solid waste fees fund. The fee for each year is assessed on each facility for which a permit or the requirement to comply with permit authorization is in effect during any part of the fiscal year.

(b) An applicant who has, prior to September 1, submitted an affidavit of exclusion from permit requirements, shall not be subject to the annual facility fee, pending a decision by the commission on the affidavit of exclusion. If the commission determines that the facility is subject to the permit requirement, the applicant shall pay the fee within 30 days or is subject to the penalties for late payment established under §335.331 of this title (relating to Failure To Make Payment or Report).

(c) An applicant who files an affidavit after September 1 shall be subject to the annual facility fee for the billing year in which the affidavit is filed. The applicant shall not be subject to the annual facility fee for the following year, pending a decision by the commission on the affidavit of exclusion. If the commission determines that the facility is subject to the permit requirement, the applicant shall pay the fee within 30 days or is subject to the penalties for late payment established herein.

(d) The annual facility fee assessed is the cumulative total of fees for all Class I industrial solid waste or hazardous waste management units at the facility which are authorized by permit or subject to authorization on September 1, 1991, and September 1 of each year thereafter. The minimum fee for each hazardous waste facility shall be $2,500. The maximum fee for each hazardous waste facility shall be $25,000. The minimum fee for each facility authorized to manage only nonhazardous waste shall be $500 and the maximum fee $5,000.

(e) A fee under this section for storage or processing in tanks or containers will not be assessed against the owner or operator of an elementary neutralization unit or wastewater treatment unit exempt from the requirement of a permit under §335.41(d) of this title (relating to Purpose, Scope, and Applicability).

(f) An "other unit," for the purposes of subsection (i) of this section, is an incinerator, thermal processing unit, or other processing unit, not otherwise listed in subsection (i) of this section, used for waste reduction, recycling, or hazard reduction and subject to compliance with permit requirements.

(g) For facilities which require post-closure care permits, the fee for a closed unit shall apply. A fee is assessed for each unit which received waste after January 26, 1983, and which has been closed pursuant to an approved closure plan and which is subject to the post-closure care permit requirements. Disposal units which are closed in a manner such that all hazardous wastes and hazardous constituents are removed pursuant to an approved closure plan are not subject to the fee.

(h) The facility fee assessment in subsection (i)(2)-(5) of this section shall be based on the surface area of the waste management unit in which the storage, treatment, or disposal of waste has been authorized.

(i) Facility fees shall be assessed according to the following schedule.

Type of Waste Management Unit	Fee Rate: Nonhazardous Waste	Fee Rate: Hazardous Waste
(1) Storage/Processing (Tanks or Containers)	$250	$.02/gallon
(2) Land Treatment	$400/surface acre	$4,000/surface acre
(3) Waste Pile	$400/surface acre	$4,000/surface acre
(4) Surface Impoundment	$500/surface acre	$5,000/surface acre
(5) Landfill	$500/surface acre	$5,000/surface acre
(6) Injection Well	$1,000/well	$10,000/well
(7) Closed Disposal Unit	$250/unit	$2,500/unit
(8) Other Unit	$250/unit	$2,500/unit

Source: The provisions of this §335.324 adopted to be effective October 31, 1985, 10 TexReg 4090; amended to be effective July 3, 1986, 11 TexReg 2894; amended to be effective September 1, 1986, 11 TexReg 3697; amended to be effective January 5, 1988, 12 TexReg 4844; amended to be effective March 19, 1992, 17 TexReg 1737.

Cross References: This Section cited in 30 TAC §335.321, (relating to Purpose).

§ 335.325. Hazardous Waste Management Fee Assessment

(a) A fee is hereby assessed on each owner or operator of a commercial or noncommercial hazardous waste storage, processing, or disposal facility, except as provided in subsections (b)-(e) of this section, for hazardous wastes which are stored, processed, disposed, or otherwise managed on or after October 1, 1991. For the purpose of this section, the storage, processing, or disposal of hazardous waste for which no permit is required under §335.2 of this title (relating to Permit Required) or §335.41 of this title (relating to Purpose, Scope,

and Applicability) is not subject to a hazardous waste management fee.

(b) A fee imposed on the owner or operator of a commercial hazardous waste storage, processing, or disposal facility for hazardous wastes which are generated in this state and received from an affiliate or wholly owned subsidiary of the commercial facility, or from a captured facility, shall be the same fee imposed on a noncommercial facility. For the purpose of this section, an affiliate of a commercial hazardous waste facility must have a controlling interest in common with that facility.

(c) The storage, processing, or disposal of hazardous wastes generated in a removal or remedial action accomplished through the expenditure of public funds from the hazardous and solid waste remediation fee fund shall be exempt from the assessment of a waste management fee under this section.

(d) A fee shall not be imposed on the owner or operator of a waste storage, processing, or disposal facility for the storage of hazardous wastes if such wastes are stored within the time periods allowed by and in accordance with the provisions of §335.69 of this title (relating to Accumulation Time).

(e) A fee may not be imposed under this section on the operation of a facility permitted under the Water Code, Chapter 26, or the federal National Pollutant Discharge Elimination System Program for wastes treated, processed, or disposed of in a wastewater treatment system that discharges into surface waters of the state. For the purpose of this section, the management of a hazardous waste in a surface impoundment which is not exempt from assessment under this subsection will be assessed the fee for processing under subsection (j) of this section.

(f) The hazardous waste management fee authorized under this section shall be based on the total weight or volume of a hazardous waste except for wastes which are disposed of in an underground injection well in which case the fee shall be based on the dry weight of the waste, measured in dry weight tons (dwt), as defined in §335.322 of this title (relating to Definitions) and §335.326 of this title (relating to Dry Weight Determination).

(g) The hazardous waste management fee for wastes generated in this state shall not exceed $20 per ton for wastes which are landfilled.

(h) The operator of a hazardous waste storage, processing, or disposal facility receiving hazardous waste from out-of-state generators shall be assessed the fee amount required on wastes generated in state plus an additional increment to be established by rule, except as provided in subsection (k) of this section.

(i) For the purposes of subsection (j) of this section, energy recovery means the burning or incineration of a hazardous waste fuel and fuel processing means the handling of a waste fuel, including storage and blending, prior to its disposal by burning.

(j) Except as provided in subsections (k)-(*o*) of this section, hazardous waste fees shall be assessed according to the following schedule.

	Noncommercial		Commercial	
Disposition	In State	Imported	In State	Imported
Landfill	$10/ton	$15/ton	$20/ton	$30/ton
Land Treatment	$8/ton	$12/ton	$16/ton	$24/ton
Underground Injection	$7/dwt	$10/dwt	$14/dwt	$21/dwt
Incineration	$6/ton	$9/ton	$12/ton	$18/ton
Processing	$5/ton	$8/ton	$10/ton	$15/ton
Storage	$1/ton	$1.50/ton	$2/ton	$3/ton
Energy Recovery	$3/ton	$3/ton	$6/ton	$6/ton
Fuel Processing	$2/ton	$2/ton	$4/ton	$4/ton

(k) For hazardous wastes which are generated out of state, the fee will be that specified in subsection (j) of this section, except that the fee for the storage, processing, incineration, and disposal of hazardous waste fuels shall be the same for wastes generated out of state and in state.

(*l*) Except as provided in subsection (m) of this section, only one hazardous waste management fee shall be paid for a hazardous waste managed at a facility. In any instance where more than one fee could be applied under this section to a specific volume of waste, the higher of the applicable fees will be assessed.

(m) A fee for storage of hazardous waste shall be assessed in addition to any fee for other waste management methods at a facility. No fee shall be assessed under this section for the storage of a hazardous waste for a period of less than 90 days as determined from the date of receipt or generation of the waste (or the effective date of this section). The fee rate specified in the schedule under subsection (j) of this section shall apply to the quantity of waste in any month which has been in storage for more than 90 days or the number for which an extension has been granted under §335.69 of this title (relating to Accumulation Time).

(n) A facility which receives waste transferred from another facility shall pay any waste management fee applicable under this section and shall not

receive credit for any fee applied to the management of the hazardous waste at the facility of origin.

(o) The fee rate for incineration of aqueous wastes containing 5.0% or less of total organic carbon will be 10% of the fee for incineration under the schedule in subsection (j) of this section.

Source: The provisions of this §335.325 adopted to be effective March 19, 1992, 17 TexReg 1737.

Cross References: This Section cited in 30 TAC §335.321, (relating to Purpose); 30 TAC §335.326, (relating to Dry Weight Determination); 30 TAC §335.328, (relating to Fees Payment); 30 TAC §335.329, (relating to Records and Reports).

§ 335.326. Dry Weight Determination

(a) The method of calculating the dry weight of each hazardous waste stream shall be determined initially and at any time the waste stream undergoes a significant change in water content using the appropriate method(s) as specified in this section. Determinations shall be made from a representative sample collected by grab or composite. Collection methods and sample preservation shall be by methods to minimize volatilization.

(1) Hazardous wastes which contain suspended solids greater than or equal to 15% of the sample on a weight basis shall have the dry weight determination calculated using the method specified in Appendix I in §335.332 of this title (relating to Appendices I and II).

(2) Aqueous based hazardous wastes which contain suspended solids less than 15% of the sample by weight basis and which contain a single liquid phase shall have the dry weight determination calculated using Standard Methods for the Examination of Water and Wastewater, 15th Edition, Method 209A, pages 92-93, or equivalent method in later editions.

(3) Organic based hazardous wastes which contain suspended solids less than 15% of the sample by weight and which contain a single liquid phase shall have the dry weight determination calculated using:

(A) 1981 Annual Book of ASTM Standards, Part 30, Method E203, pages 803-812, or equivalent method in later editions; or

(B) the method specified in Appendix II in §335.332 of this title (relating to Appendices I and II).

(4) Hazardous wastes which do not meet any of the criteria specified in paragraphs (1)-(3) of this subsection shall have the dry weight determination calculated using:

(A) the 1981 Annual Book of ASTM Standards, Part 23, Method D96, pages 64-81, or equivalent method in later editions; or

(B) the method specified in Appendix II in §335.332 of this title (relating to Appendices I and II); or

(C) the 1981 Annual Book of ASTM Standards, Part 23, Method D95, pages 59-63, or equivalent method in later editions. Method D96 determines the water and sediment content of the sample. The calculations shall be modified to determine only the water content.

(5) The method for calculating the dry weight shall be that method specified in Appendix I in §335.332 of this title (relating to Appendices I and II) or an alternate method selected by the generator pursuant to §335.327 of this title (relating to Alternate Methods of Dry Weight Determination), if the hazardous waste cannot be analyzed by one of the other required methods of this section due to interfering constituents. Documentation identifying the method of analysis and describing the interference shall be maintained by the generator.

(b) Hazardous wastes containing free liquids which are designated for disposal in a landfill and must be solidified prior to disposal shall have the dry weight determination made on the hazardous waste, prior to the addition of the solidification agent.

(c) For purposes of a fee assessed under §335.325 of this title (relating to Hazardous Waste Management Fee Assessment), the dry weight of a hazardous waste disposed in an underground injection well, to which brine, inorganic salts, or other authorized agents are added to maintain density control to assure compliance with no-migration requirements of 40 Code of Federal Regulations 148 Subpart C, shall be determined prior to the addition of the agent. No solid waste, as defined by the Health and Safety Code, §361.003(37), may be excluded from the determination of dry weight under this subsection.

Source: The provisions of this §335.326 adopted to be effective March 19, 1992, 17 TexReg 1737; amended to be effective August 24, 1992, 17 TexReg 5552.

Cross References: This Section cited in 30 TAC §335.325, (relating to Hazardous Waste Management Fee Assessment); 30 TAC §335.327, (relating to Alternate Methods of Dry Weight Determination).

§ 335.327. Alternate Methods of Dry Weight Determination

(a) Generators may select other test methods for the purpose of calculating the dry weight of their

hazardous waste where one of the methods provided in §335.326 of this title (relating to Dry Weight Determination) is not applicable. Technical justification must be sent to the executive director, demonstrating that the proposed method will produce an accurate determination of the dry weight ratio of the waste unless the executive director has provided written approval for use of the alternate method. Use of an evaporation temperature above 75 degrees Celsius will be allowed only on demonstration that the waste stream contains appreciable volatile compounds that exhibit higher evaporation temperatures. Where practicable, results from the proposed test methods and the required method should be compared. Applicability of this item to such dry weight determinations is subject to review by the executive director.

(b) Generators may elect to declare the total wet weight of the hazardous waste as the dry weight.

Source: The provisions of this §335.327 adopted to be effective March 19, 1992, 17 TexReg 1737.

Cross References: This Section cited in 30 TAC §335.326, (relating to Dry Weight Determination).

§ 335.328. Fees Payment

(a) Generation and facility fees are payable each year for all Class I industrial solid waste and hazardous waste generators, permittees, and facilities. Fees must be paid by check, certified check, or money order payable to Texas Water Commission. Annual facility fees are payable by permittees, owners, or operators regardless of whether the facility is in actual operation. All annual generation and facility fees shall be due by a date to be established by the Texas Water Commission at the time payment is requested.

(b) Except as provided in subsection (c) of this section, hazardous waste management fees are to be paid monthly by each operator of a hazardous waste storage, processing, or disposal facility for wastes managed subject to the provisions of §335.325 of this title (relating to Hazardous Waste Management Fee Assessment) in that month. Fees must be paid by check, certified check, or money order to Texas Water Commission and shall be due by the 25th day following the end of the month for which payment is due.

(c) An owner or operator required to pay a hazardous waste management fee who owes less than $50 for a calendar month or less than $150 for a calendar quarter is not required to file a monthly report under §335.329 of this title (relating to Records and Reports) but should file a quarterly report with and pay a quarterly fee to the commission.

Source: The provisions of this §335.328 adopted to be effective March 19, 1992, 17 TexReg 1737.

Cross References: This Section cited in 30 TAC §335.329, (relating to Records and Reports).

§ 335.329. Records and Reports

(a) Generators are required to:

(1) keep records of all hazardous waste and industrial solid waste activities regarding the quantities generated, stored, processed, and disposed on site or shipped off site for storage, processing, or disposal in accordance with the requirements of §335.9 of this title (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators);

(2) keep records of the dry weight amount of each hazardous waste designated for disposal in an underground injection well and records of the amounts of any solidification agents, brine, or other authorized material added to a waste stream which may be excluded from the determination of dry weight under §361.326 of this title (relating to Dry Weight Determination);

(3) provide each operator of a hazardous waste underground injection well a certificate of computation of the dry weight of a hazardous waste to be disposed. For each off-site shipment, the dry weight amount of each hazardous waste to be disposed in an underground injection well is to be recorded in Item J of the Uniform Hazardous Waste Manifest as required under §335.30 of this title (relating to Appendix I); and

(4) submit the appropriate reports required under §335.13(b) of this title (relating to Recordkeeping and Reporting Procedures Applicable to Generators Shipping Hazardous Waste or Class I Waste and Primary Exporters of Hazardous Waste) on forms furnished or approved by the executive director.

(b) Owners or operators of hazardous waste storage, processing, or disposal facilities are required to:

(1) for on-site facilities, keep records of all hazardous waste and industrial solid waste activities regarding the quantities stored, processed, and disposed on site or shipped off site for storage, processing, or disposal in accordance with the requirements of §335.9 of this title (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators);

(2) for off-site facilities, submit the appropriate reports required under §335.15(2) of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities);

(3) record the dry-weight amount of each hazardous waste disposed in an underground injection well at the facility;

(4) document the basis for the assessment of any applicable fee as determined under §335.325 of this title (relating to Hazardous Waste Management Fee Assessment), including any adjustment to or exemption from assessment; and

(5) except as provided in §335.328 of this title (relating to Fees Payment), submit a monthly summary of on-site hazardous waste management activities subject to the assessment of fees under §335.325 of this title (relating to Hazardous Waste Management Fee Assessment) on forms furnished or approved by the executive director. This summary report shall be due by the 25th day following the end of the month (or quarter) for which a report is made. An owner or operator required to comply with this subsection shall continue to prepare and submit monthly (or quarterly) summaries, regardless of whether any storage, processing, or disposal was made during a particular month (or quarter), by preparing and submitting a summary indicating that no hazardous waste was managed during that month (or quarter).

(c) Records or reports required to be kept under this section shall be retained for a minimum of three years after the date the record or report is made.

(d) The periods of record retention required by this section are automatically extended during the course of any unresolved enforcement action regarding the regulated activity.

Source: The provisions of this §335.329 adopted to be effective March 19, 1992, 17 TexReg 1737; amended to be effective August 24, 1992, 17 TexReg 5552.

Cross References: This Section cited in 30 TAC §335.328, (relating to Fees Payment).

§ 335.330. Cancellation, Revocation, and Transfer

(a) Cancellation or revocation of a permit, or termination of interim status, whether by voluntary action on the part of the applicant or permittee or as a result of involuntary proceedings initiated by the commission, will not constitute grounds for refund, in whole or in part, of any fee paid by the permittee or applicant.

(b) Transfer of facility ownership will not entitle the transferring permittee, applicant, or generator to a refund, in whole or in part of any fee already paid by the permittee, applicant, or generator. The transferring permittee, applicant, or generator remains liable for any unpaid portion of fee assessed which accrued during his ownership. Any permittee, applicant, or generator to whom facility ownership or a permit is transferred shall be liable for any of the fees assessed after date of transfer. Payment by either the transferring permittee, applicant, or generator, or by the permittee, applicant, or generator to whom the ownership was transferred shall constitute full payment for any fees assessed.

(c) A generator who ceases generation of industrial solid waste or hazardous waste due to a change of process or closing of operations shall not be eligible for a refund, in whole or in part, of any fee paid.

Source: The provisions of this §335.330 adopted to be effective March 19, 1992, 17 TexReg 1737.

§ 335.331. Failure To Make Payment or Report

(a) Failure to make payment in accordance with this subchapter constitutes a violation subject to enforcement pursuant to the Health and Safety Code, §361.137 and §361.252.

(b) Generators and owners or operators of a facility failing to make payment of the fees imposed under the Health and Safety Code, Chapter 361, shall be assessed interest at an annual rate of 15% of the amount of the fee due accruing from the date on which the fee is due.

(c) Operators of hazardous waste management facilities submitting late reports concerning the management of hazardous waste under the Health and Safety Code, §361.136, are subject to a civil penalty of $100 for each day the violation continues.

(d) Any interest or penalties collected by the commission shall be deposited in the appropriate fund.

Source: The provisions of this §335.331 adopted to be effective March 19, 1992, 17 TexReg 1737.

Cross References: This Section cited in 30 TAC §335.321, (relating to Purpose); 30 TAC §335.324, (relating to Facility Fee Assessment).

§ 335.332. Appendices I and II

The following appendices will be used for the purposes of this subchapter. (Appendix I—Dry Weight Determination for Solids Based Hazardous Waste; Appendix II—Dry Weight Determination for Oil and Organic Based Hazardous Waste.)

APPENDIX I

DRY WEIGHT DETERMINATION FOR SOLIDS BASED HAZARDOUS WASTE

The dry weight determination provisions of § 335.326 of this title (relating to Dry Weight Determination) specify that the generator must determine the dry weight of each hazardous waste stream. This appendix outlines the method to be used by the generator.

1. Collect a representative sample by grab or composite. Collection methods and sample preservation shall be by methods to minimize volatilization.

2. An aliquot of about 100 grams or more shall be weighed in a tared evaporating dish, casserole, or similar container. Record tare weight as "A": and container plus sample as "B."

3. This sample shall be evaporated at 73 degrees to 75 degrees Celsius for two hours. Cool and weigh the sample plus container and record weight as "C."

4. Evaporate sample again in a drying oven at 103 degrees to 105 degrees celsius per Standard Methods, 15th Edition, Method 209A. Cool and weigh sample plus container and record weight as "D."

All work should be done with all laboratory precautions necessary, including use of fume hoods and absence of ignition sources as appropriate.

Weight of Water = C − D

Weight of Water Free Waste = (B − A) − (C − D)
= Weight of original sample minus weight of water

Dry Weight Ratio = $\frac{(B-A)-(C-D)}{(B-A)}$
= $\frac{\text{Weight of water free waste}}{\text{Weight of original sample}}$

APPENDIX II

DRY WEIGHT DETERMINATION FOR OIL AND ORGANIC BASED HAZARDOUS WASTE

The dry weight determination provisions of § 335.326 of this title (relating to Dry Weight Determination) specify that the generator must determine the dry weight of each hazardous waste stream. This appendix outlines the method to be used by the generator.

1. Collect a representative sample by grab or composite. Collection methods and sample preservation shall be by methods to minimize volatilization.

2. An aliquot of about 25 grams or more shall be weighed to the nearest 0.1 mg in a tared evaporating dish or beaker. Record tare weight as "A" and container plus sample as "B."

3. Dilute sample with 100 ml of hexane. Filter sample through a crucible with a glass fiber filter (Whatman grade 934AH and 984H; Gelman Type A/E; millipore type AP40; or equivalent. Available in diameters of 2.2 cm to 4.7 cm). Rinse evaporating dish or beaker with two 20 ml portions of hexane and filter through the crucible. Discard the solids and filter and save the filtrate.

4. Weigh approximately 25 grams of predried, anhydrous magnesium sulfate ($MgSO_4$) in a 400 ml beaker to the nearest 0.1 mg. Record the weight of the beaker and $MgSO_4$ as "C." Add the filtrate from Step 3 and stir for a few minutes with a glass rod. (Caution: Heat may be generated upon addition of filtrate.) Carefully decant the liquid portion in the beaker.

5. Dry the beaker at 73–75 degrees Celsius for one hour. Cool and weigh the beaker and record the weight as "D."

All work shall be done with all laboratory precautions necessary, including use of fume hoods and absence of ignition sources as appropriate.

Weight of Water = D − C

Weight of Water Free Waste = (B − A) − (D − C)
= Weight of original sample minus weight of water

Dry Weight Ratio = $\frac{(B-A)-(D-C)}{(B-A)}$
= $\frac{\text{Weight of water free waste}}{\text{Weight of original sample}}$

Source: The provisions of this §335.332 adopted to be effective March 19, 1992, 17 TexReg 1737.

Cross References: This Section cited in 30 TAC §335.326, (relating to Dry Weight Determination).

SUBCHAPTER K. HAZARDOUS SUBSTANCE FACILITIES ASSESSMENT AND REMEDIATION

Authority: The provisions of this Subchapter K issued under the Texas Water Code, §5.105; and the Texas Solid Waste Disposal Act, Health and Safety Code, §361.017 and §361.024.

Cross References: This Subchapter cited in 30 TAC §335.8, (relating to Closure and Remediation); 30 TAC §335.442, (relating to Definitions).

§ 335.341. Purpose and Scope

(a) The purpose of this subchapter is to establish an assessment and remediation program to identify and assess facilities that may constitute an imminent and substantial endangerment to public health and safety or the environment due to a release or threatened release of hazardous substances into the environment. The provisions of this subchapter supplement and therefore should be read in conjunction with the provisions of the Texas Solid Waste Disposal Act, Texas Health and Safety Code, Chapter 361, Subchapter F (Vernon Supplement), §§361.181 et seq., as amended, herein referred to as the Act.

(b) This subsection describes the Texas Water Commission (TWC) procedures for identifying, proposing, and listing facilities on the State Registry.

(1) Prior to proposing a facility for inclusion on the State Registry, the executive director shall first determine whether any potential endangerment to public health and safety or the environment at a facility can be resolved by the present owner or operator under the federal Resource Conservation and Recovery Act, 42 United States Code Annotated §§6901 et seq. (1976), as amended.

(2) If the potential endangerment cannot be fully resolved by the present owner or operator, then the executive director shall determine whether the potential endangerment can be resolved by voluntary cooperation of some or all of the potentially responsible parties (PRPs) identified in the Act, §361.271, pursuant to an agreed administrative order issued by the commission. If it can be cleaned up pursuant to an agreed administrative order, then it shall not be proposed for listing.

(3) If, after reasonable efforts, the executive director determines that the potential endangerment to public health and safety or the environment cannot be resolved by either of these approaches, the executive director shall evaluate the facility to determine whether it is eligible for listing on the federal National Priorities List established pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act, 42 United States Code Annotated §§9601 et seq. (1980), as amended.

(4) The executive director shall determine whether the facility is eligible for proposed listing on the State Registry only if, based on information available to the executive director, the facility is not eligible for inclusion on the federal National Priorities List.

(5) If the executive director determines that the potential endangerment to public health and safety or the environment can be resolved by any of the approaches described in paragraphs (1)-(3) of this subsection, then the site will not be proposed for listing on the State Registry. Notice of the approach selected to resolve the apparent endangerment to public health and safety or the environment and the fact that such action is being taken in lieu of listing the facility on the State Registry shall be published in the Texas Register.

Source: The provisions of this §335.341 adopted to be effective September 9, 1991, 16 TexReg 4624.

§ 335.342. Definitions

Definitions set forth in the Act that are not specifically included in this section shall also apply. The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

Agreed order or agreed administrative order—An administrative order issued by the commission and agreed to by one or more PRPs for the purpose of settling potential liability for the remedial investigation/feasibility study and/or remediation of a facility proposed for listing, or listed on, the State Registry.

Divisible—That the hazardous substance(s) released or threatened to be released are capable of being managed separately under a remedial action plan.

Facility—

(A) Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer, public owned treatment works, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft); or

(B) Any site or area where a hazardous substance has been posted, stored, disposed of, or placed or otherwise come to be located, but does not include any consumer product in consumer use or any vessel.

Federal hazard ranking system—The scoring system developed by the United States Environmental

Protection Agency as set out in 40 Code of Federal Regulations Part 300, Appendix A, as amended.

Good faith offer—A written proposal by one or more PRPs which is not contingent on participation of other PRPs which, in the judgment of the executive director, will:

(A) in the case of a good faith offer to fund or perform a remedial investigation/feasibility study or other similar study, effectively determine the nature and extent of the release or threatened release of hazardous substances and its impact on air, soils, groundwater, and surface water, both within and beyond the boundaries of the facility; or

(B) in the case of a good faith offer to fund or perform a remedial action, effectively mitigate or minimize damage to, and provide adequate protection of, the public health and safety or the environment.

Hazardous waste disposal fee fund—The fund described in the Act, §361.133.

Imminent and substantial endangerment—A danger is imminent if, given the entire circumstances surrounding each case, exposure of persons or the environment to hazardous substances is more likely than not to occur in the absence of preventive action. A danger is substantial if, given the current state of scientific knowledge, the harm to public health and safety or the environment which would result from exposure could cause adverse environmental or health effects.

Nonparticipating PRPs—Potentially responsible parties who:

(A) are unwilling or unable to join in the making of a good faith offer;

(B) are unwilling or unable to become a party to an agreed order to perform an RI/FS, similar study, or remedial action; or

(C) intentionally violate the terms of an agreed order so as to substantially interfere with the achievement of the purposes of the agreed order.

Oversight costs—All administrative costs and costs for technical and legal services incurred by commission personnel, or agents or contractors for the commission, incurred in the oversight of the RI/FS and remedial action, plus all such costs incurred in verifying compliance by PRPs with the terms of any agreed order which may be issued.

Potentially responsible party (or PRP)—A person potentially responsible for solid waste as defined in the Act, §361.271.

Remedial investigation/feasibility study (or RI/FS)—

(A) An investigative study of the entire facility designed to determine the nature and extent of a release or threatened release of hazardous substances and, as appropriate, its impact on air, soils, groundwater, and surface water, both within and beyond the boundaries of the facility in accordance with the requirements of §335.348 of this title (relating to General Requirements for a Remedial Investigation/Feasibility Study); and

(B) A study which describes and evaluates a set of remedial action alternatives for effectively mitigating or minimizing damage to, and for providing adequate protection of, the public health and safety or the environment in accordance with the requirements of §335.348 of this title (relating to Remedial Investigation/Feasibility Study).

Remedial action plan—A detailed plan for the design, construction, and long-term operation and maintenance the remedial action agreed to by the commission.

Substantial change in use—A physical or functional alteration of a facility, the effect of which is to interfere significantly with a proposed or ongoing RI/FS or similar study or to expose the public health and safety or the environment to a significantly increased threat of harm. The term includes, but is not limited to, actions such as the erection or razing of a building or other structure at the facility, the use of a facility for agricultural production, the paving over of a facility, the creation of a park or other public or private recreational use on the facility, and any other alteration of the site or activity which could interfere with the performance of an RI/FS or remedial action.

State superfund hazard ranking system—The scoring system used by the executive director for determining the relative priority for an RI/FS or remedial action needed at a facility.

Source: The provisions of this §335.342 adopted to be effective September 9, 1991, 16 TexReg 4624.

§ 335.343. Ranking of Facilities

(a) The relative priority for action needed at a facility investigated by the executive director for possible listing on the State Registry is based on a

state superfund hazard ranking system (HRS). The state superfund HRS is a methodology designed to determine a numerical score for a facility based on the judgment of the executive director concerning various factors which may impact the public health and safety or the environment.

(b) Upon appropriate investigation by the executive director, a facility will be assigned a state superfund HRS score. A facility may be proposed for listing on the State Superfund Registry if it is assigned a state superfund HRS score 5.0 or greater.

(c) Facilities with the highest state superfund HRS score shall receive the highest priority for remedial action and state-funded cleanup, unless a situation described in the Act, §361.191, warrants more immediate action.

(d) The relative priority for action at facilities listed on the State Registry will be periodically reviewed and revised by the commission as necessary to accurately reflect the need for action at the facilities.

Source: The provisions of this §335.343 adopted to be effective September 9, 1991, 16 TexReg 4624.

§ 335.344. Delisting and Modifications

(a) Any potentially responsible party (PRP) of a facility listed or proposed for listing on the State Registry or any interested person may request the executive director to delete such facility from the registry, modify the facilities priority ranking within the registry, or modify any information regarding such facility by submitting a written statement setting forth the grounds of the request. The PRP or interested person shall submit to the executive director any information as may be reasonably required to enable the executive director to further evaluate the facility including, but not limited to, information on all factors used to develop a state superfund HRS score and to make a determination on the request.

(b) The commission shall hold a public contested case hearing within the meaning of the Administrative Procedure and Texas Register Act, Texas Civil Statutes, Article 6252-13a (Vernon Supplement 1990) on requests filed pursuant to subsection (a) of this section, provided that a written request for hearing is filed with the chief hearings examiner of the commission by any PRP of a facility listed or proposed for listing on the registry, or any interested person, within 30 days after receipt of a determination by the executive director made pursuant to a request filed in accordance with subsection (a) of this section. At least 30 days prior to the date set for hearing, notice shall be provided by first class mail to all other PRPs and other interested persons, and by publication in a newspaper of general circulation in the county where the facility is located. The person submitting the request shall bear the cost of publication of the notice.

(c) In making a determination under subsection (a) of this section, the executive director or the commission will consider the following:

(1) the extent to which the facility has been remediated pursuant to the terms of a remedial action plan agreed to by the executive director;

(2) what further action, if any, is appropriate;

(3) whether the release no longer poses an imminent and substantial endangerment to public health and safety or the environment and, therefore, taking further action is not appropriate; or

(4) whether, because of the nature of the remedial action implemented at the facility, it is not yet feasible to make a determination that the remedial action has effectively remediated the release or threat of release of hazardous substances.

(d) No requests for the delisting of a facility from the State Registry or requests to modify information about a facility eligible for listing on the registry will be granted unless, at a minimum, the facility has been investigated pursuant to the terms of a remedial investigation/feasibility study or other similar study approved by the executive director.

Source: The provisions of this §335.344 adopted to be effective September 9, 1991, 16 TexReg 4624.

§ 335.345. Requests for Information or Production of Documents

(a) The executive director may submit requests for information and requests for production of documents as authorized by the Act, §361.182, to any person who has information or documents which in the executive director's opinion are necessary for the adequate investigation or remediation of a facility listed on the registry or proposed for listing on the registry. If the requested information or documents are not produced in a timely manner, the executive director may petition the commission to issue an order directing compliance with the requests for information or production of documents. The executive director shall serve a copy of the petition on the person to whom the request for

information or production of documents was directed at least 20 days prior to the scheduled date of commission action on the petition. The person to whom the request for information or production of documents was directed may appear before the commission and present evidence and argument on the petition or in support of a claim asserted under subsection (b) of this section, or the commission may refer the matter to the office of hearings examiners for the taking of evidence.

(b) Information or documents provided to the executive director in accordance with this section are presumed to be public records except to the extent that a showing satisfactory to the commission is made that the information or documents would divulge trade secrets if made public. The commission shall deem the information or documents to be confidential and not subject to public disclosure if such a showing is made. Upon request, confidential information and documents supplied to the executive director will be returned to the person supplying the information or documents after it has served the purpose for which it was requested by the executive director.

Source: The provisions of this §335.345 adopted to be effective September 9, 1991, 16 TexReg 4624.

Cross References: This Section cited in 30 TAC §335.347, (relating to Financial Capability Determinations).

§ 335.346. Removal Actions and Preliminary Site Investigations

(a) For facilities listed on the registry or proposed for listing on the registry, no person may perform any partial or total removal activities at such facility or conduct on-site sampling, testing, or preliminary investigations of any type at such facility without the advance written authorization of the executive director after notice and opportunity for comment to all other potentially responsible parties.

(b) To expedite the executive director's consideration of a proposal to conduct removal activities or preliminary investigations at a facility, the person proposing such actions should submit to the executive director a work plan describing the precise nature of the removal or investigation activities proposed, a safety and health plan, and a quality assurance/quality control plan as well as a schedule for completing various subtasks identified in the work plan.

(c) Any authorization by the executive director to perform on-site testing, sampling, or preliminary investigations or partial or total removal activities at a facility does not constitute a finding or determination by the commission that such testing, sampling, or preliminary investigation constitutes an approved remedial investigation/feasibility study or that the removal activities constitute the final remedial action. An authorization by the executive director to perform any partial or total removal activities also does not constitute a determination or finding by the commission that any release or threatened release attributed to the removed materials is divisible as defined in the Act.

(d) Pursuant to the Act, §361.133(c), the executive director may use money in the hazardous and solid waste remediation fee fund for necessary and appropriate removal and remedial action at sites at which solid waste or hazardous substances have been disposed if funds from a liable party, independent third party, or the federal government are not sufficient for the removal or remedial action. A necessary and appropriate aspect of any such removal or remedial action may be the construction of a fence as necessary to provide site security, and the taking and analysis of samples of potential hazardous substances, and potentially contaminated soils, surface water, and groundwater.

Source: The provisions of this §335.346 adopted to be effective September 9, 1991, 16 TexReg 4624.

Cross References: This Section cited in 30 TAC §335.348, (relating to General Requirements for a Remedial Investigation/Feasibility Study (RI/FS)).

§ 335.347. Financial Capability Determinations

(a) The executive director will make a determination of whether a potentially responsible party (PRP) is financially capable of participating in a facility investigation or remediation. Such a determination may be based on some or all of the following financial information:

(1) audited financial statements;

(2) federal or state income tax returns;

(3) a PRP's gross and net income for each of the preceding three years;

(4) a PRP's net worth for each of the preceding three years;

(5) a PRP's current cash flow position;

(6) a PRP's long-term liabilities;

(7) the liquidity of a PRP's assets; and

(8) any other data requested pursuant to §335.345 of this title (relating to Requests for Information or Production of Documents), which in the opinion of the executive director is rele-

vant to a determination of the ability of the PRP to participate in a facility investigation or remediation.

(b) A determination by the executive director pursuant to this section shall be provided to all PRPs.

Source: The provisions of this §335.347 adopted to be effective September 9, 1991, 16 TexReg 4624.

§ 335.348. General Requirements for a Remedial Investigation/Feasibility Study (RI/FS)

(a) Unless otherwise directed by the commission, an RI/FS or other similar study as approved by the Texas Water Commission (TWC) shall be completed before the executive director's selection of the remedial action, except for emergency removal actions and preliminary site investigations pursuant to §335.346 of this title (relating to Removal Actions and Preliminary Site Investigations).

(b) A similar study may be approved by TWC as an appropriate alternative to the performance of a full RI/FS when necessary to avoid delay, to make more effective use of resources, or when such similar study is sufficient to adequately characterize a site.

(c) The contents of the RI/FS, as approved by the commission, will depend on the particular circumstances of each specific facility. Under any RI/FS, however, sufficient information must be collected and evaluated to allow the commission to select an appropriate remedial action.

(d) An RI/FS may include the following, as appropriate to a particular facility, for the purpose of allowing TWC to select an appropriate remedial action:

(1) investigations of surface water and sediments necessary to characterize hydrologic features such as surface drainage patterns, areas of erosion and sediment deposition, surface waters, floodplains, and actual or potential hazardous substance migration routes within these areas. Properties of surface and subsurface sediments which would influence the type and rate of hazardous substance migration or affect the ability to implement alternative remedial actions shall be characterized;

(2) investigations to adequately characterize the vertical and areal distribution and concentrations of hazardous substances in the soils encompassing the facility. Properties associated with the soils which would influence the type and rate of hazardous substance migration or affect the ability to implement alternative remedial actions shall be characterized;

(3) investigations of hydrogeology and geology to adequately characterize the horizontal and vertical distribution and concentrations of hazardous substances in the groundwater and the features which affect the fate and transport of those hazardous substances. This should include, but is not limited to, the physical properties and distribution of bedrock and unconsolidated materials, groundwater flow rate and gradient for contaminated and potentially contaminated aquifers, groundwater divides, areas of groundwater recharge and discharge, and location of public and private groundwater wells;

(4) information regarding local climatological characteristics which are likely to affect the hazardous substance migration such as: rainfall patterns; frequency of storm events; temperature variations; prevailing wind direction; and wind velocity;

(5) information to determine the impact or potential impact on the natural resources and ecology of the area such as sensitive environments, plant and animal species, and other environmental receptors;

(6) descriptions of the location, quantity, horizontal and vertical extent, concentrations, and sources of hazardous substances in disposal areas. Information on the physical and chemical characteristics and the toxicological effects of hazardous substances shall be provided, if available.

(e) In order to identify possible health problems associated with the "no action" remedial action alternative, a baseline public health evaluation will be conducted in accordance with the Environmental Protection Agency's Risk Assessment Guidance for Superfund—Volume 1: Human Health Evaluation Manual or other equivalent Environmental Protection Agency (EPA) guidance document. The evaluation may not be required when the executive director determines that remediation standards are apparent and undisputed and adequately protective of human health and the environment.

(f) The number and types of remedial action alternatives to be evaluated shall take into consideration the particular characteristics and complexities of the facility. Development of remedial action alternatives shall include, at a minimum, the following:

(1) an alternative which involves the treatment of hazardous substances to health-based levels or the level of best demonstrated available technology;

(2) an alternative consisting of containment of all hazardous substances either on-site or off-site;

(3) an alternative consisting of a combination of on-site and off-site containment;

(4) no remedial action.

(g) At a minimum, the following criteria will be used to evaluate each remedial action alternative:

(1) the extent to which the alternative mitigates long-term exposure of any residual contamination;

(2) the extent to which the alternative achieves remediation standards and complies with applicable federal, state, and local regulations;

(3) the extent to which the alternative permanently and significantly reduces the volume, toxicity, and mobility of hazardous substances;

(4) the present value cost including the total costs of implementation and annual operation and maintenance costs;

(5) the extent to which local community concerns are addressed and whether implementation of the alternative would result in other adverse effects on the local community;

(6) other significant impacts on human health and the environment resulting from implementation of the remedial action alternative; and

(7) the technical merits of each remedial alternative relative to the other.

(h) A work plan for an RI/FS shall be submitted to the executive director for final review and possible modifications and shall include the following:

(1) a sampling and analysis plan covering all sampling activities to be undertaken pursuant to the RI/FS;

(2) a quality assurance/quality control plan to assure the integrity of all samples taken pursuant to the RI/FS;

(3) a health and safety plan to describe steps to be taken to assure the health and safety of all personnel engaged in implementing the RI/FS; and

(4) a schedule of implementation for all aspects of the RI/FS.

(i) Treatability studies may be required as necessary to provide information to evaluate remedial action alternatives.

(j) A report shall be prepared at the completion of the RI/FS and submitted to the executive director for review, possible modification, and final approval.

(k) In evaluating the acceptability of an RI/FS or similar study, the executive director may utilize published TWC and EPA technical guidance documents including, but not limited to, the documents set forth in Appendix II.

Source: The provisions of this §335.348 adopted to be effective September 9, 1991, 16 TexReg 4624.

Cross References: This Section cited in 30 TAC §335.342, (relating to Definitions).

§ 335.349. General Requirements for a Remedial Action

(a) Based on the proposals set forth in the feasibility study, the executive director shall select a remedial action. The selection of the remedial action shall be based on relevant information collected during the remedial investigation/feasibility study (RI/FS), or other approved study, as well as any other information available to the commission. The commission may select a final remedial action which incorporates elements from different remedial action alternatives as proposed in an RI/FS.

(b) Engineering documents submitted in connection with the remedial action will be required to demonstrate compliance with relevant cleanup standards, except as provided in the Act, §361.193. The scope of these documents will depend on the nature and complexity of the proposed remedial action and may vary from site to site.

(c) A remedial action plan shall consider the following factors if relevant to a particular facility, but shall not be limited to those factors, as follows:

(1) a design engineering report to include information for the development and review of construction plans and specifications;

(2) construction plans and specifications describing in detail the cleanup actions to be performed and prepared in conformance with currently acceptable engineering techniques and practices; and

(3) an operation and maintenance plan to assure effective and environmentally safe operations under normal and emergency situations.

Source: The provisions of this §335.349 adopted to be effective September 9, 1991, 16 TexReg 4624.

§ 335.350. Defense to Liability and Claims of Divisibility

(a) The burden of establishing that a potentially responsible party (PRP) qualifies for any defenses to liability set forth in the Act, §361.275, or that a release is divisible as set forth in the Act, §361.276, lies with the PRP asserting such claim.

(b) A PRP must demonstrate to the executive director its entitlement to a defense or claim under the Act, §361.275 or §361.276. The determination by the executive director of a PRP's request for limitation of liability under these sections of the Act is a discretionary act which does not entitle the PRP to an appeal to the commission or an adjudicatory hearing on such determination.

(c) The executive director will not consider claims of divisibility until a site has been adequately characterized by an RI/FS or other approved study.

(d) A determination by the executive director on a defense or claim asserted under the Act, §361.275 or §361.276, shall have no res judicata or collateral estoppel effect on a PRP's ultimate liability for remediation of a facility as determined in subsequent commission proceedings or in district court.

Source: The provisions of this §335.350 adopted to be effective September 9, 1991, 16 TexReg 4624.

§ 335.351. Settlement Agreements

(a) General purpose. The Texas Water Commission (TWC) encourages potentially responsible parties (PRPs) to enter into negotiated settlement agreements with the commission so that an effective cleanup of a state superfund facility can be quickly implemented while at the same time resolving PRP's apparent liability for the facility. The goal of the executive director in negotiating PRP settlements is to obtain a complete investigation and cleanup of the facility by PRPs, or to collect from PRPs 100% of the commission's cost of performing a complete investigation and cleanup of the facility.

(b) Partial settlements. The commission may consider a settlement proposal for cleanup of less than 100% of a facility's cleanup activities or cleanup costs. Upon settling with cooperative parties, the commission will vigorously seek all remaining relief, including full cost recovery of monies expended from the hazardous waste disposal fee fund, including penalties, damages, and interest where appropriate, as well as TWC oversight costs, from parties whose noncooperation prevented the achievement of a complete settlement.

(c) Mixed funding. Mixed funding means use of funds from federal, state, and private party sources, or any combination of those sources, to fund a timely response action. Mixed funding may be used in the following circumstances.

(1) In order to achieve an expeditious cleanup of a facility listed on the registry, the commission may agree to reimburse parties to a settlement agreement from the hazardous waste disposal fee fund, with interest, for certain costs incurred as a result of the timely implementation of the remedial action plan that the parties agree to perform but which the commission agrees to finance. The commission may agree to utilize funds from whatever other federal or state source are available to the commission for the funding of a facility remediation.

(2) Mixed funding shall be provided only to PRPs whom the commission has found to be eligible and who have entered into an agreed administrative order with TWC. The agreed administrative order shall identify remedial action tasks to be addressed by the mixed funding, costs to be borne by the hazardous waste disposal fee fund, and the terms of agreement.

(3) A PRP must submit sufficient documentation, as requested by the executive director, to support its request for mixed funding.

(4) The commission's granting of a request for mixed funding does not diminish or alter the standard and scope of liability as set out in the Act. The commission will not approve mixed funding based solely on the grounds that a share of wastes at a site may be attributable to an unknown or financially nonviable party. In addition, the availability or the amount of any fund-financing for a particular site will not be dependent on consistency with any volumetric allocation.

(5) Good faith negotiations and early cooperation of settlers will be considered in mixed funding requests. Mixed funding for remedial actions would not be appropriate where the executive director did not receive a good faith offer for the participation of the PRPs in the completion of the remedial investigations/feasibility study.

(6) If a PRP is found to be eligible for mixed funding, the executive director shall make an initial determination regarding the amount of funding to be provided. This determination is solely within the discretion of the executive di-

rector and is not subject to adjudication in an administrative hearing or appeal to the commission. A determination of eligibility is not a funding commitment as actual funding will depend on availability of funds and approval of the commission.

(7) Where a remedial action has been completed at a facility pursuant to a mixed funding agreement, the hazardous waste disposal fee fund (the fund) shall be subject to an obligation for subsequent remedial actions at the same facility only to the extent that such subsequent actions are necessary by reason of failure of the original remedial action. Such obligation shall be in a proportion equal to, but not exceeding, the proportion contributed by the fund for the original remedial action. The fund's obligation for such future remedial action may be met through fund expenditures, or through payment by parties who were not signatories to the original agreement.

(d) De minimis settlements. The commission may reach a final settlement with a PRP for only a minor portion of the response costs at a facility if the conditions in either of the following paragraphs (1) or (2) of this subsection are met.

(1) A PRP can demonstrate the following:

(A) the amount of the hazardous substances contributed by a particular PRP is minimal in comparison to the amounts of other hazardous substances at the facility; or

(B) the toxicity or other hazardous effects of the hazardous substances contributed by a particular PRP are minimal in comparison to the toxicity or other hazardous effects of other hazardous substances at the facility.

(2) The PRP can demonstrate that it:

(A) is the owner of the real property on or in which the facility is located;

(B) did not conduct or permit the generation, transportation, storage, treatment, or disposal of any hazardous substance at the facility; and

(C) did not contribute to the release or threat of release of a hazardous substance at the facility through any action or omission.

(3) Paragraph (2) of this subsection does not apply if the PRP purchased the real property with actual or constructive knowledge that the property was used for the generation, transportation, storage, treatment, or disposal of any hazardous substance.

(e) Covenants not to sue.

(1) The commission may, in its discretion, provide any PRP with a covenant not to sue concerning any existing or future liability resulting from a release or threatened release of a hazardous substance addressed by a remedial action if each of the following conditions is met:

(A) the covenant not to sue is in the public interest as determined by criteria set forth in paragraph (2) of this subsection;

(B) the granting of the covenant not to sue would expedite a remedial action approved by the commission; and

(C) the PRP is in full compliance with the terms of any order issued by the commission for response to the release or threatened release concerned.

(2) In assessing the appropriateness of granting a covenant not to sue and in determining the appropriate legal scope of such a covenant, the commission shall consider whether the covenant is in the public interest on the basis of such factors as the following:

(A) the effectiveness and reliability of the remedial action, in light of other alternative remedies considered for the facility concerned;

(B) the nature of the environmental risks remaining at the facility;

(C) the extent to which performance standards are included in the order or decree;

(D) the extent to which the response action provides a complete remedy for the facility, including a reduction in the hazardous nature of the substances at the facility;

(E) the extent to which the technology used in the response action is demonstrated to be effective;

(F) whether the hazardous waste disposal fee fund or other sources of funding would be available for any additional remedial actions that might eventually be necessary at the facility; and

(G) whether the remedial action will be carried out, in whole or in significant part, by the PRPs themselves.

(3) A covenant not to sue shall be subject to the satisfactory performance by the PRP of its obligations under any order issued by the commission for response of remedial actions to address the release or threatened release of a hazardous substance at the facility. A covenant not to sue concerning future liability for remediation of the

facility shall not take effect until the executive director certifies that the remedial action has been completed in accordance with any such order issued by the commission.

(4) A covenant not to sue a PRP concerning future liability for remediation of a facility may include an exception to the covenant that allows the commission to sue such person where such liability arises out of conditions which are unknown to the executive director at the time he certifies under paragraph (3) of this subsection that the remedial action has been completed at the facility. A covenant not to sue may provide that such future liability may be limited to the same proportion as that established in the original settlement agreement or order issued by the commission.

(f) Any settlement agreement with the commission which resolves a PRP's liability for remediation of a facility does not discharge the liability of any other PRP unless its terms so provide, but it reduces the potential liability of the other PRPs by the amount of the settlement. A PRP will be afforded the opportunity to comment on any settlement agreement with the commission to which it is not a party.

Source: The provisions of this §335.351 adopted to be effective September 9, 1991, 16 TexReg 4624.

§ 335.352. Adoption of Appendices by Reference

The following appendices are adopted by reference. Copies of these appendices may be obtained by contacting the Texas Water Commission, Library, P.O. Box 13087, 1700 North Congress Avenue, Austin, Texas 78711-3087, (512) 463-7834: Appendix I. Texas State Superfund Hazard Ranking System Guidance Document; Appendix II. List of TWC and EPA Technical Guidance Documents.

Source: The provisions of this §335.352 adopted to be effective September 9, 1991, 16 TexReg 4624.

SUBCHAPTER L. CONTROL OF AIR POLLUTION FROM HAZARDOUS WASTE OR SOLID WASTE MANAGEMENT FACILITIES

Authority: The provisions of this Subchapter L issued under Texas Civil Statutes, Article 4477-5, §4(e)(4)(A)(i).

§ 335.361. Definitions

The words and terms used in this subchapter have the meanings as given in the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, or the regulations promulgated thereunder. Unless specifically defined in the Solid Waste Disposal Act or the regulations promulgated thereunder, the terms used in this subchapter have the meanings commonly ascribed to them in the field of air pollution control. The term "facility" as used in this chapter refers to a hazardous or solid waste management facility as defined in the Solid Waste Disposal Act. The use of the term "modified" in this subchapter is consistent with the term "modification" as defined in the Texas Clear Air Act.

Source: The provisions of this §335.361 adopted to be effective May 1, 1986, 11 TexReg 1832.

§ 335.362. Applicability

(a) This subchapter applies to all hazardous waste or solid waste management facilities which are required to obtain a permit by the Texas Water Commission pursuant to the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, §4(e)(4)(A)(i), except as provided in subsections (c)-(e) of this section. For purposes of this subchapter, the phrase "a facility in existence on or before September 1, 1987" refers to a hazardous waste management facility or hazardous waste land disposal facility that is used for the storage, processing, or disposal of hazardous waste and that is authorized by a hazardous waste permit or is physically present and awaiting final action on an application submitted pursuant to §§335.2(c), 335.43(b), and 335.45(b) of this title (relating to Permit Required; Permit Required; and Effect on Existing Facilities), including any revisions made in accordance with §305.51 of this title (relating to Revision of Applications for Hazardous Waste Permits).

(b) Hazardous or solid waste management facility units which other wise would not be subject to Texas Water Commission permitting requirements, but would be subject to the permitting requirements of Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) and are located at waste management facilities which manage waste from off-site sources and are permitted by the commission after September 1, 1987, shall be regulated by the air quality permitting requirements of this subchapter.

(c) Any person who plans to construct or engage in the modification of a hazardous waste or solid waste management facility shall obtain authorization for such construction or modification under Chapter 116 of this title (relating to Control of Air

Pollution by Permits for New Construction or Modification) if the proposed construction or modification is subject to the new source review requirements of the Federal Clean Air Act, Title I, Part C or D, 42 United States Code §7401 et seq.

(d) The air quality permitting requirements of this subchapter do not apply to facilities in existence on or before September 1, 1987, except for facility units which incinerate or burn hazardous or solid waste.

(e) The air quality permitting requirements of this subchapter do not apply to the expansion of hazardous waste land disposal facilities in existence on or before September 1, 1987.

Source: The provisions of this §335.362 adopted to be effective May 1, 1986, 11 TexReg 1832; amended to be effective June 21, 1988, 12 TexReg 2838.

Cross References: This Section cited in 30 TAC §335.366, (relating to General Air Emissions Requirements for Hazardous or Solid Waste Management Facilities); 30 TAC §335.367, (relating to Specific Air Emissions Requirements for Hazardous or Solid Waste Management Facilities).

§ 335.363. Permit Conditions

Permits for facilities to which this subchapter applies may contain terms and conditions relating to air quality. The holders of such permits shall comply with any and all such terms and conditions.

Source: The provisions of this §335.363 adopted to be effective May 1, 1986, 11 TexReg 1832.

§ 335.364. Representations in Application for Permit

All representations in an application for a Texas Water Commission permit or a modification to a commission permit regarding construction plans and operation procedures that may affect emissions from a facility to which this subchapter applies, become conditions upon which a subsequent permit is issued. It shall be unlawful for any person to vary from such representations if the change may alter the method or efficiency of controlling the emissions, the character of the emissions, or may result in an increase in the emissions of any air contaminant, unless prior notification is made to the commission and the Texas Air Control Board and such change is approved by the permitting agency. Any such change may be approved by the permitting agency only after the Texas Air Control Board has reviewed the proposed change and has made its recommendations on the proposed change to the permitting agency. Such person shall submit to the executive director of the commission upon request such information as may reasonably be required to enable the executive director to determine whether such activity is compliant with this chapter and whether such change may be approved. Any information provided under this subsection shall be submitted to the executive director in duplicate form.

Source: The provisions of this §335.364 adopted to be effective May 1, 1986, 11 TexReg 1832; amended to be effective June 21, 1988, 13 TexReg 2838.

§ 335.365. Responsibility for Review of Air Quality Impacts from Existing, New, and Modified Facilities

(a) Technical review. The Texas Air Control Board shall be responsible for performing a technical review of the air quality aspects of any permit application submitted to the Texas Water Commission for a solid waste or hazardous waste management facility to which this chapter applies. The board shall complete such review and shall forward all recommendations or proposed permit provisions to the commission within the time limits established under Chapter 281 of this title (relating to Applications Processing) for completion of technical review of the application. All recommendations developed by the board and forwarded to the commission shall be included in any permit issued, unless the commission determines that the recommendation or proposed revisions are less stringent than applicable federal requirements under the Federal Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act, 42 United States Code §6901 et seq., as amended. If permit provisions proposed by the board conflict with provisions proposed by the commission, the two agencies shall attempt to resolve such conflicts prior to completing technical review of the application.

(b) Uncontested cases. If a contested case hearing is not held by the commission, the proposed provisions submitted by the board shall be incorporated into any permit issued by the commission.

(c) Hearings. If a contested case hearing is held by the commission, all evidence and testimony of the state regarding air quality aspects of the application shall be developed and presented by the board. All parties, including the commission, shall have the right to cross-examine any testifying witnesses of the board. At the conclusion of the presentation of testimony, the commission shall afford the board at least 30 days in which to submit proposed findings of fact and conclusions of law, and, if applicable, proposed permit language, re-

garding the air quality aspects of the application. Such findings, conclusions, and permit language shall be accepted unless the commission finds that the recommendations of the board are not supported by a preponderance of the evidence. The board may seek judicial review of the air quality aspects of any final decision of the commission.

(d) Enforcement. Both the board and the commission shall have authority to enforce the terms of any permit issued by the commission which relate to air quality.

Source: The provisions of this §335.365 adopted to be effective May 1, 1986, 11 TexReg 1832.

§ 335.366. General Air Emissions Requirements for Hazardous or Solid Waste Management Facilities

(a) In order for a Texas Water Commission permit to be granted to a hazardous or solid waste management facility, including any units as provided in §335.362(b) of this title (relating to Applicability), the owner or operator of such facility or unit shall submit information to the permitting agency which will demonstrate that all of the following are met:

(1) The facility or unit will comply with all requirements of the Resource Conservation and Recovery Act and the rules promulgated thereunder insofar as these directly or indirectly relate to air contaminant emissions.

(2) The facility or unit will comply with all regulations of the Texas Air Control Board, except Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification), and with the intent of the Texas Clean Air Act.

(3) The facility or unit will comply with all applicable requirements relating to air quality in Subchapter F of this chapter (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, and Disposal Facilities), promulgated by the commission pursuant to the Solid Waste Disposal Act.

(4) The facility or unit will meet at least the requirements of any applicable new source performance standards promulgated by the U.S. Environmental Protection Agency pursuant to authority granted under the Federal Clean Air Act (FCAA), §111, as amended.

(5) The facility or unit will meet at least the requirements of any applicable emission standard for hazardous air pollutants promulgated by the U. S. Environmental Protection Agency pursuant to authority granted under the Federal Clean Air Act, §112, as amended.

(6) The facility or unit will have appropriate provisions for determining significant emissions of air contaminants.

(b) The owner or operator of the facility or unit shall also comply with each of the following after operation has commenced:

(1) As soon as possible after a spill or leak of hazardous or odorous waste, all standing liquids resulting from the spill or leak shall be collected, contained, treated, or disposed of in a manner that minimizes adverse environmental impacts.

(2) Records shall be maintained on-site indicating the date, quantity, type, and composition of solid waste generated or managed at the hazardous or solid waste management facility. At a minimum, the definition of waste composition shall be provided in sufficient detail to identify the significant potential air contaminants. An analysis for those chemical compounds present in concentrations greater than 1.0% by volume of the total waste stream which includes the concentration of the total organic carbon, shall be sufficient.

(3) All records required by the permit to assure compliance with this subchapter shall be maintained at the plant site and shall be made available to representatives of the board or commission upon request. Such records shall be maintained on-site for at least three years.

(4) All sampling, monitoring, testing, and calibration equipment and procedures related to air emissions shall be conducted in accordance with the quality assurance requirements of the board and shall have prior board approval.

(5) The holder of a permit shall conduct sufficient stack sampling analyses, emissions monitoring, or other tests related to air emissions, to prove satisfactory equipment performance upon request by the executive director of the board. All sampling and testing procedures shall have prior board approval.

(6) Hazardous or solid waste management facilities or units shall not be operated unless all associated air pollution abatement equipment is maintained in good working order and functioning properly during operations.

Source: The provisions of this §335.366 adopted to be effective May 1, 1986, 11 TexReg 1832; amended to be effective June 21, 1988, 13 TexReg 2838.

§ 335.367. Specific Air Emissions Requirements for Hazardous or Solid Waste Management Facilities

(a) Hazardous or solid waste management facilities, including any units as provided in §335.362(b) of this title (relating to Applicability), shall meet the following requirements.

(1) The facility or unit will utilize the best available control technology to control the emissions of air contaminants, with consideration given to the technical practicability and economic reasonableness of reducing or eliminating these emissions from the facility or unit.

(2) The owner or operator must demonstrate that the facility or unit will not cause or contribute to a condition of air pollution as defined in the Texas Clean Air Act (TCAA). Such demonstration shall be based on waste characteristics, emissions estimates, and dispersion modeling, and shall be submitted as part of the permit application.

(b) All facility units which incinerate or burn solid or hazardous waste, including those units which were in existence on or before September 1, 1987, shall meet the following requirements.

(1) The facility unit must comply with all sections of the Texas Air Control Board, except Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification).

(2) The owner or operator must submit a list of wastes stored, handled, processed, or disposed of at the facility unit including estimates of the quantity and character of such waste. The applicant shall certify that such information is true, correct, and complete to the best of his or her knowledge.

(3) If the board determines, based on a review of the information submitted pursuant to paragraph (2) of this subsection, that a significant potential for a condition of air pollution due to emissions from the facility unit exists and the monitoring of emissions from such facility unit is feasible:

(A) within 90 days from the date of issuance of the Texas Water Commission permit, the owner or operator of the facility unit must submit to the board a plan for monitoring emissions from the facility unit and must initiate monitoring within 90 days of board approval of such plan; or

(B) in support of the application, the owner or operator must submit, to the commission and the board, dispersion modeling demonstrating that the facility unit will not cause a condition of air pollution.

(4) If one or more complaints relating to air pollution resulting from operation of the facility unit have been received and a condition of air pollution has been confirmed by the state or local air pollution control agency within the 36 months prior to the date of notification associated with the declaration of administrative completeness pursuant to §281.17(a) of this title (relating to Notice of Receipt of Application and Declaration of Administrative Completeness), the owner or operator of the facility unit must submit monitoring data or dispersion modeling demonstrating that the facility unit will not cause a condition of air pollution. Failure to submit such information may be grounds for permit denial.

Source: The provisions of this §335.367 adopted to be effective May 1, 1986, 11 TexReg 1832; amended to be effective June 21, 1988, 13 TexReg 2838.

SUBCHAPTER M. PRE-APPLICATION REVIEW AND PERMIT PROCEDURES

§ 335.391. Pre-application Review

(a) Purpose. The commission recommends a pre-application review process in situations where opposition to an application is likely to exist. A pre-application review should serve to identify issues of concern; facilitate communication between a potential applicant and persons who would be affected by an application; and resolve as many points of conflict as possible prior to the submission of an application. A local review committee shall:

(1) interact with the applicant in a structured manner during the pre-application review stage of the permitting process and, if necessary, during the technical review stage of the permitting process, to raise and attempt to resolve both technical and nontechnical issues of concern; and

(2) produce a fact-finding report documenting resolved and unresolved issues and unanswered questions. The applicant shall submit this report to the commission with the applicant's permit application.

(b) Applicability. This subchapter applies to potential permit applicants who desire to enter into agreements with affected persons and/or identify

issues of local concern prior to submission of an application for a new hazardous waste management facility (including injection wells used for the disposal of hazardous waste). This subchapter shall not apply to hazardous waste management facilities for which an application has been filed, or which has otherwise been authorized to operate, as of September 1, 1985.

(c) Procedure.

(1) If a potential applicant decides to participate in a local review committee process, the potential applicant may so inform the persons listed in subparagraphs (A)-(C) of this paragraph, as soon as feasible after beginning informal discussions with the commission. To formally initiate the pre-application review process, the potential applicant shall file a notice of intent to file an application with the commission. The form of this notice is specified in §335.392 of this title (relating to Notice of Intent to File a Permit Application). The potential applicant will at the same time send a copy of the notice by certified mail, return receipt requested, to the following persons:

(A) the appropriate mayor and county judge if the proposed facility is to be located within the corporate limits or extraterritorial jurisdiction of a city; or

(B) the appropriate county judge if the proposed facility is to be located within an unincorporated area of a county; and

(C) the appropriate regional council of government.

(2) The filing of the notice initiates the pre-application review process. The date of filing shall be the date the notice is received by the commission.

(3) Local review committees shall be composed of representatives of both local and regional interests.

(A) Size. A local review committee shall consist optimally of 12 individuals. However, by mutual agreement between the applicant and the persons appointing the committee, a larger committee to better represent all interest groups present in a community or a smaller committee for economic reasons may be appointed. However, the committee shall maintain a two to one ratio of regional appointments to local appointments.

(B) Appointments.

(i) If a proposed facility is to be located within the corporate limits or the extraterritorial jurisdiction of a city or town, the potential applicant shall ask the mayor of the city or town to make all local appointments.

(ii) If a proposed facility is to be located in an unincorporated area of a county, but within five miles of the corporate limits or extraterritorial limits of any city, the potential applicant shall ask the mayor of each affected city to appoint one member. The appropriate county judge shall appoint at least one member, if available, who lives within five miles of the proposed site. The county judge shall also appoint any remaining individuals necessary to complete local appointments to the committee.

(iii) If a proposed facility would not be within five miles of the corporate limits or the extraterritorial jurisdiction of a city, the potential applicant shall ask appropriate county judge to appoint at least one member, if available, who lives within five miles of the proposed site and as many other individuals from the county as are necessary to complete the local appointments.

(iv) Regional appointments shall be made by the appropriate regional council of government (COG) or another regional entity such as a special district or river authority designated by the COG. An attempt shall be made to make regional appointments from as many of the interest groups outlined in subclauses (I)-(VII) of this clause, as possible:

(I) organized environmental or public interest groups;

(II) citizen organizations active in environmental issues;

(III) industry, preferably, but not necessarily, individuals with expertise in waste management;

(IV) academic community, preferably, but not necessarily, individuals trained in a technical discipline related to waste management and/or public involvement;

(V) community or land use planning groups;

(VI) business groups, preferably, but not necessarily individuals with experience related to the generation of waste; and

(VII) public health professionals.

(v) If any local official or regional entity has failed to make any appointments within 15 days after the notice of intent to file has been received by the commission, the potential applicant may abandon the local review process at this point if so desired.

(vi) Every effort should be made to appoint individuals who are open-minded, willing to participate in good faith, able to devote adequate time to participation, and respected in the community or region.

(vii) Appointees shall not be elected officials from the city or county where the facility is proposed to be located, or employees or agents of the potential applicant.

(viii) An individual shall not serve on more than one local review committee at any one time.

(ix) The committee shall elect a chairperson who will preside over meetings, coordinate the activities of the committee, and be responsible for the preparation of a report.

(4) The local review committee shall meet within 21 days after the notice of intent is filed. The commission will provide manuals to committee members which will orient them as to what the committee's activities should be; i.e., the production of a report detailing issues resolved, issues unresolved, and unanswered questions.

(5) The pre-application review process shall continue for a maximum of 90 days unless it is shortened or lengthened by mutual agreement between the potential applicant and the local review committee.

(6) Individuals who serve on local review committees shall serve without compensation. The potential applicant shall provide resource support which may include clerical and technical assistance, meeting space, and/or other items which may be necessary to aid the committee in its work.

(d) The committee report.

(1) Any report produced by a local review committee set up under this section shall be submitted to the commission with an applicant's permit application. The executive director shall consider the report in any decision to recommend granting or denial of the permit application. The report may be offered by any party at a hearing on the application and admitted into evidence subject to applicable rules of evidence.

(2) The report shall not recommend approval or disapproval of the proposed facility. Rather, it shall describe the committee's work and summarize the committee's findings. The findings shall include issues resolved, issues unresolved, and unanswered questions.

Source: The provisions of this §335.391 adopted to be effective August 26, 1986, 11 TexReg 3595; amended to be effective January 5, 1988, 12 TexReg 4847.

Cross References: This Section cited in 30 TAC §335.201, (relating to Purpose, Scope, and Applicability); 30 TAC §335.393, (relating to Award of Costs).

§ 335.392. Notice of Intent To File a Permit Application

This following appendix will be used for purposes of this subchapter.

Appendix I

Notice of Intent to File a Permit Application

This form shall be submitted only in the event a potential applicant intends to initiate a pre-application review process as described in 31 TAC § 335.391. Local officials designated to appoint a local review committee pursuant to 31 TAC § 335.391 must do so within 15 days after the filing of this notice with the Texas Water Commission. For further information, contact the Texas Water Commission, Hazardous and Solid Waste Division, P.O. Box 13087, Capitol Station, Austin, Texas 78711.

(Potential Applicant Complete:)

Name: _____
City, County, Individual or Company

Individual Contact: _____

Mailing Address: _____

Type of Facility Proposed:

_____ Incinerator
_____ Transfer facility
_____ Storage facility
_____ Landfill
_____ Land treatment
_____ Surface impoundment

_____Processing facility _____Waste pile
_____Recycling facility _____Injection well

_____Other
Street Address or Location of Proposed Facility:

Site Located in:
County of _____ Corporate Limits or extraterritorial jurisdiction of _____
Within five miles of corporate limits or extraterritorial jurisdiction of city(s) of _____
(For Commission Use Only:)
Date Received:

Source: The provisions of this §335.392 adopted to be effective August 26, 1986, 11 TexReg 3595.

Cross References: This Section cited in 30 TAC §335.391, (relating to Pre-application Review); 30 TAC §335.393, (relating to Award of Costs).

§ 335.393. Award of Costs

(a) Any person other than the applicant who has participated in the local review committee process pursuant to this chapter, may be awarded, by the commission, its reasonable costs or any part thereof for technical studies and reports and expert witnesses associated with the presentation of evidence at a public hearing on the permit application subsequent to the local review committee process. Such evidence must relate to issues raised by such person in the local review committee process but which are still unresolved at the time of the commencement of the hearing on the permit applications for a hazardous waste management facility. To be eligible for an award, such person shall file a motion for recovery of costs at the end of the evidentiary portion of the public hearing.

(b) In determining the appropriateness of such an award, the commission shall consider the following:

(1) whether the evidence or analysis provided through such studies, reports, and witnesses is significant to the evaluation of the application;

(2) whether the evidence or analysis would otherwise not have been provided in the proceeding; and

(3) whether the local review committee was established in accordance with §335.391 and §335.392 of this title (relating to Pre-Application Review; and Notice of Intent to File a Permit Application).

(c) The person seeking such an award shall have the burden of proof to demonstrate that the costs are reasonable and consistent with similar services performed in the area. The applicant shall have the opportunity to rebut such evidence. Costs awarded by the commission shall be taxed against the applicant. The total award granted to all such persons by the commission with respect to any particular application shall not exceed $25,000. Judicial review of any award by the commission shall be pursuant to the substantial evidence rule as provided by the Administrative Procedure and Texas Register Act (Texas Civil Statutes, Article 6252-13a).

(d) Except as provided in subsection (e) of this section, when an applicant has not entered into a local review committee process, the commission, in determining the appropriateness of an award of costs, shall waive any requirement that the person seeking an award of costs has participated in a local review committee process.

(e) If an applicant, after reasonable efforts to determine whether any local opposition exists to its proposed facility including, but not limited to, discussing the proposed facility with the county judge and other elected officials, does not enter into a local review committee process because of no apparent opposition or because a local review committee is not established despite the good faith efforts of the applicant, then such applicant shall not be subject to an award of costs pursuant to subsection (a) of this section.

Source: The provisions of this §335.393 adopted to be effective August 26, 1986, 11 TexReg 3595.

SUBCHAPTER N. HOUSEHOLD MATERIALS WHICH COULD BE CLASSIFIED AS HAZARDOUS WASTE

§ 335.401. Purpose

The purpose of this subchapter is to provide requirements for interested persons to engage in activities which involve the collection, disposal, or recycling of hazardous household wastes and other types of household waste materials that may, due to their quantity and characteristics, pose a poten-

tial endangerment to human health or the environment if improperly handled. The Texas Department of Health and the Texas Water Commission agree to establish and maintain a cooperative effort with regard to providing regulation and direction for hazardous household waste collection programs so as to insure that waste aggregated as a result of such programs is properly handled and disposed of in a safe manner.

Source: The provisions of this §335.401 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions).

§ 335.402. Definitions

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

Aggregate—The act of bringing together hazardous household waste that, after being separated from other household waste, is collected from two or more households and accumulated at a collection center or transporter's facility for the purpose of disposing of or recycling the waste.

Collection center—A designated site and areas within that site used or planned for use by an operator to aggregate hazardous household waste delivered to the site by individuals, households, or collectors.

Collector—Any person who accepts directly from two or more households any unmanifested waste materials that have been separated from other household waste and offered to the collector because the generator either knows or considers the materials to be hazardous household waste.

Commission—The Texas Water Commission.

Department—The Texas Department of Health.

Division—The Division of Solid Waste Management, Texas Department of Health.

Hazardous household waste—Any solid waste generated in a household by a consumer which, except for the exclusion provided in 40 Code of Federal Regulations §261.4(b)(1), would be classified as a hazardous waste under 40 Code of Federal Regulations, Part 261.

Hazardous waste processing, storage, or disposal facility—A hazardous waste processing, storage, or disposal facility that has received an Environmental Protection Agency (EPA) permit (or a facility with interim status) in accordance with the requirements of 40 Code of Federal Regulations Parts 270 and 124, or that has received a permit from a state authorized in accordance with 40 Code of Federal Regulations Part 271.

Household—Single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreational areas.

Recurring collection program—An organized effort to collect and/or aggregate hazardous household waste in a community at scheduled intervals, at least annually.

Source: The provisions of this §335.402 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions).

§ 335.403. Authority

(a) Authority of the Texas Department of Health. The Texas Department of Health (the department) is the state agency having responsibility for regulation of nonhazardous municipal solid waste. The department and the commission agree that the department has primary regulatory authority over hazardous household waste; persons who provide point of generation pick-up of hazardous household waste; and persons who establish and operate hazardous household waste collection centers, other than those located at established hazardous waste processing, storage, or disposal facilities which are regulated by the Texas Water Commission (the commission). The following regulatory portions of this subchapter shall be primarily implemented and enforced by the department:

(1) §335.406(a)-(c) of this title (relating to General Requirements for Collectors and Operators);

(2) §335.407(a)-(f) of this title (relating to Operation of Collection Centers);

(3) §335.408 of this title (relating to Household Pick-Up);

(4) §335.410 of this title (relating to Reuse of Collected Material), except in those cases where the collector or operator determining the reuse suitability of the collected material is the owner/operator of a hazardous waste processing, storage, or disposal facility; and

(5) §335.411(b) of this title (relating to General Requirements for Transporters).

(b) Authority of the Texas Water Commission. The Texas Water Commission is the state agency having responsibility for regulating hazardous waste as defined by the United States Environmental Protection Agency in 40 Code of Federal Regu-

lations Part 261. Except for collected materials being used or planned to be used or reused in accordance with §335.410 of this title (relating to Reuse of Collected Material), all hazardous household waste once collected and aggregated at a collection center or at a transporter's facility shall be transported only by hazardous waste transporters and shall be shipped only to authorized hazardous waste processing, storage, or disposal facilities. The department and the commission agree that the commission has regulatory authority over persons transporting hazardous household waste that is required when shipped to be accompanied by a manifest, and over all aspects of solid waste management conducted at a hazardous waste processing, storage, or disposal facility. Accordingly, the following regulatory portions of this subchapter shall be primarily implemented and enforced by the commission:

(1) §335.406(d) of this title (relating to General Requirements for Collectors and Operators);

(2) §335.407(g) of this title (relating to Operation of Collection Centers);

(3) §335.410 of this title (relating to Reuse of Collected Material), except in those cases where the collector or operator determining the reuse suitability of the collected material is subject to the requirements of §335.406(a)-(c) of this title (relating to General Requirements for Collectors and Operators);

(4) §335.411(a) of this title (relating to General Requirements for Transporters); and

(5) §335.412 of this title (relating to General Requirements for Processing, Storage, or Disposal Facilities).

(c) Joint authority. The department and commission shall jointly implement, and each may enforce as appropriate, the requirements contained in §335.409 of this title (relating to General Shipping, Manifesting, Recordkeeping, and Reporting Requirements).

Source: The provisions of this §335.403 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions).

§ 335.404. Interagency Coordination

(a) The department shall serve as the lead agency with regard to the regulation of organized hazardous household waste collection and point of generation pick-up programs in the state. The department also shall be the lead agency with regard to the assurance of proper handling of hazardous household wastes at collection centers or transporter facilities, other than at hazardous waste processing, storage, or disposal facilities regulated by the commission.

(b) The division shall be the point of contact between collectors or operators subject to the requirements of §335.406(b) and (c) of this title (relating to General Requirements for Collectors and Operators) and the commission. The division also shall provide the collectors and operators the necessary forms, identification numbers, waste codes, and special instructions from the commission concerning transportation and ultimate disposition of aggregated hazardous household waste.

(c) The department, in adopting these sections, concurs in the processing, storage, disposal, or recycling of hazardous household waste at a hazardous waste facility that has written authorization from the commission to receive such waste.

Source: The provisions of this §335.404 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions).

§ 335.405. Applicability

(a) This subchapter applies to persons who:

(1) collect and/or aggregate hazardous household waste for disposal or recycling;

(2) are involved in the point of generation pick-up of hazardous household waste that has been separated by the generator from other solid wastes;

(3) operate hazardous household waste collection centers;

(4) transport any hazardous household waste required by this subchapter to be manifested; and

(5) own or manage a hazardous waste processing, storage, or disposal facility that receives manifested hazardous household waste.

(b) The sections of this subchapter do not apply to individuals who receive from households, for the purpose of recycling or reclamation, used oil or lead acid batteries, provided such individuals do not operate a collection center for other hazardous household waste or other household wastes that fall under the purview of this subchapter.

Source: The provisions of this §335.405 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions).

§ 335.406. General Requirements for Collectors and Operators

(a) Except as provided in subsection (d) of this section, no person may engage in any activity to collect or aggregate hazardous household waste that has been segregated from other solid waste without having first notified the Division of Solid Waste Management, Texas Department of Health (division), in accordance with subsection (b) of this section and without having submitted to the division an operational plan as provided for in subsection (c) of this section. The department may waive the requirements of this section for programs scheduled to be implemented within six months of the date these sections become effective, provided the collector or operator requests such waiver in writing.

(b) The notification shall be submitted 90 days prior to the expected collection date, by letter or on a form provided by the department. It shall include the following information:

(1) name and address of the operator;

(2) name, address, and telephone number of an individual to be the contact person for the operator;

(3) date of planned collection;

(4) areas that are planned to be covered by the collection effort, i.e., city, county, precinct, neighborhood, district, region, etc.;

(5) a conceptual organization of the collection effort with names of persons or groups providing support and identities of all organizations or groups involved together with the operator in any advertising, public service campaigns, or other public information efforts; and

(6) details regarding any planned public information efforts concerning the dangers or risks associated with hazardous household waste, the need or desirability of separating such waste from other household waste, and the procedures for delivery of hazardous household waste to the collection center prior to collection day. Collectors or operators conducting recurring collection programs need not submit a plan for the second and subsequent operations, provided the original or a revised plan has been previously submitted and remains in effect. The plan shall be prepared in format and content as described in paragraphs (1)-(12) of this subsection or as otherwise specified by the division. Changes to the plan may be made after consultation and coordination with the division.

(c) The collector or operator shall submit to the division a complete operational plan not less than 45 days.

(1) The plan shall be in a typewritten report form (except for maps and drawings) on 8 ½ inches by 11 inches white paper. All materials in excess of 8 ½ inches by 11 inches shall be folded to that size. Undersized materials shall be mounted on 8 ½ inches by 11 inches paper, and the report stapled in the upper left-hand corner or bound along the left margin. All folded material shall be affixed so it can be unfolded without removing binders.

(2) The title page shall show the name of the project, the location by city and county, name of responsible person, and date of plan.

(3) The table of contents shall list the main sections of the plan.

(4) The plan shall identify the nature, type, and quantity of hazardous household waste and other household wastes proposed for collection and disposal and include a brief description of the general sources and generation areas contributing wastes.

(5) If the waste is to be collected from households by a point of generation pick-up service, the plan shall describe in detail how this is to be done.

(6) The plan will describe the approximate number of residences, institutions (identify types), and business establishments within 300 feet of the proposed collection center, including the distances and directions to the nearest residence, institution, or business.

(7) Information relating to adequacy of roads or streets to be used to enter or exit the collection center shall be submitted as part of the plan.

(8) The plan shall identify the type and location of fences or other means of access control to protect the public from exposure to potential health and safety hazards and to discourage unauthorized entry.

(9) The following operational concepts shall be discussed in detail:

(A) the storage of waste at the collection center;

(B) provisions for inclement weather operation, e.g., alternate collection site, or alternate collection day, etc.;

(C) provisions for wastes requiring special handling and for wastes that are identified as nonhazardous;

(D) provisions for classifying and controlling the wastes;

(E) procedures to ensure that unauthorized waste, i.e., hazardous waste (or Class I industrial solid waste) from industries, businesses, or institutions subject to regulations of the commission, is not accepted as hazardous household waste;

(F) fire control measures, e.g., availability of local fire departments and on-site fire fighting equipment;

(G) spill control measures and cleanup procedures;

(H) the minimum required number of personnel, their functions, and their qualifications;

(I) provisions for security, screening waste for acceptability, traffic control, and safety;

(J) measures to control unloading within the collection center; and

(K) the posting of signs at the collection center and enforcement of site rules.

(10) The operator shall provide information on the planned disposal of the waste collected, to include the transporter's name and the United States Environmental Protection Agency identification number, and the name, location, and the United States Environmental Protection Agency identification number of the hazardous waste facility which is to be used for the processing, storage, disposal, or recycling of the waste. The operator, in developing the plan for disposal of waste to be received at the collection center, should determine the feasibility of managing collected hazardous household waste in the following order of preference:

(A) reuse and/or recycling of waste;

(B) treatment to destroy hazardous characteristics;

(C) treatment to reduce hazardous characteristics;

(D) underground injection; and

(E) land disposal.

(11) The operator shall provide information on planned disposition of materials that are accepted at the collection center that are in usable condition.

(12) The plan shall include the following attachments:

(A) Attachment 1—general location map. This map should be all or a portion of a half-scale county map, prepared by the Transportation Planning Division of the State Department of Highways and Public Transportation, with the collection site marked and labeled thereon in a manner that will facilitate determining the general location of the site and roadway access. If the site is located within a city, a city map may be used for this purpose.

(B) Attachment 2—planimetric map. This will normally be a constructed map showing the features of the collection center. It need not be drawn to scale but the improvements and boundaries should fairly represent the collection center area. The map should be annotated to show flow of traffic, unloading points, location of emergency vehicles, and classification and storage areas.

(C) Attachment 3—evidence of financial responsibility. Collectors or operators other than governmental entities shall submit evidence of financial responsibility which assures the department that sufficient assets are available to properly operate the collection center, enable appropriate shipment and disposal of the waste, and to provide for proper closure of the collection center. The amount and type of financial assurance shall be determined by the division after discussing the scope of the collection effort with the operator.

(D) Attachment 4—evidence of competency. Evidence of competency to operate the center shall be provided, to include experience and qualifications of key personnel.

(E) Attachment 5—responsible party's statement. The operator or the authorized representative empowered to make commitments for the operator, shall provide a statement that he or she is familiar with the operational plan and is aware of all commitments represented in the plan and that he or she is also familiar with all pertinent requirements in these regulations and agrees to develop and operate the site in accordance with the regulations and any special written instructions from the division.

(d) Owners or operators of hazardous waste processing, storage, or disposal facilities who accept or intend to accept unmanifested hazardous household waste directly from household waste generators or their representatives are not subject to the requirements of this section, provided that prior to first accepting such waste they notify the executive director of the Texas Water Commission in writing

concerning their intention to accept such waste, and in the notification indicate:

(1) their Texas Water Commission registration number and Environmental Protection Agency identification number;

(2) the date they intend to start receiving such hazardous household waste;

(3) the kinds of hazardous household waste and other household waste they intend to accept;

(4) the types or classes of waste that will not be accepted;

(5) the information to be required from each generator so as to enable proper classification and handling of waste;

(6) how they intend to handle on-site wastes which may be accepted and what the ultimate disposition of the wastes will be;

(7) the methods and procedures to be utilized so as to assure that only household waste is accepted; and

(8) the identities of all organizations or groups involved together with the notifier in any advertising, public service campaigns, or other public information efforts concerning the dangers or risks associated with hazardous household waste, the need or desirability of separating such waste from other household solid waste, and the procedures by which the household waste generator may deliver his or her hazardous household waste to the notifier's facility.

Source: The provisions of this §335.406 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions); 30 TAC §335.403, (relating to Authority); 30 TAC §335.404, (relating to Interagency Coordination); 30 TAC §335.407, (relating to Operation of Collection Centers); 30 TAC §335.411, (relating to General Requirements for Transporters).

§ 335.407. Operation of Collection Centers

(a) Minimum requirements. Except as provided in subsection (g) of this section, collection centers established for the purpose of accepting and aggregating hazardous household waste must be operated so as to comply with the minimum requirements set forth in subsections (b)-(f) of this section.

(b) Location. Collection centers shall be located, organized, and operated so as to safeguard the health, welfare, and physical property of the people, and to protect the environment. At a minimum, collection centers shall:

(1) be located based on the types and quantities of waste to be collected and suitability of the site for collecting such waste;

(2) provide parking for the public and for essential project vehicles so as not to interfere with the safe entry and exit of traffic;

(3) whenever possible, be structured in a way that allows incoming wastes to be sorted upon arrival and placed in a controlled area for packaging;

(4) keep incompatible wastes separated, including unidentified wastes, while they are waiting to be packaged for further storage or transport;

(5) provide an area, not generally accessible to the public, for sorting, packaging, and handling waste that is accepted;

(6) have designated eating, drinking, and smoking areas for personnel working at the center (such activities shall be prohibited at the collection center work area);

(7) be prepared for the possibility of inclement weather; and

(8) have materials and procedures to control spills.

(c) Personnel. Personnel who work at the collection center shall be familiar with the operational plan. Other requirements pertaining to personnel utilized at the collection center are included in paragraphs (1)-(8) of this subsection.

(1) Personnel who sort and package waste or who supervise these activities for transport to a hazardous waste facility must be trained and knowledgeable concerning the incompatibility of various classes of waste and be qualified to package waste for transport.

(2) At least one person trained to classify hazardous waste and who is competent to perform tests to identify characteristics of hazardous waste (e.g., pH, flammability, etc.) shall be utilized at the collection center to accept or supervise the acceptance of waste at the center.

(3) Personnel involved with handling waste must be instructed in accident prevention, the proper response to fires, explosions, and spills, and in the use of protective devices (such as respiratory gear and gloves) to minimize exposure to hazardous household waste.

(4) Packaging and labeling of waste shall be supervised by a person familiar with the shipping requirements and hazardous waste manifest requirements of the U.S. Department of Transportation (DOT) for packaging, placarding, and labeling of hazardous materials.

(5) At least one person must be on-site who is trained to perform general first aid and who is knowledgeable concerning safety measures to be taken in the event of an accidental contact with a hazardous household waste.

(6) An on-site supervisor must be available and responsible for initiating an emergency response plan that includes site evacuation procedures. The on-site supervisor also assumes responsibility for accepting any unidentified wastes and insuring proper handling and disposal.

(7) The on-site supervisor shall have the authority to remove anyone from the site and prohibit re-entry if it is determined that the person threatens site security or personnel safety.

(8) Manning of the collection center shall consist of an adequate number of persons who jointly possess the necessary skills and expertise needed to accept, sort, package, transport, and manifest the waste and be responsible for on-site supervision and public relations.

(d) Equipment and materials. Equipment and materials shall be available at the collection center to provide protection, safety, and first aid for persons operating the center, to contain and clean up spills, and to properly handle, classify, package, and label the waste. All disposable cleanup materials and protective clothing used during a spill cleanup shall be handled as a hazardous household waste. Nondisposable equipment and materials that are used and contaminated shall be decontaminated before removal from the site. At a minimum, the provision for equipment and material shall include:

(1) a first aid kit available at each collection center and on each point of generation pick-up service vehicle;

(2) a method of communication in the event of a spill, personal injury, etc., at the site and in the point of generation pick-up vehicle. Such method of communication may include a telephone or a citizen's band (CB) radio;

(3) an eyewash, shower station, or hosing device and fire extinguisher; and

(4) sufficient spill containment and absorbent materials at the collection center and on each point of generation waste collection vehicle to contain a spill of 10% of the anticipated volume of collected liquid waste.

(e) Waste accepted and excluded. The collection center should accept only household wastes. The operator shall take necessary precautions to prohibit the receipt of waste defined as a hazardous waste by the Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7; or as Class I industrial solid waste by the commission. Other requirements related to acceptance or exclusion of wastes are as follows:

(1) Any unidentified waste accepted shall be identified by a chemist or trained individual knowledgeable in chemical characteristics and incompatibilities before being packaged for transport. Wastes that cannot be identified by physical assessment or conversation with the generator or his representative may not be packaged until the substance or waste has been analyzed and the appropriate chemical class has been identified.

(2) Announcements and promotional material shall state that compressed gas or explosives (including ammunition) shall not be brought to the collection center. However, if such materials are brought to the collection center, the staff should accept the waste and immediately contact the appropriate authorities, e.g., explosives experts, etc., to properly dispose of the waste.

(3) Decisions to accept certain wastes shall depend on the capabilities of the personnel collecting, sorting, and packaging the waste. A generic list of proposed wastes to be accepted must be submitted to the division with the operational plan. The list should be developed with the intent of minimizing the need for chemical analysis of unidentifiable wastes.

(4) Empty hazardous material and pesticide containers from households may be disposed of as a nonhazardous waste if they are rendered unusable before leaving the collection center.

(5) A container shall be provided at the collection center for collection and storage of waste received at the center, that because of quantity and characteristics, does not pose a potential endangerment to human health on the environment if disposed of in a municipal solid waste facility.

(f) Temporary storage. Storage at the collection center, or other site identified in the operational plan, shall be operated and maintained so as to provide safe handling and storage of waste awaiting final disposition. The facility shall be secured to control access by the public. Operators shall comply with paragraphs (1)-(3) of this subsection when storing aggregated hazardous household waste.

(1) An operator shall not store aggregated hazardous household waste longer than 10 days except under one of the conditions described in subparagraphs (A)-(C) of this paragraph.

(A) The storage facility is an authorized hazardous waste processing, storage, or disposal facility.

(B) The operator requests in writing and obtains a storage time extension from the division.

(C) The operator is conducting a recurring collection program and does not accumulate more than 3,000 kilograms of hazardous household waste and does not store the waste longer than 180 days.

(2) A label shall be maintained on all containers in which hazardous household waste is stored and shall indicate:

(A) composition and physical state of the waste;

(B) special safety recommendations and precautions for handling the waste;

(C) statement(s) which call attention to the particular hazardous properties of the waste; and

(D) date of acceptance at the collection center.

(3) Records for storage of all hazardous household wastes shall be maintained to include all the information necessary to complete manifests for the wastes. (Copies of manifests may be used in lieu of a separate record).

(g) Requirements for hazardous waste facilities. Facilities which qualify as hazardous waste processing, storage, or disposal facilities and whose owners and operators comply with the notification requirements of §335.406(d) of this title (relating to General Requirements for Collectors and Operators) are not subject to the requirements of this section, except for the requirements of subsection (c) of this section with respect to personnel; subsection (d) of this section with respect to disposal of cleanup materials and protective clothing used during a spill cleanup; and subsection (f)(2) and (3) of this section with respect to container labeling and recordkeeping.

Source: The provisions of this §335.407 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions); 30 TAC §335.403, (relating to Authority); 30 TAC §335.409, (relating to General Shipping, Manifesting, Recordkeeping, and Reporting Requirements).

§ 335.408. Household Pick-up

Collectors or operators offering point of generation pick-up service for hazardous household waste that has been segregated from other household waste shall:

(1) develop and implement a collection program that minimizes the potential for human and animal exposure to such waste (unless the pick-up procedures involve personal contact with the generator, the collector shall provide instructions to households on details of packaging, labeling, securing, and any other procedures to safeguard humans and animals and to protect the environment);

(2) have a person in each crew that has experience and training in handling hazardous waste, including waste classification, waste incompatibility, spill prevention, and clean-up safety; and

(3) deliver such waste to a collection center to be aggregated with other hazardous household waste, to a transporter's facility or to a hazardous waste processing, storage, or disposal facility that is authorized by the commission to accept hazardous household waste.

Source: The provisions of this §335.408 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions); 30 TAC §335.403, (relating to Authority).

§ 335.409. General Shipping, Manifesting, Recordkeeping, and Reporting Requirements

Except for those collected reusable materials handled in accordance with the requirements of §335.410 of this title (relating to Reuse of Collected Material) and waste received at the center, which can be disposed of at a municipal solid waste facility in accordance with the requirements of §335.407 of this title (relating to Operation of Collection Centers), persons who collect, receive, or aggregate hazardous household waste shall:

(1) when transporting or shipping such waste from a collection center or from a transporter's facility, utilize only hazardous waste transporters who have notified the commission with respect to transportation of hazardous waste, who have notified the United States Environmental Protection Agency of their involvement in transporting hazardous waste, and who have been issued an Environmental Protection Agency identification number;

(2) transport or ship such waste only to receivers who qualify as hazardous waste processing, storage, or disposal facilities, that have agreed to accept the waste, and that have authorization to receive such wastes;

(3) assure, prior to offering such waste for shipment, that such waste is packaged and labeled so as to comply with applicable United States Department of Transportation (DOT) requirements and to comply with the requirements contained in §335.10 of this title (relating to Shipping and Reporting Procedures Applicable to Generators of Municipal Hazardous Waste or Class I Industrial Solid Waste);

(4) retain for at least one year from the date of shipment copies of all manifests utilized for the shipment of such waste; and

(5) provide, within 30 days of receiving the completed copy of such manifests showing the signature of the receiver and date of receipt, a copy of the completed manifest to the division, or in those cases where the person shipping the waste is the owner or operator of a hazardous waste processing, storage, or disposal facility, to the commission.

Source: The provisions of this §335.409 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions); 30 TAC §335.403, (relating to Authority).

§ 335.410. Reuse of Collected Material

Any material collected or accepted at a collection center in its original container with a legible label or that is otherwise readily identifiable and which has been determined by the collector or operator to be in a usable condition may be removed from the aggregated hazardous household waste and provided to a governmental entity, institution, or other responsible party for use.

Source: The provisions of this §335.410 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions); 30 TAC §335.403, (relating to Authority); 30 TAC §335.409, (relating to General Shipping, Manifesting, Recordkeeping, and Reporting Requirements).

§ 335.411. General Requirements for Transporters

(a) No person shall transport any hazardous household waste required by this subchapter to be accompanied by a uniform hazardous waste manifest obtained from the commission, unless such person:

(1) has notified the Texas Water Commission with respect to such transportation activities in accordance with the requirements contained in §335.6(e) of this title (relating to Notification Requirements);

(2) has notified the United States Environmental Protection Agency as to his or her transporter status, and has been issued an Environmental Protection Agency identification number;

(3) complies with the requirements outlined in §335.11 of this title (relating to Shipping Requirements for Transporters of Municipal Hazardous Waste or Class I Industrial Solid Waste) with respect to all manifested household waste;

(4) complies with the requirements outlined in §335.14 of this title (relating to Recordkeeping Requirements Applicable to Transporters of Municipal Hazardous Waste or Class I Industrial Solid Waste) with respect to all manifested household waste; and

(5) complies with the requirements of paragraphs (1)-(3) of §335.4 of this title (relating to General Prohibitions) with respect to all waste accepted or handled.

(b) Transporters engaged in point of generation pick-up of hazardous household waste, who operate or intend to operate hazardous household waste collection centers, or who otherwise handle or accept unmanifested hazardous household waste, are subject to all the requirements of this subchapter set forth for collectors and shall comply with paragraphs (1)-(4) of this subsection.

(1) Prior to engaging in such activity, notify and submit a plan to the division in accordance with §335.406 of this title (relating to General Requirements for Collectors and Operators).

(2) All activities to collect and/or aggregate hazardous household waste shall be in accordance with rules of this subchapter applicable to collectors and operators and written instructions from the division.

(3) All hazardous household waste accumulated by the transporter shall be kept separate and apart from hazardous waste or Class I industrial solid waste as defined in the Texas Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7, which may be accumulated at a transporter's facilities.

(4) Transporters performing service under this subsection shall comply with requirements specified for operators or collectors engaged in similar activities.

Source: The provisions of this §335.411 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions); 30 TAC §335.403, (relating to Authority).

§ 335.412. General Requirements for Processing, Storage, or Disposal Facilities

Owners or operators of hazardous waste processing, storage, or disposal facilities may receive manifested shipments of hazardous household waste or other household waste provided they:

(1) comply with the requirements of §335.12 of this title (relating to Shipping Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities) with respect to all manifested wastes received;

(2) comply with the requirements of §335.15 of this title (relating to Recordkeeping and Reporting Requirements Applicable to Owners or Operators of Storage, Processing, or Disposal Facilities) with respect to all manifested wastes received;

(3) handle on-site all received or aggregated hazardous household waste in the same manner as if the waste were defined as a hazardous waste under the Texas Solid Waste Disposal Act, Texas Civil Statutes, Article 4477-7;

(4) comply with the requirements of paragraphs (1)-(3) of §335.4 of this title (relating to General Prohibitions) with respect to all waste received; and

(5) obtain written authorization from the commission to receive hazardous household waste.

Source: The provisions of this §335.412 adopted to be effective March 12, 1987, 12 TexReg 666.

Cross References: This Section cited in 30 TAC §330.2, (relating to Definitions); 30 TAC §335.403, (relating to Authority).

SUBCHAPTER O. LAND DISPOSAL RESTRICTIONS

Authority: The provisions of this Subchapter O issued under the Texas Water Code, §5.103 and §5.105; and the Texas Health and Safety Code, §361.017 and §361.024.

Cross References: This Subchapter cited in 30 TAC §335.41, (relating to Purpose, Scope, and Applicability).

§ 335.431. Purpose, Scope, and Applicability

(a) Purpose. The purpose of this subchapter is to identify hazardous wastes that are restricted from land disposal and define those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.

(b) Scope and applicability.

(1) Except as provided in paragraph (2) of this subsection, the requirements of this subchapter apply to persons who generate or transport hazardous waste and owners and operators of hazardous waste processing, storage, and disposal facilities.

(2) The requirements of this subchapter do not apply to any entity that is either specifically excluded from coverage by this subchapter or would be excluded from the coverage of 40 Code of Federal Regulations (CFR) Part 268 by 40 CFR Part 261, if those parts applied.

(c) Adoption by reference.

(1) Except as provided in paragraph (2) of this subsection, and subject to the changes indicated in subsection (d) of this section, the regulations contained in 40 CFR Part 268, as amended through June 26, 1992, in 57 FedReg 29632, are adopted by reference.

(2) The following sections of 40 CFR Part 268 are excluded from the sections adopted in paragraph (1) of this subsection: §§268.5, 268.6, 268.7(a)(10), 268.10-268.13, 268.42(b), and 268.44.

(3) Appendices I-IX of 40 CFR Part 268 are adopted by reference as amended through June 26, 1992, in 57 FedReg 29632.

(d) Changes to adopted parts. The parts of the CFR that are adopted by reference in subsection (c) of this section are changed as follows.

(1) The words "Administrator" or "Regional Administrator" are changed to "Executive Director."

(2) The word "treatment" is changed to "processing."

(3) The words "Federal Register," when they appear in the text of the regulation, are changed to "Texas Register."

(4) In §268.7(a)(6) and (a)(7), the applicable definition of hazardous waste and solid waste is the one that is set out in this chapter rather than the definition of hazardous waste and solid waste that is set out in 40 CFR Part 261.

(5) In §268.501(a)(1), the citation to "§262.34" is changed to "§335.69."

Source: The provisions of this §335.431 adopted to be effective November 23, 1993, 18 TexReg 8218.

SUBCHAPTER P. WARNING SIGNS AND CONTAMINATED AREAS

Authority: The provisions of this Subchapter P issued under the Texas Water Code, §5.103 and §5.105; and the Texas Solid Waste Disposal Act, the Texas Health and Safety Code, Annotated, §361.017 and §361.024.

§ 335.441. Purpose, Scope, and Applicability

The purpose of this subchapter is to provide standards and procedures for the placement of warning signs on property contaminated with hazardous substances when such contamination presents a danger to public health and safety.

Source: The provisions of this §335.441 adopted to be effective October 31, 1990, 15 TexReg 6068.

§ 335.442. Definitions

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

Contaminated property—Property on which hazardous substances in known or potentially harmful quantities have been released, spilled, leaked, pumped, poured, emitted, entered, or dumped.

Emergency—Any situation in which an immediate threat to public health and safety exists from releases or threatened releases of hazardous substances on contaminated property.

Hazardous substances—

(A) A substance designated pursuant to the Federal Water Pollution Control Act, §311(b)(2)(A), as amended (33 United States Code 1321).

(B) An element, compound, mixture, solution, or substance designated pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, §102, as amended (42 United States Code 9602).

(C) A hazardous waste having the characteristics identified under or listed pursuant to the federal Solid Waste Disposal Act, §3001, as amended (42 United States Code 6921), excluding waste, the regulation of which under the federal Solid Waste Disposal Act (42 United States Code 6901 et seq.) has been suspended by Act of Congress.

(D) A toxic pollutant listed under the Federal Water Pollution Control Act, §307(a), as amended (33 United States Code 1317).

(E) A hazardous air pollutant listed under the federal Clean Air Act, §112, as amended (42 United States Code 7412).

(F) Any imminently hazardous chemical substance or mixture with respect to which the administrator of the Environmental Protection Agency has taken action pursuant to the Toxic Substances Control Act, §7 (15 United States Code 2606).

(G) Does not include petroleum, which means crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A)-(F) of this definition; nor does it include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel mixtures of natural gas and synthetic gas; nor does it include waste materials which result from activities associated with the exploration, development, or production of oil or gas or geothermal resources or any other substance or material regulated by the Railroad Commission of Texas pursuant to the Natural Resources Code, §91.101.

Property owner—The person or persons who own contaminated property.

Remedial action—This term shall have the same meaning as in Subchapter K of this chapter (relating to Hazardous Waste Facilities Assessment and Remediation).

Warning sign—A sign which provides public notice that a particular property is contaminated with hazardous substances and that entry on the property presents a potential hazard to public health and safety. The sign may either be placed by the commission or made and placed in accordance with commission specifications.

Written consent form—A document signed by the property owner which states that the property owner agrees to the placement of warning signs on his property. The document shall be signed as follows.

(A) If the property owner is an individual, the written consent form shall be signed by the property owner or the property owner's approved agent. An agent shall provide written evidence of his or her authority to represent the property owner. If the property owner is an individual doing business under an assumed name, an assumed name certificate must be obtained from the county clerk of the county in which the principal place of business or the contaminated property is located.

(B) If the property is jointly owned, the written consent form shall be signed by each property owner or each property owner's duly authorized agent, with written evidence of such agency relationship to be submitted with the written consent form. If land is owned by both husband and wife, each shall sign the written consent form. If the joint owners are doing business under an assumed name, an assumed name certificate must be obtained from the county clerk of the county in which the principal place of business or the contaminated property is located.

(C) If the property is owned by a partnership, the written consent form shall be signed by one of the general partners. If the partnership is doing business under an assumed name, an assumed name certificate must be obtained from the county clerk of the county in which the principal place of business or the contaminated property is located.

(D) If the property is part of an estate or guardianship, the written consent form shall be signed by the duly appointed guardian or representative of the estate and a current copy of any and all document(s) issued by the court appointing the guardian or the representative of the estate shall be attached to the written consent form.

(E) If the property owner is a corporation, public district, county, municipality, or other corporate entity or political subdivision, the written consent form shall be signed by a duly authorized official. Written evidence in the form of bylaws, charters, or resolutions which specify the authority of the official to take such action shall be submitted. A corporation may file a corporate affidavit as evidence of the official's authority to sign.

(F) If the signatory is acting as trustee for another person, the signatory shall sign as trustee, and in the written consent form shall disclose the nature of the trust agreement and give the name and current address of each trust beneficiary. Each signatory shall subscribe to and swear to the written consent form before a person entitled to administer oaths, who shall also sign his or her name and affix his or her seal of office to the written consent form.

Source: The provisions of this §335.442 adopted to be effective October 31, 1990, 15 TexReg 6068.

§ 335.443. Determination of Potential Hazard to Public Health

(a) Prior to placing warning signs on contaminated property, a determination must be made by the executive director of the Texas Water Commission that there exists a potential hazard to public health and safety which will be eliminated or reduced by placing a warning sign on the contaminated property. The executive director of the Texas Water Commission may consult with the Texas Department of Health in making this determination where appropriate. During the initial site investigation, if there is sufficient information, the following factors should be considered in determining whether a potential hazard to public health and safety exists:

(1) character of the contaminant(s), based on labeling, type of container, if any, the presence of any marking or labeling indicating the contents of any container present, laboratory analyses of the contaminant(s), or media containing the contaminant(s), or other relevant factors;

(2) amount and/or suspected concentration of the contaminant(s);

(3) the known or suspected health effects of the contaminant(s);

(4) accessibility of the contaminated area to the public;

(5) route(s) of exposure;

(6) proximity of schools, hospitals, and residential areas; and

(7) potential for wind dispersal or other potential pathway(s) for migration of the contaminant(s).

(b) It is presumed by the Texas Water Commission that a hazard to the public health and safety exists if, at any point during the site investigation, the following conditions are found:

(1) illnesses are observed or alleged to be related to the contaminants present at the site;

(2) known or suspected toxic or carcinogenic materials are detected at concentrations which could potentially affect public health and safety;

(3) mutagenic, teratogenic, or other materials which may be detrimental to reproduction are discovered; or

(4) hazardous substances are found in an area accessible to the public.

Source: The provisions of this §335.443 adopted to be effective October 31, 1990, 15 TexReg 6068.

§ 335.444. Property Owner Consents to the Placement of Warning Signs

Whenever possible, written consent should be obtained from the property owner of the contaminated property on which the warning signs are to be placed. The commission may place warning signs on contaminated property if prior written consent is obtained from the property owner for such placement.

Source: The provisions of this §335.444 adopted to be effective October 31, 1990, 15 TexReg 6068.

§ 335.445. Placement of Warning Signs without the Property Owner's Consent

The commission shall issue an order to authorize the placement of warning signs on contaminated property if no written consent has been obtained for such placement from the property owner. In nonemergency situations, an opportunity for a hearing on the placement of warning signs shall be afforded to the property owner in accordance with the contested case provisions of the Administrative Procedure and Texas Register Act, Texas Civil Statutes, Article 6252-13A, §13.

Source: The provisions of this §335.445 adopted to be effective October 31, 1990, 15 TexReg 6068.

§ 335.446. Emergency Placement of Warning Signs

If an emergency exists which requires the immediate placement of warning signs on contaminated property to protect the public health and safety and the property owner has not provided written consent to the placement of warning signs, an emergency order authorizing the placement of warning signs on the contaminated property may be issued without notice and a hearing by the commission or with such notice and hearing as are practicable. If an emergency order is issued by the commission pursuant to this section, the commission shall fix a time and place for a hearing to affirm, modify, or set aside the emergency order. Notice of the hearing to affirm, modify, or set aside the emergency order shall be provided in accordance with the provisions set forth in Chapter 305, Subchapter B of this title (relating to Emergency Orders, Temporary Orders, and Executive Director Authorizations).

Source: The provisions of this §335.446 adopted to be effective October 31, 1990, 15 TexReg 6068.

§ 335.447. Reporting of Placement of Warning Signs

Any commission employee who places or requests the placement of a warning sign on contaminated property must file a report with the commission's central office in Austin within 10 days of such a request or placement. The report must include the following information, if known:

(1) the name and office telephone number of the reporting individual;

(2) the name and telephone number of the commission personnel investigating the site;

(3) the location of the contaminated property;

(4) the identity of the contaminant(s);

(5) the physical and chemical properties of the contaminant(s);

(6) the source of the contamination;

(7) the extent of the area impacted by the contamination;

(8) condition(s) affecting the migration of the contamination including surface water runoff, release(s) to the air, releases to the groundwater, prevailing weather, and/or any fire(s);

(9) the extent of the actual and potential exposure to the contaminant(s) including exposure by emergency personnel, occupational exposure, and real or potential exposure to the public;

(10) a description of the procedures used or proposed to be used to determine whether warning signs are necessary and to determine the appropriate placement of the warning signs;

(11) when and where warning signs were placed or are proposed to be placed;

(12) whether written consent was obtained from the property owner; and

(13) a copy of any written consent obtained from the property owner.

Source: The provisions of this §335.447 adopted to be effective October 31, 1990, 15 TexReg 6068.

§ 335.448. Removal of Warning Signs

Warning signs shall be removed from the contaminated property upon approval of the executive director or the commission after either:

(1) the property owner has provided the commission with documentation that remedial action on the contaminated property is complete and no further hazard to the public health and safety exists and the commission has independently verified the information provided; or

(2) the commission has independently determined that remedial action on the contaminated property is complete and no further hazard to the public health and safety exists.

Source: The provisions of this §335.448 adopted to be effective October 31, 1990, 15 TexReg 6068.

SUBCHAPTER Q. POLLUTION PREVENTION: SOURCE REDUCTION AND WASTE MINIMIZATION

Authority: The provisions of this Subchapter Q issued under the Texas Water Code, §5.104 and §26.011; and the Texas Solid Waste Disposal Act, §3 and §4.

§ 335.471. Definitions

The words and terms used in this subchapter have the meanings given in the Waste Reduction Policy Act of 1991, Senate Bill 1099, or the regulations promulgated thereunder. The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise. Further, the following words and terms, as defined herein, shall only have application to this subchapter.

Acute hazardous waste—Hazardous waste listed by the administrator of the United States Environmental Protection Agency under the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976 (42 United States Code §6901 et seq.), because the waste meets the criteria for listing hazardous waste identified in 40 Code of Federal Regulations §261.11(a)(2).

Board—The Texas Air Control Board.

Commission—The Texas Water Commission.

Committee—The waste reduction advisory committee established by the Texas Solid Waste Disposal Act, the Health and Safety Code, §361.0215.

Conditionally exempt small quantity generator—A generator that does not accumulate more than 1,000 kilograms of hazardous waste at any one time on his facility and who generates less than 100 kilograms of hazardous waste in any given month.

Environment—Water, air, and land and the interrelationship that exists among and between water, air, land, and all living things.

Facility—All buildings, equipment, structures, and other stationary items located on a single site or on contiguous or adjacent sites that are owned or operated by a person who is subject to this subchapter or by a person who controls, is controlled by, or is under common control with a person subject to this subchapter.

Generator and generator of hazardous waste—Have the meaning assigned by the Texas Solid Waste Disposal Act, the Health and Safety Code, §361.131.

Large quantity generator—A generator that generates, through ongoing processes and operations at a facility:

(A) more than 1,000 kilograms of hazardous waste in a month; or

(B) more than one kilogram of acute hazardous waste in a month.

Media and medium—Air, water, and land into which waste is emitted, released, discharged, or disposed.

Pollutant or contaminant—Includes any element, substance, compound, disease-causing agent, or mixture that after release into the environment and on exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions, including malfunctions in reproduction, or physical deformations in the organism or its offspring. The term does not include petroleum, crude oil, or any fraction of crude oil that is not otherwise specifically listed or designated as a hazardous substance under §101(14)(A)-(F) of the environmental response law, nor does it include natural gas, natural gas liquids, liquefied natural gas, synthetic gas of pipeline quality, or mixtures of natural gas and synthetic gas.

Release—Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment. The term does not include:

(A) a release that results in an exposure to a person solely within a workplace, concerning a claim that the person may assert against the person's employer;

(B) an emission from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine;

(C) a release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined by the Atomic Energy Act of 1954, as amended (42 United States

Code §2011 et seq.), if the release is subject to requirements concerning financial protection established by the Nuclear Regulatory Commission under that Act, §170;

(D) for the purposes of the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 United States Code §9601 et seq.), §104, or other response action, a release of source, by-product, or special nuclear material from a processing site designated under the Uranium Mill Tailings Radiation Control Act of 1978 (42 United States Code §7912 and §7942), §102(a)(1) or §302(a); and

(E) the normal application of fertilizer.

Small quantity generator—A generator that generates through ongoing processes and operation at a facility:

(A) equal to or less than 1,000 kilograms but more than or equal to 100 kilograms of hazardous waste in a month; or

(B) equal to or less than one kilogram of acute hazardous waste in a month.

Source reduction—Has the meaning assigned by the federal Pollution Prevention Act of 1990, Publication Law 101-508, §6603, 104 Stat. 1388.

Tons—2,000 pounds, also referred to as short tons.

Toxic release inventory (TRI)—A program which includes those chemicals on the list in Committee Print Number 99-169 of the United States Senate Committee on Environment and Public Works, titled "Toxic Chemicals Subject to the Emergency Planning and Community Right-To-Know Act of 1986 (EPCRA, 42 United States Code §11023), §313" including any revised version of the list as may be made by the administrator of the Environmental Protection Agency (EPA).

Waste minimization—A practice that reduces the environmental or health hazards associated with hazardous wastes, pollutants, or contaminants. Examples may include reuse, recycling, neutralization, and detoxification.

Source: The provisions of this §335.471 adopted to be effective January 3, 1992, 16 TexReg 7532.

§ 335.472. Pollutants and Contaminants

The following pollutants and contaminants are subject to source reduction and waste minimization planning:

(1) all hazardous wastes generated;

(2) all chemicals which exceed threshold reporting requirements pursuant to Emergency Planning and Community Right-To-Know Act of 1986 (EPCRA), §313.

Source: The provisions of this §335.472 adopted to be effective January 3, 1992, 16 TexReg 7532.

Cross References: This Section cited in 30 TAC §335.474, (relating to Source Reduction and Waste Minimization Plans).

§ 335.473. Applicability

This subchapter applies to facilities which are required to develop a source reduction and waste minimization plan pursuant to the Waste Reduction Policy Act of 1991, Senate Bill 1099, or the regulations promulgated thereunder, including:

(1) all large quantity generators of hazardous waste;

(2) all generators other than large quantity generators and conditionally exempt small quantity generators as defined by the Health and Safety Code, §361.431(3);

(3) persons subject to §313, Title III, Superfund Amendments and Reauthorization Act of 1986 (Emergency Planning and Community Right-To-Know Act (EPCRA), 42 United States Code §11023). These toxic release inventory (TRI) covered facilities would be required to develop source reduction and waste minimization plans for only the TRI listed chemicals that exceed threshold quantities established under EPCRA.

Source: The provisions of this §335.473 adopted to be effective January 3, 1992, 16 TexReg 7532.

Cross References: This Section cited in 30 TAC §335.474, (relating to Source Reduction and Waste Minimization Plans); 30 TAC §335.475, (relating to Implementation Dates); 30 TAC §335.476, (relating to Reports and Recordkeeping); 30 TAC §335.477, (relating to Exemptions).

§ 335.474. Source Reduction and Waste Minimization Plans

All persons identified under §335.473 of this title (relating to Applicability) shall prepare a five-year (or more) source reduction and waste minimization plan which may be updated annually as appropriate according to the schedule listed in §335.475 of this title (relating to Implementation Dates). Plans shall be updated as necessary to assure that there never exists a time period for which a plan is not in effect. Prior to completion of the plan and each succeeding plan, a new five-year (or more) plan shall be prepared. Plans prepared under paragraphs (1)-(3) of this section shall contain a separate component addressing source reduction activi-

ties and a separate component addressing waste minimization activities.

(1) With the exception of small quantity generators which are subject to paragraph (3) of this section, the plan shall include, at a minimum:

(A) an initial survey that identifies:

(i) for facilities described in §335.473(1) of this title (relating to Applicability), activities that generate hazardous waste; and

(ii) for facilities described in §335.473(3) of this title (relating to Applicability), activities that result in the release of pollutants or contaminants designated under §335.472 of this title (relating to Pollutants and Contaminants);

(B) based on the initial survey, a prioritized list of economically and technologically feasible source reduction and waste minimization projects;

(C) an explanation of source reduction or waste minimization projects to be undertaken, with a discussion of technical and economic considerations, and environmental and human health risks considered in selecting each project to be undertaken;

(D) an estimate of the type and amount of reduction anticipated;

(E) a schedule for the implementation of each source reduction and waste minimization project;

(F) source reduction and waste minimization goals for the entire facility, including incremental goals to aid in evaluating progress;

(G) an explanation of employee awareness and training programs to aid in accomplishing source reduction and waste minimization goals;

(H) certification by the owner of the facility, or, if the facility is owned by a corporation, by an officer of the corporation that owns the facility who has the authority to commit the corporation's resources to implement the plan, that the plan is complete and correct;

(I) identification of cases in which the implementation of a source reduction or waste minimization activity designed to reduce risk to human health or the environment may result in the release of a different pollutant or contaminant or may shift the release to another medium; and

(J) an executive summary of the plan which shall include at a minimum:

(i) a description of the facility which shall include:

(I) name of the facility;

(II) address;

(III) contact;

(IV) a general description of the facility; and

(V) Texas Air Control Board (TACB) account number, Texas Water Commission (TWC) solid waste notice of registration number, TWC wastewater permit number, Environmental Protection Agency (EPA) identification number (RCRA number), National Pollutant Discharge Elimination System (NPDES) permit number, and underground injection well code identification number;

(ii) a list of all hazardous wastes generated and the volume of each;

(iii) a list of all reportable TRI releases and the volume of each;

(iv) a prioritized list of pollutants and contaminants to be reduced;

(v) a statement of reduction goals;

(vi) an explanation of environmental and human health risks considered in determining reduction goals;

(vii) implementation milestones for individual project development;

(viii) an implementation schedule for future reduction goals; and

(ix) identification and description of cases in which the implementation of source reduction or waste minimization activity designed to reduce risk to human health or the environment may result in the release of a different pollutant or contaminant or may shift the release to another medium. Included in this description shall be a discussion of the change in characteristic of the normal waste stream or release and how it will be managed in that affected medium.

(2) The source reduction and waste minimization plan may also include:

(A) a discussion of the person's previous efforts at the facility to reduce risk to human health and the environment or to reduce the generation of hazardous waste or the release of pollutants or contaminants;

(B) a discussion of the effect changes in environmental regulations have had on the

achievement of the source reduction and waste minimization goals;

(C) the effect that events the person could not control have had on the achievement of the source reduction and waste minimization goals;

(D) a description of projects that have reduced the generation of hazardous waste or the release of pollutants or contaminants; and

(E) a discussion of the operational decisions made at the facility that have affected the achievement of the source reduction or waste minimization goals or other risk reduction efforts.

(3) The plans of small quantity generators shall include, at a minimum:

(A) a description of the facility which shall include:

(i) name of the facility;

(ii) address;

(iii) contact;

(iv) general description of the facility; and

(v) TACB account number, TWC solid waste notice of registration number, TWC wastewater permit number, EPA identification number (RCRA number), NPDES permit number, and underground injection well code identification number;

(B) a list of all hazardous wastes generated and the volume of each;

(C) a list of all reportable TRI releases and the volume of each;

(D) a prioritized list of pollutants and contaminants to be reduced;

(E) a statement of reduction goals;

(F) information on environmental and human health risks, such as material safety data sheets or other available documentation, considered in determining reduction goals;

(G) implementation milestones for individual project development;

(H) an implementation schedule for future reduction goals; and

(I) identification and description of cases in which the implementation of a source reduction or waste minimization activity designed to reduce risk to human health or the environment may result in the release of a different pollutant or contaminant or may shift the release to another medium. Included in this description shall be a discussion of the change in characteristic of the normal waste stream or release and how it will be managed in that affected medium.

Source: The provisions of this §335.474 adopted to be effective January 3, 1992, 16 TexReg 7532.

Cross References: This Section cited in 30 TAC §335.476, (relating to Reports and Recordkeeping).

§ 335.475. Implementation Dates

All facilities subject to this subchapter shall develop a source reduction and waste minimization plan. The implementation year shall be determined by the prior year's reported volumes of hazardous waste generated and/or total toxic release inventory (TRI) releases. A facility once subject to this subchapter shall remain subject until it no longer meets the requirements of §335.473 of this title (relating to Applicability) or are exempted under §335.477 of this title (relating to Exemptions). Volumes for calculations will be based on total hazardous waste generated and/or total TRI releases. The executive summary shall be submitted to the commission and the board on the date the plan is required to be in place. Plan implementation will be according to the following schedule.

(1) The source reduction and waste minimization plan shall be in place, available for review, and shall be implemented no later than July 1, 1993, for:

(A) hazardous waste generators reporting 5,000 tons or more; or

(B) TRI facilities reporting 100 tons or more.

(2) The source reduction and waste minimization plan shall be in place, available for review, and shall be implemented no later than January 1, 1994, for:

(A) hazardous waste generators reporting less than 5,000 tons but more than or equal to 500 tons; or

(B) TRI facilities reporting less than 100 tons but more than or equal to 10 tons.

(3) The source reduction and waste minimization plan shall be in place, available for review, and shall be implemented no later than January 1, 1995, for:

(A) hazardous waste generators reporting less than 500 tons but more than or equal to 15 tons; or

(B) TRI facilities reporting less than 10 tons but more than or equal to five tons.

(4) The source reduction and waste minimization plan shall be in place, available for review, and shall be implemented no later than January 1, 1996, for:

(A) hazardous waste generators reporting less than 15 tons but more than or equal to five tons; or

(B) TRI facilities reporting less than five tons but more than or equal to one ton.

(5) The source reduction and waste minimization plan shall be in place, available for review, and shall be implemented no later than January 1, 1997, for:

(A) hazardous waste generators reporting less than five tons but greater than 1.102 tons (1,000 kilograms); or

(B) TRI facilities reporting less than one ton.

(6) After the effective date of this subchapter, any facility which becomes subject to the requirement to have a source reduction and waste minimization plan, either within 90 days prior to or at any time following the dates referenced in paragraphs (1)-(5) of this section, shall have 90 days to have the plan in place and available for review.

Source: The provisions of this §335.475 adopted to be effective January 3, 1992, 16 TexReg 7532.

Cross References: This Section cited in 30 TAC §335.474, (relating to Source Reduction and Waste Minimization Plans); 30 TAC §335.476, (relating to Reports and Recordkeeping).

§ 335.476. Reports and Recordkeeping

All persons required to develop a source reduction and waste minimization plan for a facility under this subchapter shall submit to the commission and the board, concurrent with implementation of the plan under §335.475 of this title (relating to Implementation Dates), an initial executive summary of such plan and a copy of the certification of completeness and correctness in §335.474(1)(H) of this title (relating to Source Reduction and Waste Minimization Plans). Within 30 days of any revision of such plan, a revised executive summary shall be submitted. All owners and operators required to develop a plan shall also submit an annual report according to the schedule outlined in paragraph (4) of this section.

(1) The report shall detail the facility's progress in implementing the source reduction and waste minimization plan and include:

(A) an assessment of the progress toward the achievement of the facility source reduction goal and the facility waste minimization goal;

(B) a statement to include, for facilities described in §335.473(1) of this title (relating to Applicability), the amount of hazardous waste generated and, for facilities described in §335.473(3), the amount of the release of reportable pollutants or contaminants designated under the Texas Solid Waste Disposal Act, the Health and Safety Code, §361.433(c), in the year preceding the report, and a comparison of those amounts with the amounts generated or released using 1987 as the base year;

(C) any modification to the plan.

(2) The report may include:

(A) a discussion of the person's previous effort at the facility to reduce hazardous waste or the release of pollutants or contaminants through source reduction or waste minimization;

(B) a discussion of the effect changes in environmental regulations have had on the achievement of the source reduction and waste minimization goals;

(C) the effect that events the person could not control have had on the achievement of the source reduction and waste minimization goals; and

(D) a discussion of the operational decisions the person has made that have affected the achievement of the source reduction and waste minimization goals.

(3) The report shall contain a separate component addressing source reduction activities and a separate component addressing waste minimization activities.

(4) The report and the executive summary of the plan shall be submitted according to the following schedule and annually thereafter.

(A) For all facilities meeting the specifications of §335.475(1) of this title (relating to Implementation Dates), the first report will be due on or before March 1, 1994. The report will cover calendar year 1993.

(B) For all facilities meeting the specifications of §335.475(2) of this title (relating to Implementation Dates), the first report will be due on or before March 1, 1995. The report will cover calendar year 1994.

(C) For all facilities meeting the specifications of §335.475(3) of this title (relating to Implementation Dates), the first report will be due on or before March 1, 1996. The report will cover calendar year 1995.

(D) For all facilities meeting the specifications of §335.475(4) of this title (relating to Implementation Dates), the first report will be due on or before March 1, 1997. The report will cover calendar year 1996.

(E) For all facilities meeting the specifications of §335.475(5) of this title (relating to Implementation Dates), the first report will be due on or before March 1, 1998. The report will cover calendar year 1997.

(5) Base line data from the calendar year 1987 shall be used in developing each of the first reports referred to in paragraph (4) of this section.

(6) The report shall be submitted on forms furnished or approved by the executive directors of the commission and the board and shall contain at a minimum the information specified in paragraph (1) of this section. Upon written request by the facility, the executive directors may authorize a modification in the reporting period.

Source: The provisions of this §335.476 adopted to be effective January 3, 1992, 16 TexReg 7532.

§ 335.477. Exemptions

(a) This subchapter does not apply to:

(1) conditionally exempt small quantity generators; and

(2) facilities regulated by the Railroad Commission of Texas under the Natural Resources Code, §91.101 or §141.012.

(b) Owners and operators of facilities listed in §335.473 of this title (relating to Applicability) may apply on a case-by-case basis to the executive directors of the commission and the board for an exemption from this subchapter. The executive directors of the commission and board may grant an exemption if the applicant demonstrates that sufficient reductions have been achieved. If an exemption is granted, it is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. The executive directors' decision will be based upon the following standards and criteria for determining practical economic and technical completion of the plan:

(1) the facility has reduced the amount of pollutants and contaminants being generated or released by 90% since the base year;

(2) potential impact on human health and the environment of any remaining hazardous waste generated, or pollutant or contaminant released; and

(3) a demonstration that additional reductions are not economically and technically feasible.

Source: The provisions of this §335.477 adopted to be effective January 3, 1992, 16 TexReg 7532.

Cross References: This Section cited in 30 TAC §335.475, (relating to Implementation Dates).

§ 335.478. Administrative Completeness

The commission or the board may review a source reduction and waste minimization plan or annual report to determine whether the plan or report complies with this subchapter.

Source: The provisions of this §335.478 adopted to be effective January 3, 1992, 16 TexReg 7532.

§ 335.479. Enforcement

Failure to have a source reduction and waste minimization plan in accordance with this subchapter or failure to submit a source reduction and waste minimization annual report in accordance with this subchapter is a violation.

Source: The provisions of this §335.479 adopted to be effective January 3, 1992, 16 TexReg 7532.

§ 335.480. Confidentiality

(a) A source reduction and waste minimization plan shall be maintained at each facility owned or operated by a person and/or generator who is subject to this subchapter and shall be available to commission or board personnel for inspection. The source reduction and waste minimization plan is not a public record for the purposes of Chapter 424, Acts of the 63rd Legislature, 1973 (Texas Civil Statutes, Article 6252-17a).

(b) The executive summary of the plan and the annual report are public records. On request, the person and/or generator shall make available to the public a copy of the executive summary of the plan or annual report.

(c) If an owner or operator of a facility for which a source reduction and waste minimization plan has been prepared shows to the satisfaction of the commission or board that an executive summary of the plan, annual report, or portion of a summary or report prepared under this subchapter would divulge a trade secret if made public, the commission or board shall classify as confidential the summary, report, or portion of the summary or report.

(d) To the extent that a plan, executive summary, annual report, or portion of a plan, summary, or annual report would otherwise qualify as a trade secret, an action by the commission or board or an

employee of the commission or board does not affect its status as a trade secret.

(e) Information classified by the commission or board as confidential under this section is not a public record for purposes of Chapter 424, Acts of the 63rd Legislature, 1973 (Texas Civil Statutes, Article 6252-17a), and may not be used in a public hearing or disclosed to a person outside the commission or board unless a court decides that the information is necessary for the determination of an issue being decided at the public hearing.

Source: The provisions of this §335.480 adopted to be effective January 3, 1992, 16 TexReg 7532.

SUBCHAPTER R. WASTE CLASSIFICATION

Authority: The provisions of this Subchapter R issued under the Texas Water Code, §5.103 and §26.011; and the Texas Solid Waste Disposal Act, §361.017.

Cross References: This Subchapter cited in 30 TAC §335.62, (relating to Hazardous Waste Determination and Waste Classification).

§ 335.501. Purpose, Scope, and Applicability

Person who generates industrial solid waste or municipal hazardous waste shall comply with the provisions of this subchapter. Persons who generate wastes in Texas shall classify their own waste according to the standards set forth in this subchapter and may do so without any prior approval or communication with the commission other than notification of waste generation activities pursuant to §335.6 of this title (relating to Notification Requirements) and submittal of required documentation pursuant to §335.513 of this title (relating to Documentation Required). This subchapter will:

(1) provide a procedure and time schedule for implementation of a new Texas waste notification system; and

(2) establish standards for classification of industrial solid waste and municipal hazardous waste managed in Texas.

Source: The provisions of this §335.501 adopted to be effective November 27, 1992, 17 TexReg 8010.

§ 335.502. Conversion to New Waste Notification and Classification System

(a) These rules relating to waste classification are effective as outlined below. The rules shall be implemented as defined in subsections (b)-(g) of this section, which are summarized as follows:

(1) effective date of rules adoption—after this date all waste classifications involving new waste streams and existing unclassified waste streams shall be classified according to the requirements of this subchapter;

(2) January 1, 1993—on and after this date all waste classifications involving new waste streams and existing unclassified waste streams shall be classified according to the requirements of this subchapter;

(3) July 1, 1994—this is the completion deadline for updating all hazardous and nonhazardous waste stream notifications;

(4) October 1, 1994—this date is the deadline for the commission to provide notice in Texas Register concerning final implementation of rules;

(5) January 1, 1995—the rules shall be fully implemented on or before the date. All waste must be managed according to the classification assigned under this subchapter.

(b) Waste notification information as required under §335.6 of this title (relating to Notification Requirements) and waste codes required under §335.10(b) 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) shall be assigned by the generator and provided to the commission as provided by this chapter and all other applicable laws.

(1) All waste notification information provided to the commission after the effective date of this subchapter shall be provided in a format defined by the commission.

(2) All existing waste notification information on file with the commission shall be updated to the new format by the generator no later than July 1, 1994.

(3) All waste notification information may be submitted on paper or by electronic data transmission.

(4) Forms and format information for submitting notice of registration information on paper or by electronic means may be obtained by contacting the commission at the address listed in Appendix 2 of this subchapter.

(c) All industrial solid waste and municipal hazardous waste managed in the state shall be classified by the generator according to the provisions of this subchapter.

(1) After the effective date of this subchapter, all new waste streams and waste streams not previously classified shall be classified and man-

aged pursuant to the provisions of this subchapter.

(2) All generators that have existing waste streams classified as Class 1, Class 2, or Class 3 under any previous system are required to re-evaluate the waste under the provisions of this subchapter and to submit the updated information to the commission pursuant to subsection (b) of this section. However, generators of waste classified under a previous waste classification system may continue to manage and dispose of that waste under the existing classification until the effective management date provided in subsection (d) of this section. If a generator chooses to continue to manage waste under a previous waste classification system the existing waste code shall be used when shipping, storing, disposing, or otherwise managing the waste. The generator shall use the new waste code when the waste is to be managed under the new classification designation. Once a waste is reclassified and the waste is managed based on the new classification and using the new waste code, the generator may not return to managing the waste under the old classification system.

(d) The effective date for management of wastes under these rules is January 1, 1995. On and after this date, all solid waste generated or otherwise handled in the state shall be classified and accordingly managed pursuant to this subchapter. This effective date may be revised by subsection (e) of this section.

(e) Not later than October 1, 1994, the commission shall assess the impact of the implementation of these rules. The commission shall evaluate waste capacity issues, costs to the regulated community and the state, personnel and staffing levels of the commission, and review the applicability of the rules themselves. The commission may use information from any source necessary to assess the impact. Based on this evaluation, by October 1, 1994, the commission shall give public notice in the Texas Register that either:

(1) these waste classification requirements take full force and effect on January 1, 1995; or

(2) implementation of these waste classification requirements shall be delayed. If implementation is delayed, the commission shall provide a revised implementation date and give additional information as necessary to guide the regulated community until the revised effective date.

(f) If the commission fails to give public notice in the Texas Register as required in subsection (e) of this section, these rules take full force and effect on January 1, 1995.

(g) After the effective management date of these rules as provided in subsection (d) of this section, future reclassification of a waste may be required because of changes in classification criteria. A generator whose waste stream is reclassified to a more stringent waste classification after the effective management date of this subchapter as provided in subsection (d) of this section must reclassify the waste and begin managing the waste according to the more stringent classification requirements according to the following schedule:

(1) if mandated by a federal or state law, as specified in that law;

(2) if a date is provided in the adoption of the amendment, as required in that rule adoption;

(3) if not otherwise specified, within 180 days of the effective date of the rule amendment adopting the new classification criteria;

(4) in situations where a compliance date creates an unusual hardship a generator may request a different implementation time under the variance provisions of §335.514 of this title (relating to Variance from Waste Classification Provisions).

Source: The provisions of this §335.502 adopted to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §335.503, (relating to Waste Classification and Waste Coding Required); 30 TAC §335.514, (relating to Variance from Waste Classification Provisions).

§ 335.503. Waste Classification and Waste Coding Required

(a) All industrial solid and municipal hazardous waste generated, stored, processed, transported, or disposed of in the state shall be classified according to the provisions of this subchapter.

(1) All solid waste shall be classified at the point of generation of the waste. A generator may not dilute a waste to avoid a Class 1 classification; however, combining waste streams for subsequent legitimate processing, storage, or disposal does not constitute dilution and is acceptable. Wastes shall be classified prior to, and following any type of processing or mixing of the waste.

(2) All industrial solid and municipal hazardous waste shall be classified as either:

(A) hazardous;

(B) Class 1;

(C) Class 2; or

(D) Class 3.

(3) A person who generates a solid waste shall first determine if that waste is hazardous pursuant to §335.504 of this title (relating to Hazardous Waste Determination).

(4) After making the hazardous waste determination as required in paragraph (3) of this subsection, if the waste is determined to be nonhazardous, the generator shall then classify the waste as Class 1, Class 2, or Class 3, pursuant to §§335.505-335.507 of this title (relating to Class 1 Waste Determination, Class 2 Waste Determination, and Class 3 Waste Determination) using one or more of the following methods:

(A) use the criteria for waste classification as provided in §§335.505-335.507 of this title (relating to Class 1 Waste Determination, Class 2 Waste Determination, and Class 3 Waste Determination);

(B) use process knowledge as provided in §335.511 of this title (relating to Use of Process Knowledge);

(C) classify the waste as directed under §335.508 of this title (relating to Classification of Specific Industrial Wastes); or

(D) choose to classify a nonhazardous waste as Class 1 without any analysis to support that classification. However, documentation (analytical data and/or process knowledge) is necessary to classify a waste as Class 2 or Class 3, pursuant to §335.513 of this title (relating to Documentation Required).

(b) As required under the schedule provided in §335.502 (relating to Conversion to New Waste Notification and Classification System), all industrial solid waste and municipal hazardous waste generated, stored, processed, transported, or disposed of in the state shall be coded with an eight-digit waste code number which shall include a four-digit waste sequence number, a three-digit form code, and a one-character classification (either H, 1, 2, or 3). Form codes are provided in Appendix 3 of this subchapter. Procedures for assigning waste code numbers and sequence numbers are outlined below and available from the commission at the address listed in Appendix 2 of this subchapter.

(1) A waste code is represented by the following eight-digit character string: sequence number + form code + classification code (H, 1, 2, or 3).

(2) In-state generators will assign a unique four-digit sequence number to each individual waste. These sequence numbers will range from 0001 to 9999. They need not be assigned in sequential order. An in-state registered generator may choose to request the commission assign a sequence number to a specific waste which is not regularly generated by a facility and is being shipped as a one-time shipment rather than adding that waste to the regular sequence numbers on a notice of registration. Sequence numbers provided by the commission may be a combination of alpha and numeric characters.

(3) In-state unregistered generators will be provided a four-digit sequence number by the commission for each regulated waste it generates. Sequence numbers provided by the commission may be a combination of alpha and numeric characters.

(4) Generators of wastes resulting from a spill must obtain a sequence number for the spill related wastes from the commission's Emergency Response Section.

(5) Out-of-state generators will use the sequence code "OUTS" in the first four digits of the waste code.

(6) Municipal conditionally exempt small quantity generators will use "CESQ" in the first four digits of the waste code.

(7) A facility which receives a waste and consolidates that waste with other like waste (thus not changing the form code of the waste stream or its composition), or stores a waste without treating or changing the form or composition of that waste may ship that waste to a storage, treatment, or disposal facility using "TSDF" in the first four digits sequence position of the waste code. This does not pertain to wastes which are treated or altered. This "TSDF" designation is only to be used by facilities that store and/or accumulate a quantity of wastes from more than one site for subsequent shipment to a treatment or disposal facility.

Source: The provisions of this §335.503 adopted to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §335.6, (relating to Notification Requirements).

§ 335.504. Hazardous Waste Determination

A person who generates a solid waste must determine if that waste is hazardous using the following method:

(1) first determine if the waste is listed as a hazardous waste in 40 Code of Federal Regulations Part 261, Subpart D;

(2) for purposes of complying with 40 Code of Federal Regulations Part 268 or if the waste is not listed as a hazardous waste in 40 Code of Federal Regulations Part 261, Subpart D, he or she must then determine whether the waste is identified in 40 Code of Federal Regulations Part 261, Subpart C, by either:

(A) testing the waste according to methods set forth in 40 Code of Federal Regulations Part 261, Subpart C, or according to an equivalent method approved by the administrator under 40 Code of Federal Regulations §260.21; or

(B) applying knowledge of the hazardous characteristic of the waste in light of the materials or process used, pursuant to §335.511 of this title (relating to Use of Process Knowledge).

Source: The provisions of this §335.504 adopted to be effective November 27, 1992, 17 TexReg 8010; amended to be effective November 23, 1993, 18 TexReg 8218.

Cross References: This Section cited in 30 TAC §335.62, (relating to Hazardous Waste Determination and Waste Classification); 30 TAC §335.503, (relating to Waste Classification and Waste Coding Required); 30 TAC §335.505, (relating to Class 1 Waste Determination); 30 TAC §335.506, (relating to Class 2 Waste Determination); 30 TAC §335.507, (relating to Class 3 Waste Determination); 30 TAC §335.508, (relating to Classification of Specific Industrial Solid Wastes).

§ 335.505. Class 1 Waste Determination

A nonhazardous industrial solid waste is a Class 1 waste if:

(1) it contains specific constituents which equal or exceed the levels listed in Table 1 of Appendix 1 of this subchapter as determined by the methods outlined in this section. A nonhazardous waste is a Class 1 waste if, using the test methods described in 40 Code of Federal Regulations Part 261, Appendix II, or equivalent methods approved by the executive director under the procedures set forth in §335.509 of this title (relating to Waste Analysis), the extract from a representative sample of the waste contains any of the contaminants listed in Appendix 1 at a concentration equal to or greater than the maximum concentration given in that table. Information on representative samples is set forth in §335.509 of this title (relating to Waste Analysis). Where matrix interferences of the waste cause the practical quantitation limit (PQL) of the specific analysis to be greater than the maximum concentration listed in Appendix 1, then the achievable PQL becomes the maximum concentration, provided that the generator maintains documentation which would satisfactorily demonstrate to the executive director that lower levels of quantitation of a sample are not possible. A satisfactory demonstration includes the results from the analysis of the waste for that specific analyte by a laboratory utilizing an appropriate EPA SW-846, EPA-600, "Standard Methods for the Examination of Water and Wastewater," or ASTM Standard Methods, or an equivalent method approved by the executive director under procedures set forth in §335.509 of this title (relating to Waste Analysis);

(2) it is Class 1 ignitable. A nonhazardous waste is Class 1 ignitable if a representative sample of the waste has any of the following properties:

(A) it is liquid and has a flash point less than 65.6 degrees Celsius (150 degrees Fahrenheit), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80, or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 or as determined by an equivalent test method approved by the executive director under procedures set forth in §335.509 of this title (relating to Waste Analysis); or

(B) it is a physical solid or semi-solid under which conditions normally incident to storage, transportation, and disposal is liable to cause fires through friction, retained heat from manufacturing or processing, or which can be ignited readily, and when ignited burns so vigorously and persistently as to create a serious hazard. Included in this class are spontaneously combustible and water-reactive materials, including, but not necessarily limited to, the substances listed in Table 2 of Appendix 1;

(3) it is Class 1 corrosive. A nonhazardous waste is Class 1 corrosive if a representative sample of the waste is a semi-solid or solid which, when mixed with an equivalent weight of ASTM Type II laboratory distilled or deionized water, produces a solution having a pH less than or equal to 2 or greater than or equal to 12.5. Solidified, stabilized, encapsulated, or otherwise chemically-bound wastes are not subject to this requirement provided the waste is solidified such that when a representative sample of the waste is subjected to the paint filter test (SW-846 Method

9095) it exhibits no free liquids. An equivalent method approved by the executive director under procedures set forth in §335.509 of this title (relating to Waste Analysis) may be utilized;

(4) there is an absence of analytical data and/or documented process knowledge which proves a waste is Class 2 or Class 3;

(5) it is identified as a Class 1 waste in §335.508 of this title (relating to Classification of Specific Industrial Solid Wastes); or

(6) it is not a hazardous waste pursuant to §335.504 of this title (relating to Hazardous Waste Determination) and a generator chooses to classify the waste as Class 1.

Source: The provisions of this §335.505 adopted to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §101.1, (relating to Definitions); 30 TAC §115.10, (relating to Definitions); 30 TAC §330.2, (relating to Definitions); 30 TAC §335.1, (relating to Definitions); 30 TAC §335.503, (relating to Waste Classification and Waste Coding Required); 30 TAC §335.506, (relating to Class 2 Waste Determination); 30 TAC §335.507, (relating to Class 3 Waste Determination); 30 TAC §335.508, (relating to Classification of Specific Industrial Solid Wastes); 30 TAC §335.511, (relating to Use of Process Knowledge).

§ 335.506. Class 2 Waste Determination

(a) An industrial solid waste is a Class 2 waste if:

(1) it is not a hazardous waste pursuant to §335.504 of this title (relating to Hazardous Waste Determination);

(2) it is not a Class 1 waste pursuant to §335.505 of this title (relating to Class 1 Waste Determination); and

(3) it is not a Class 3 waste because:

(A) it cannot qualify as a Class 3 waste pursuant to §335.507 of this title (relating to Class 3 Waste Determination); or

(B) a generator chooses not to classify the waste as a Class 3 waste.

(b) Any waste designated as a Class 2 waste under §335.508 of this title (relating to Classification of Specific Industrial Solid Wastes) is a Class 2 waste.

Source: The provisions of this §335.506 adopted to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §101.1, (relating to Definitions); 30 TAC §115.10, (relating to Definitions); 30 TAC §330.2, (relating to Definitions); 30 TAC §335.1, (relating to Definitions); 30 TAC §335.503, (relating to Waste Classification and Waste Coding Required); 30 TAC §335.508, (relating to Classification of Specific Industrial Solid Wastes).

§ 335.507. Class 3 Waste Determination

An industrial solid waste is a Class 3 waste if it is inert and essentially insoluble, and poses no threat to human health and/or the environment. Class 3 wastes include, but are not limited to, materials such as rock, brick, glass, dirt, and certain plastics and rubber, which are not readily decomposable. An industrial solid waste is a Class 3 waste if it:

(1) is not a hazardous waste pursuant to §335.504 of this title (relating to Hazardous Waste Determination);

(2) does not meet any of the Class 1 waste criteria set forth in §335.505 of this title (relating to Class 1 Waste Determination);

(3) is inert. Inertness refers to chemical inactivity of an element, compound, or a waste. Ingredients added to mixtures chiefly for bulk and/or weight purposes are normally considered inert; and

(4) is essentially insoluble.

(A) Essential insolubility is established:

(i) when, using the test methods specified in Appendix 4 (7-Day Distilled Water Leachate Test), the extract from a representative sample of the waste does not leach greater than the maximum contaminant levels listed in Table 3 of Appendix 1 of this subchapter;

(ii) using the test methods described in 40 Code of Federal Regulations Part 261, Appendix II, or equivalent methods approved by the executive director under the procedures set forth in §335.509 of this title (relating to Waste Analysis), the extract from a representative sample does not exhibit detectable levels of constituents found in Table 1. This excludes the constituents listed in 40 Code of Federal Regulations Part 141, Subparts B and G, which were addressed in clause (i) of this subparagraph;

(iii) when using an appropriate test method, a representative sample of the waste does not exhibit detectable levels of total petroleum hydrocarbon (TPH). Petroleum substance wastes as defined in §334.481 of this title (relating to Definitions) are not subject to this subsection; and

(iv) when using an appropriate test method, a representative sample of the waste does not exhibit detectable levels of polychlorinated biphenyls (PCBs).

(B) Subparagraph (A) of this paragraph does not apply to naturally occurring material, i.e.,

soil, rock, etc., if the generator can demonstrate that the levels present in the waste are naturally occurring in the background of that particular material.

(C) If the detection level submitted by the generator is challenged by the commission, and for other enforcement purposes, the burden is on the generator to demonstrate that the detection level was reasonable for the material in question and for the technology in use at the time the waste was classified.

Source: The provisions of this §335.507 adopted to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §101.1, (relating to Definitions); 30 TAC §115.10, (relating to Definitions); 30 TAC §330.2, (relating to Definitions); 30 TAC §335.1, (relating to Definitions); 30 TAC §335.503, (relating to Waste Classification and Waste Coding Required); 30 TAC §335.506, (relating to Class 2 Waste Determination); 30 TAC §335.508, (relating to Classification of Specific Industrial Solid Wastes).

§ 335.508. Classification of Specific Industrial Solid Wastes

The following nonhazardous industrial solid wastes shall be classified no less stringently than according to the provisions of this section.

(1) Industrial solid waste containing asbestos material identified as regulated asbestos containing material (RACM), as defined in 40 Code of Federal Regulations (CFR) Part 61, shall be classified as a Class 1 waste.

(2) Empty containers that are a solid waste as defined in §335.1 of this title (relating to Definitions) shall be subject to the following criteria.

(A) A container which has held a hazardous substance as defined in 40 CFR Part 302, a hazardous waste, a Class 1 waste, or a material which would be classified as a hazardous or Class 1 waste if disposed, and is empty per §335.41(f)(2) of this title (relating to Purpose, Scope, and Applicability) concerning empty containers:

(i) shall be classified as a Class 1 waste;

(ii) may be classified as a Class 2 waste if the container has a capacity less than five gallons and has held a nonhazardous waste; or

(iii) may be classified as a Class 2 waste if the container has a capacity of five gallons or more and:

(I) the residue has been completely removed either by triple rinsing with a solvent capable of removing any waste, by hydroblasting, or by other methods which adequately remove the residue; and

(II) the container has been crushed, punctured, or subjected to other mechanical treatment which renders the container unusable.

(B) A container which has held a Class 2 waste shall be classified as a Class 2 waste.

(C) Aerosol cans that have been depleted of their contents, such that the inner pressure of the can equals atmospheric pressure and minimal residues remain in the can, may be classified as a Class 2 wastes.

(3) Paper, cardboard, food wastes, and general plant trash shall be subject to the following classification criteria.

(A) Paper, cardboard, linings, wrappings, paper packaging materials, or absorbants shall be subjected to §335.504 of this title (relating to Hazardous Waste Determination), and if nonhazardous, to the criteria listed in §335.505 of this title (relating to Class 1 Waste Determination). Paper or cardboard containers may be classified as Class 1 or 2 under the provisions of paragraph (2) of this section.

(B) Paper, cardboard, linings, wrappings, paper packaging materials, food wastes, glass, aluminum foil, plastics, styrofoam, and food packaging that are produced as a result of plant production, manufacturing, or laboratory operations and that are classified as Class 2 waste shall be designated "plant production refuse." Plant production refuse shall not include oils, lubricants of any type, oil filters, contaminated soils, sludges, or wastewaters.

(C) Paper, cardboard, linings, wrappings, paper or wood packaging materials, food wastes, glass, aluminum foil, plastics, styrofoam, and food packaging that come from general office, cafeteria, or food service operations, that are classified as Class 2 wastes, shall be designated "plant office refuse."

(D) Any Class 2 waste from production, manufacturing, or laboratory operations can be designated as "supplemental plant production refuse" as long as the total amount of the supplemental plant production refuse does not exceed 20% of the total plant production refuse volume or weight, whichever is less. Individual wastes which have been designated supplemental plant production refuse may be designated by the generator at a later time as a separate waste in order to maintain the supple-

mental plant production refuse at a level below 20% of the appropriate plant production refuse amount. For any waste stream redesignated, the generator must provide the notification information required pursuant to this subchapter.

(E) Wastes associated with first aid station, medical emergencies, or other nonsurgical medical treatment shall be designated as Class 2 wastes and are subject to the provisions of §§330.1004-330.1009 of this title (relating to Medical Waste Management).

(4) Media contaminated by a material containing greater than or equal to 50 parts per million total polychlorinated biphenyls (PCBs) and wastes containing greater than or equal to 50 ppm PCBs shall be classified as Class 1.

(5) Waste containing petroleum hydrocarbon concentration greater than 1,500 parts per million total petroleum hydrocarbon (TPH) shall be classified as Class 1. Wastes resulting from the cleanup of leaking underground storage tanks (USTs) which are regulated under Chapter 334, Subchapter K of this title (relating to Petroleum Substance Waste) are not subject to classification under this subchapter.

(6) Wastes generated by the mechanical shredding of automobiles, appliances, or other items of scrap, used, or obsolete metals shall be handled according to the provisions set forth in Texas Solid Waste Disposal Act, Health and Safety Code, §361.019 (Vernon Pamphlet 1992), until the commission develops specific standards for the classification of this waste and assures adequate disposal capacity.

(7) If a nonhazardous industrial solid waste is generated as a result of commercial production of a "new chemical substance" as defined by the federal Toxic Substances Control Act, 15 United States Code §2602(9), the generator shall notify the commission prior to the processing or disposal of the waste and shall submit documentation requested under §335.513(b) and (c) of this title (relating to Documentation Required) for commission review. The waste shall be managed as a Class 1 waste, unless the generator can provide appropriate analytical data and/or process knowledge which demonstrates that the waste is Class 2 or Class 3, and the commission concurs. If the generator has not received concurrence from the commission within 120 days from the date of the request for review, the generator may manage the waste according to the requested classification, but not prior to giving 10 working days written notice to the commission.

(8) All nonhazardous industrial solid waste generated outside the State of Texas and transported into or through Texas for processing, storage, or disposal shall be classified as:

(A) Class 1; or

(B) may be classified as a Class 2 or Class 3 waste if:

(i) the material satisfies the Class 2 or Class 3 criteria as defined in §§335.506, 335.507, or 335.508 of this title (relating to Class 2 Waste Determination; Class 3 Waste Determination; Classification of Specific Industrial Solid Wastes); and

(ii) a request for Class 2 or Class 3 waste determination is submitted to the commission accompanied by all supporting analytical data. Waste generated out-of-state may be assigned a Class 2 or Class 3 classification only after approval by the commission.

Source: The provisions of this §335.508 adopted to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §335.503, (relating to Waste Classification and Waste Coding Required); 30 TAC §335.505, (relating to Class 1 Waste Determination); 30 TAC §335.506, (relating to Class 2 Waste Determination); 30 TAC §335.508, (relating to Classification of Specific Industrial Solid Wastes).

§ 335.509. Waste Analysis

(a) Generators who use analytical methods to classify their waste must use methods described in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," SW-846, "Methods for Chemical Analysis of Water and Wastes," EPA-600, "Standard Methods for the Examination of Water and Wastewater," or American Society for Testing and Materials (ASTM) Standard Methods, or may request in writing that the commission review and approve an alternate method. The generator must also choose representative sample(s) of their waste, as described in Chapter 9 of SW-846. A generator who proposes to use an alternate method must validate the alternate method by demonstrating that the method is equal to or superior in accuracy, precision, and sensitivity to the corresponding SW-846, EPA-600, Standard Method, or ASTM method.

(b) The generator proposing an alternate method shall provide the commission with the following information:

(1) a full description of the proposed method including all equipment used;

(2) a description of the types of wastes and waste matrices analyzed;

(3) comparative results of the proposed method and the corresponding SW-846 method;

(4) a complete assessment of any factors which may interfere with the method; and

(5) a description of the quality control procedures necessary to ensure the sensitivity, accuracy, and precision of the proposed method.

(c) Upon request of the executive director, generator shall provide additional information as necessary to enable the executive director to adequately review the alternate methods proposed by the generator.

Source: The provisions of this §335.509 adopted to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §335.505, (relating to Class 1 Waste Determination); 30 TAC §335.507, (relating to Class 3 Waste Determination); 30 TAC §335.510, (relating to Sampling Documentation).

§ 335.510. Sampling Documentation

(a) Generators who use analytical data to classify their Class 2 and Class 3 wastes pursuant to §335.509 of this title (relating to Waste Analysis) must maintain documentation of their sampling procedures.

(b) The sampling documentation must, at a minimum, include the following:

(1) dates samples were collected;

(2) a description of the site or unit from which the sample is taken and sampling location(s) at the site unit;

(3) methods and equipment utilized; and

(4) description of sample handling techniques, including containerization, preservation, and chain of custody.

(c) Generators shall document all the information listed in subsection (b) of this section, and retain copies on site for a minimum of five years after waste is no longer generated or upon site closure, pursuant to §335.513 of this title (relating to Documentation Required).

(d) Generators who have existing sampling documentation, which includes the information listed in subsection (b) of this section, do not need to prepare any new documentation specifically for this section.

Source: The provisions of this §335.510 adopted to be effective November 27, 1992, 17 TexReg 8010.

§ 335.511. Use of Process Knowledge

(a) Generators may use their existing knowledge about the process to classify or assist in classifying a waste as hazardous, Class 1, Class 2, or Class 3. Process knowledge must be documented and maintained on site pursuant to §335.513 of this title (relating to Documentation Required). Material safety data sheets, manufacturers' literature, and other documentation generated in conjunction with a particular process may be used to classify a waste provided that the literature provides sufficient information about the waste and addresses the Class 1 criteria set forth in §335.505 of this title (relating to Class 1 Waste Determination). A generator must be able to demonstrate requisite knowledge of his or her process by satisfying all of the following.

(1) The generator must have a full description of the process, including a list of chemical constituents that enter the process. Constituents listed in Appendix 1 of this subchapter must be addressed in this description.

(2) The generator must have a full description of the waste, including a list of chemical constituents likely to be in the waste. This list should be based on paragraph (1) of this subsection.

(3) The generator may develop a subset of Appendix 1 constituents by which to evaluate the waste utilizing the information from paragraphs (1) and (2) of this subsection.

(4) Documentation of the waste classification must be maintained, and provided to the commission if required, pursuant to §335.513 of this title (relating to Documentation Required).

(b) If a total analysis of the constituents the generator chooses to evaluate demonstrates that individual analytes are not present in the waste, or that they are present but at such low concentrations that the appropriate maximum leachable concentrations could not possibly be exceeded, the TCLP extraction procedure discussed in §335.505(1) of this title (relating to Class 1 Waste Determination) need not be run. If an analysis of any one of the liquid fractions of the TCLP extract indicates that a regulated constituent is present at such high concentrations that, even after accounting for dilution from the other fractions of the extract, the concentration would be equal to or greater than the maximum leachable concentration for that constituent, then the waste is Class 1, and it is not necessary to analyze the remaining fractions of the extract.

Source: The provisions of this §335.511 adopted to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §335.503, (relating to Waste Classification and Waste Coding Required); 30 TAC §335.504, (relating to Hazardous Waste Determination); 30 TAC §335.513, (relating to Documentation Required).

§ 335.512. Executive Director Review

(a) The executive director may review the generator's classification of any waste to determine if it is appropriately classified. If the executive director determines that a waste has been classified incorrectly according to the standards set forth in this subchapter, or if the executive director determines that extenuating circumstances that may result in threat of harm to human health or the environment warrant an upgrading of the classification, the executive director may reclassify the waste to the more stringently regulated classification. The executive director shall provide the generator with written notice of his determination and reclassification.

(b) A person who believes that the commission staff has inappropriately classified a waste pursuant to this section may appeal that decision. Such appeal must be filed within 30 days of the date of the receipt of the executive director's determination. The person shall file an appeal directly with the executive director requesting a review of the waste classification. If the person is not satisfied with the decision of the executive director on the appeal, the person may request an evidentiary hearing to determine the appropriateness of the classification by filing a request for hearing with the commission.

Source: The provisions of this §335.512 adopted to be effective November 27, 1992, 17 TexReg 8010.

§ 335.513. Documentation Required

(a) Documentation on each waste stream is required to be maintained by the generator in accordance with the requirements of this subchapter and in accordance with §335.9 of this title (relating to Recordkeeping and Annual Reporting Procedures Applicable to Generators).

(b) The following documentation shall be submitted by the generator to the commission prior to waste shipment or disposal and not later than 90 days of initial waste generation:

(1) description of waste;

(2) date of initial waste generation;

(3) description of process that generated the waste;

(4) hazardous waste determination;

(5) all analytical data and/or process knowledge allowed under §335.511 of this title (relating to Use of Process Knowledge) used to characterize Class 3 wastes, including quality control data; and

(6) waste classification determination.

(c) The following documentation shall be maintained by the generator on site immediately upon waste generation and for a minimum of five years after the waste is no longer generated or stored or until site closure:

(1) all information required under subsection (b) of this section;

(2) all analytical data and/or process knowledge allowed under §335.511 of this title (relating to Use of Process Knowledge) used to characterize hazardous, Class 2, and Class 3 wastes, including quality control data.

(d) The executive director may request that a generator submit all documentation listed in subsections (b) and (c) of this section for auditing the classification assigned. Documentation requested under this section shall be submitted within 10 working days of receipt of the request.

(e) Any changes to the information required in subsections (b) and (c) of this section shall be maintained or submitted according to the timing requirements of this section.

Source: The provisions of this §335.513 adopted to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §335.501, (relating to Purpose, Scope, and Applicability); 30 TAC §335.503, (relating to Waste Classification and Waste Coding Required); 30 TAC §335.508, (relating to Classification of Specific Industrial Solid Wastes); 30 TAC §335.510, (relating to Sampling Documentation); 30 TAC §335.511, (relating to Use of Process Knowledge).

§ 335.514. Variance from Waste Classification Provisions

(a) The executive director may determine on a case-by-case basis the merits of the following types of variances:

(1) compliance with timing requirements under §335.502 of this title (relating to Conversion to New Waste Notification and Classification System);

(2) appropriateness of a particular waste classification resulting from application of the classification criteria; and

(3) other matters requiring special attention by the commission.

(b) Factors to be considered in determining whether a variance should be granted include, but are not limited to, circumstances which were reasonably unforeseeable and beyond the reasonable control of the generator, or the use of alternating classification criteria or procedures which meet or exceed the requirements and intent of these rules. The burden of justifying the need for a variance is on the requestor, and the requestor must submit information sufficient to clearly indicate the issues involved, the reason(s) for the request, and both positive and negative impacts that may result from the granting of the variance. Prior to approval for the variance must be obtained before any change is authorized.

(c) A person who feels that the executive director has inappropriately denied a request for variance may appeal that decision. The person shall file an appeal directly with the executive director requesting a review of the variance. If the person is not satisfied with the decision of the executive director, he or she may request an evidentiary hearing to determine the appropriateness of the variance, by filing a request for hearing with the chief hearings examiner of the Texas Water Commission.

Source: The provisions of this §335.514 adopted to be effective November 27, 1992, 17 TexReg 8010.

Cross References: This Section cited in 30 TAC §335.502, (relating to Conversion to New Waste Notification and Classification System).

§ 335.515. Enforcement

(a) It is a violation of commission rules if a waste is not properly classified according to the provisions of this subchapter.

(b) Where violations of this subchapter occur, the executive director may initiate formal enforcement action and may seek administrative penalties and order corrective actions, as prescribed under Chapter 337 of this title (relating to Enforcement), or pursue any other remedy available at law.

(c) When establishing corrective actions and penalty amounts involving violations of this subchapter, the executive director should consider circumstances which mitigate the nature or extent of the violations in accordance with applicable rules and statutes.

Appendix 1

Table 1.

Constituents of Concern and
Their Maximum Leachable Concentrations.

Values are based on information contained in Federal Registers Vol. 55 / Friday, July 27, 1990; Vol. 56 / June 7, 1991; and Integrated Risk Information Systems, Environmental Protection Agency, and 40 CFR 264 Appendix 9.

Compound	CAS No.	Concentration (mg/l)
Acetone	67-64-1	400
Acetonitrile	75-05-8	20
Acetophenone	98-86-2	400
Acrylamide	79-06-1	0.08
Acrylonitrile	107-13-1	0.6
Aniline	62-53-3	60
Antimony	7440-36-0	1
Arsenic	7440-38-2	1.8
Barium	7440-39-3	100.0
Benzene	71-43-2	0.50
Benzidine	92-87-5	0.002
Beryllium	7440-41-7	0.08
Bis(2-chloroethyl)ether	111-44-4	0.3
Bis(2-ethylhexyl) phthalate	117-81-7	30
	—	—
Bromodichloromethane	75-27-4	0.3
Bromomethane	74-83-9	5
Butylbenzyl phthalate	85-68-7	700
Cadmium	7440-43-9	0.5
Carbon disulfide	75-15-0	400
Carbon tetrachloride	56-23-5	0.50
Chlordane	57-74-9	0.03
Chlorobenzene	108-90-7	70
Chloroform	67-66-3	6.0
2-Chlorophenol	95-57-8	20
Chromium	7440-47-3	5.0
m-Cresol	108-39-4	200.0 *
o-Cresol	95-48-7	200.0 *
p-Cresol	106-44-5	200.0 *
Cyanide	57-12-5	70
DDD	72-54-8	1
DDE	72-55-9	1
DDT	50-29-3	1
Dibutyl phthalate	84-74-2	400
1,4-Dichlorobenzene	106-46-7	7.5
3,3-Dichlorobenzidine	91-94-1	0.8
1,2-Dichloroethane	107-06-2	0.50
Dichlorodifluoromethane	75-71-8	700
1,1-Dichloroethylene	75-35-4	0.6
1,3-Dichloropropene	542-75-6	1
2,4-Dichlorophenol	120-83-2	10
2,4-Dichlorophenoxy-acetic acid (2,4-D)	94-75-7	10.0
	—	—
Dieldrin	60-57-1	0.02
Diethyl phthalate	84-66-2	3000
Dimethoate	60-51-5	70
m-Dinitrobenzene	99-65-0	0.4
2,4-Dinitrophenol	51-28-5	7
2,4-Dinitrotoluene (and 2,6-, mixture)	602-01-7	0.13
	—	—
1,4-Dioxane	123-91-1	30
Dioxins (Poly chlorinated dibenzo-p-dioxins)		
2,3,7,8-TCDD	1746-01-6	0.005
1,2,3,7,8-PeCDD	40321-76-4	0.010
1,2,3,4,7,8-HxCDD	57653-85-7	0.050
1,2,3,6,7,8-HxCDD	34465-46-8	0.050
1,2,3,7,8,9-HxCDD		0.050
Diphenylamine	122-39-4	90

Compound	CAS No.	Concentration (mg/l)
1,2-Diphenylhydrazine	122–66–7	0.4
Disulfoton	298–04–4	0.1
Endosulfan	959–98–8	0.2
Endrin	72–20–8	.02
Epichlorohydrin	106–89–8	40
Ethylbenzene	100–41–4	400
Ethylene dibromide	106–93–4	0.004
Furans (Polychlorinated dibenzo furans)		
2,3,7,8-TCDF	51207–31–9	0.050
1,2,3,7,8-PeCDF		0.100
2,3,4,7,8-PeCDF		0.010
1,2,3,4,7,8-HxCDF		0.050
1,2,3,6,7,8-HxCDF		0.050
1,2,3,7,8,9-HxCDF		0.050
Heptachlor	76–44–8	0.008
(and its hydroxide)	—	—
Heptachlor epoxide	1024–57–3	0.04
Hexachlorobenzene	118–74–1	0.13
Hexachloro-1,3-butadiene	87–68–3	0.4
Hexachlorocyclopentadiene	77–47–4	20
Hexachloroethane	67–72–1	3.0
Hexachlorophene	70–30–4	1
Isobutyl alcohol	78–83–1	1000
Isophorone	78–59–1	90
Lead	7439–92–1	1.5
Lindane	58–89–9	0.3
Mercury	7439–97–6	0.2
Methacrylonitrile	126–98–7	0.4
Methomyl	16752–77–5	90
Methoxychlor	72–43–5	10.0
Methyl ethyl ketone	78–93–3	200.0
Methyl isobutyl ketone	108–10–1	200
Methylene chloride	75–09–2	50
Methyl parathion	298–00–0	0.9
Nickel	7440–02–0	70
Nitrobenzene	98–95–3	2.0
N-Nitroso-di-n-butylamine	924–16–3	0.06
N-Nitrosodiphenylamine	86–30–6	70
N-Nitrosomethylethylamine	10595–95–6	0.02
N-Nitroso-n-propylamine	621–64–7	0.05
N-Nitrosopyrrolidine	930–55–2	0.2
p-Phenylene diamine	106–50–3	20
Parathion	56–38–2	20
Pentachlorobenzene	608–93–5	3
Pentachloronitrobenzene	82–68–8	10
Pentachlorophenol	87–86–5	100.0
Phenol	108–95–2	2000
Pronamide	23950–58–5	300
Pyridine	110–86–1	4
Selenium	7782–49–2	1.0
Silver	7440–22–4	5.0
Styrene	100–42–5	700
1,1,1,2-Tetrachloroethane	630–20–6	10
1,1,2,2-Tetrachloroethane	79–34–5	2
Tetrachloroethylene	127–18–4	0.7
2,3,4,6-Tetrachlorophenol	58–90–2	100
Thiosemicarbazide	79–19–6	20
Toluene	108–88–3	1000
Toxaphene	8001–35–2	0.3
trans-1,3-Dichloro-propene	542–75–6	1
	—	—
Tribromomethane (Bromoform)	75–25–2	70
1,2,4-Trichlorobenzene	120–82–1	70
1,1,1-Trichloroethane	71–55–6	300
Trichloroethylene	79–01–6	0.5
1,1,2-Trichloroethane	79–00–5	6
Trichlorofluoromethane	75–69–4	1000
2,4,5-Trichlorophenoxy-propionic acid	93–72–1	1.0
(2,4,5 TP or Silvex)	—	—
1,2,3-Trichloropropane	96–18–4	20
2,4,5-Trichlorophenol	95–95–4	400.0
2,4,6-Trichlorophenol	88–06–2	2
Vanadium Pentoxide	1314–62–1	30
Vinyl chloride	75–01–4	0.2
Xylenes (all isomers)	1330–82–1	7000

* If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol concentration is used. The Maximum Concentration for total cresol is 200.0 mg/l.

Appendix 1

Table 2. Flammable Solids.

Constituents listed from Department of Transportation Regulations, 49 CFR Part 173 Subpart E, October 1, 1990. [Note: The presence of a constituent on this table in a non-hazardous waste does not automatically identify that waste as a Class 1 ignitable waste. The constituents on this table are examples of materials which could be considered Class 1 ignitable waste. The physical characteristics of the waste will be the determining factor as to whether or not a waste is ignitable.]

Compound or Material
Aluminum, metallic, powder
Aluminum hydride
Ammonium picrate
Calcium, metallic
Calcium carbide
Calcium chlorite
Calcium hypochlorite
Calcium silicon powder
Calcium phosphide
Cesium metal
Chromic acid or chromic acid mixture, dry
Decaborane
Lithium acetylide-ethylene diamine complex
Lithium aluminum hydride
Lithium amide, powdered
Lithium borohydride
Lithium ferro silicon
Lithium hydride
Lithium metal
Lithium silicon
Magnesium granules
Mono-(trichloro) tetra-(monopotassium dichloro)-penta-s-triazinetrione
N-methyl-N'-nitro-Nitrosoguanidine
Peratic acid
Phosphorous, amorphous, red
Phosphorous, white or yellow
Phosphoric anhydride

Compound or Material
Phosphorous pentachloride
Picric acid
Potassium, metallic
Potassium dichloro-s-triazine-trione
Rubidium metal
Sodium, metallic
Sodium aluminum hydride
Sodium amide
Sodium chlorite
Sodium dichloro-s-triazine-trione
Sodium hydride
Sodium hydrosulfite
Sodium nitrite and mixtures
Sodium picramate, wet
Sodium potassium alloys
Titanium metal powder
Trichloroisocyanuric acid
Trichloro-s-triazinetrione
Zinc ammonium nitrite
Zirconium hydride, powdered
Zirconium picramate

APPENDIX 1

Table 3. Maximum contaminant Levels (MCLs).

Values obtained from 40 Code of Federal Regulations Part 141, Subparts B and G, Maximum Contaminant Levels and 40 Code of Federal Regulations Part 143, Total Dissolved Solids.

Constituent	MCL (mg/l)
Arsenic	0.05
Barium	1
Benzene	0.005
Cadmium	0.005
Carbon tetrachloride	0.005
Chlordane	0.002
Chlorobenzene	0.1
Chromium	0.1
2,4-D	0.07
Dibromochloropropane	0.0002
ortho-Dichlorobenzene	0.6
para-Dichlorobenzene	0.075
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007
trans-1,2-Dichloroethylene	0.1
1,2-Dichloropropane	0.005
Ethylbenzene	0.7
Heptachlor	0.0004
Heptachlor epoxide	0.0002
Lead	0.05
Mercury	0.002
Methoxychlor	0.04
Pentachlorophenol	0.001
Polychlorinated biphenyls (PCBs)	0.0005
Selenium	0.05
Silver	0.05
Styrene	0.1
Tetrachloroethylene	0.005
1,1,1-Trichloroethane	0.20
Trichloroethylene	0.005
Toluene	1
Toxaphene	0.003
2,4,5-TP (Silvex)	0.05
Vinyl chloride	0.002
Xylenes (total)	10
Total Dissolved Solids	500

Appendix 2

Waste Evaluation Section
Industrial and Hazardous Waste Division
Texas Water Commission
P.O. Box 13087
Austin, Texas 78711–3087

Appendix 3

FORM CODES

Code	Waste description
	LAB PACKS
	LAB PACKS—Lab packs of mixed wastes, chemicals, lab wastes
001	Lab packs of old chemicals only
002	Lab packs of debris only
003	Mixed lab packs
004	Lab packs containing acute hazardous wastes
009	Other lab packs (Specify in Comments)
	LIQUIDS
	INORGANIC LIQUIDS—Waste that is primarily inorganic and highly fluid (e.g., aqueous), with low suspended inorganic solids and low organic content
101	Aqueous waste with low solvents
102	Aqueous waste with low other toxic organics
103	Spent acid with metals
104	Spent acid without metals
105	Acidic aqueous waste
106	Caustic solution with metals but no cyanides
107	Caustic solution with metals and cyanides
108	Caustic solution with cyanides but no metals
109	Spent caustic
110	Caustic aqueous waste
111	Aqueous waste with reactive sulfides
112	Aqueous waste with other reactives (e.g., explosives)
113	Other aqueous waste with high dissolved solids
114	Other aqueous waste with low dissolved solids
115	Scrubber water
116	Leachate
117	Waste liquid mercury
119	Other inorganic liquids (Specify in Comments)
198	Nonhazardous photographic chemical wastes (inorganic)
199	Brine solution that could also bear the form code 113
	ORGANIC LIQUIDS—Waste that is primarily organic and is highly fluid, with low inorganic solids content and low-to-moderate water content
201	Concentrated solvent-water solution
202	Halogenated (e.g., chlorinated) solvent
203	Non-halogenated solvent
204	Halogenated/non-halogenated solvent mixture
205	Oil-water emulsion or mixture
206	Waste oil
207	Concentrated aqueous solution of other organics
208	Concentrated phenolics

Code	Waste description
209	Organic paint, ink, lacquer, or varnish
210	Adhesives or epoxies
211	Paint thinner or petroleum distillates
212	Reactive or polymerizable organic liquids
219	Other organic liquids (Specify in Comments)
296	Ethylene glycol based antifreeze
297	Nonhazardous liquids containing greater than or equal to (≥) 50 and less than (<) 500 ppm PCBs
298	Nonhazardous liquids containing greater than or equal to (≥) 500 ppm PCBs
299	Nonhazardous photographic chemical waste (organic)

SOLIDS

INORGANIC SOLIDS—Waste that is primarily inorganic and solid, with low organic content and low-to-moderate water content; not pumpable

301	Soil contaminated with organics
302	Soil contaminated with inorganics only
303	Ash, slag, or other residue from incineration of wastes
304	Other "dry" ash, slag, or thermal residue
305	"Dry" lime or metal hydroxide solids chemically "fixed"
306	"Dry" lime or metal hydroxide solids not "fixed"
307	Metal scale, filings, or scrap
308	Empty or crushed metal drums or containers
309	Batteries or battery parts, casings, cores
310	Spent solid filters or adsorbents
311	Asbestos solids and debris
312	Metal-cyanide salts/chemicals
313	Reactive cyanide salts/chemicals
314	Reactive sulfide salts/chemicals
315	Other reactive salts/chemicals
316	Other metal salts/chemicals
319	Other waste inorganic solids (Specify in Comments)
388	Empty or crushed glass containers
389	Nonhazardous sandblasting waste
390	Nonhazardous concrete/cement/construction debris
391	Nonhazardous dewatered wastewater treatment sludge
392	Nonhazardous dewatered air pollution control device sludge
393	Catalyst waste
394	Nonhazardous solids containing greater than or equal to (≥) 50 ppm and less than (<) 500 ppm PCBs
395	Nonhazardous solids containing greater than or equal to (≥) 500 ppm PCBs
396	Nonhazardous electrical equipment/devices containing greater than or equal to (≥) 50 ppm and less than (<) 500 ppm PCBs.
397	Nonhazardous electrical equipment/devices containing greater than or equal to (≥) 500 ppm PCBs
398	Nonhazardous soils containing greater than or equal to (≥) 50 ppm and less than (<) 500 ppm PCBs
399	Nonhazardous soils containing greater than or equal to (≥) 500 ppm PCBs

ORGANIC SOLIDS—Waste that is primarily organic and solid, with low-to-moderate inorganic content and water content; not pumpable

401	Halogenated pesticide solid
402	Non-halogenated pesticide solid
403	Solids resins or polymerized organics
404	Spent carbon
405	Reactive organic solid
406	Empty fiber or plastic containers
407	Other halogenated organic solids (Specify in Comments)
409	Other non-halogenated organic solids (Specify in Comments)
488	Wood debris
489	Petroleum contaminated solids
490	Sand blasting waste
491	Dewatered biological treatment sludge
492	Dewatered sewage or other untreated biological sludge
493	Catalyst waste
494	Solids containing greater than or equal to (≥) 50 ppm and less than (<) 500 ppm PCBs
495	Solids containing greater than or equal to (≥) 500 ppm PCBs
496	Electrical equipment/devices containing greater than or equal to (≥) 50 ppm and less than (<) 500 ppm PCBs.
497	Electrical equipment/devices containing greater than or equal to (≥) 500 ppm PCBs
498	Soils containing greater than or equal to (≥) 50 ppm and less than (<) 500 ppm PCBs
499	Soils containing greater than or equal to (≥) 500 ppm PCBs

SLUDGES

INORGANIC SLUDGES—Waste that is primarily inorganic, with moderate-to-high water content and low organic content, and pumpable

501	Lime sludge without metals
502	Lime sludge with metals/metal hydroxide sludge
503	Wastewater treatment sludge with toxic organics
504	Other wastewater treatment sludge
505	Untreated plating sludge without cyanides
506	Untreated plating sludge with cyanides
507	Other sludge with cyanides
508	Sludge with reactive sulfides
509	Sludge with other reactives
510	Degreasing sludge with metal scale or filings
511	Air pollution control device sludge (e.g., fly ash, wet scrubber sludge)
512	Sediment or lagoon dragout contaminated with organics
513	Sediment or lagoon dragout contaminated with inorganics only
514	Drilling mud
515	Asbestos slurry or sludge
516	Chloride or other brine sludge
519	Other inorganic sludges (Specify in Comments)
597	Catalyst waste
598	Nonhazardous sludges containing greater than or equal to (≥) 50 ppm and less than (<) 500 ppm PCBs
599	Nonhazardous sludges containing greater than or equal to (≥) 500 ppm PCBs

ORGANIC SLUDGES—Waste that is primarily organic with low-to-moderate inorganic solids content and water content, and pumpable

601	Still bottoms of halogenated (e.g., chlorinated) solvents or other organic liquids

Code	Waste description
602	Still bottoms of non-halogenated solvents or other organic liquids
603	Oily sludge
604	Organic paint or ink sludge
605	Reactive or polymerizable organics
606	Resins, tars, or tarry sludge
607	Biological treatment sludge
608	Sewage or other untreated biological sludge
609	Other organic sludges (Specify in Comments)
695	Petroleum contaminated sludges other than still bottoms and oily sludges
696	Grease
697	Catalyst waste
698	Nonhazardous sludges containing greater than or equal to (≥) 50 ppm and less than (<) 500 ppm PCBs
699	Nonhazardous sludges containing greater than or equal to (≥) 500 ppm PCBs
	GASES
	INORGANIC GASES—Waste that is primarily inorganic with a low organic content and is a gas at atmospheric pressure
701	Inorganic gases
	ORGANIC GASES—Waste that is primarily organic with low-to-moderate inorganic content and is a gas at atmospheric pressure
801	Organic gases
	PLANT TRASH
901	Plant production refuse
902	Supplemental plant production refuse
903	Plant office refuse

Appendix 4

7–Day Distilled Water Leachate Test

This test is intended only for dry, solid wastes, i.e., waste materials without any free liquids.

1. Place a 250 gm. (dry weight) representative sample of the waste material in a 1500 ml. Erlenmeyer flask.
2. Add 1 liter of deionized or distilled water into the flask and mechanically stir the material at a low speed for five (5) minutes.
3. Stopper the flask and allow to stand for seven (7) days.
4. At the end of seven (7) days, filter the supernatant solution through a .45 micron filter, collecting the supernatant into a separate flask.
5. Subject the filtered leachate to the appropriate analysis.

Source: The provisions of this §335.515 adopted to be effective November 27, 1992, 17 TexReg 8010.

SUBCHAPTER S. RISK REDUCTION STANDARDS

Authority: The provisions of this Subchapter S issued under the Texas Water Code, §5.103 and §26.011; and the Texas Solid Waste Disposal Act, Health and Safety Code, Chapter 361, §361.017.

Cross References: This Subchapter cited in 30 TAC §335.8, (relating to Closure and Remediation).

§ 335.551. Purpose, Scope, and Applicability

(a) Purpose. This subchapter specifies the information and procedures necessary to demonstrate compliance with the three risk reduction standards of §335.8 of this title (relating to Closure and Remediation).

(b) Scope. The requirements of this subchapter will, when adequately carried out, assure adequate protection of human health and the environment from potential exposure to contaminants associated with releases from solid waste management facilities or other areas. Cleanup levels are specified for different types of contaminated media such as air, surface water, groundwater, and soil, and for cross-media contamination pathways such as soil to groundwater and soil to air. General procedures based on scientific principles are provided or referenced by these regulations so that specific numeric cleanup levels can be generated. The commission will periodically review the general procedures and revise these regulations as necessary.

(c) Applicability. The requirements of this subchapter apply to persons who undertake a closure or remediation in accordance with §335.8 of this title (relating to Closure and Remediation).

Source: The provisions of this §335.551 adopted to be effective June 28, 1993, 18 TexReg 3814.

§ 335.552. Definitions

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

Carcinogen—Substances which have been classified for human carcinogenic risk based on the United States Environmental Protection Agency's Weight of Evidence System of Carcinogenicity as Group A—Human Carcinogen; Group B—Probable Human Carcinogen; or Group C—Possible Human Carcinogen.

Carcinogen classification—The basis by which substances are classified for human carcinogenic risk based on the United States Environmental Protection Agency's Weight of Evidence System for Carcinogenicity: Group A—Human Carcinogen; Group B—Probable Human Carcinogen; Group C—Possible Human Carcinogen; Group D—Not Classifiable as to Human Carcinogenicity; and

Group E—Evidence of Non-Carcinogenicity for Humans.

Long-term effectiveness—The ability of a remediation or corrective action to maintain over time the required level of protection of human health and the environment.

Nonresidential property—Any real property or portion of a property not currently being used for human habitation or for other purposes with a similar potential for human exposure, at which activities have been or are being conducted, having the primary Standard Industrial Classification (SIC) major group numbers 01-48 inclusive, 49 except 4941, 50-67 inclusive, 72-79 inclusive, 80 except 8051, 8059, 8062, 8063, 8069, 81 and 82 except 8211, 8221, 8222, 83 except 8351, 8361, 84-86 except 8661, 87-91 inclusive, 92 except 9223, and 93-97 inclusive. Nonresidential property includes all of the block(s) and lot(s) controlled by the same owner or operator that are vacant land, or that are used in conjunction with such business. For leased properties, nonresidential property includes the leasehold and any external tank, surface impoundment, septic system, or any other structure, vessel, contrivance, or unit that provides, or is utilized, for the management of contaminants to or from the leasehold.

Permanence/permanent/permanently—The property of achieving the maximum degree of long-term effectiveness and of enduring indefinitely without posing the threat of any future release that would increase the risk above levels established for the facility or area.

Point of exposure—A location where human or environmental receptors can come into contact with contaminants; also, a location which can be arbitrarily determined for purposes of estimating or measuring the concentration of contaminants available for exposure.

Practical quantitation limit/PQL—The lowest concentration of an analyte which can be reliably quantified within specified limits of precision and accuracy during routine laboratory operating conditions. The PQL minimizes to the extent possible the effects of instrument and operator variability and the influences of the sample matrix and other contaminants or substances upon the quantitation of the analyte. "Specified limits of precision and accuracy" are the criteria which have been included in applicable regulations or which are listed in the quality control sections of the analytical method. The PQL may be directly obtained or derived from the following sources with preference given to the most recent, scientifically valid method: federal regulations; EPA guidance documents; calculation from interlaboratory studies; and experimentally determined analytical methods not available from other existing sources.

Residential property—Any property that does not exclusively meet the definition of nonresidential property. Also, a portion of nonresidential property that is used in part for residential activities, such as a day care center, is defined as residential.

Systemic toxicant—Substances shown either through epidemiological studies or through laboratory studies to cause adverse health effects other than cancer.

Source: The provisions of this §335.552 adopted to be effective June 28, 1993, 18 TexReg 3814.

§ 335.553. Required Information

(a) For Risk Reduction Standard Number 1 or 2, the person shall provide a final report that documents attainment of the risk reduction standard in accordance with §335.554 or §335.555 of this title (relating to Attainment of Risk Reduction Standard Number 1 and Attainment of Risk Reduction Standard Number 2). The report shall include, but is not limited to, descriptions of procedures and conclusions of the investigation to characterize the nature, extent, direction, rate of movement, volume, composition and concentration of contaminants in environmental media; basis for selecting environmental media of concern; documentation supporting selection of exposure factors; descriptions of removal or decontamination procedures performed in closure or remediation; summaries of sampling methodology and analytical results which demonstrate that contaminants have been removed or decontaminated to applicable levels; and a document that the person proposes to use to fulfill the requirements of §335.560(b) of this title (relating to Post Closure Care and Deed Certification), as applicable.

(b) Risk Reduction Standard Number 3, the person shall conduct the activities set forth in paragraphs (1)-(4) of this subsection. The results of activities required by paragraphs (1)-(3) of this subsection may be combined to address a portion of a facility or one or more facilities of a similar nature or close proximity. The submittal shall be subject to review and approval by the executive director prior to carrying out the closure or remediation. Upon completion of the approved activity,

the person shall submit the final report required by paragraph (4) of this subsection.

(1) The person shall prepare a remedial investigation report which contains sufficient documentation such as, but not limited to, descriptions of procedures and conclusions of the investigation to characterize the nature, extent, direction, rate of movement, volume, composition, and concentration of contaminants in environmental media of concern, including summaries of sampling methodology and analytical results. Information obtained from attempts to attain Risk Reduction Standard Numbers 1 or 2 may be submitted for this purpose.

(2) The person shall prepare a baseline risk assessment report which describes the potential adverse effects under both current and future conditions caused by the release of contaminants in the absence of any actions to control or mitigate the release. The report shall also discuss the degree of uncertainty associated with the baseline risk assessment. Residential land use with on-site exposure shall be assumed to evaluate the future use condition unless the person demonstrates to the satisfaction of the executive director that a different land use assumption such as industrial use is more appropriate. The standard exposure factors set forth in Table 1 (located in paragraph (4) of this subsection) shall be used unless the person documents to the executive director's satisfaction that site-specific exposure data should be used instead.

(3) The person shall evaluate the relative abilities and effectiveness of potential remedies to achieve the requirements for remedies described in §335.561 of this title (relating to Attainment of Risk Reduction Standard Number 3) when considering the evaluation factors described in §335.562 of this title (relating to Remedy Evaluation Factors). Using this information, the person shall prepare a corrective measure study which recommends the remedy which best achieves the requirements for remedies described in §335.561 of this title. Persons may seek to satisfy the requirements of §335.564 of this title (relating to Post Closure Care Not Required for Risk Reduction Standard Number 3) by demonstrating in the corrective measure study using the procedures of §335.563 of this title (relating to Media Cleanup Requirements for Risk Reduction Standard Number 3) that no remedy needs to be performed since the existing conditions of the facility or area conform to the media cleanup requirements without the use of removal, decontamination, or control measures. Persons may also seek to satisfy the requirements of §335.564 of this title by demonstrating in the corrective measure study that following completion of their recommended removal and/or decontamination activities the conditions of the facility or area will conform to the media cleanup requirements of §335.563 of this title without the use of control measures. Upon review of the corrective measure study, the executive director may require the person to further evaluate the proposed remedy or to evaluate one or more additional remedies.

(4) The person shall submit to the executive director, for review and acceptance, a final report containing sufficient documentation which demonstrates that the remedy has been completed in accordance with the approved plan and also a document that the person proposes to use to fulfill the requirements of §335.566 of this title (relating to Deed Recordation for Risk Reduction Standard Number 3).

Table 1. Standard Exposure Factors (for use with §335.553(b)(2) and §335.563(e)).

Land Use	Exposure Pathway	Daily Intake Rate	Exposure Frequency	Exposure Duration	Body Weight
Residential	Ingestion of Potable Water	2 liters	350 days/yr	30 years	70 kg
	Ingestion of Soil and Dust+	200 mg-child, age 1–6 100 mg-adult, age 7–31	350 days/yr	6 years * 24 years **	15.1 kg * 70 kg **
				(* = child, ** = adult)	
	+ These factors yield the age-adjusted soil ingestion factor of 114 mg-yr/kg-day				
	Inhalation of Contaminants	20 cu.m.-total 15 cu.m.-indoor	350 days/yr	30 years	70 kg

Land Use	Exposure Pathway	Daily Intake Rate	Exposure Frequency	Exposure Duration	Body Weight
Commercial/ Industrial	Ingestion of Potable Water	1 liter	250 days/yr	25 years	70 kg
	Ingestion of Soil and Dust	50 mg	250 days/yr	25 years	70 kg
	Inhalation of Volatiles	20 cu.m./workday	250 days/yr	25 years	70 kg
Agricultural	Consumption of Homegrown Produce	42 g-fruit 80 g-vegetables	350 days/yr	30 years	70 kg
	Factors for ingestion of potable water, soil and dust, and inhalation of volatiles: Use the Residential Land Use factors.				
Recreational	Consumption of Locally Caught Fish	10 g-freshwater 15 g-saltwater	350 days/yr	30 years	70 kg

(c) For Risk Reduction Standards Numbers 1, 2, and 3, in order for a treatment process to achieve decontamination in contrast to being a control measure, the person must demonstrate to the satisfaction of the executive director that the treatment process permanently alters all contaminants to levels that will not pose a substantial present or future threat to human health and the environment, and must further demonstrate that any residue remaining in place from the treatment will not pose the threat of any future release that would increase the concentrations of contaminants in environmental media above the cleanup levels determined for that particular risk reduction standard.

(d) For Risk Reduction Standards Numbers 1, 2, and 3, attainment of cleanup levels shall be demonstrated by collection and analysis of samples from the media of concern. Persons shall utilize techniques described in SW 846, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, or other available guidance in developing a sampling and analysis plan appropriate for the distribution, composition, and heterogeneity of contaminants and environmental media. A sufficient number of samples shall be collected and analyzed for individual compounds to both accurately assess the risk to human health and the environment posed by the facility or area and to demonstrate the attainment of cleanup levels. Non compound-specific analytical techniques (e.g., Total Petroleum Hydrocarbons, Total Organic Carbon, etc.) may, where appropriate for the nature of the wastes or contaminants, be used to aid in the determination of the lateral and vertical extent and volume of contaminated media; however, such non compound-specific analyses will serve only as indicator measures and must be appropriately supported by compound-specific analyses. Comparisons may be based on the following methods:

(1) direct comparison of the results of analysis of discrete samples of the medium of concern with the cleanup level;

(2) for a data set of 10 or more samples, statistical comparison of the results of analysis utilizing the 95% confidence limit of the mean concentration of the contaminant as determined by the following expression:

Cleanup Level $\geq x + ts/\sqrt{n}$, where x is the mean concentration, s is the standard deviation and t is a value from Table 2 (located following paragraph (3) of this subsection) based on the number of samples, and sqrt (n) is the square root of the sample size; or

(3) other statistical methods appropriate for the distribution of the data, subject to prior approval by the executive director.

Table 2. Values for "t" (for use with §335.553(d)).

n	t	n	t	n	t
10	1.812	20	1.725	50	1.676
11	1.796	21	1.721	60	1.671
12	1.782	22	1.717	70	1.667
13	1.771	23	1.714	80	1.664
14	1.761	24	1.711	90	1.662
15	1.753	25	1.708	100	1.661
16	1.746	30	1.697	120	1.658
17	1.740	35	1.690	145	1.656
18	1.734	40	1.684		
19	1.729	45	1.680		

(e) For Risk Reduction Standards Numbers 2 and 3, in determining toxicity information for contaminants (e.g., Environmental Protection Agency carcinogen classification, type of toxicant, refer-

ence doses, carcinogenic slope factors, etc.), persons shall utilize values from the following sources in the order indicated. For Risk Reduction Standard Number 2, persons may utilize data from these sources that are more current than those used to derive the unadjusted MSCs listed in §335.568 of this title (relating to Appendix II), provided that substantiating information is furnished to the executive director in the report required by §335.555(f) of this title (relating to Attainment of Risk Reduction Standard Number 2).

(1) Integrated Risk Information System (IRIS);

(2) Health Effects Assessment Summary Table (HEAST);

(3) United States Environmental Protection Agency Criteria Documents;

(4) Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profiles; and

(5) other scientifically valid published sources.

(f) For Risk Reduction Standards Numbers 2 and 3, persons determining cleanup levels for contaminated media characterized by non compound-specific analytical techniques (e.g., Total Petroleum Hydrocarbons, Total Organic Carbon, etc.) and for which individual compounds such as hazardous constituents are not present as contaminants, must at a minimum consider other scientifically valid published numeric criteria to address: adverse impacts on environmental quality; adverse impacts on the public welfare and safety; conditions that present objectionable characteristics (e.g., taste, odor, etc.); or conditions that make a natural resource unfit for use.

Source: The provisions of this §335.553 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.8, (relating to Closure and Remediation); 30 TAC §335.554, (relating to Attainment of Risk Reduction Standard Number 1: Closure/Remediation to Background); 30 TAC §335.555, (relating to Attainment of Risk Reduction Standard Number 2: Closure/Remediation to Health-Based Standards and Criteria); 30 TAC §335.561, (relating to Attainment of Risk Reduction Standard Number 3: Closure/Remediation with Controls); 30 TAC §335.562, (relating to Remedy Evaluation Factors for Risk Reduction Standard Number 3); 30 TAC §335.563, (relating to Media Cleanup Requirements for Risk Reduction Standard Number 3).

§ 335.554. Attainment of Risk Reduction Standard Number 1: Closure/Remediation to Background

(a) Compliance with this standard is attained when the criteria set forth in subsections (b)-(g) of this section are met.

(b) For closure of hazardous waste management units and response to unauthorized discharges of hazardous waste, all hazardous waste and hazardous waste residues and contaminated design and operating system components such as liners, leachate collection systems, and dikes must be removed from the unit or area of the unauthorized discharge. For remediation of media that have become contaminated by releases from a hazardous waste management unit or by other unauthorized discharge of hazardous waste, the contaminated media must be removed or decontaminated to cleanup levels specified in this section.

(c) For closure of nonhazardous industrial solid waste management units, response to unauthorized discharges of nonhazardous industrial solid waste, and the remediation of media that have become contaminated by discharges of nonhazardous industrial solid waste or other contaminants, all waste and waste residues, contaminated design and operating system components such as liners, leachate collection systems, and dikes, and contaminated media must be removed or decontaminated to cleanup levels specified in this section.

(d) Background as represented by results of analyses of samples taken from media that are unaffected by waste management or industrial activities shall be used to determine compliance with the requirements of this section. If the practical quantitation limit (PQL) is greater than background, then the PQL rather than background shall be used as the cleanup level provided that the person satisfactorily demonstrates to the executive director that lower levels of quantitation of a contaminant are not possible.

(e) Attainment of cleanup levels shall be demonstrated by collection and analysis of samples from the media of concern using the procedures of §335.553(d) of this title (relating to Required Information).

(f) The person must submit a report to the executive director in accordance with §335.553(a) of this title (relating to Required Information) that documents compliance with the requirements of this section.

(g) Provided that attainment of this risk reduction standard for the facility or area can be demonstrated to the executive director pursuant to this section, the person is released from deed recordation requirements of §335.5 of this title (relating to Deed Recordation of Waste Disposal) and post-closure care responsibilities.

Source: The provisions of this §335.554 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.8, (relating to Closure and Remediation); 30 TAC §335.553, (relating to Required Information); 30 TAC §335.555, (relating to Attainment of Risk Reduction Standard Number 2: Closure/Remediation to Health-Based Standards and Criteria).

§ 335.555. Attainment of Risk Reduction Standard Number 2: Closure/Remediation to Health-Based Standards and Criteria

(a) Compliance with this standard is attained when the criteria set forth in subsections (b)-(f) of this section are met.

(b) For closure of hazardous waste management units and response to unauthorized discharges of hazardous waste, all hazardous waste and hazardous waste residues must be removed from the unit or area of the unauthorized discharge. Contaminated design and operating system components such as liners, leachate collection systems, and dikes must be removed from the unit or area of the unauthorized discharge. For remediation of media that have become contaminated by releases from a hazardous waste management unit or by other unauthorized discharge of hazardous waste, the contaminated media must be removed or decontaminated to cleanup levels specified in this section or such other lower levels necessary to be in conformance with current hazardous waste regulations.

(c) For closure of nonhazardous industrial solid waste management units, response to unauthorized discharges of nonhazardous industrial solid waste, and the remediation of media that have become contaminated by discharges of nonhazardous industrial solid waste or other contaminants, all waste and waste residues, contaminated design and operating system components such as liners, leachate collection systems, and dikes, and contaminated media must be removed or decontaminated to cleanup levels specified in this section.

(d) The concentration of a contaminant in contaminated media of concern such as groundwater, surface water, air, or soil shall not exceed cleanup levels as defined in §335.556 of this title (relating to Determination of Cleanup Levels for Risk Reduction Standard Number 2).

(1) If the practical quantitation limit (PQL) and/or the background concentration, determined in a manner consistent with §335.554 of this title (relating to Attainment of Risk Reduction Standard Number 1) for a contaminant is greater than the cleanup level, the greater of the PQL or background shall be used for determining compliance with the requirements of this section.

(2) Attainment of cleanup levels shall be demonstrated by collection and analysis of samples from the contaminated media of concern using the procedures of §335.553(d) of this title (relating to Required Information).

(e) The person must prepare a document that he intends to use to fulfill the deed certification requirements of §335.560 of this title (relating to Post Closure Care and Deed Certification for Risk Reduction Standard Number 2) and include this document as part of the report of subsection (f) of this section.

(f) The person must submit a report to the executive director in accordance with §335.553(a) of this title (relating to Required Information) that documents compliance with the requirements of this section. The executive director may require additional information or analysis, such as, but not limited to, consideration of cumulative health effects and cross-media contamination, prior to accepting a certification of closure or remediation under this performance standard. Upon approval of the report by the executive director, the person shall comply with the requirements of §335.560 of this title (relating to Post Closure Care and Deed Certification for Risk Reduction Standard Number 2).

Source: The provisions of this §335.555 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.8, (relating to Closure and Remediation); 30 TAC §335.553, (relating to Required Information); 30 TAC §335.560, (relating to Post-Closure Care and Deed Certification for Risk Reduction Standard Number 2); 30 TAC §335.568, (relating to Appendix II).

§ 335.556. Determination of Cleanup Levels for Risk Reduction Standard Number 2

(a) For purposes of this risk reduction standard, cleanup levels for individual contaminants are represented by Texas or federal promulgated health-based standards, or, when these are not available or do not provide appropriate protection for human health or the environment, persons must develop cleanup levels based on procedures specified or referenced in this section for determining other numeric criteria, referred to as medium specific concentrations (MSCs), and are required to perform any necessary adjustments to these numeric criteria. The MSCs address a single contaminant in

a medium and consider one or more exposure pathways, specifically, water ingestion (water MSC) and soil ingestion with inhalation of volatiles and particulates (soil MSC). Where a contaminant in one medium has the potential to contaminate another medium, defined as cross-media contamination, additional numeric criteria are developed as cleanup levels (e.g., the soil-to-ground water contaminant pathway). To determine cleanup levels for contaminated media of concern, persons must perform the evaluations of subsections (b)-(e) of this section.

(b) In addition to the exposure pathways defined or referenced in this section, the person must evaluate other exposure pathways at or near the facility (e.g., dermal absorption, ingestion of contaminated fish, etc.) by which human populations (including sensitive subgroups) or environmental receptors (e.g., aquatic organisms, food-chain crops, etc.) are likely to be exposed to contaminants. If such evaluation indicates the need for additional remediation at the facility to adequately protect human health or environmental receptors, then the person shall develop numeric criteria by utilizing available guidance or scientific literature to serve in place of, or in addition to, cleanup levels determined pursuant to this section.

(c) The person must determine the appropriate exposure factors from §335.557 of this title (relating to Criteria for Selection of Nonresidential Soil Requirements for Risk Reduction Standard Number 2).

(d) The person must calculate MSCs in accordance with §335.558 of this title (relating to Medium Specific Concentrations for Risk Reduction Standard Number 2).

(e) The person must determine any cross-media requirements and modifications to cleanup levels in accordance with §335.559 of this title (relating to Medium Specific Requirements and Adjustments for Risk Reduction Standard Number 2).

Source: The provisions of this §335.556 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.555, (relating to Attainment of Risk Reduction Standard Number 2: Closure/Remediation to Health-Based Standards and Criteria); 30 TAC §335.559, (relating to Medium Specific Requirements and Adjustments for Risk Reduction Standard Number 2).

§ 335.557. Criteria for Selection of Nonresidential Soil Requirements for Risk Reduction Standard Number 2

All facilities or areas shall be subject to the residential soil requirements unless one of the conditions of paragraphs (1)-(3) of this section is satisfied for use of the nonresidential soil requirements.

(1) For property located within the jurisdictional area of a zoning authority, persons may provide documentation that the property is zoned for commercial or industrial use.

(2) For property not located within the jurisdictional area of a zoning authority, persons may provide documentation that the activities being conducted on the property satisfy the definition for nonresidential property (§335.553 of this title (relating to Definitions)).

(3) For government-owned (local, state, or federal) property which does not satisfy either of the conditions of paragraph (1) or (2) of this section but does have nonresidential activities occurring on all or portions of the property, the person may provide documentation that access will be restricted such that the exposure assumptions remain valid for the duration of government control.

Source: The provisions of this §335.557 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.556, (relating to Determination of Cleanup Levels for Risk Reduction Standard Number 2); 30 TAC §335.560, (relating to Post-Closure Care and Deed Certification for Risk Reduction Standard Number 2).

§ 335.558. Medium Specific Concentrations for Risk Reduction Standard Number 2

(a) Medium specific concentrations (MSCs) for ingestion of surface water and groundwater, and soil ingestion along with inhalation of volatiles and particulates are calculated according to the procedures specified in subsections (b)-(d) of this section based on residential exposure factors. MSCs are subject to additional numeric criteria and adjustments of §335.559 of this title (relating to Medium Specific Requirements and Adjustments for Risk Reduction Standard Number 2). The derivation of all equations is presented in §335.567 of this title (relating to Appendix I).

(b) For a contaminant which is a carcinogen, the MSC is the concentration which represents an excess upper bound lifetime cancer target risk (TR) of 0.000001 (also expressed as one in one million) for Class A and B carcinogens, or 0.00001 (also expressed as one in 100,000) for Class C carcinogens due to continuous lifetime exposure as calculated using the equations and factors listed in paragraphs (1) and (2) of this subsection.

(1) Water MSC for ingestion, in units of milligrams per liter (mg/L):

$$MSC = \frac{85.16\ (TR)}{SF_o} \qquad \text{Equation 1}$$

where SF_o is the chemical-specific oral cancer slope factor.

(2) Soil MSC for ingestion with inhalation of volatiles and particulates, in units of milligram per kilogram (mg/kg):

$$MSC = \frac{5110\ (TR)}{[((7.98 \times 10^{-3}) \times SF_o) + (SF_i \times [(450/VF) + (9.72 \times 10^{-8})])]} \qquad \text{Equation 2}$$

where VF is the chemical-specific soil-to-air volatilization factor.

(c) For a contaminant which is a systemic toxicant, the MSC is the concentration to which human populations (including sensitive subgroups) could be exposed by direct ingestion or inhalation on a daily basis without appreciable risk of deleterious effects during a lifetime. The MSC is calculated using the equations and factors listed in paragraphs (1) and (2) of this subsection.

(1) Water MSC for ingestion in units of milligram per liter (mg/L):

$$MSC = 36.5\ RfD_o\ mg/L \qquad \text{Equation 3}$$

where RfD_o is the chemical-specific oral reference dose.

(2) Soil MSC for ingestion with inhalation of volatiles and particulates, in units of milligram per kilogram (mg/kg):

Equation 4

$$MSC = \frac{2190\ mg/kg}{[(7.98 \times 10^{-3}/RfD_o) + ((1/RfD_i) \times [(450/VF) + (9.72 \times 10^{-8})])]}$$

where VF is the chemical-specific soil-to-air volatilization factor.

(d) Examples of unadjusted MSCs, standards, and criteria are listed in §335.568 of this title (relating to Appendix II. Examples of Medium Specific Concentrations, Standards, and Criteria for Health-Based Closure/Remediation). The commission will revise Appendix II on an annual basis to reflect newly promulgated standards and MSCs based on current toxicological data.

Source: The provisions of this §335.558 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.556, (relating to Determination of Cleanup Levels for Risk Reduction Standard Number 2); 30 TAC §335.568, (relating to Appendix II).

§ 335.559. Medium Specific Requirements and Adjustments for Risk Reduction Standard Number 2

(a) Numeric cleanup levels. The subsections (b)-(h) of this section specify requirements that can define or modify numeric cleanup levels such as MSCs or require non-health based criteria to be addressed.

(b) Surface water. In determining the necessity for remediation at the facility, persons shall utilize Chapter 307 of this title (relating to Texas Surface Water Quality Standards) or, if those values are not available, maximum contaminant levels (MCLs) promulgated under the Safe Drinking Water Act, or if MCLs are not available or appropriate, MSCs based upon human ingestion of the water. Any discharge or release into or adjacent to surface water, including stormwater runoff, occurring during or after attainment of Risk Reduction Standard Number 2, shall be compliant with the Texas Surface Water Quality Standards of Chapter 307 of this title and may be subject to the permitting requirements of Chapter 305 of this title (relating to Consolidated Permits) or other authorization from the commission.

(c) Air. In determining the necessity for remediation at the facility, persons shall observe limitations established by the National Ambient Air Quality Standards (NAAQS) and the National Emission Standards for Hazardous Air Pollutants (NESHAPS) as found in the 40 Code of Federal Regulations Parts 50 and 61, respectively, and other applicable federal standards and guidelines of the United States Environmental Protection Agency. Also, limitations established by the Texas Air Control Board (TACB) under the Texas Clean Air Act, the state implementation plan, or other federal requirements must be observed. Permit requirements, limitations established by standard exemptions, or other requirements of the TACB relative to atmospheric emissions and/or air quality may also apply.

(d) Groundwater. The groundwater cleanup levels shall be determined by a consideration of the following.

(1) For residential exposure, the concentration of a contaminant dissolved in groundwater must not exceed the MCL, if promulgated pursuant the

Federal Safe Drinking Water Act, §141, otherwise the water MSC for ingestion determined pursuant to §335.556 of this title (relating to Determination of Cleanup Levels for Risk Reduction Standard Number 2). Phase-separated non-aqueous liquids released from the unit that is undergoing closure or remediation must be removed or decontaminated.

(2) For nonresidential exposure, the concentration of a contaminant dissolved in groundwater must not exceed the MCL if promulgated pursuant to the Federal Safe Drinking Water Act, §141. If no MCL has been promulgated, the groundwater concentration shall not exceed the water MSC for ingestion determined pursuant to §335.556 of this title (relating to Determination of Cleanup Levels for Risk Reduction Standard Number 2), which has been multiplied by a factor of 3.36 for carcinogens or 2.8 for systemic toxicants to account for lower ingestion rates associated with nonresidential worker exposure. Persons must be able to demonstrate that the quality of groundwater at the facility property boundary will be protective for residential exposure. Phase-separated non-aqueous liquids released from the unit that is undergoing closure or remediation must be removed or decontaminated to the extent practicable.

(3) For residential and nonresidential exposure, if the groundwater at the facility or area has a naturally occurring background total dissolved solids concentration greater than 10,000 milligrams per liter, the cleanup level for a contaminant dissolved in this groundwater determined pursuant to paragraph (1) or (2) of this subsection, as appropriate, may be adjusted by multiplying by 100. The resulting value becomes the maximum concentration for groundwater for residential and nonresidential exposure, respectively.

(4) The executive director may require the evaluation of additional exposure pathways or environmental receptors as part of the adjustment of paragraph (3) of this subsection.

(e) Soil. For all situations, concentrations of contaminants in soils must be protective of surface water, air, and groundwater as specified in subsections (b), (c), and (d) of this section. No soil remaining in place shall exhibit the hazardous waste characteristics of ignitability, corrosivity, or reactivity as defined in 40 Code of Federal Regulations Part 261, Subpart C. The sum of concentrations of the volatile organic compounds in vapor phase in soil shall not exceed 1,000 parts per million by weight or volume, as measured by EPA Test Method 8015 or calculated by using soil concentrations and Henry's Law constants.

(f) Residential soil requirements. In addition to the requirements of subsection (e) of this section, the concentration of a contaminant throughout the soil column (i.e., surface and subsurface soils) shall not exceed the lower of the soil MSC, based upon residential human ingestion of soil and inhalation of particulates and volatiles (as defined in the preceding section), and the residential soil-to-groundwater cross-media protection concentration, a numeric value which is determined as follows:

(1) a value which is 100 times the residential groundwater cleanup level determined by the procedures of subsection (d)(1) of this section. Examples of such values are listed in Appendix II; or

(2) a concentration in soil that does not produce a leachate in excess of MCLs or MSCs for groundwater when subjected to the Synthetic Precipitation Leaching Procedure, Method 1312 of SW 846, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency. Other test methods that more accurately simulate conditions at the facility may be used in the demonstration in place of this method, subject to prior approval of the executive director.

(g) Nonresidential soil requirements. Nonresidential soils shall conform to the requirements of subsection (e) of this section. The concentration of a contaminant in near-surface soils (i.e., within two feet of the land surface) shall not exceed the lower of the nonresidential soil MSC defined in paragraph (1) of this subsection, based upon worker ingestion of soil and inhalation of particulates and volatiles, and the nonresidential soil-to-groundwater cross-media protection concentration defined in paragraph (2) of this subsection. In no event shall compliance be achieved with the surface soil criteria by applying two feet of clean soil onto the surface of a facility or area without prior approval from the executive director. The concentration of a contaminant in subsurface soils (i.e., greater than two feet in depth from the land surface) shall not exceed the nonresidential soil-to-groundwater cross-media protection concentration.

(1) Nonresidential soil MSC. The MSC is calculated using the equations and factors listed in subparagraphs (A) and (B) of this paragraph. The chemical-specific factors SF_o, SF_i, RfD_o, RfD_i, and VF are the same as for the soil MSCs of the

preceding section. The derivation of all equations is presented in Appendix I.

(A) Carcinogenic effects equation, in units of milligram per kilogram (mg/kg):

Equation 5

$$MSC = \frac{286.1\ 6\ (TR)}{[((5 \times 10^{-5}) \times SF_o) + (SF_i \times [(20/VF) + (4.3 \times 10^{-9})])]} \text{ mg/kg}$$

(B) Systemic toxicant effects equation, in units of milligram per kilogram (mg/kg):

Equation 6

$$MSC = \frac{102.2}{[(5 \times 10^{-5}/RfD_o) + ((1/RfD_i) \times [(20/VF) + (4.3 \times 10^{-9})])]} \text{ mg/kg}$$

(2) Nonresidential soil-to-groundwater cross-media protection concentration. Persons must demonstrate that a contaminant in soil does not pose the potential for a future release of leachate in excess of the groundwater concentration considered to be protective for nonresidential worker exposure. Persons may make this demonstration by showing that a contaminant occurs in soil at less than the concentration described in either subparagraph (A) or (B) of this paragraph:

(A) a concentration which is 100 times the nonresidential groundwater cleanup level determined by the procedures of subsection (d)(2) or (3), as applicable, of this section;

(B) a concentration in soil that does not produce a leachate in excess of the groundwater concentration of this paragraph when subjected to the Synthetic Precipitation Leaching Procedure, Method 1312 of SW 846, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency. Other test methods that more accurately simulate conditions at the facility may be used in the demonstration in place of this method, subject to prior approval by the executive director.

(h) Other criteria. For contaminants that do not exceed standards or criteria protective of human health and environmental receptors as determined by the procedures of this section but otherwise adversely impact environmental quality, or the public welfare and safety, or present objectionable characteristics (e.g., taste, odor, etc.), or make a natural resource unfit for use, other scientifically valid published criteria may be utilized, such as, but not limited to, threshold limit values for air and secondary maximum contaminant levels for water.

Source: The provisions of this §335.559 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.556, (relating to Determination of Cleanup Levels for Risk Reduction Standard Number 2); 30 TAC §335.558, (relating to Medium Specific Concentrations for Risk Reduction Standard Number 2); 30 TAC §335.568, (relating to Appendix II).

§ 335.560. Post-Closure Care and Deed Certification for Risk Reduction Standard Number 2

(a) Provided that attainment of this risk reduction standard for the facility can be demonstrated to the executive director pursuant to §335.555 of this title (relating to Attainment of Risk Reduction Standard Number 2), the conditions of subsections (b) and (c) of this section apply.

(b) The person is required to place in the county deed records of the county or counties in which such activities take place the information specified in paragraphs (1)-(4) of this subsection. The statements should be worded such that a lay person can easily understand them. An example format is provided in §335.569 of this title (relating to Appendix III). Proof of deed certification of the required information shall be provided to the executive director in writing no later than 90 days after acceptance of the report required by §335.555(f) of this title (relating to Attainment of Risk Reduction Standard Number 2).

(1) A certification signed by the person, showing the person's full name and title, and stating that closure or remediation of the facility or area was carried out in accordance with a plan designed to meet §335.555 of this title (relating to Risk Reduction Standard Number 2), which mandates that the remedy be designed to eliminate substantial present and future risk, such that no post-closure care or engineering or institutional control measures are required to protect human health and the environment.

(2) A metes and bounds description of the portion or portions of the tract of land on which closure or remediation of industrial solid waste, municipal hazardous waste, or contaminants was achieved.

(3) For a facility that satisfies the conditions of §335.557 of this title (relating to Criteria for Selection of Nonresidential Soil Requirements for Risk Reduction Standard Number 2) for use of nonresidential soil requirements, a statement that current or future owners of the facility must undertake actions as necessary to protect human

health and the environment in accordance with the rules of the commission.

(4) A statement that information and documents concerning the closure or remediation of the facility or area are available for inspection upon request at the Texas Water Commission. The statement shall further describe the jurisdiction of the Texas Water Commission to review the establishment of the final cleanup criteria.

(c) The person is released from post-closure care responsibilities upon acceptance by the executive director of the proof of deed certification required by subsection (b) of this section.

Source: The provisions of this §335.560 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.553, (relating to Required Information); 30 TAC §335.555, (relating to Attainment of Risk Reduction Standard Number 2: Closure/Remediation to Health-Based Standards and Criteria).

§ 335.561. Attainment of Risk Reduction Standard Number 3: Closure/Remediation with Controls

(a) Compliance with this standard is attained when, in the evaluation of the executive director, the person recommends the remedy which best achieves the requirements of subsections (b)-(d) of this section taking into consideration the evaluation factors of §335.562 of this title (relating to Remedy Evaluation Factors) and then following approval subsequently completes the remedy, submits the final report required by §335.553(b)(4) of this title (relating to Required Information), initiates any post-closure care required by §335.565 of this title (relating to Post-Closure Care Required for Risk Reduction Standard Number 3) and completes the deed recordation requirements of §335.566 of this title (relating to Deed Recordation for Risk Reduction Standard Number 3).

(b) A remedy must be permanent or, if that is not practicable, achieve the highest degree of long-term effectiveness possible.

(c) A remedy must be cost-effective in that it achieves the best balance between long-term effectiveness and cost for alternative remedies which meet the cleanup objectives for a facility.

(d) A remedy must achieve media cleanup requirements as specified pursuant to §335.563 of this title (relating to Media Cleanup Requirements for Risk Reduction Standard Number 3).

Source: The provisions of this §335.561 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.8, (relating to Closure and Remediation); 30 TAC §335.553, (relating to Required Information); 30 TAC §335.562, (relating to Remedy Evaluation Factors for Risk Reduction Standard Number 3); 30 TAC §335.566, (relating to Deed Recordation for Risk Reduction Standard Number 3).

§ 335.562. Remedy Evaluation Factors for Risk Reduction Standard Number 3

(a) General. For closure/remediation in accordance with Risk Reduction Standard Number 3, persons shall consider the evaluation factors set forth in subsections (b)-(g) of this section when evaluating the relative abilities and effectiveness of potential remedies to achieve the requirements for remedies described in §335.561 of this title (relating to Attainment of Risk Reduction Standard Number 3). A description of the evaluation for these factors for the proposed remedy shall be included in the corrective measure study prepared pursuant to §335.553(b)(3) of this title (relating to Required Information). Persons performing these evaluations shall submit to the executive director upon request such additional information as may reasonably be required to enable the executive director to determine whether such evaluation has been conducted in a manner compliant with this section.

(b) Compliance with other laws and regulations. Remedies shall be evaluated to determine attainment of cleanup requirements for other Texas or federal environmental laws which are either legally applicable to the facility or that address problems or situations that are sufficiently similar to those encountered at the facility that their use is well suited to the facility.

(c) Long-term effectiveness and permanence. Remedies shall be evaluated for long-term effectiveness. Factors that shall be considered in this evaluation include:

(1) magnitude of risks remaining after completion of the closure or remedial action;

(2) the type, degree, and duration of post-closure care required including, but not limited to, operation and maintenance, monitoring, inspections, and reports and their frequencies, or other activities which will be necessary to protect human health and the environment;

(3) potential for exposure of humans and environmental receptors to contaminants remaining at the facility;

(4) long-term reliability of any engineering and voluntary institutional controls; and

(5) potential need for replacement of components of the remedy.

(d) Reduction of toxicity, mobility, or volume. Remedies shall be evaluated to determine the degree to which treatment could be used to significantly and irreversibly reduce the toxicity, mobility, or volume of contaminants. Factors to be considered in this evaluation include:

(1) the amount of contaminants that will be treated or destroyed;

(2) the degree of expected reduction in toxicity, mobility, or volume;

(3) the type, quantity, toxicity, and mobility of contaminants remaining after treatment; and

(4) the degree to which the treatment is irreversible.

(e) Short-term effectiveness. The short-term effects of remedies shall be evaluated considering the following:

(1) short-term risks that might be posed to the community, workers, or the environment during implementation of the remedy and the effectiveness and reliability of protective measures; and

(2) time until protection is achieved.

(f) Implementability. The ease or difficulty of implementing the remedies shall be evaluated by considering the following types of factors:

(1) degree of difficulty associated with constructing the remedy;

(2) expected operational reliability of the remedy;

(3) availability of necessary equipment and specialists;

(4) available capacity and location of needed treatment, storage, and disposal services.

(g) Cost. The types of costs that shall be evaluated include the following:

(1) capital costs;

(2) operation and maintenance costs; and

(3) net present value of capital and operation and maintenance costs.

Source: The provisions of this §335.562 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.8, (relating to Closure and Remediation); 30 TAC §335.553, (relating to Required Information); 30 TAC §335.561, (relating to Attainment of Risk Reduction Standard Number 3: Closure/Remediation with Controls); 30 TAC §335.565, (relating to Post-Closure Care Required for Risk Reduction Standard Number 3).

§ 335.563. Media Cleanup Requirements for Risk Reduction Standard Number 3

(a) General. For closure/remediation in accordance with Risk Reduction Standard Number 3, persons shall propose media cleanup levels in accordance with the conditions set forth in subsections (b)-(j) of this section.

(b) Carcinogens. For known or suspected carcinogens, media cleanup levels shall be established at concentrations which represent an excess upper-bound lifetime risk of between one in 10,000 and one in one million. The executive director will use one in one million as a goal in establishing such concentration limits. The cumulative excess risk to exposed populations (including sensitive subgroups) shall not be greater than one in 10,000.

(c) Systemic toxicants. For systemic toxicants, media cleanup levels shall represent concentrations to which the human population (including sensitive subgroups) could be exposed on a daily basis without appreciable risk of deleterious effect during a lifetime or part of a lifetime and where:

(1) the hazard quotient, which is the ratio of a single systemic toxicant exposure level for a specified time period to a reference dose for that systemic toxicant derived from the same time period, shall not exceed one; and

(2) the hazard index shall not exceed one. The hazard index is the sum of the hazard quotients for a single or multiple systemic toxicants which affect the same target organ or act by the same method of toxicity and act through a single or multiple media exposure pathways.

(d) Additional considerations. In establishing media cleanup levels pursuant to subsections (b) and (c) of this section, the executive director may consider and may direct persons who submit plans or reports in accordance with §335.553(b) of this title (relating to Required Information) to address the following:

(1) multiple contaminants in a medium;

(2) exposure to multiple contaminated media;

(3) reasonable expected future exposure conditions at the facility; and

(4) the technical limitations, effectiveness, practicability, or other relevant features of available remedies.

(e) Standard exposure factors. In determining media cleanup levels pursuant to subsections (b) and (c) of this section, persons shall use the stan-

dard exposure factors for residential use of the facility as set forward in Table 1 (located in §335.553 of this title (relating to Required Information) unless the person documents to the satisfaction of the executive director that:

(1) site-specific data warrant deviation from the standard exposure factors; or

(2) a land use other than residential is more appropriate based on:

(A) historical, current, and probable future land use; and

(B) effectiveness of institutional or legal controls placed on the future use of the land.

(f) Air. Media cleanup levels for air will be established to meet the lowest of the values determined by the requirements of paragraphs (1)-(3) of this subsection.

(1) Concentrations of contaminants in air that emanate from a facility, area of soil contamination, or plume of contaminated groundwater shall not exceed:

(A) National Ambient Air Quality Standards (NAAQS), National Emission Standards for Hazardous Air Pollutants (NESHAPS) (as found in 40 Code of Federal Regulation Parts 50 and 61 respectively) and other applicable federal standards and guidelines of the Environmental Protection Agency; and

(B) concentrations established by the Texas Air Control Board (TACB) under the Texas Clean Air Act, the state implementation plan, or other federal requirements. Permit requirements, limitations established by standard exemptions, or other requirements of the TACB relative to atmospheric emissions and/or air quality may also apply.

(2) For residential exposure conditions, concentrations of contaminants in air that emanate from a facility, area of soil contamination, or plume of contaminated groundwater shall not exceed concentrations that satisfy subsections (b)-(e) of this section at exposure points located both within the contaminated area and at the property boundary.

(3) For nonresidential exposure conditions, concentrations of contaminants in air that emanate from a facility, area of soil contamination, or plume of contaminated groundwater shall not exceed either OSHA permissible exposure limits, threshold limit values, or other criteria applicable to an industrial exposure setting within the facility boundaries or concentrations that satisfy subsections (b)-(e) of this section at the property boundary.

(g) Surface water. In determining the necessity for remediation at the facility, persons shall utilize Chapter 307 of this title (relating to Texas Surface Water Quality Standards) or, if those values are not available, maximum contaminant levels (MCLs) promulgated under the Safe Drinking Water Act or, if MCLs are not available or appropriate, values calculated pursuant to subsections (b)-(e) of this section based upon human ingestion of the water or other site-specific exposure pathway. Any discharge or release into or adjacent to surface water, including stormwater runoff, occurring during or after attainment of Risk Reduction Standard Number 3, shall be compliant with Chapter 307 of this title and may be subject to the permitting requirements of Chapter 305 of this title (relating to Consolidated Permits) or other authorization from the commission.

(h) Groundwater. Media cleanup levels for groundwater that is a current or potential source of drinking water as defined in paragraph (1) of this subsection shall not exceed MCLs promulgated under the Safe Drinking Water Act or, if MCLs are not available, values calculated according to subsections (b)-(e) of this section based upon human ingestion of the water. Cleanup levels for groundwater may be subject to the modifications of paragraphs (2)-(4) of this subsection.

(1) Groundwater that has a background total dissolved solids (TDS) content less than or equal to 10,000 milligrams per liter (mg/L) and that occurs within a geologic zone that is sufficiently permeable to transmit water to a pumping well in usable quantities shall be considered a current or potential source of drinking water for the purpose of determining cleanup levels.

(2) The cleanup levels shall be achieved throughout the plume of contaminated groundwater, with the exception of the circumstances described in subparagraphs (A)-(C) of this paragraph:

(A) when alternate concentration limits of §335.160(b) of this title (relating to Alternate Concentration Limits) have been approved in a permit issued by the commission for a hazardous waste management facility;

(B) when the selected remedy calls for waste to be left in place and when appropriate control measures are installed or operated, the executive director may authorize the zone underlying the area encompassing the original

source(s) of release to be excluded from this requirement;

(C) when the person documents to the executive director's satisfaction pursuant to subsection (e) of this section that a future land use other than residential is appropriate for the facility or area and further demonstrates that institutional or legal controls will effectively prevent use of the contaminated groundwater, the extent of plume remediation may be determined in a manner consistent with §335.160(b) of this title (relating to Alternate Concentration Limits).

(3) The executive director may determine that remediation of groundwater to the extent required in paragraphs (1) or (2) of this subsection is not necessary if the person demonstrates to the executive director's satisfaction that:

(A) the contaminant is present in groundwater that is not a current or potential source of drinking water and the contaminated groundwater is not hydraulically connected with and is not likely to migrate to either surface water or to groundwater that is a current or potential source of drinking water; or

(B) restoration of the groundwater to these levels is technically impracticable.

(4) If a determination is made pursuant to paragraph (3) of this subsection, the executive director may require any alternative measures or cleanup levels that are necessary to protect human health and the environment. At a minimum, for all cases described in this subsection, phase-separated non-aqueous liquids shall be removed from groundwater zones to the extent practicable.

(i) Soil. Concentrations of contaminants in soil shall not exceed the following values:

(1) the values calculated pursuant to subsections (b)-(d) of this section based upon human ingestion of the soils at all points where direct contact exposure to the soils may occur; and

(2) values which will allow the air, surface water, and groundwater cleanup levels specified in subsections (f), (g), and (h) of this section, respectively, to be maintained over time taking into account the effects of engineering controls.

(A) Such determinations shall be based on sound scientific principles including fate and transport evaluation of contaminant migration. Procedures and conclusions shall be documented to the satisfaction of the executive director.

(B) The executive director may require the evaluation of additional migration pathways beyond those listed in this section if determined necessary. Such additional pathways may include, but are not limited to, food chain contamination, impairment of soil for agricultural purposes, phytotoxicity, accumulations of contaminants in sediment of surface water bodies, or other impairments of natural resources, land, or water use.

(j) Other adjustments. Cleanup levels may be adjusted according to paragraphs (1)-(3) of this subsection.

(1) If the practical quantitation limit (PQL) or the background concentration (represented by results of analyses of samples taken from media that are not affected by waste management or industrial activities) for a contaminant is greater than the cleanup level determined by procedures of this section, then the greater of the PQL or background shall become the cleanup level.

(2) Other scientifically valid published criteria, such as, but not limited to, threshold limit values for air and secondary maximum contaminant levels for water, shall be utilized as cleanup levels for contaminants for which the procedures of this section are not appropriate (e.g., mixtures or substances that do not have toxicological data) or that do not exceed standards or criteria protective of human health as determined by the procedures of this section but otherwise adversely impact environmental quality, or the public welfare and safety, or present objectionable characteristics (e.g., taste, odor, etc.), or make a natural resource unfit for use.

(3) More stringent cleanup levels may be established for a facility than are specified in this section if, by utilizing available guidance or scientific literature, the executive director determines that it is necessary to protect environmental receptors.

Source: The provisions of this §335.563 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.8, (relating to Closure and Remediation); 30 TAC §335.553, (relating to Required Information); 30 TAC §335.561, (relating to Attainment of Risk Reduction Standard Number 3: Closure/Remediation with Controls).

§ 335.564. Post-Closure Care Not Required for Risk Reduction Standard Number 3

In cases under Risk Reduction Standard Number 3 where the executive director determines that

neither engineering nor institutional control measures are required to protect human health and the environment, the person is released from post-closure care responsibilities but is required to deed record the facility in accordance with §335.566 of this title (relating to Deed Recordation for Risk Reduction Standard Number 3).

Source: The provisions of this §335.564 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.553, (relating to Required Information).

§ 335.565. Post-Closure Care Required for Risk Reduction Standard Number 3

In cases under Risk Reduction Standard Number 3 where the executive director determines that either engineering or institutional control measures are required to protect human health and the environment, the person shall comply with the requirements of paragraphs (1) and (2) of this section, as applicable, and deed record the facility in accordance with §335.566 of this title (relating to Deed Recordation for Risk Reduction Standard Number 3):

(1) carry out the post-closure requirements as evaluated and approved by the remedy evaluation process described in §335.562 of this title (relating to Remedy Evaluation Factors);

(2) for hazardous waste storage, processing, or disposal facilities, the person must also satisfy the applicable requirements of Subchapter E and F of this chapter (relating to Interim Standards for Hazardous Waste Storage, Processing, or Disposal Facilities; and Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, or Disposal Facilities, respectively).

Source: The provisions of this §335.565 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.561, (relating to Attainment of Risk Reduction Standard Number 3: Closure/Remediation with Controls).

§ 335.566. Deed Recordation for Risk Reduction Standard Number 3

(a) Within 90 days after acceptance by the executive director of the final report referenced in §335.561(a) of this title (relating to Attainment of Risk Reduction Standard Number 3), the person must record in the county deed records of the county or counties in which such activities take place the information specified in subsections (b)-(e) of this section and submit written proof of such recordation to the executive director. The statements should be worded such that a lay person can easily understand them. An example format is provided in §335.569 of this title (relating to Appendix III).

(b) A certification, signed by the person, showing the person's full name and title, and stating: that remediation of the facility or area was carried out in accordance with a plan designed to meet §335.561 of this title (relating to Risk Reduction Standard Number 3), which mandates that the remedy be designed to eliminate or reduce to the maximum extent practicable substantial present and future risk; and whether continued post-closure care or engineering or institutional control measures (post-closure measures) are required to protect human health and the environment together with a description of any required post-closure measures.

(c) A description of any institutional or legal controls placed by the person on the future use of the property. The notice shall indicate that the current or future owner must undertake actions as necessary to protect human health and the environment in accordance with the rules of the commission.

(d) A metes and bounds description of the portion or portions of the tract of land on which closure or remediation of industrial solid waste, municipal hazardous waste, or contaminants was achieved.

(e) A statement that information and documents concerning the closure or remediation of the facility or area are available for inspection upon request at the Texas Water Commission. The statement shall further describe the jurisdiction of the Texas Water Commission to review the establishment of the final cleanup criteria.

Source: The provisions of this §335.566 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.553, (relating to Required Information); 30 TAC §335.561, (relating to Attainment of Risk Reduction Standard Number 3: Closure/Remediation with Controls); 30 TAC §335.564, (relating to Post-Closure Care Not Required for Risk Reduction Standard Number 3); 30 TAC §335.565, (relating to Post-Closure Care Required for Risk Reduction Standard Number 3).

§ 335.567. Appendix I

Derivation of reduced equations for calculation of medium specific concentrations of Risk Reduction Standard Number 2.

Equation 1 - MSC for Ingestion of Water; Carcinogenic Effects:

$$MSC = \frac{85.16\ TR}{SF_o}$$

is derived from the following expression:

$$MSC = \frac{TR \times BW \times AT_c \times 365\ days/yr}{SF_o \times IR_w \times EF \times ED \times A}$$

Equation 2 - MSC for Ingestion of Soils and Inhalation of Volatiles and Particulates; Residential Scenario; Carcinogenic Effects:

$$MSC = \frac{5110\ TR}{[((7.98 \times 10^{-3}) \times SF_o) + (SF_i \times [(450/VF) + (9.72 \times 10^{-3})])]}$$

is derived from the following expression:

$$MSC = \frac{TR \times BW \times AT_c \times 365\ days/yr}{EF\ [(BW \times SF_o \times 10^{-6}\ Kg/mg \times IF_{soil/adj.}) + (SF_i \times ED \times IR_{air} \times [1/VF + 1/PEF])]}$$

Equation 3 - MSC for Ingestion of Water; Systemic Toxicant Effects:

$$MSC = 36.5\ RfD_o$$

is derived from the following expression:

$$MSC = \frac{THI \times RfD_o \times BW \times AT_s \times 365\ days/yr}{IR_w \times EF \times ED \times A}$$

Equation 4 - MSC for Ingestion of Soils and Inhalation of Volatiles and Particulates; Residential Scenario; Systemic Toxicant Effects:

$$MSC = \frac{2190}{[(7.98 \times 10^{-3}/RfD_o) + ((1/RfD_i) \times [(450/VF) + (9.72 \times 10^{-8})])]}$$

is derived from the following expression:

$$MSC = \frac{THI \times BW \times AT_c \times 365\ days/yr}{EF\ [((1/RfD_o) \times BW \times 10^{-6}\ Kg/mg \times IF_{soil/adj.}) + ((1/RfD_i) \times ED \times IR_{air}\ [1/VF + 1/PEF])]}$$

Equation 5 - MSC for Worker Ingestion of Soils and Inhalation of Volatiles and Particulates; Carcinogenic Effects:

$$MSC = \frac{286.16\ TR}{[((5 \times 10^{-5}) \times SF_o) + (SF_i \times [(20/VF) + (4.3 \times 10^{-9})])]}$$

is derived from the following expression:

$$MSC = \frac{TR \times BW \times AT_c \times 365\ days/yr}{EF \times ED \times [(SF_o \times 10^{-6}\ Kg/mg \times IR_{soil}) + (SF_i \times IR_{air} \times [1/VF + 1/PEF])]}$$

Equation 6 - MSC for Worker Ingestion of Soils and Inhalation of Volatiles and Particulates; Systemic Toxicant Effects:

$$MSC = \frac{102.2}{[(5 \times 10^{-5}/RfD_o) + ((1/RfD_i) \times [(20/VF) + (4.3 \times 10^{-9})])]}$$

is derived from the following expression:

$$MSC = \frac{THI \times BW \times AT_s \times 365\ days/yr}{EF \times ED \times [((1/RfD_o) \times 10^{-6}\ Kg/mg \times IR_{soil}) + ((1/RfD_i) \times IR_{air} \times (1/VF + 1/PEF))]}$$

VF: Parameters, Definitions and Values for the Soil to Air Volatilization Factor

$$VF(m^3/kg) = \frac{(LS \times V \times DH)}{A} \times \frac{(3.14 \times \alpha \times T)^{1/2}}{(2 \times D_{ei} \times E \times K_{as} \times 10^{-3}\ kg/g)}$$

SITE DATA/DEFAULT FACTORS:

LS	Length of contaminated area (m)	=	45
E	true soil porosity (unitless)	=	0.35
V	wind speed in mixing zone (m/s)	=	2.25
ps	true soil density (g/cm^3)	=	2.65
DH	diffusion height (m)	=	2
T	exposure interval (s)	=	7.90e+08
A	area of contamination (cm^2)	=	2.03e+07
OC	organic carbon content, soil fraction (unitless)	=	0.02

CHEMICAL SPECIFIC DATA:

D_i	Molecular Diffusivity (cm^2/s).
H	Henry's Law Constant ($atm\text{-}m^3/mol$).
K_{oc}	Organic Carbon Partition Coefficient (cm^3/g).
D_{ei}	Effective Diffusivity (cm^2/sec), calculated from DI × $E^{0.33}$.
Kd	Soil-water partition coefficient (cm^3/g), calculated from Koc × OC.
α	Alpha, (cm^2/s) = $\frac{(Dei \times E)}{E + (p_s)\,(1-E)/K_{as}}$
K_{as}	Soil/air partition coefficient (g soil/cm^3 air). Calculated from K_{as} = (H/Kd) × 41.

Parameters, Definitions and Values used in Equations 1 through 6 are displayed in the following table:

Parameters	Definitions (Units)	Values
MSC	Medium Specific Concentration (mg/Kg)	chemical-specific
TR	Target excess individual lifetime cancer risk (unitless)	10^{-6} for Class A and B carcinogens; 10^{-5} for Class C carcinogens
THI	Target hazard index (unitless)	1
SF_o	Oral cancer slope factor $((mg/Kg\text{-}day)^{-1})$	chemical-specific
SF_i	Inhalation cancer slope factor $((mg/Kg\text{-}day)^{-1})$	chemical-specific
RfD_o	Oral chronic reference dose (mg/Kg-day)	chemical-specific
RfD_i	Inhalation chronic reference dose (mg/Kg-day)	chemical-specific
BW	Adult body weight (Kg)	70 Kg
AT_c	Averaging time for carcinogens (yr)	70 yr

Parameters	Definitions (Units)	Values
AT_s	Averaging time for systemic toxicants (yr)	30 yr residential 25 yr worker
EF	Exposure frequency (days/yr)	350 residential 250 worker
ED	Exposure duration (yr)	30 yr residential 25 yr worker
IR_w	Daily water ingestion rate (liter/day)	2 l/day residential 1 l/day worker
IR_{soil}	Workday soil ingestion rate (mg/day)	50 mg/day
$IF_{soil/adj}$	Age-adjusted ingestion factor (mg-yr/Kg-day)	114 mg-yr/Kg-day
IR_{air}	Daily indoor inhalation rate (m^3/day)	15 m^3/day residential 20 m^3/8 hr day worker
PEF	Particulate emission factor (m^3/Kg)	4.63×10^9 m^3/Kg
VF	Soil-to-air volatilization factor	chemical-specific
A	Absorption factor	1

Reference: U.S. EPA, OSWER Directive 9285.7-01B, December 13, 1991, Human Health Evaluation Manual, Part B: "Development of Risk-based Preliminary Remediation Goals."

Source: The provisions of this §335.567 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.558, (relating to Medium Specific Concentrations for Risk Reduction Standard Number 2); 30 TAC §335.568, (relating to Appendix II).

§ 335.568. Appendix II

Examples of medium-specific concentrations (MSC), standards, and criteria for health-based closure/remediation (see §335.558 of this title (relating to Medium Specific Concentration of Risk Reduction Standards Number 2.))

CAS # = Chemical Abstracts Service Number for the Specific Compound.
GW = Ground Water. Maximum Concentration in Ground Water (mg/L) for residential exposure conditions.
GWP-Res = Ground-Water Protection Standard for Residential Use. Concentration in Residential Soil Assumed Protective of Ground Water Considering Cross-media Contamination of Ground Water from Contaminated Soil (mg/kg).
GWP-Ind = Ground-Water Protection Standard for Industrial Use. Concentration in Industrial Soil Assumed Protective of Ground Water Considering Cross-media Contamination of Ground Water from Contaminated Soil (mg/kg).
SAI-Res = Soil/Air and Ingestion Standard for Residential Use. Maximum Concentration in Residential Soil Considering Cross-media Contamination of Air and the Human Ingestion and Inhalation Pathways (mg/kg).
SAI-Ind = Soil/Air and Ingestion Standard for Industrial Use. Maximum Concentration in Industrial Soil Considering Cross-media Contamination of Air and the Human Ingestion and Inhalation Pathways (mg/kg).

CONSTITUENT	CAS #	GW (1-4)	GWP-Res (1,5)	GWP-Ind (1,6)	SAI-Res (1,7, 10,11)	SAI-Ind (1,8, 10,11)
Acenaphthene	83-32-9	2.19e+00	2.19e+02	6.13e+02	1.34e+04 (13)	4.43e+04 (13)
Acetone	67-64-1	3.65e+00	3.65e+02	1.02e+03	3.82e+03 (13)	4.16e+03 (13)
Acetonitrile	75-05-8	2.19e-01	2.19e+01	6.13e+01	1.65e+03	1.23e+04
Acetophenone	98-86-2	3.65e+00	3.65e+02	1.02e+03	2.26e+04	8.15e+04
Acrolein	107-02-8	7.30e-01 (12)	7.30e+01	2.04e+02	1.56e+03 (12)	2.04e+04 (12)
Acrylamide	79-06-1	1.89e-05	1.89e-03	6.36e-03	1.42e-01	1.27e+00
Acrylonitrile	107-13-1	1.58e-04	1.58e-02	5.30e-02	1.15e-01 (13)	1.44e-01 (13)
Alachlor	15972-60-8	2.00e-03 (9)	2.00e-01	2.00e-01	7.95e+00	7.10e+01
Aldicarb	116-06-3	3.00e-03 (9)	3.00e-01	3.00e-01	5.49e+01	4.09e+02
Aldicarb Sulfone	1646-88-4	2.00e-03 (9)	2.00e-01	2.00e-01	8.23e+01	6.13e+02
Aldicarb Sulfoxide	1646-88-3	4.00e-03 (9)	4.00e-01	4.00e-01	5.49e+01	4.09e+02
Aldrin	309-00-2	5.01e-06	5.01e-04	1.68e-03	3.77e-02	3.36e-01
Aluminum Phosphide	20859-73-8	1.46e-02	1.46e+00	4.09e+00	1.10e+02	8.18e+02
Aniline	62-53-3	1.49e-02	1.49e+00	5.02e+00	4.18e-02 (13)	4.80e-02 (13)
Anthracene	120-12-7	1.10e+01	1.10e+03	3.07e+03	5.91e+04 (13)	1.51e+05 (13)

CONSTITUENT	CAS #	GW (1–4)	GWP–Res (1,5)	GWP–Ind (1,6)	SAI–Res (1,7, 10,11)	SAI–Ind (1,8, 10,11)
Antimony	7440–36–0	6.00e–03 (9)	6.00e–01	6.00e–01	1.10e+02	8.18e+02
Arsenic	7440–38–2	5.00e–02 (9)	5.00e+00	5.00e+00	3.66e–01	3.27e+00
Atrazine	1912–24–9	3.00e–03 (9)	3.00e–01	3.00e–01	2.88e+01	2.58e+02
Barium(ionic)	7440–39–3	2.00e+00 (9)	2.00e+02	2.00e+02	1.91e+04	1.37e+05
Benzene	71–43–2	5.00e–03 (9)	5.00e–01	5.00e–01	1.33e+00 (13)	1.62e+00 (13)
Benzidine	92–87–5	3.70e–07	3.70e–05	1.24e–04	2.78e–03	2.49e–02
Beryllium	7440–41–7	4.00e–03 (9)	4.00e–01	4.00e–01	1.49e–01	1.33e+00
Biphenyl	92–52–4	1.83e+00	1.83e+02	5.11e+02	6.68e+03 (13)	1.11e+04 (13)
Bis (2-chloro-ethyl) ether	111–44–4	7.74e–05	7.74e–03	2.60e–02	2.20e–01 (13)	3.77e–01 (13)
Bis (2-chloroisopropyl) ether	39638–32–9	1.22e–02	1.22e+00	4.09e+00	4.50e+01 (13)	9.05e+01 (13)
Bis (2-ethyl-hexyl) phthalate	117–81–7	6.08e–03	6.08e–01	2.04e+00	4.57e+01	4.09e+02
Bromodichloromethane	75–27–4	1.00e–01 (9)	1.00e+01	1.00e+01	7.19e–01 (13)	9.46e–01 (13)
Bromoform	75–25–2	1.00e–01 (9)	1.00e+01	1.00e+01	8.11e+01	7.24e+02
Bromomethane	74–83–9	5.11e–02	5.11e+00	1.43e+01	2.44e+01 (13)	2.47e+01 (13)
Butyl-4,6-dinitrophenol, 2-sec-	88–85–7	3.65e–02	3.65e+00	1.02e+01	2.74e+02	2.04e+03
Cadmium	7440–43–9	5.00e–03 (9)	5.00e–01	5.00e–01	1.37e+02	1.02e+03
Carbofuran	1563–66–2	4.00e–02 (9)	4.00e+00	4.00e+00	1.37e+03	1.02e+04
Carbon Disulfide	75–15–0	3.65e+00	3.65e+02	1.02e+03	2.45e+01 (13)	2.34e+01 (13)
CarbonTetrachloride	56–23–5	5.00e–03 (9)	5.00e–01	5.00e–01	4.14e–01 (13)	5.13e–01 (13)
Chlordane	57–74–9	2.00e–03 (9)	2.00e–01	2.00e–01	4.93e–01	4.40e+00
Chloroanaline, p-	106–47–8	1.46e–01	1.46e+01	4.09e+01	1.10e+03	8.18e+03
Chlorobenzene	108–90–7	1.00e–01 (9)	1.00e+01	1.00e+01	2.56e+02 (13)	2.56e+02 (13)
Chlorobenzilate	510–15–6	7.30e–01	7.30e+01	2.04e+02	5.49e+03	4.09e+04
Chloroethane (Ethylchloride)	75–00–3	7.30e–01	7.30e+01	2.04e+02	4.99e+03 (13)	2.30e+04 (13)
Chloroform	67–66–3	1.00e–01 (9)	1.00e+01	1.00e+01	4.37e–01 (13)	5.04e–01 (13)
Chloronaphthalene, 2-	91–58–7	2.92e+00	2.92e+02	8.18e+02	2.20e+04	1.64e+05
2-Chlorophenol	95–57–8	1.83e–01	1.83e+01	5.11e+01	1.37e+03	1.02e+04
Chromium (total)	7440–47–3	1.00e–01 (9)	1.00e+01	1.00e+01	3.91e+02 (12)	5.11e+03 (12)
Chromium (VI)	7440–47–3	1.00e–01 (9)	1.00e+01	1.00e+01	3.91e+02 (12)	5.11e+03 (12)
Cresol, m-	108–39–4	1.83e+00 (12)	1.83e+02	5.11e+02	3.91e+03 (12)	5.11e+04 (12)
Cresol, o-	95–48–7	1.83e+00 (12)	1.83e+02	5.11e+02	3.91e+03 (12)	5.11e+04 (12)
Cresol, p-	106–44–5	1.83e+00 (12)	1.83e+02	5.11e+02	3.91e+03 (12)	5.11e+04 (12)
Cyanide	57–12–5	2.00e–01 (9)	2.00e+01	2.00e+01	5.49e+03	4.09e+04
DDD	72–54–8	3.55e–04	3.55e–02	1.19e–01	2.67e+00	2.38e+01
DDE	72–55–9	2.50e–04	2.50e–02	8.41e–02	1.88e+00	1.68e+01
DDT	50–29–3	2.50e–04	2.50e–02	8.41e–02	1.88e+00	1.68e+01
Di-n-butyl phthalate	84–74–2	3.65e+00	3.65e+02	1.02e+03	2.74e+04	2.04e+05
Di-n-octyl phthalate	117–81–7	7.30e–01	7.30e+01	2.04e+02	5.49e+03	4.09e+04
Dibromo-3-chloropropane, 1,2-	96–12–8	2.00e–04 (9)	2.00e–02	2.00e–02	4.57e–01	4.09e+00
Dibromochloromethane	124–48–1	1.00e–01 (9)	1.00e+01	1.00e+01	7.62e+01	6.81e+02
Dichlorobenzene (1,2)	95–50–1	6.00e–01 (9)	6.00e+01	6.00e+01	6.69e+03 (13)	8.39e+03 (13)
Dichlorobenzene (1,3)	541–73–1	6.00e–01 (9)	6.00e+01	6.00e+01	7.61e+03 (13)	9.99e+03 (13)
Dichlorobenzene (1,4)	106–46–7	7.50e–02 (9)	7.50e+00	7.50e+00	8.64e+01 (13)	1.38e+02 (13)
Dichlorodifluoromethane	75–71–8	7.30e+00	7.30e+02	2.04e+03	5.00e+01 (13)	4.79e+01 (13)
Dichloroethane (1,1)	75–34–3	3.65e+00	3.65e+02	1.02e+03	7.30e+03 (13)	2.04e+04 (13)
Dichloroethane (1,2)	107–06–2	5.00e–03 (9)	5.00e–01	5.00e–01	4.17e–01 (13)	5.05e–01 (13)
Dichloroethylene (1,1)	75–35–4	7.00e–03 (9)	7.00e–01	7.00e–01	7.15e–01 (13)	8.72e–01 (13)
Dichloroethylene, cis-(1,2)	156–59–2	7.00e–02 (9)	7.00e+00	7.00e+00	1.08e+02 (13)	1.08e+02 (13)
Dichloroethylene, trans-(1,2)	156–60–5	1.00e–01 (9)	1.00e+01	1.00e+01	2.56e+02 (13)	2.56e+02 (13)
Dichlorophenol, 2,4-	120–83–2	1.10e–01	1.10e+01	3.07e+01	8.23e+02	6.13e+03
Dichlorophenoxyacetic acid, 2,4-	94–75–7	7.00e–02 (9)	7.00e+00	7.00e+00	2.74e+03	2.04e+04
Dichloropropane (1,2)	78–87–5	5.00e–03 (9)	5.00e–01	5.00e–01	6.88e–01 (13)	8.43e–01 (13)
Dieldrin	60–57–1	5.32e–06	5.32e–04	1.79e–03	4.00e–02	3.57e–01
Diethyl phthalate	84–66–2	2.92e+01	2.92e+03	8.18e+03	2.20e+05	NHHB (16)
Diethylhexyl adipate	103–23–1	5.00e–01 (9)	5.00e+01	5.00e+01	5.34e+03	4.77e+04
Dimethoate	60–51–5	7.30e–03	7.30e–01	2.04e+00	5.49e+01	4.09e+02
Dimethyl phenol, 2,4-	105–67–9	7.30e–01	7.30e+01	2.04e+02	5.49e+03	4.09e+04
Dinitrobenzene, 1,3-	99–65–0	3.65e–03	3.65e–01	1.02e+00	2.74e+01	2.04e+02
Dinitrophenol, 2,4-	51–28–5	7.30e–02	7.30e+00	2.04e+01	5.49e+02	4.09e+03
Dioxane (1,4)	123–91–1	7.74e–03	7.74e–01	2.60e+00	1.55e+01 (13)	2.31e+01 (13)
Diphenylamine	122–39–4	9.13e–01	9.13e+01	2.56e+02	6.86e+03	5.11e+04
Diphenylhydrizine, 1,2-	122–66–7	1.06e–04	1.06e–02	3.58e–02	8.00e–01	7.15e+00
Disulfoton	298–04–4	1.46e–03	1.46e–01	4.09e–01	1.10e+01	8.18e+01

CONSTITUENT	CAS #	GW (1-4)	GWP-Res (1,5)	GWP-Ind (1,6)	SAI-Res (1,7, 10,11)	SAI-Ind (1,8, 10,11)
Endosulfan	115-29-7	1.83e-03	1.83e-01	5.11e-01	1.37e+01	1.02e+02
Endothall	145-73-3	1.00e-01 (9)	1.00e+01	1.00e+01	5.49e+03	4.09e+04
Endrin	72-20-8	2.00e-03 (9)	2.00e-01	2.00e-01	8.23e+01	6.13e+02
Ethoxy ethanol, 2-	110-80-5	1.46e+01	1.46e+03	4.09e+03	1.10e+05	8.17e+05
Ethoxyethanol acetate, 2-	111-15-9	1.10e+01	1.10e+03	3.07e+03	8.23e+04	6.13e+05
Ethyl benzene	100-41-4	7.00e-01 (9)	7.00e+01	7.00e+01	1.14e+04 (13)	1.70e+04 (13)
Ethylene dibromide	106-93-4	5.00e-05 (9)	5.00e-03	5.00e-03	7.09e-03 (13)	4.53e-02 (13)
Ethylene glycol	107-21-1	7.30e+01	7.30e+03	2.04e+04	5.49e+05	NHHB (16)
Ethylene oxide	75-21-8	8.35e-05	8.35e-03	2.80e-02	1.11e-01 (13)	1.51e-01 (13)
Fluoranthene	206-44-0	1.46e+00	1.46e+02	4.09e+02	1.10e+04	8.18e+04
Fluorene	86-73-7	1.46e+00	1.46e+02	4.09e+02	9.60e+03 (13)	3.87e+04 (13)
Fluorides	7782-41-4	4.00e+00 (9)	4.00e+02	4.00e+02	1.65e+04	1.23e+05
Formaldehyde	50-00-0	7.30e+00 (12)	7.30e+02	2.04e+03	1.56e+04 (12)	2.04e+05 (12)
Heptachlor	76-44-8	4.00e-04 (9)	4.00e-02	4.00e-02	1.42e-01	1.27e+00
Heptachlor epoxide	1024-57-3	2.00e-04 (9)	2.00e-02	2.00e-02	7.04e-02	6.29e-01
Hexachlorobenzene	118-74-1	1.00e-03 (9)	1.00e-01	1.00e-01	4.00e-01	3.57e+00
Hexachlorobutadiene	87-68-3	1.09e-02	1.09e+00	3.67e+00	8.21e+01	7.33e+02
Hexachlorocyclohexane, alpha	319-84-6	1.35e-05	1.35e-03	4.54e-03	1.02e-01	9.08e-01
Hexachlorocyclohexane, beta	319-85-7	4.73e-04	4.73e-02	1.59e-01	3.56e+00	3.18e+01
Hexachlorocyclohexane, gama	58-89-9	2.00e-04 (9)	2.00e-02	2.00e-02	8.23e+01	6.13e+02
Hexachloroethane	67-72-1	6.08e-02	6.08e+00	2.04e+01	4.57e+02	4.09e+03
Isobutyl alcohol	78-83-13	1.10e+01	1.10e+03	3.07e+03	8.23e+04	6.13e+05
Lead (inorganic)	7439-92-1	1.50e-02 (9)	1.50e+00	1.50e+00	5.00e+02 (14)	1.00e+03 (14)
Mercury	7439-97-6	2.00e-03 (9)	2.00e-01	2.00e-01	8.23e+01	6.13e+02
Methomyl	16752-77-5	9.13e-01	9.13e+01	2.56e+02	6.86e+03	5.11e+04
Methoxy ethanol	109-86-4	1.46e-01	1.46e+01	4.09e+01	1.10e+03	8.18e+03
Methoxychlor	72-43-5	4.00e-02 (9)	4.00e+00	4.00e+00	1.37e+03	1.02e+04
Methoxyethanol acetate	110-49-6	7.30e-02	7.30e+00	2.04e+01	5.49e+02	4.09e+03
Methyl Ethyl Ketone	78-93-3	1.83e+00	1.83e+02	5.11e+02	7.58e+03 (13)	1.40e+04 (13)
Methyl isobutyl ketone	108-10-1	1.83e+00	1.83e+02	5.11e+02	1.37e+04	1.02e+05
Methyl methacrylate	80-62-6	2.92e+00	2.92e+02	8.18e+02	6.74e+02 (13)	6.63e+02 (13)
Methylene Chloride	75-09-2	5.00e-03 (9)	5.00e-01	5.00e-01	1.07e+01 (13)	1.38e+01 (13)
Naphthalene	91-20-3	1.46e+00	1.46e+02	4.09e+02	4.91e+03 (13)	7.72e+03 (13)
Nickel	7440-02-0	1.00e-01 (9)	1.00e+01	1.00e+01	1.56e+03 (12)	2.04e+04 (12)
Nitrate	14797-55-8	1.00e+01 (9)	1.00e+03	1.00e+03	4.39e+05	NHHB (16)
Nitrite	14797-65-0	1.00e+00 (9)	1.00e+02	1.00e+02	2.74e+04	2.04e+05
Nitrobenzene	98-95-3	1.83e-02	1.83e+00	5.11e+00	6.48e+01 (13)	1.06e+02 (13)
Nitroso-methyl-ethyl-amine, n-	10595-95-6	3.87e-06	3.87e-04	1.30e-03	2.91e-02	2.60e-01
Nitrosodi-n-propylamine, n-	621-64-7	1.22e-05	1.22e-03	4.09e-03	9.15e-02	8.17e-01
Nitrosodiethylamine, n-	55-18-5	5.68e-07	5.68e-05	1.91e-04	4.27e-03	3.81e-02
Nitrosodimethylamine, n-	62-75-9	1.67e-06	1.67e-04	5.61e-04	1.26e-02	1.12e-01
Nitrosopryyolidine, n-	930-55-2	4.06e-05	4.06e-03	1.36e-02	3.05e-01	2.72e+00
Pentachloronitrobenzene	82-68-8	3.28e-03	3.28e-01	1.10e+00	2.46e+01	2.20e+02
Pentachlorophenol	87-86-5	1.00e-03 (9)	1.00e-01	1.00e-01	5.34e+00	4.77e+01
Phenol	108-95-2	2.19e-01	2.19e+03	6.13e+03	1.65e+05	NHHB (16)
Phthalic anhydride	85-44-9	7.30e+01	7.30e+03	2.04e+04	5.49e+05	NHHB (16)
Polychlorinated biphenyls	1336-36-3	5.00e-04 (9)	5.00e-02	5.00e-02	1.00e+01 (15)	2.50e+01 (15)
Pronamide	23950-58-5	2.74e+00	2.74e+02	7.67e+02	2.06e+04	1.53e+05
Pyrene	129-00-0	1.10e+00	1.10e+02	3.10e+02	8.20e+03	6.10e+04
Pyridine	110-86-1	3.65e-02	3.65e+00	1.02e+01	2.74e+02	2.04e+03
Selenium	7782-49-2	5.00e-02 (9)	5.00e+00	5.00e+00	1.37e+03	1.02e+04
Silver	7440-22-4	1.83e-01	1.83e+01	5.11e+01	1.37e+03	1.02e+04
Strychnine	57-24-9	1.10e-02	1.10e+00	3.07e+00	8.23e+01	6.13e+02
Styrene	100-42-5	1.00e-01 (9)	1.00e+01	1.00e+01	2.13e+01	1.91e+02
Tetrachlorobenzene, 1,2,4,5-	95-94-3	1.10e-02	1.10e+00	3.07e+00	8.23e+01	6.13e+02
Tetrachloroethane (1,1,1,2)	630-20-6	3.28e-02	3.28e+00	1.10e+01	4.59e+01 (13)	6.29e+01 (13)
Tetrachloroethane (1,1,2,2)	79-34-5	4.26e-03	4.26e-01	1.43e+00	8.00e+00 (13)	1.17e+01 (13)
Tetrachloroethylene	127-18-4	5.00e-03 (9)	5.00e-01	5.00e-01	7.93e+01 (13)	2.07e+02 (13)
Tetrachlorophenol, 2,3,4,6-	58-90-2	1.10e+00	1.10e+02	3.07e+02	8.23e+03	6.13e+04
Tetraethyl dithiopyrophosphate	3689-24-5	1.83e-02	1.83e+00	5.11e+00	1.37e+02	1.02e+03
Toluene	108-88-3	1.00e+00 (9)	1.00e+02	1.00e+02	3.58e+03 (13)	3.63e+03 (13)
Toxaphene	8001-35-2	3.00e-03 (9)	3.00e-01	3.00e-01	5.82e-01	5.20e+00
TP Silvex, 2,4,5-	93-72-1	5.00e-02 (9)	5.00e+00	5.00e+00	2.20e+03	1.64e+04

CONSTITUENT	CAS #	GW (1-4)	GWP-Res (1,5)	GWP-Ind (1,6)	SAI-Res (1,7, 10,11)	SAI-Ind (1,8, 10,11)
Trichlorobenzene (1,2,4)	120-82-1	7.00e-02 (9)	7.00e+00	7.00e+00	6.78e+02 (13)	8.28e+02 (13)
Trichloroethane (1,1,1)	71-55-6	2.00e-01 (9)	2.00e+01	2.00e+01	9.63e+03 (13)	1.40e+04 (13)
Trichloroethane (1,1,2)	79-00-5	5.00e-03 (9)	5.00e-01	5.00e-01	1.27e+01 (13)	1.62e+01 (13)
Trichloroethylene	79-01-6	5.00e-03 (9)	5.00e-01	5.00e-01	2.40e+00 (13)	2.85e+00 (13)
Trichlorofluoromethane	75-69-4	1.10e+01	1.10e+03	3.07e+03	8.73e+00 (13)	8.36e+00 (13)
Trichlorophenol (2,4,5)	95-95-4	3.65e+00	3.65e+02	1.02e+03	8.08e+03 (13)	1.04e+04 (13)
Trichlorophenol, 2,4,6-	88-06-2	7.74e-03	7.74e-01	2.60e+00	5.82e+01	5.20e+02
Trichlorophenoxyacetic acid, 2,4,5-	93-76-5	3.65e-01	3.65e+01	1.02e+02	2.74e+03	2.04e+04
Trichloropropane, 1,1,2-	598-77-6	1.83e-01	1.83e+01	5.11e+01	1.37e+03	1.02e+04
Trichloropropane, 1,2,3-	96-18-4	2.19e-01	2.19e+01	6.13e+01	1.65e+03	1.23e+04
Trinitrobenzene, 1,3,5-	99-35-4	1.83e-03	1.83e-01	5.11e-01	1.37e+01	1.02e+02
Vinyl acetate	108-05-4	3.65e+01	3.65e+03	1.02e+04	2.74e+05	2.04e+06
Vinyl Chloride	75-01-4	2.00e-03 (9)	2.00e-01	2.00e-01	1.99e-02 (13)	2.41e-02 (13)
Xylene	1330-20-7	1.00e+01 (9)	1.00e+03	1.00e+03	5.47e+03 (13)	5.80e+03 (13)

(1) Concentrations for constituents are expressed in scientific notation. Examples 2.20E-00 = 2.2; 2.20E+02 = 220; and 2.20E-01 = 0.22.

(2) The development of final cleanup levels may involve other factors as described in this subchapter, such as cumulative health effects, that are not considered in this chapter.

(3) Groundwater concentrations are based on maximum contaminant levels (MCLs) or the formula and parameters for residential use of groundwater which are contained in §335.567 of this title (relating to Appendix I). For nonresidential exposure conditions, the groundwater concentrations are calculated using the procedures of §335.559(d)(2) or (3) of this title (relating to Medium Specific Requirements and Adjustments for Risk Reduction Standard Number 2).

(4) For some constituents, the practical quantitation limit (PQL) may be the appropriate groundwater MSC as described in §335.555(d)(1) of this title (relating to Attainment of Risk Reduction Standard Number 2: Closure/Remediation to Health-Based Standards and Criteria). See 40 Code of Federal Regulations Part 264 (Appendix IX) for a list of groundwater PQLs.

(5) Residential soil groundwater protection concentrations are based on a multiplication factor of 100 times the groundwater MSC.

(6) Industrial soil groundwater protection concentrations are based on a multiplication factor of 100 times the MCL or, when an MCL is not available, a factor of 100 times the groundwater concentration calculated using the formula and parameters which are contained in §335.559(d)(2) or (3) of this title (relating to Medium Specific Requirements and Adjustments for Risk Reduction Standard Number 2).

(7) Residential soil concentrations (maximum) are calculated using the formula and parameters for residential land use which are contained in §335.567 of this title (relating to Appendix I). The person must also demonstrate that groundwater is protected and that no nuisance conditions exist (§335.559(a)-(h) of this title (relating to Medium Specific Requirements and Adjustments for Risk Reduction Standard Number 2)).

(8) Industrial soil concentrations (maximum) are calculated using the formula and parameters for industrial land use which are contained in §335.567 of this title (relating to Appendix I). The person must also demonstrate that groundwater is protected and that no nuisance conditions exist (§335.559(a)-(h) of this title (relating to Medium Specific Requirements and Adjustments for Risk Reduction Standard Number 2)).

(9) The final, proposed or listed MCL, from the Federal Safe Drinking Water Act, §146. For lead, the action level for lead in drinking water is used as the MSC.

(10) All concentrations were calculated using data from the Integrated Risk Information System (IRIS) Chemical Files, or data from the Health Effects Assessment Summary Tables (HEAST), developed by the United States Environmental Protection Agency, Office of Research and Development and Office of Health and Environmental Assessment, Washington, D.C. 20460. The toxicity information, and the MSCs, will be updated as new information becomes available.

(11) In some cases, an oral reference dose (RFD) or an oral slope factor (SF) was substituted for the inhalation RFD or inhalation SF in calculating MSC. This MSC will be updated when this information becomes available.

(12) The MSCs calculated for this compound are based on noncarcinogenic effects. The following formula was used for calculating the soil MSCs: MSC = [(oral RFD)(Body

Weight)(ED)(365 days/yr)]/[(EF)(ED)(IR)(CF)]. For residential soils, the following exposure factors were used: BW = 15 Kg; ED = 5 years; EF = 350 days/year; IR = 200 mg/day. For industrial soils, the following exposure factors were used: BW = 70 Kg; ED = 25 years; EF = 250 days/year; IR = 100 mg/day. In both cases, the CF is 0.000001 kg/mg. When oral slope factors become available, these MSCs will be revised.

(13) As described in §335.559(e) of this title (relating to Medium Specific Requirements and Adjustments for Risk Reduction Standard Number 2), the sum of concentrations of the volatile organic compounds in vapor phase in soil shall not exceed 1,000 ppm by weight or volume.

(14) The MSC for lead in soil is based on values calculated by the United States EPA using the Lead Uptake/Biokinetic Model, Version 0.4, which has been developed by the United States EPA Office of Health and Environmental Assessment.

(15) Soil MSCs for polychlorinated biphenyls are based upon the 4/2/87 TSCA regulations, 40 Code of Federal Regulations §761.125 (see 52 FedReg 10688).

(16) NHHB = Not Human Health Based. The SAI-Ind MSC for this compound exceeds 10e+6 ppm, which means it is not toxic to humans when exposed to soils under these assumptions. Persons must consider other criteria of §335.559 of this title (relating to Medium Specific Requirements and Adjustments for Risk Reduction Standards Number 2) to develop numeric cleanup values.

Source: The provisions of this §335.568 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.553, (relating to Required Information); 30 TAC §335.558, (relating to Medium Specific Concentrations for Risk Reduction Standard Number 2).

§ 335.569. Appendix III

MODEL DEED CERTIFICATION LANGUAGE

STATE OF TEXAS

(_____) COUNTY

INDUSTRIAL SOLID WASTE

CERTIFICATION OF REMEDIATION

KNOW ALL MEN BY THESE PRESENTS THAT:

Pursuant to the Rules of the Texas Water Commission pertaining to Industrial Solid Waste Management, this document is hereby filed in the Deed Records of _____ County, Texas in compliance with the recordation requirements of said rules:

I

(Company Name) has performed a remediation of the land described herein. A copy of the Notice of Registration (No.), including a description of the facility, is attached hereto and is made part of this filing. A list of the known waste constituents, including known concentrations (i.e., soil and ground water, if applicable), which have been left in place is attached hereto and is made part of this filing. Further information concerning this matter may be found by an examination of company records or in the Notice of Registration (No.) files, which are available for inspection upon request at the central office of the Texas Water Commission in Austin, Texas.

The Texas Water Commission derives its authority to review the remediation of this tract of land from the Texas Solid Waste Disposal Act, §361.002, Texas Health and Safety Code, Chapter 361, which enables the Texas Water Commission to promulgate closure and remediation standards to safeguard the health, welfare and physical property of the people of the State and to protect the environment by controlling the management of solid waste. In addition, pursuant to the Texas Water Code, §5.012 and §5.013, Texas Water Code, Annotated, Chapter 5, the Texas Water Commission is given primary responsibility for implementing the laws of the State of Texas relating to water and shall adopt any rules necessary to carry out its powers and duties under the Texas Water Code. In accordance with this authority, the Texas Water Commission requires certain persons to provide certification and/or recordation in the real property records to notify the public of the conditions of the land and/or the occurrence of remediation. This deed certification is not a representation or warranty by the Texas Water Commission of the suitability of this land for any purpose, nor does it constitute any guarantee by the Texas Water Commission that the remediation standards specified in this certification have been met by (Company name).

II

Being a ____ acre tract, more or less, out of the (Company Name)'s ____ acre tract in the (Name) League (No.), Abstract (No.), recorded in Volume (No.), Page (No.) of the Deed of Records _____ County, Texas, said ____

acre tract being more particularly described as follows:

(Insert metes and bounds description here)

For Standard 2 cleanups: (Contaminants/contaminants and waste) deposited hereon have been remediated (to meet residential soil criteria/to meet non-residential (i.e., industrial/commercial) soil criteria)), in accordance with a plan designed to meet the Texas Water Commission's requirements in 31 Texas Administrative Code, §335.555), which mandates that the remedy be designed to eliminate substantial present and future risk such that no post-closure care or engineering or institutional control measures are required to protect human health and the environment. Future land use is considered suitable for (residential, non-residential (i.e., industrial/commercial)) purposes in accordance with risk reduction standards applicable at the time of this filing. Future land use is intended to be (residential, non-residential).

For Standard 3 cleanups: (Contaminants/contaminants and waste) deposited hereon have been remediated (to meet residential soil criteria/to meet non-residential (i.e., industrial/commercial) soil criteria) in accordance with a plan designed to meet the requirements of 31 Texas Administrative Code, §335.561 (Risk Reduction Standard Number 3), which mandates that the remedy be designed to eliminate or reduce to the maximum extent practicable, substantial present or future risk. The remediation plan (does/does not) require continued post-closure care or engineering or institutional control measures. Future use of the property is considered appropriate for (describe) in accordance with risk reduction standards applicable at the time of this filing. Institutional or legal controls placed on the property to ensure appropriate future use include (describe).

For both Standard 2 and 3 cleanups where the remedy is based upon non-residential soil criteria: The current or future owner must undertake actions as necessary to protect human health or the environment in accordance with the rules of the Texas Water Commission.

III

The owner of the site is (Company Name), a Texas corporation, and its address is (P.O. Box or Street), (City), Texas (Zip Code), where more specific information may be obtained from the (plant manager, owner).

EXECUTED this the _____ day of _____, 19___.

(Company Name)
a Texas corporation

_____

(Name)
Plant Manager

STATE OF TEXAS

(_____) COUNTY

BEFORE ME, on this the _____ day of _____, personally appeared (Name), (Plant Manager, Owner) of (Company Name), a Texas corporation, known to me to be the person and agent of said corporation whose name is subscribed to the foregoing instrument, and he acknowledged to me that he executed the same for the purposes and in the capacity therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the _____ day of _____, 19___.

_____

Notary Public in and
for the State of Texas,
County of

_____

My Commission Expires

_____

(END OF APPENDIX III)

Source: The provisions of this §335.569 adopted to be effective June 28, 1993, 18 TexReg 3814.

Cross References: This Section cited in 30 TAC §335.560, (relating to Post-Closure Care and Deed Certification for Risk Reduction Standard Number 2); 30 TAC §335.566, (relating to Deed Recordation for Risk Reduction Standard Number 3).

CHAPTER 336. RADIATION RULES